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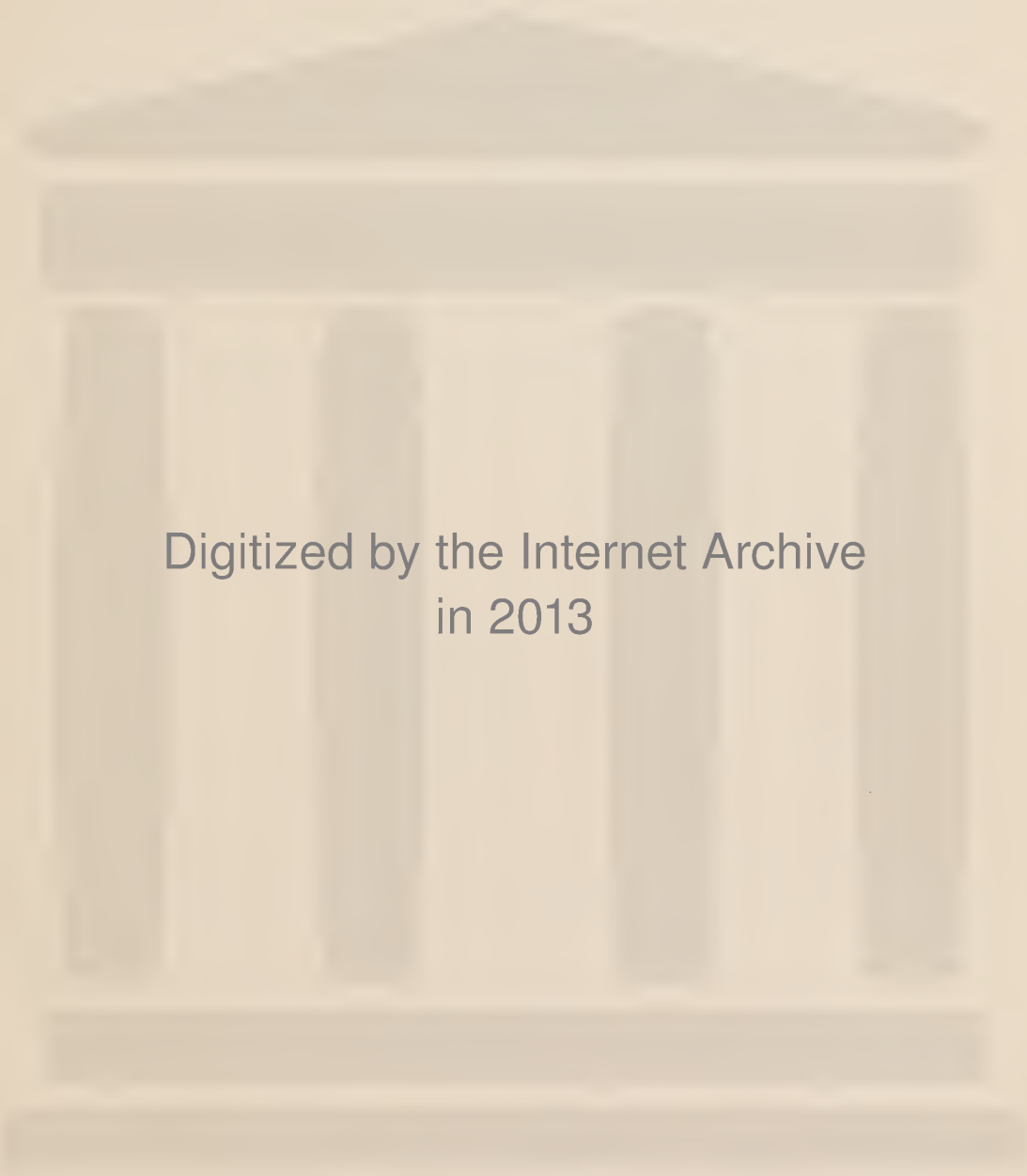
STATE ENGINEER

TO THE

GOVERNOR OF COLORADO

FOR THE YEARS

1929-1930


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Twenty-Fifth Biennial Report

OF THE

STATE ENGINEER

TO THE

Governor of Colorado

For the Years 1929-1930

M. C. HINDERLIDER
STATE ENGINEER

THE BRADFORD-ROBINSON PTG. CO.
DENVER, COLORADO
1931



CONCRETE ARCH DAM BUILT FOR THE STATE GAME AND FISH DEPARTMENT
Design and supervision by M. C. Hinderlider, state engineer; M. E. Carlson, contractor; A. S. Horner, subcontractor.



SOUTH RUXTON CREEK DAM
Colorado Springs Water Department
Completed in 1930

LETTER OF TRANSMITTAL

Sir:

In compliance with the provisions of law, I have the honor to transmit herewith the Twenty-fifth Biennial Report of the activities of the Department of State Engineer, for the two calendar years ending December 31, 1930.

Very respectfully,

M. C. HINDERLIDER,
State Engineer.

To His Excellency,
WM. H. ADAMS,
Governor.

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LIST OF OFFICERS AND EMPLOYEES

State Engineering Department

M. C. Hinderlider.....State Engineer
C. C. Hezmalhalch.....Deputy State Engineer
J. H. Baily.....Chief Hydrographer
L. T. Burgess.....Chief Clerk and Draftsman
Bessie Clark, until June 1, 1930.....Stenographer
Bessie Thompson, since June 1, 1930.....Stenographer
J. E. Whitten.....Hydrographer, Div. 1
C. E. McGraw.....Hydrographer, Div. 1
Ralph Owens.....Hydrographer, Div. 2
F. C. Snyder.....Hydrographer, Div. 2
D. S. Jones, Jr.....Hydrographer, Div. 3
F. C. Hart.....Hydrographer
On special investigations in San Luis Valley

R. J. Tipton.....In charge of Interstate River Studies
Thos. Hawthorne.....In charge of Interstate River Studies

IRRIGATION DIVISION ENGINEERS

Div. No. 1, C. C. Hezmalhalch, Deputy State Engineer.....Denver
Div. No. 2, C. W. Beach.....Pueblo
Div. No. 3, E. S. Counselor.....Alamosa
Div. No. 4, H. C. Getty.....Montrose
Div. No. 5, A. J. Dickson.....Glenwood Springs
Div. No. 6, B. T. Chase.....Steamboat Springs
Div. No. 7, J. R. Williams.....Durango

WATER COMMISSIONERS

Div. No.	Dist. No.	Name	Address
1	1	J. L. Samples	Brush
1	2	Chas. C. Pearce	Brighton
1	3	W. J. McAnelly	Fort Collins
1	4	H. H. Kelly	Loveland
1	5	J. A. Lee	Hygiene
1	6	James M. Platt	Boulder
1	7	A. E. Jones	Golden
1	8	Louis Bertolett	Littleton
1	9	H. S. Rainwater	Morrison
2	10	W. F. Starsmore and J. M. Pribble	Colorado Springs
2	11	A. M. Carpenter	Salida
2	12	D. S. Jones	Canon City
2	13	H. W. Hendershot	Westcliffe
2	14	Joe Burgess	Pueblo
2	15	John Simonson	Beulah
2	16	H. W. Craig	La Veta
2	17	S. W. Cressy	Rocky Ford
2	18	Juan A. Mestas	Aguilar
2	19	H. B. Bostick	Trinidad
3	20	Thomas Carr	Del Norte
3	21	Wm. Neff	La Jara
3	22	Frank L. Fair	Romeo
1–2	23	J. Desserich	Pine
3	24	Miguel Martinez	San Luis
3	25	John L. Charles	Crestone
3	26	S. O. Proffitt	Saguache
3	27	Jas. Medina	La Garita
4	28	J. Roy Hicks	Sargents
4	29	F. A. Byrne	Pagosa Springs
4	30	George H. Tyner	Falfa
4	31	No Commissioner	
4	32	No Commissioner	
4	33	Jerry Griggs	Breen
4	34	Hugo Weston	Mancos
3	35	Stephen Calkins	Fort Garland
5	36	No Commissioner	
5	37	B. F. Long	Eagle
5	38	P. K. Bartheel	Carbondale

Div. No.	Dist. No.	Name	Address
5	39	Isam W. Graham	Rifle
4	40	C. H. Luellen	Eckert
4	41	A. J. Baxter	Montrose
4	42	George M. Saunders	Mesa
6	43	F. A. Carstens	Meeker
6	44	Eben Hamilton	Craig
5	45	Frank Taughenbaugh	Silt
1	47	Clarence Boston	Walden
1	48	R. A. Mosier	Jelm, Wyo.
2	49	No Commissioner	
5	50	No Commissioner	
5	51	P. S. Elting	Sulphur Springs
5	52	Carl Forster	Radium
5	53	A. L. Plasters	Burns
6	54	E. W. Leggett	Baggs, Wyo.
6	55	No Commissioner	
6	56	No Commissioner	
6	57	Jas. N. Kennedy	Hayden
6	58	E. H. Godfrey	Yampa
4	59	A. D. McKee	Gunnison
4	60	E. Lin Guy	Redvale
4	61	W. O. Roberts	Bedrock
4	62	Wm. Sammons	Powderhorn
4	63	No Commissioner	
1	64	John M. Shea	Sterling
1	65	John Hultquist	Laird
2	67	H. P. Syp	Lamar
4	68	Wm. R. Burkitt	Ridgway
4	69	J. W. Westcott	Cedar
5	70	John Moore	DeBeque

CHAPTER I

Administration of Court Decrees

As has been mentioned in previous reports, the public water supplies of Colorado are her most precious asset, and proper conservation and protection of the same will result in uncounted blessings not only to the citizens of the state, but to the posterity of the same for all time to come. As time passes there comes a more definite realization of the values attaching to our water supplies, and the need for a more rigorous accounting for the same.

For the proper administration of our water laws, careful records of the various uses, and more accurate inventories of available supplies, are essential. Records kept in a haphazard manner, or obtained from inaccurate sources, are not only of doubtful value, but may lead to erroneous and costly conclusions.

Colorado has a most comprehensive system of water laws and administrative procedure, but the best of laws may be nullified, or largely so, through poor administration. For the most efficient administration of the court decrees having to do with water rights, the following fundamental requirements are essential:

First—Constant knowledge of the quantity of water available for distribution.

Second—Adequate means for controlling water diverted from the public supply by the appropriator.

Third—Accurate means for measuring the quantity diverted.

Fourth—Practical methods for continuously recording, in some permanent form, the quantity of water diverted.

Fifth—Adequate means of communication between the chief administrative official and the management of the ditch or canal.

Sixth—Efficient local water officials.

Seventh—Some proper method for making public comprehensive daily reports of such records of water supply and uses.

Eighth—Proper filing systems for preserving such reports and records for future use.

In some of the irrigated sections of the state the foregoing requirements have not been met because of availability of ample water supplies, or for lack of funds, or interest on the part of the water users.

Probably no single factor has a more important part in increasing efficient administration than has the automatic recording device. This device not only protects the general water supply, but safeguards the rights of the appropriator, checks the orders of the administrative official, allays suspicion among water users, and finally, provides a permanent record for later uses. Such records as time passes, increase in value, and within recent

years have been found to be invaluable in connection with studies of the water supplies of interstate streams, their users, and in making studies of the water resources of the state. There are at present in use in this state 225 automatic recording devices on ditches and canals, and 111 at stream-gaging stations. Some opposition has been encountered in certain sections of the state to the installation of automatic recording devices. It is anticipated, however, that this opposition will gradually subside as the water users more fully appreciate the great advantages to be secured from the use of the same.

Within recent years automatic recording devices have been installed on practically all the major ditches diverting water from the South Platte River and its principal tributaries, the Arkansas River and many of its principal tributaries, the Rio Grande, and the La Plata River, and also in many other localities throughout the state. Within the past few years very material progress has also been made in the installation of improved methods for measuring the quantity of water diverted from our natural streams, the most outstanding example being that of the Venturi or Improved Parshall Flume, developed by Mr. R. L. Parshall, senior engineer of the U. S. Bureau of Irrigation Investigations. As notable examples of such installations may be mentioned the 20-foot flume on the Holbrook Canal, with a capacity of between 700 and 1,000 second feet, the 30-foot flume on the Colorado or Bob Creek Canal, with a capacity of 1,200 second feet, the 40-foot flume on the Fort Lyon Canal, with a capacity of substantially 1,800 second feet, and the 30-foot flume on the Amity Canal, with a capacity of 800 second feet; all of which are constructed of reinforced concrete.

Many flumes of this type, constructed of both wood and reinforced concrete, have been built throughout the state within the past four years. At the close of 1930, every canal of major size in the Arkansas Valley had been equipped with a Parshall Flume. Likewise the outlets from all major reservoirs in the same valley, which exchange water with the river, were similarly equipped. On all such measuring devices, automatic recording instruments are used, one of the most recent recording instruments having been designed by Mr. Parshall for recording both the heads in the upper part of the flume and at the float section, and also the discharge in cubic feet per second.

The accompanying table shows the character, size and number of such installations made in recent years.

As noted in our previous biennial report, there was initiated in 1928, in Water District No. 20, comprising the largest part of the San Luis Valley, a new system of water administration under a Special Deputy State Engineer. This administration was continued during the past biennium with eminent success, and we believe to the general satisfaction of all parties concerned, and has been an important factor in eliminating much friction be-

tween water users and in restoring confidence in administration and providing a permanent and daily record of the amount of water available for use and the quantity diverted by each appropriator.

Very largely as a result of such improvements in measuring devices, reports and records, there has been a gradual decrease in the number and importance of complaints to this office from water users with respect to alleged maladministration on the part of the water officials. Credit for this condition is also due local administrative officials, who in most instances are faithful employees of whom much is expected, and who are to the best of their ability endeavoring to meet such requirements. Probably of no officials of the state are more exacting demands made than those required of the water commissioner and his deputy. These men are called upon to distribute annually, water values of approximately thirty millions of dollars, which during the irrigation period amounts to substantially two hundred thousand dollars per day. Such duties constitute a work of no small magnitude and importance, and where such services are performed efficiently, due recognition should be accorded these officials. All water commissioners and their deputies are paid a per diem, out of which they must meet all expenses of whatsoever nature, needful in the administration of the duties of their respective offices. While such plan makes for simplicity, it likewise makes for anything but efficiency. It is true, as in all organizations, that the measure of service received is largely dependent upon the caliber of the servant, and it is also true that the amount of remuneration paid is too often reflected in the services received.

TABLE OF PARSHALL MEASURING FLUMES INSTALLED IN DECREED CANALS AND DITCHES AND RESERVOIR OUTLETS WITHIN THE BIENNIUM, FOR THE PURPOSE OF MEASURING DIVERSIONS FROM PUBLIC STREAMS.

IRRIGATION DIVISION	WIDTH OF FLUME THROAT IN FEET						
	1′ to 5′	6′ to 10′	11′ to 15′	16′ to 20′	21′ to 30′	31′ to 40′	Total
Number One	11	5	..	..	1	..	17
Number Two	53	10	6	3	1	1	74
Number Three	77	11	1	..	..	..	89
Number Four	98	10	..	..	..	..	108
Number Five	162	4	..	..	..	..	166
Number Six	74	..	..	..	..	..	74
Number Seven	19	2	2	..	..	..	23
Total	494	42	9	3	2	1	551

We have heretofore recommended, as have our predecessors, that the water commissioners and their deputies be recompensed for their necessary expenditures within reasonable limits, and that such expenditures by them, together with their per diem, should be paid by the state under provisions whereby the state treasury would be reimbursed by the several counties in which the services are performed. This would place upon those receiv-

ing the services rendered the obligation of paying for the same, the reimbursement for traveling expenses would tend to materially increase the efficiency of the employee, and the value of his services to the public.

Due to increasing demands of the public upon this office and to an increase in the number of duties imposed by every legislature, the funds available for the use of this department within recent years, have been inadequate. As a result of certain recommendations made by this office, the last legislature disposed of the office of Irrigation Division Engineer of Irrigation Division No. 1, embodying the South Platte River and tributaries, and transferred the duties of such office to the State Engineer. Such duties have been administered during the past biennium by the Deputy State Engineer. This has resulted in a net saving to state funds of between four and five thousand dollars for the biennium. Similar recommendations concerning the consolidation of Irrigation Divisions Nos. 4 and 5 would likewise have resulted in an even greater saving, but were opposed by local water users in Irrigation Division No. 5.

The office is badly in need of a draftsman and an additional stenographer. Many plans and specifications for the construction of dams, maps and related data must be checked and revised by this office, practically all of which work for the past seven years has been done by the State Engineer. These duties, together with the need for checking all claims covering water appropriations, preparation and checking of innumerable maps, records of decrees, preparation of certified copies of the latter, and similar duties, justify the employment of a draftsman and an additional stenographer.

Within the biennium certain badly needed office equipment has been supplied by the Board of Capitol Managers, and has filled a long-felt need.

As the result of a large amount of special investigational work, covering the water resources of the state, and the cooperation of the U. S. Army Engineers and local water users, we have been enabled to employ a draftsman during the biennium.

The accompanying statement discloses the amounts of money appropriated by the last legislature for the use of this office, the nature and amount of expenditures from same, together with the receipts of moneys taken in as filing fees and the disposition of the same, and the balances on hand as of December 31, 1930.

The recent legislature changed the end of the fiscal period from November 30 to June 30. Since this report is for the calendar years 1929 and 1930, it is necessary to show the condition of the funds of the office as of December 31, 1930, and the balances available for the remainder of the fiscal period ending June 30.

STATE ENGINEER'S OFFICE

FEES RECEIVED DURING PERIOD

December 1, 1928, to December 31, 1930

Filings	$6,268.00
Postage	3.05
Blueprints	987.00
Certifications	355.30
Examination of Dam Plans	556.00
Filing Transfer Decrees	92.00
Filing Deeds	2.00
Office Labor	45.00
Miscellaneous	4.35
Total Deposited with State Treasurer	$8,312.70

CHAPTER II.

FINANCIAL STATEMENT

APPROPRIATIONS

	Dec. 1, '28 to June 30, '29	1929-1930	1930-1931	Total	Balance Turned Back to General Fund From Appropriations June 30, '29	Balance Turned Back to General Fund From Appropriations June 30, '30	Balance on hand Jan. 1, '31
*State Engineer, Salary	$ 2,916.66	$ 5,000.00	$ 5,000.00	$ 12,916.66	$ 0.04	$ 0.08	$ 2,500.04
Deputy State Engineer, Salary	1,500.00	3,000.00	3,000.00	7,500.00	.00	.00	1,500.00
Chief Clerk, Salary	1,166.66	2,000.00	2,000.00	5,166.66	.04	.08	1,000.04
Stenographer, Salary	700.00	1,200.00	1,200.00	3,100.00	.00	.00	600.00
*Special Deputy State Engineer, Salary	1,225.00	2,500.00	2,500.00	6,225.00	.00	.04	1,250.02
Chief Hydrographer, Salary	1,400.00	2,400.00	2,400.00	6,200.00	.00	.00	1,200.00
Five Hydrographers, Salary	5,250.00	9,000.00	9,000.00	23,250.00	935.00	140.00	4,500.00
*Five Division Engineers, Salary	7,291.70	12,500.00	12,500.00	32,291.70	.14	.20	6,250.10
†One Division Engineer, Salary	1,458.30	.....	.....	1,458.30	....	....	.....
Traveling and Contingent Fund—							
State Engineer and Deputy	875.00	2,100.00	2,100.00	5,075.00	.00	.00	1,121.96
Chief Hydrographer's Expense	350.00	600.00	600.00	1,550.00	4.10	9.61	268.03
Traveling Expenses Five Hydrographers	3,354.15	5,750.00	5,750.00	14,854.15	50.82	31.92	3,182.41
*Traveling Expenses Special Deputy State Engineer	700.00	1,200.00	1,200.00	3,100.00	.25	2.46	546.69
*Traveling Expenses Five Division Engineers	3,500.00	5,000.00	5,000.00	13,500.00	.00	86.17	2,547.43
Incidental Expenses, Including Gage Readers' Salaries, etc.	2,800.00	4,800.00	4,800.00	12,400.00	3.08	.00	2,492.91
Incidental and Contingent Expenses, Including Printing, Postage, Telephone, etc.	1,312.45	2,250.00	2,250.00	5,812.45	.00	.00	1,042.15
Totals	$ 35,799.92	$ 59,300.00	$ 59,300.00	$154,399.92	$993.47	$270.56	$ 30,001.78

*Statutory.

†Office abolished by statute.

EXPENDITURES FROM WATER DEFENSE AND FROM WATER RESOURCES SURVEY FUNDS FOR PERIOD JANUARY 1, 1929, TO DECEMBER 31, 1930

	Engineering Salaries	Travel Expense	Stenographic Salaries	Reimbursement to Ark. Valley D. A.	Gage Readers	Blue-Printing and Stationery	Tel. and Tel.	Misc. Expense	Gages & Equipment	Total	Balance Available
WATER DEFENSE											
Arkansas River...	$ 737.92	.....	$ 238.13	$5,758.40	.....	$ 156.75	.....	$ 3.90	$ 68.50	$6,963.60	$3,036.40
*Colorado River...	3,258.33	$ 579.73	65.00	.....	.....	350.18	.....	11.02	267.59	4,531.85	5,468.15
*Rio Grande.....	3,582.22	1,922.02	.....	.....	$ 195.00	168.84	$ 34.65	.....	714.94	6,617.67	3,382.33
†WATER RESOURCES SURVEY											
Arkansas River—											
From State Approp.	2,576.42	396.74	16.66	.....	.....	164.90	.....	.....	.....	3,004.72	‡.....
From Local Contrib.	2,314.73	898.14	.....	.....	.....	.....	.....	.....	.....	3,212.87	‡.....
†Rio Grande—											
From State Approp.	158.86	.....	66.67	.....	.....	15.00	.....	.....	.....	240.53	‡.....
From Local Contrib. to Dec. 31, 1930...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	‡.....
†South Platte—											
From State Approp.	2,673.43	319.16	116.67	.....	31.40	223.53	.....	.....	.....	3,364.19	‡.....
From Local Contrib.	2,204.93	1,445.64	39.99	.....	.....	.....	.....	29.00	.....	3,769.57	‡.....

Note: *Appropriation of $10,000 to each River Basin—Total appropriation $30,000. †Funds spent from state appropriation to be equaled by funds raised by counties and various agencies. ‡Balances available, subject to total local contributions not determinable as of December 31, 1930.

CHAPTER III

WATER SUPPLY AND SEASONAL AND CROP CONDITIONS

1929

Precipitation. Precipitation during January and February subnormal, above normal during March, subnormal for April, May and June, and above normal for the balance of the year, except during the month of December, in which the precipitation was subnormal. The average total for the state was 18.16 inches or 0.96 inch above normal.

On the Eastern Slope and in the San Luis Valley, the water supply was subnormal, particularly during the early part of the growing season. This condition was due either to deficient snowfall in the mountains or low temperatures in the spring months. Carry-over storage from 1928, together with copious rainfall beginning in July, furnished an abundant water supply during the latter part of the growing season, which resulted generally in good crops, and an opportunity to store considerable quantities of water to meet the requirements of 1930.

The water supply on the Western Slope was more favorable, and may be considered above normal.

Crops. Crops were normal or above normal in most parts of the state. This condition was particularly true in the South Platte and Arkansas Valley. In the San Luis Valley, cold and continued windy weather during the early part of the growing season delayed the growth of, and in some respects seriously damaged growing crops.

On the Western Slope of the mountains, the crops were normal, except in northwestern Colorado, where, due to cold weather and short growing season, crops were subnormal.

The early fall, accompanied by snow and freezing temperatures, caused serious loss to grain in the higher areas, and to sugar-beets and potatoes in the lower altitudes.

Violent rainfall in different sections of the state within the summer months caused disastrous floods, resulting in the destruction of much property and no little damage to crops. The season was also marked by the occurrence of severe hail storms in certain parts of the state, resulting in serious damage and loss to growing crops.

1930

Precipitation. The monthly precipitation throughout the year varied between above normal and subnormal conditions. During the early spring months precipitation in general was subnormal, in May above normal, in June below, above during July and August, subnormal during the months of September and

October, above normal in November, and again subnormal in December. The average total for the year was subnormal.

Water Supply. On the Eastern Slope and in the San Luis Valley subnormal conditions prevailed during the earlier part of the growing season. This condition, however, was quite satisfactorily taken care of in general by water in storage carried over from the later summer and winter of 1929.

On the Western Slope, conditions were also subnormal as to snowfall, and for a time prospects for storage opportunities were alarming, the snowfall in the higher mountain regions having been not only subnormal but, due to abnormally low temperatures, the seasonal runoff was backward, and much of the available snow deposits were dissipated through evaporation. This condition, however, was largely relieved with the approach of higher temperatures, and as a result reservoirs on the Western Slope were generally filled.

Copious rains during July and August, as frequently happens, resulted in excellent crops all over the state, and the year 1930 will probably be recorded as one of the most bountiful seasons in the history of the state.

CHAPTER IV

RECORDING CLAIMS TO WATER RIGHTS.

An important function of this office is the inspection and recording of claims to water rights. A total of 340 statements appropriating water were recorded during the biennial period for both ditch and reservoir appropriations. Claims for ditches and pipelines for irrigation, domestic and other beneficial purposes amounted to 272, for which a total of 2,780 cubic feet of water per second of time was claimed. There were 68 reservoir filings, covering statements of claims to water for storage in the amount of 234,705 acre-feet.

It is interesting to note that statements covering nineteen enlargements and extensions to existing ditch systems, and several amended maps and statements correcting errors in previous filings, were received for record. Six transmountain water diversion projects were recorded. These enterprises contemplate bringing water from the western to the eastern slope of the state for irrigation and domestic purposes.

The majority of the claims to water rights were founded on seepage, waste and spring water supplies. Many seepage streams have developed within recent years, as the result of irrigation development, and appropriators are taking advantage of the opportunities afforded by this phenomenon. A large number of mountain homeowners are developing springs for domestic water supplies.

This office has furnished nine certified lists of valid claims to water rights in various Water Districts, at the request of District Courts, for use in adjudication proceedings, and in addition many certified copies of filings of record in this office, have been furnished to the claimants.

The recording of ditch and reservoir decrees and decrees for changes in point of diversion of ditches, is one of the duties of this office requiring no little time and effort. A complete record of all ditch and reservoir decrees is kept up to date, and due to the comprehensive system of filing, all information relative to same is immediately obtainable. Such records of filings of claims to water rights since the beginning of irrigation in Colorado are available. These files list the ditches in alphabetical order, by stream systems, by headgate locations, and by the name of the original claimant. The public takes advantage of this service in looking up old records on canals and reservoirs, as well as in obtaining information on the more recent filings.

Practically complete records furnished by the Water Commissioners are available, and show the results of the operation of the various ditches and reservoirs throughout the state. These records are in demand by prospective purchasers of irrigated lands and are used as evidence in many lawsuits and adjudications.

CHAPTER V

RULINGS, APPEALS AND COURT DECISIONS RESPECTING ADMINISTRATION OF PUBLIC WATER SUPPLIES

This office has been called upon within the past biennium, to make fewer rulings regarding the administration of the water supplies of the state. It is believed that this result has been largely due to more efficient methods adopted for the measurement of water, and improvement in the system adopted for accounting for such water supplies, and to the gradual stabilization of our water laws as a result of court constructions. There has also been a marked decrease in the number of suits between water users, in which this office is usually a nominal defendant.

Two suits of major importance concerning the administration of the water laws of the state were tried in the District Courts within the past biennium. One arose over the administration of the La Plata River Compact and involved the authority of the State Engineer to rotate the available water supplies in the La Plata River at certain periods during the irrigation season, with the State of New Mexico, as provided for in the La Plata River Compact. This suit was brought in the District Court at Durango, where the water officials received a favorble ruling. The plaintiff ditch company has appealed from this decision to the Supreme Court, where the case now rests.

The other suit of major interest was brought by representatives of certain water users in Water District No. 11, for the purpose of restraining the State Engineer from imposing an order to install automatic gage-height recording devices. The lower court decided this case adversely to the State Engineer. An appeal from this decision has been taken to the Supreme Court, where the case now rests.

As the official charged with the administration of the water decrees of the state, the State Engineer has been made defendant in the interstate suit brought by the State of Wyoming against the State of Colorado in the Supreme Court of the United States, concerning the waters of the Laramie River.

Several minor cases of an intrastate nature were initiated but had more of the character of injunctive proceedings against local water officials rather than against this office, and will probably not be prosecuted to a final conclusion.

The spirit of cooperation evinced by the water users of this state in complying with orders from this department, particularly those relating to the repair and construction of dams, the regulation of the storage of water impounded by same, the installation of proper equipment for measuring water diverted from the public streams, with few exceptions, has been most gratifying and commendable, and to all such individuals, organizations and corporations full credit is due for such cooperation and support.

CHAPTER VI

STATE BOARD OF EXAMINERS FOR ENGINEERS AND LAND SURVEYORS

MEMBERS OF THE BOARD

Herbert S. Sands, Chairman, Denver.

H. I. Reid, Vice-Chairman, Colorado Springs.

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COMMITTEES

Executive Committee—H. S. Sands, Ex-Officio Chairman; John A. Hunter, M. C. Hinderlider.

Finance Committee—H. I. Reid, Ex-Officio Chairman; M. C. Hinderlider, John A. Hunter.

Examination Committee—John A. Hunter, Chairman; H. I. Reid, James Underhill.

Library Committee—H. S. Sands, John A. Hunter, James Underhill.

MEETINGS

During the biennial period December 1, 1928, to November 30, 1930, the Board held sixteen meetings. Of this number, twelve were regular meetings for the consideration of applications for registration to practice engineering or land surveying in this state, and for the regular business of the Board. Two special meetings were held for hearing charges of alleged irregularities in the practice of certain registered engineers. Two meetings were held jointly with the State Board of Examiners for Architects, for the purpose of adjusting some misunderstandings that had arisen between the two Boards. These joint meetings resulted in a mutual understanding tending to a more harmonious cooperation between the Boards.

REGISTRATIONS

A total of 67 applications for registration were reviewed and considered by the Board during this period. Of this number 60 were granted registration to practice engineering in this state. The accompanying tables show the disposition and classification of the applications.

REGISTRATIONS GRANTED

	Reciprocal	Engineers	Land Surveyors	Total
Total applications considered	14	51	2	67
Granted registration based on experience, education, etc	13	44	1	58
Held for written examination	....	6	1	7
Applications rejected or withdrawn	1	4	....	5
Total granted registration	13	45	2	60

CLASSIFICATION OF REGISTRATIONS GRANTED

Chemical Engineer	1	Mechanical Engineer	3
Civil Engineer	18	Mining Engineer	10
Electrical Engineer	2	Municipal Engineer	1
Gas Industrial Engineer	1	Structural Engineer	6
Geological Engineer	1	Reciprocal Registrations	13
Heating and Ventilating Engineer	2	Land Surveyors	2

The meetings of the Board are held in the office of the State Engineer, who is the ex-officio Secretary and Treasurer of the Board. During the year of 1930 there were 502 registered engineers and land surveyors in Colorado, in good standing. At the first of each year notice is sent to every registered engineer and surveyor, reminding them of the necessity for renewing their registration. The collection of renewal fees, issuing renewal cards and receipts for dues, together with the growing correspondence pertaining to the applications and regular business of the Board, constitute a volume of work of no mean proportions.

The technical library, comprising 21,433 volumes, is housed on the second floor of the Denver Public Library.

This collection of technical literature, one of the largest in the United States, has been created through the use of the registration fees received by the Board. A total of $30,852, of which $4,000 was expended the past two years, has been appropriated and spent by the Board in the creation and support of this library since the passage of the Registration Act. Hundreds of periodicals, together with many volumes comprising the library, are contributed by The Colorado Scientific Society, while many additional volumes have been donated by other organizations and numerous public spirited individuals. In addition, the City of Denver has in the past, and continues to contribute through the officials of its Public Library, both money and material for the suport of this library. The Board herein desires to express its appreciation of this very helpful cooperation.

The following is a statement of the funds received and disbursed by the Board from July 1, 1929, to June 30, 1930:

Balance on hand July 1, 1929	$2,347.62

RECEIPTS

July, 1929	$ 109.00	
August, 1929	143.00	
September, 1929	25.00	
October, 1929	15.00	
November, 1929	87.50	
December, 1929	144.50	
January, 1930	1,140.00	
February, 1930	730.00	
March, 1930	388.00	
April, 1930	114.00	
May, 1930	77.50	
June, 1930	59.50	
Total Receipts		3,033.00
Total in Fund		$5,380.62

EXPENDITURES AS PER VOUCHERS

Clerical and Stenographic	$ 600.00	
Postage	30.00	
Printing and Stationery	92.01	
Refund of Fees	75.00	
Traveling Expenses Board Members	279.85	
Examinations	50.00	
Dues National Council	50.00	
Library Books, etc	1,151.20	
Certificates	13.32	
Miscellaneous Expense	13.30	
Total Expenditures		2,354.68
Balance June 30, 1930		$3,025.94

CHAPTER VII

COOPERATION WITH OTHER STATE DEPARTMENTS

In preceding bienniums, this office completed two earth dams, on Big Pine Creek, a tributary of the Cache la Poudre River, at a cost of substantially $85,000, and a combination earth, log and rockfill dam near Durango, at a cost of about $50,000, for the State Game and Fish Department.

Within the past biennium plans and specifications were prepared by this office, for the construction of a concrete arch dam for the same department, to be located on Tarryall Creek, about 18 miles below the town of Jefferson. This dam was completed at the close of 1930 at a cost of substantially $150,000. This latter dam has a maximum height of 84 feet above deepest point of foundation, and is, we believe, the best piece of concrete dam construction in the state. This dam will create a lake with a surface area of about 240 acres and provide a capacity of about 5,000 acre-feet.

All these structures are for the creation of spawning lakes for the propagation of mountain trout to replenish the streams in the state.

The State Engineer and his assistants also carried on extensive investigations, and prepared a mass of data for the use of the Interstate River Commissioner, the Attorney General, and the Arkansas Valley Ditch Association, in conection with Interstate Water negotiations and suits, and also cooperated with the U. S. Army Engineers in investigations of the water resources and uses in the South Platte and Arkansas River Basins in Colorado. Report of these latter investigations in greater detail will be found elsewhere in this report. The State Engineer also testified at length in the opening stages of the interstate suit of Colorado vs. Kansas with respect to the use of the waters of the Arkansas River.

CHAPTER VIII

DAMS AND RESERVOIRS

Colorado's great system of storage reservoirs is of vital importance to the state. Dams needful for impounding and equalizing the stream flow of the state, much of which would otherwise run to waste, are the stabilizing factors supporting our major industry—irrigated agriculture. These dams are widely scattered throughout the state and form reservoirs of a total aggregate capacity of something like 2,500,000 acre-feet. Such structures range in height from 10 to 235 feet, and represent almost every type of construction. Every dam of material height, impounding as it does large quantities of water at certain times of the year, is a potential menace to life and property below the same, and hence constant vigilance must be exercised to see that they are safely built and maintained. As a result of our investigations, we caused repair work to be carried out on more than 100 dams during 1927 and 1928, and on about 70 dams during the past biennium. It is believed that the dams in this state are now in better condition than they have ever been before.

As a result of the availability of some additional funds, we caused to be prepared last year as complete a tabulation of all the dams of the state as was possible at the time. This tabulation has been arranged for ready reference according to the water districts in which the same are located, and shows in tabular form the name of the dam, the location, ownership, character of structure, height, dimensions, freeboard, character and capacity of outlets, character and capacity of spillway, surface area and capacity of reservoir, area of drainage basin, and many other pertinent factors affecting the safety of dams. This tabulation discloses a total of something over 1,400 dams in the state, of which about 1,000 come under the direct supervision of this office, in accordance with the provisions of law.

The present State Engineer has just completed his seventh year in office, during which time but two small dams have failed, these being structures not exceeding 17 feet in height and impounding comparatively small quantities of water. In each instance, however, a life was lost, which indicates the great importance of painstaking supervision, not only over the design and construction of dams by state authority, but also effective supervision of the maintenance of such structures and the regulation of the storage of water back of the same.

Within the past biennium, the following new dams were either under construction or were completed:

Long Draw Dam, a large earth structure on the head waters of the Poudre River.

Peterson Lake Dam, also an earth structure, near the Long Draw Dam, was completed to the point where storage was permitted.

Tarryall Dam, a reinforced concrete arch, on Tarryall Creek, which had been under construction for the past two years, was completed.

Fisher Canyon Dam near Colorado Springs, of earth, was completed.

Mesa Dam, near Colorado Springs, also of earth, still under construction.

Ruxton Creek Dam, above Manitou, of rock and disintegrated granite, which has been under construction by the City of Colorado Springs for the past four years, was completed.

Construction of the new Eleven Mile Canyon Dam, on the South Platte River, by the City of Denver, was initiated. This dam is of the constant-radius arch type, of a maximum height of about 142 feet, and when completed will be the third highest dam in the state, and will provide a reservoir of practically the same capacity as Lake Cheesman. The dam will be of concrete, the estimated cost being something over one million dollars.

At the close of the year plans and specifications had been approved by this office for the construction of the Penrose-Rosemont Dam, a loose rock fill structure above Colorado Springs, by The Broadmoor Hotel, Water & Power Company. This dam will have a maximum height of about 100 feet and will probably be faced with steel plates. This structure will be for the purpose of providing additional water supplies for the Broadmoor Hotel and surroundings. The estimated cost is about $360,000.

The following are some of the more important dams of the state on which repairs were made within the past biennium:

At Antero Dam, repairs to rip-rap and outlet conduit were made. In addition a 20-foot timber Parshall flume was installed below the outlet for accurately determining the discharge from this reservoir, which is at the head of all irrigation on the South Platte River.

At Barr Lake Dam an extensive system of open drains was installed to correct the serious condition of seepage which has been in evidence below this dam for many years. Certain repairs were also made to the metal outlet tubes and the gates.

At Standley Lake Dam it was necessary to remove the rock rip-rap over a large section of the water face of the dam and to reslope the face, after which the same was repaved with hand-placed stone rip-rap at a cost of about $25,000. Following the withdrawal of water from this reservoir in the late summer of 1930, another slight movement occurred on the water face, necessitating some repairs to the rip-rap. The serious movement of the water face of this dam which has been in evidence for many years has apparently about ceased, and the conditions now seem to be fairly well stabilized.

At Marshall Dam some movement in the water face of the dam near high-water line necessitated the removal of a belt of the rip-rap, the resloping of the earth face at that point, and restoration of the rip-rap, in the fall of 1930.

At Prospect Dam a new concrete coping was placed along the upper edge of the concrete paving to provide a greater freeboard, after which the crest of the earth dam was raised and widened. Certain other work for the protection of the earth embankment was also carried out.

At Horse Creek Dam an extensive drainage system is being constructed, which to date has materially relieved the saturated condition along the lower toe of the dam.

At the Point of Rocks or North Sterling Dam the work of resloping and protecting the water face of the dam with a heavy blanket of hand-placed stone rip-rap, as noted in our last biennial report was continued, although not finally completed.

At Riverside Dam progressive work continued in the placing of reinforced concrete slabs over the old concrete facing on this dam.

At the Empire Dam additional drainage works were installed to take care of seepage conditions along the lower toe.

At the Prewitt Dam certain repairs were made to the concrete facing, which involved the placing of reinforced concrete horizontal girders beneath the face slab to prevent movement of the concrete paving during periods of high wave action. This work is of a progressive nature and is to be continued from time to time as requirements demand.

At Northfield Dam No. 4, above Colorado Springs, extensive repairs were conducted throughout the summer of 1930, to correct a serious seepage condition. These repairs consisted of a deep trench excavated in the water face of the dam, which was backfilled with selected material, and the replacing of rip-rap over the water face. Also certain other minor repairs.

At Fountain Valley No. 2 Dam a drainage system to relieve a bad seepage condition along the lower toe of the dam was partially completed. It is expected that this work will have been completed in the summer of 1931. Repairs were also made to the rip-rap and to the crest of the dam.

At the Mt. Pisgah Dam, following a partial failure of that earth structure in 1928, extensive repairs, consisting of the resloping and replacing of a large section of the water face of the dam and the protection of the same with hand-placed rock rip-rap, were completed in the fall of 1929. These repairs also included a new outlet, consisting of a tunnel driven through the westerly abutment, together with the installation of two 30-inch gate valves, the widening of the spillway, and raising of the crest of the dam to provide ample freeboard.

At Dam No. 4, owned by the City of Colorado Springs, the spillway was lowered and widened to provide a greater degree

of safety, and an extensive drainage system was being installed at the close of 1930. This work will be completed in 1931.

At the Rio Grande Reservoir, which is the most important reservoir in the Rio Grande Basin in Colorado, extensive repairs consisted of the raising of the crest of the dam about four feet, the restoring of the hand-placed stone rip-rap along the upper part of the water face, and the installation of a permanent concrete crest with collapsible flashboards in the spillway.

At Monarch Lake, at the head of the Colorado River, extensive repairs to the rock fill log crib dam were made. These repairs consisted of placing a loose rock fill on the downstream side of the log crib dam, and the replacement of the old spillway structure with a new reinforced concrete structure to provide the necessary capacity. Other minor repairs to the dam were made which provide the necessary degree of safety to lives and property below this structure.

Repair work was carried out on a large number of comparatively small dams on Grand Mesa in the Colorado River drainage basin.

In southwestern Colorado extensive repairs were made to the Lone Cone Dam, in the way of resloping and repaving the water face of that dam.

Repairs were also made to the timber facing of Lake Electra, above Durango, and some temporary repairs to the eroded water face of the Narraguennip Dam

Work of restoring and raising the Red Mesa Ward Reservoir Dam, on the La Plata River drainage, was carried on but not completed.

At the Highland Mary Masonry Arch Dam above Silverton, it was found necessary to cut an opening in the crest to relieve a serious condition affecting the stability of that structure.

The following table gives a list of the more important dams on which repairs were carried out during the biennium:

REPAIRS TO, AND CONSTRUCTION OF DAMS
1929-1930

Repaired	In Course of Construction, or Completed	New Construction
DIVISION NO. 1—		
Antero	Long Draw	Eleven Mile Canyon
Hoosier	Peterson Lake	
Barr	Tarryall	
Standley		
Marshall		
Horse Creek		
Prospect		
Point of Rocks		
Jackson Lake		

Repaired	In Course of Construction,	New Construction
Empire		
Prewitt		
Lamont		

DIVISION NO. 2—

Brush Hollow	Fisher Canyon	Rosemont
Thomas-Schwartz	Mesa	
Carroll Lakes	Ruxton Creek	
Fountain Valley No. 2	Fooses Creek	
Cooking Club		
Fisher Canyon		
Holbrook		
Mt. Pisgah		
Callahan		
Seven Lakes		
Colorado Springs No. 4		
Gordon		

DIVISION NO. 3—

Rio Grande
Rawley Mines No. 4
La Jara

DIVISION NO. 4—

Numerous dams on	Anderson No. 2
Grand Mesa including	
Goodenough No. 1	
Goodenough No. 2	
Pine Cone	
Park	
Granby No. 11	
Atkinson	
Island	
Womack No. 1	
Mesa Lakes	
Granby	
Cedar Mesa	
Ryan	
Vella	
Eggleston	
Lone Cone	
Gurley	

Repaired	In Course of Construction, or Completed	New Construction
DIVISION NO. 5—		
Miller or Consolidated	American Smelting & Refining Co. (Zinc Mine)	
Harvey Gap		
Monarch Lake		McElroy
DIVISION— NO. 7—		
Lake Electra		
Narraguennip		
Summit		
Red Mesa Ward		
Highland Mary		

CHAPTER IX

INTERSTATE RIVER COMPACTS AND ADMINISTRATION OF SAME

Historical accounts of interstate river compacts affecting Colorado's water supplies, negotiated up to 1929, will be found in the State Engineer's Biennial Reports for 1925-1926 and 1927-1928.

In 1929 a compact was negotiated at Santa Fe, New Mexico, between the States of Colorado, New Mexico and Texas, covering the administration of the Rio Grande until June 1, 1935. This compact was approved by Congress and signed by President Hoover on June 1, 1930.

During the biennium the office administered the La Plata River Compact, between Colorado and New Mexico, and the South Platte River Compact, between Colorado and Nebraska, and during the latter part of 1930 the Rio Grande Compact between Colorado, New Mexico and Texas.

In connection with the administration of the La Plata River Compact, a permanent gaging station consisting of a concrete weir, together with suitable foot-bridge and automatic recording instrument, was installed at the Hesperus gaging station, on the La Plata River. Such installation constitutes a great improvement over former facilities available for determining stream flow at that point, which is required to be divided with the State of New Mexico.

In connection with the administration of this compact, improvements were also made to the State Line gaging station. The accurate measurement of the total amount of water to be divided between Colorado and New Mexico is essential to an efficient administration between the two states in question.

More effective administration of this compact within the past four years has resulted from the installation of better measuring devices together with automatic recorders on practically all ditches in Colorado, through the energetic efforts of the Special Deputy State Engineer and local water officials, and through a continued increasing degree of cooperation on the part of the water users in both states. Probably in no other part of the state are more difficult problems of administration encountered than along the La Plata River, due to the erratic and uncertain nature of the water supply, and the great disparity between such water supply and the demands upon the same.

The La Plata River Compact provides that the State Engineers of Colorado and New Mexico may rotate the water between the two states during periods of shortage. Such rotation during the season of 1928 resulted in a protest by the owners of one of the older decrees in Colorado, and as a result of the ad-

verse ruling of this office, suit was filed in the District Court at the end of the season of 1928, seeking to restrain the water officials from carrying out the rotation provision of the compact insofar as their interests were affected. This office was ably represented by the Attorney General and his assistants. After hearing testimony and argument, the court rendered a decision sustaining the water officials. An appeal has been taken to the Supreme Court of the State, where the case now rests.

Since this action is a direct attack upon the validity of the compact, it may become an interstate affair, and will doubtless be followed with no small degree of interest by those who have definite views with respect to this comparatively recent method of settling disputes over the waters of interstate streams.

Meetings were held in 1929 and 1930 as usual, between the State Engineers of Colorado and New Mexico to consider complaints arising from the water users in both states, but special credit is due the local officials in both states for the reasonable degree of success with which the compact has been administered to date. Complete exchange of all data has been had between the states in question.

No difficulties have arisen over the administration of the South Platte River Compact, since the same does not really affect past administrative procedure, as regards demands by Nebraska for water out of this stream.

While an early consummation of a compact between Colorado, Wyoming and Nebraska has been hoped for as a result of the extensive investigations and negotiations heretofore carried on, little progress was made in this matter within the biennium. There is urgent need for an interstate understanding prior to further development on the North Platte River in our sister states, as seems to be contemplated within the near future.

On the Rio Grande, a three-year period of field investigations and office study was brought to a close at the end of the last biennium by the signing of a Tri-State Agreement between Colorado, New Mexico and Texas, which as heretofore stated was ratified by Congress, and signed by President Hoover last June. This compact provides a commission of three members, consisting of the State Engineer of Colorado, the State Engineer of New Mexico, and a representative of the Governor of Texas, with authority to provide rules and regulations for, and to administer the compact under certain provisions thereof. The members of the commission held a meeting in El Paso on September 17, 1930, at which date rules and regulations were formulated and adopted for the joint administration of the Rio Grande Compact.

The compact provides for the maintenance of certain gaging stations in the three states in question, and the compilation and exchange of all data relating to water supply and usage thereof, together with an exchange of such data between the members of the commission, all of which was done. This requirement involves no little amount of work and considerable expense.

The compact also provides that the members of the commission shall report to the governors of their respective states within the month of January. Accordingly the members of the commission met at Santa Fe, New Mexico, on the 15th day of January, 1931, and formulated their joint report, which has been submitted to the governors of the three states.

Negotiations looking to the consummation of a compact between Colorado and Kansas, with respect to the waters of the Arkansas River, have been supplemented by a suit which Colorado, in her sovereign capacity, has brought in the Supreme Court of the United States against the state of Kansas, seeking to restrain the water users in the latter state from further litigation against water users in Colorado, and to compel a compliance with the decree of the Supreme Court resulting from the case of Kansas vs. Colorado, decided in 1907. In her answer Kansas has submitted a cross-bill of complaint and testimony has been introduced by both parties, with the prospect, however, that further introduction of testimony will extend over a period of many months.

At the close of the last biennium a partial solution of the long pending problem of the division of waters of the Colorado River between interested states, seemed imminent, through the passage by Congress of the Swing-Johnson Bill, which recognizes the validity of the Colorado River Compact. Several attempts were made by Arizona, California and Nevada, constituting the three states of the lower basin of the Colorado River, to reach an adjustment of differences of opinion with respect to not only the allocation of water between those states, but also of power benefits resulting from the construction of the Hoover or Black Canyon Dam, but without success. In the latter part of 1930, the State of Arizona filed suit in the Supreme Court of the United States against the other six states signatory to the Colorado River Compact, and the Secretary of the Interior, seeking to set aside the compact and restrain the government from proceeding with the construction of the Hoover Dam, power plant and appurtenant works.

In the meantime representatives of Colorado, Utah, New Mexico and Wyoming initiated negotiations looking to a division of water allocated to these states by the Colorado River Compact. In this connection this office has caused to be made quite an exhaustive study and report of Colorado's present and future requirements in the Colorado River, and has prepared a comprehensive map to portray the same. Several conferences between representatives of the four states were held in Denver, and an exchange of data was had between the states of Wyoming, Colorado and New Mexico. Utah having asked for additional time in which to prepare her data, further negotiations have been temporarily suspended.

CHAPTER X

STUDY OF WATER RESOURCES OF STATE

Several special investigations constituted an important activity of this department during the past two years. The major investigations consisted of a detailed study of the water resources of the state, authorized by an act of the last General Assembly, appropriating $10,000 for such purposes. This act provided that such funds be allocated to the various major river basins of the state, in the proportion that the irrigated area in such basins bore to the entire irrigated area within the state, and also provided that such appropriation must first be met by at least an equal sum to be contributed by local agencies, prior to the initiation of such studies.

The water users in the South Platte, Arkansas and Rio Grande drainage basins elected to avail themselves of this state aid, and as a result, the investigations in question have been conducted in these three major drainage basins. Such financial cooperation was provided in each instance by the Boards of County Commissioners of the majority of the counties in which the irrigated lands are located. Cooperation between this office and the water users was had through the Platte Valley Water Conservation League, the Arkansas Valley Ditch Association, the Rio Grande Water Users Association, the Saguache Water Users Association, and the Conejos Water Users Association.

The U. S. Army Engineers, under provisions of the Mississippi River Flood Control Act, have also cooperated throughout the investigations in the South Platte drainage basin, and are cooperating to a certain extent in the Arkansas River investigations.

The work in the South Platte basin was initiated in June, 1929, and substantially completed at the end of 1930. These investigations have been under the direct supervision of Thomas Hawthorne of this office.

The investigations in the Rio Grande and Arkansas River basins have been in charge of R. J. Tipton, Special Engineering Assistant in this office on Interstate River matters.

Colorado is the second state in the Union as regards area of irrigated acreage.

One of the recognized characteristics of stream flow in an arid region is the erratic nature of the same, not only as regards the amount of water produced from year to year, but also the rate of runoff or stream flow from month to month, and from day to day. The efficient utilization of the water supplies of our western streams is therefore dependent upon careful regulation, mainly by storage. While the normal flow of all the streams originating in Colorado on the easterly slope of the Rocky Mountains, is over appropriated, considerable quantities of water pass

out of the state through these streams each year, in addition to the amounts placed to a beneficial use in the states adjacent to Colorado, which condition results in a serious loss to the irrigation interests of Colorado. Preliminary, however, to further attempts to provide increased storage capacity for conserving unused water which now escapes across the borders of the state, a rational determination of the justification for further expenditures requires full consideration of all phases of this complicated subject. Based upon the results of such study, it is expected that further conservation of the water resources of the state can be predicated upon a rational program, and may proceed in an orderly manner as occasion demands.

The purpose of this state-wide investigation has involved a consideration of the following factors:

First. A determination of the available daily water supply of each major drainage basin, resulting from all sources.

Second. A determination of the daily demand upon this water supply, as a result of presently constructed works.

Third. A determination of the daily shortages under each major canal system, and the period when such shortages occur.

Fourth. A determination of the amount of storage capacity needful to regulate stream flow to take care of existing shortages.

Fifth. A determination of the periods and extent of surplus runoff and the location of the same in the stream basin.

Sixth. A determination of additional reservoir capacity needful to further regulate stream flow to provide the most efficient use of all water supplies, and the proper location of same.

Seventh. A study of the type and cost of dams needful to provide such reservoir capacity.

Eighth. A determination of the benefits to be derived by certain canals through direct application, or river exchange as a result of further reservoir development.

Ninth. A field cruise to determine the present acreage under irrigation, and the area of seeped lands.

Tenth. A determination of the feasibility and probable cost of transmountain diversions.

Eleventh. Preparation of comprehensive wall maps showing the essential features of such studies.

Twelfth. Compilation of the results of such studies in reports for the use of the public.

These studies to date, as was to be expected, disclose that the remaining water supplies of the Eastern Slope of the state, when further regulated and conserved, will be required very largely to supplement existing shortages under most of the canal systems. Such conservation will not result in any immediate material increase in the acreage now under irrigation.

It is now anticipated that this report on the water resources of the state, insofar as the funds available permit, will be completed by July 31, 1931.

Lack of available space precludes the publication in this report of detailed figures resulting from this investigation. The results of these studies will be published later in voluminous reports, to be accompanied by maps and estimates of cost of reservoir development, transmountain diversions, etc.

RIO GRANDE DRAINAGE BASIN IN COLORADO

These investigations will include a study of the water resources of not only the main stem of the Rio Grande, but also its principal tributaries, Conejos, Alamosa and Saguache Rivers.

The study, among other things, will involve:

(First) A determination of the water supply in these streams from 1890 to date.

(Second) A determination of the amount of storage required on each stream to properly regulate the water supply thereof.

(Third) A study of various reservoirs that have been proposed for each stream, to determine the degree of control that each will provide.

(Fourth) A determination of the benefit that each major canal system diverting water from the Rio Grande, will derive from such storage development.

The above study was not initiated until December, 1930, although an investigation to determine consumptive uses in the San Luis Valley, which investigation will materially aid in the water resources study, was conducted during the season of 1930, through expenditures from the Water Defense Fund.

Another investigation which should be made, both from the standpoint of water defense and water resources, would involve a determination of the amount of water that may be developed through the drainage of the sump or enclosed area of the valley. This particular phase of the study is more fully explained under the section of this report appertaining to that subject.

In addition to the investigations carried on under the authorization of the last legislature for a water resources survey, investigations were made during the biennial period to determine the consumptive use of water in the Rio Grande Basin, Colorado. Such studies were paid for from the Water Defense Fund.

A knowledge of the value of "consumptive use" of water in the San Luis Valley is necessary to correctly evaluate the ultimate irrigation development possible in that Valley. The determination of this value was undertaken by this department during the season of 1930. For this purpose the Carmel and Bowen Drainage Districts, located under the Monte Vista Canal, were selected. These drainage districts comprise a total irrigated area of about 12,000 acres. This particular area was selected, since it receives very little water from sources other than those which may be accurately determined, and is well drained.

PROPOSED "SUMP" DRAIN FROM THE SAN LUIS LAKES REGION—SAN LUIS VALLEY

Of the 9,900 square miles comprising the Rio Grande Basin, in Colorado, 2,400 square miles are not tributary to the Rio Grande, but comprise what is known as the "Dead Area," into which 240,000 acre-feet of water per year drain as a result of the natural runoff into that part of the basin.

In addition, from 300,000 to 400,000 acre-feet of water per year are diverted into the "Dead Area" from the Rio Grande, by canal systems. The lowest portion of the area, comprising about 40,000 acres of lake surfaces and saturated land, is commonly known as the "Sump" or "Trough" of the Valley. Several cursory investigations have been made in the past to determine the feasibility of draining the "sump" area and thus making it tributary to the Rio Grande. It was formerly supposed that the "sump" was too low with respect to the Rio Grande to permit of the draining of the "sump" area.

At the request of Dr. Elwood Mead, Commissioner of the U. S. Bureau of Reclamation, this department, in 1928, caused to be made, under the direction of Watrous & Tipton, Engineers, a detailed survey and estimate of cost covering this proposed drainage outlet. The field investigations consisted of a topographic survey of the region immediately above and below the junction of the proposed drain and the Rio Grande, and a traverse and line of levels of the route of a proposed drainage canal in the latter vicinity, and from a point above San Luis Lake northerly to the junction of Saguache Creek with the trough of the Valley. Between the two latter points the location of the proposed drain was determined from the detailed topography taken some years ago by the U. S. Bureau of Reclamation at one-foot intervals. Estimates of yardage and cost, based upon a canal of proper capacity located at two different depths, were prepared, with the following conclusions:

First. The construction of a drainage canal 40 miles in length from the Rio Grande northward to drain the "sump" portion of the Closed Basin area of the San Luis Valley is entirely feasible from a physical and engineering standpoint. The drain may be constructed on a grade of .00015 or 0.8 feet per mile, and at an elevation which will permit lowering the normal surface of San Luis Lake and the water table in the sump a minimum of four feet, without deepening the channel of the Rio Grande below the point where the drain enters the river, 1½ miles below the mouth of La Jara Creek.

Second. A grade of .00015 will provide a velocity of 2.30 feet per second under maximum, and 1.16 feet per second under minimum flow conditions through the sections of canal as adopted. Those velocities it is thought represent proper limits for obviat-

ing excessive maintenance costs resulting from tule and water silk growth, and bank erosions.

Third. The estimated cost of constructing a drain of 500 to 800 second-feet capacity, from the Rio Grande River to a point northwest of the southwest corner of the Baca Grant (a distance of 40 miles), is $1,130,000 in round numbers.

Fourth. A drainage canal can be constructed at a depth of six feet greater than the one considered under the above plan, by rectifying and deepening the river for a distance of 3.6 miles below the outlet of the drain.

Fifth. The estimated cost of this deeper canal is $1,810,000 in round numbers.

Sixth. It is feasible to construct a canal at any depth between the limits set by plan No. 1 and plan No. 2.

Seventh. The maximum economic depth should be determined by balancing the cost of additional depth against the value of the additional water recovered by the additional depth. In doing this the greater cost of maintenance of the deeper canal should be given consideration.

A bill is now pending before Congress providing for the construction of this drain at the expense of the Government, according to the terms of the temporary Rio Grande Compact negotiated by Colorado, New Mexico and Texas, in 1929, as elsewhere mentioned herein.

A report was prepared by this department in March, 1930, entitled "San Luis Valley, Present Method of Irrigation, Its Relation to Water Consumption and Water Logging of Land; Change through Additional Storage and Drainage Development Essential."

Much of the material in this report will be used, if necessary, in support of the bill now before Congress providing for the construction of the "sump drain."

In connection with the report in question, this office prepared a comprehensive map of the San Luis Valley showing the irrigated lands, main canal systems, seeped lands, drainage systems and drained areas, constructed and proposed reservoirs, and the proposed "sump drain."

COLORADO RIVER BASIN IN COLORADO

A study was made of present and future requirements in this Basin, for use in conferences with representatives of Utah, Wyoming and New Mexico, looking to the formulation of a compact to divide between these four states the 7,500,000 acre-feet of water allotted to the Upper Colorado River Basin by the Colorado River Compact. This investigation consisted mainly of a compilation of all available data which had been heretofore collected by R. I. Meeker, as a result of his investigations in 1921 and 1922, and by the Irrigation Division Engineers in 1929. Two field trips

over the area were made in 1930, one through the Yampa, White and Little Snake River Basins, and one through the San Juan Basin, for the purpose of checking present water uses, and to look over various proposed projects. A report covering Colorado's present and future requirements with respect to the waters of the Colorado River, was prepared the fore part of 1930. In this connection there was also prepared a map of the Colorado River Basin, in Colorado, which shows present and probable future irrigated areas, present and potential power developments, together with present and proposed transmountain diversions from the Colorado River Basin.

This investigation disclosed the following general conditions as of 1929:

	Present	Ultimate Possibility
Land under irrigation, acres	900,000	2,537,000
Reservoirs constructed for irrigation, capacity, acre-feet	172,380	2,500,000
Maximum water surface of Reservoirs constructed for irrigation, acres	11,500	41,600
Reservoir capacity for power purposes, acre-feet	.....	3,500,000
Maximum Water Surface of Reservoirs for power purposes, acres	.....	62,900
Transmountain Diversions, acre-feet	24,900	736,000

CHAPTER XI

INTERSTATE AND INTRASTATE CONFERENCES

Within the biennium, the State Engineer attended several conferences of the Engineering Advisors to the State River Commissioners representing the states of Colorado, Utah, New Mexico and Wyoming, called for the purpose of reaching an understanding regarding a division of waters of the Colorado River allocated to these four Upper Basin States by the terms of the Colorado River Compact.

These conferences were held in Denver, at which times a preliminary exchange of views was had with respect to the relative needs and claims of each state which were presented. Following which, an exchange of data and reports covering the set-up of each state was made.

At one of these meetings Dr. Elwood Mead, Commissioner of the U. S. Bureau of Reclamation, outlined the provisions of the Act of Congress making certain allocations of funds by the Congress for the use of his department in making a comprehensive study of the water and land resources of the Colorado River Basin, for the purpose of formulating a general and comprehensive plan for future development in the basin. At the suggestion of Dr. Mead, the representatives of the four states created a Commission consisting of the State Engineer of each of the states in question, together with a representative of the U. S. Bureau of Reclamation, to be known as the Colorado River Planning Commission. The function of this Commission is primarily to cooperate with Dr. Mead's department in an advisory manner, in carrying out the investigations provided for by Congress.

The State Engineer attended the conference of Western State Governors in Salt Lake City in June, 1930, at which time matters of concern to the Western States were discussed and suitable resolutions adopted.

The State Engineer also attended several conferences between the state officials of Colorado and Wyoming, as a result of complaints preferred by Wyoming arising out of the construction of the U. S. Supreme Court decree in the case of Wyoming v. Colorado, over the waters of the Laramie River.

We also held several conferences with the State Engineer of New Mexico and the South Platte and Rio Grande Compact Commissioners for the states of Nebraska and Texas, in connection with the administration of the La Plata, Rio Grande and South Platte River Compacts.

The State Engineer also met with numerous groups of water users, and with members of Water Users' Associations, in various parts of the state, during the biennium, for the purpose of discussing administrative problems, plans for carrying out investigations of the water resources of the state provided for by the last legislature, and other matters of common interest.

CHAPTER XII

IRRIGATION DISTRICTS

The Act of 1921, providing for the organization of irrigation districts in Colorado, created a State Irrigation District Commission, to be composed of the State Engineer, the Attorney General, and the State Bank Commissioner. This Commission is charged with the duty of investigating and reporting upon all proposed irrigation district projects organized or to be organized under the aforementioned Act. To date six irrigation projects, organized under the Act of 1921, have been approved by the Irrigation District Commission. The status of each district at the close of 1930, so far as reports upon the same have been filed with this office, show the following conditions:

The Trinchera Irrigation District, located in the San Luis Valley, was organized in 1922.

Number of acres subject to outstanding bonds, 56,875.

Total bond issue authorized, $650,000.

Amount and par value of unpaid outstanding bonds, $492,342.

Amount of unpaid registered warrants, $17,409.60.

Amount of interest in arrears, $175,319.71.

Amount of land delinquent on payment of assessments, about three-fourths of the land of the district.

Amount of land which has been sold for non-payment of district taxes, about three-fourths of the land of the district.

Area actually irrigated and producing, about 9,000 acres.

Del Norte Irrigation District. This district is located in the San Luis Valley, and was organized in 1922.

Total number of acres subject to bond and assessed, 6,812.

Total amount of bond issue authorized, $350,000.

Total amount of outstanding bonds, $350,000.

Total amount of certificates of indebtedness issued, $125,000.

Amount of registered warrants, none.

Amount of interest in arrears, $88,957.50.

Amount of land delinquent on assessments, 3,774 acres.

Amount of land which has been sold for non-payment of district taxes, 3,774 acres.

Area actually irrigated and producing crops in 1930, 1,000 acres.

Maybell Irrigation District. This is a small district organized in 1922 for the purpose of financing certain required betterments, consisting of a canal system for the diversion of water from Bear or Yampa River, in northwestern Colorado.

Total bond issue authorized, $80,000; of which $60,000 par value were exchanged for the Canal Company's property. The

remaining $20,000 of bonds were disposed of for $18,000. Amount of outstanding bonds, par value, $14,000.

Amount of registered warrants, $3,726.39.

Amount of outstanding other obligations, none.

Amount of interest in arrears, none.

Amount of land delinquent on assessments, not reported.

Amount of land which has been sold for non-payment of district taxes, 1,480 acres.

Present acreage now in district subject to bond, 2,438 acres.

Acreage actually irrigated producing crops in 1928 (no report for 1930), 1,400 acres.

The Agate Irrigation District was organized in 1925, to provide supplemental water supplies for about 3,000 acres of land located along East Bijou Creek, in the vicinity of Agate, Colorado.

Number of acres subject to bond, 1,467.5.

Total bond issue authorized, $160,000 par value.

Total bonds sold and yet outstanding, $44,000.

Amount of registered warrants, none.

Amount of other outstanding obligations, none.

Amount of interest in arrears, $300.

Amount of land delinquent on assessments and sold for non-payment of district taxes, 369.8 acres.

Practically all this acreage is reported by the Secretary of the District to have been actually irrigated, and producing crops in 1930.

The Bent County Colorado Irrigation District, approved in 1928, is located in the Arkansas Valley, south of the town of Las Animas, and derives its present water supply from Big Muddy Creek, with contemplated future diversions from Smith Canyon, both tributaries of the Purgatoire River.

This project was formerly organized as a Carey Act land segregation, upon the development of which nearly $500,000 were expended in the construction of reservoir, main canal and distributing systems. For the purpose of completing the presently constructed system and enlarging the same to provide storage in Smith Canyon, it was deemed advisable to include the lands in an irrigation district.

Total number of acres subject to bond issue, 23,511.

Total bond issue authorized (none of which have been sold), $600,000.

Amount of registered warrants, $21,406.

Amount of interest in arrears, $19,551.86.

Amount of land delinquent on assessments, and foreclosed, 960 acres.

Area actually irrigated and producing crops in 1930, 3,520 acres.

The Pioneer Irrigation District. This is a small irrigation district approved in 1930, for the purpose of taking over the irri-

gation system consisting of a main canal, diversion dam, headworks and appurtenant structures used to irrigate 652.5 acres, located in Yuma County, in eastern Colorado.

The water supply for this area is decreed and is derived from the north fork of the Republican River, which provides a steady and dependable water supply.

The priority of this canal is No. 6, as of date April 4, 1890, for 50 cubic feet per second.

This district was organized to function in connection with an irrigation district of the same name organized under the laws of the state of Nebraska, the canal system irrigating land in both states.

The land incorporated within the boundaries of the district is all irrigated and improved.

The total amount of district bonds authorized by the district in Colorado is, $9,500.

The total issue being made for the purchase of the aforementioned canal system in Colorado.

The above obligation is the only indebtedness of the district.

CHAPTER XIII

RESULTS OF RECENT INVESTIGATIONS OF SEEPAGE AND RETURN FLOW FROM IRRIGATED AREAS

South Platte River

The following summary shows the results of recent measurements made to determine the amount of invisible seepage and return flow along the South Platte River from the point where the river leaves the mountains above Denver to the Colorado-Nebraska State Line. The accompanying graph shows cumulative amounts of invisible seepage return flow on this stream in periods of years, from 1891 to 1931. From 1891 to 1900, 9 years, and from 1900 to 1908, 8 years, the rate of increase of return flow seems to be about constant. From 1908 to 1916, 8 years, the rate of increase begins to drop off. From 1916 to 1931 it appears to be approaching the ultimate, although irrigation has not decreased but has gradually increased during the time covered by these seepage investigations. This would seem to indicate that the pervious water-carrying strata through which the seepage returns to the river, is nearing its carrying capacity.

As noted by the graph, the total cumulative invisible seepage and return flow on the main stem of the river between the points above mentioned amounts to substantially 1,485 cubic feet per second of time, or substantially 1,000,000 acre-feet per year.

Arkansas River

No investigations to determine the amount of invisible seepage and return flow along the main stem of the river throughout the length thereof in Colorado, has been made since 1926. Up to 1927 such investigations disclose that the total invisible seepage and return flow amounted to substantially 200,000 acre-feet per year, this amount, however, varying quite materially from year to year, depending upon the amount of water applied to the irrigated areas, and to seasonal conditions of temperature and precipitation.

A determination of the invisible seepage return flow between the Sugar Loaf or Turquoise Reservoir, just above Leadville and Pueblo, was made in May, 1929, the results of which are shown in the accompanying table.

Rio Grande River

Two sets of measurements were made, in October, 1929, and October, 1930, for the purpose of ascertaining the probable loss of reservoir water in transit between the Rio Grande Reservoir and the head of the Farmers Union Canal. Due to change in climatic conditions and other causes affecting the results of such determination for the purposes mentioned, these determinations cannot be considered conclusive. They are of value, however, in disclosing the seepage and return flow to the river at the time covered by the investigations. The results of these measurements are shown hereinbelow.

INVESTIGATION OF SEEPAGE AND RETURN FLOW

South Platte River

Waterton to Mouth of Riverside Reservoir Outlet

July 9 to 16, 1929

By C. E. McGRAW

Waterton to Littleton

Date 1929	Name of Stream or Ditch	Place of Measurement		Inflow Sec. Ft.	Outflow Sec. Ft.
July 9	South Platte	Waterton		224.9	.....
	Platte Canon Waste	Mouth		18.6	.....
	City Ditch	R. F.		.....	28.1
	Plumb Creek	Mouth	Seepage	(1.5)	.....
	Deer Creek	Mouth	Seepage	(5.5)	.....
	Massey Gulch	Mouth	Seepage	(.2)	.....
	Nevada Ditch	R. F.		.....	32.1
	Brown Ditch	R. F.		.....	1.5
	Dutch Creek	Mouth		8.3	.....
	South Platte	Littleton		.....	252.6
				251.8	314.3

Distance—10 miles.
Apparent seepage return—62.5.

Littleton to 16th St., Denver

July 10	South Platte	Littleton		252.6	.....
	Petersburg Ditch	R. F.		.....	8.9
	Bear Creek	Mouth		2.5	.....
	Dry Creek	Mouth		(.3)	.....
	Mill Ditch	R. F.		.....	.5
	Mississippi Ave. Sewer	Mouth		(.8)	.....
	Platte Valley Ditch	R. F.		.....	6.8
	Farmers & Gardeners	R. F.		.....	12.6
	Cherry Creek	Mouth		(2.7)	.....
	South Platte	Denver		.....	257.0
				255.1	285.8

Distance—10 miles.
Apparent seepage return—30.7.

Sixteenth Street, Denver, to Below Mouth of Sand Creek

July 11	South Platte	Denver		286.2	.....
	Farmers & Gardeners	Waste		.2	.....
	Burlington Ditch	R. F.		.....	98.6
	Gardeners or Heller Ditch	R. F.		.....	5.1
	South Platte	Below Sand Creek		.....	267.1
	(Includes all of Burlington Waste)			286.4	370.8

Apparent seepage return and Denver sewage—84.4.
Denver sewage—73.5.
*Apparent seepage return—10.9.
Distance—5 miles.

*Note—Probably too low, as result of fluctuations in inflow from sewers between points of measurement. No comparison between results of determinations by State and City possible, due to overlapping of points of measurement on the river.

South Platte below Sand Creek to Henderson

Date 1929	Name of Stream or Ditch	Place of Measurement	Inflow Sec. Ft.	Outflow Sec. Ft.
July 11	South Platte	Below Sand Creek	267.1	.....
	Clear Creek	Mouth	32.5	.....
	Fulton Ditch	R. F.	.....	89.5
	Brantner	R. F.	.....	38.7
	South Platte	Henderson	.....	193.8
			299.6	322.0

Apparent seepage return—22.4.
Distance—9 miles.

Henderson to Ft. Lupton

July 12	South Platte	Henderson	170.7	.....
	Brighton Ditch	R. F.	.....	23.4
	Lupton Shortline	Dry	.....	0.0
	Big Dry Creek	Mouth	(8.2)	.....
	Lupton Bottom	R. F.	.....	59.3
	South Platte	Ft. Lupton	.....	131.4
			170.7	214.1

Apparent seepage return—43.4.
Distance—13 miles.

Ft. Lupton to Hodgson Bridge

July 12	South Platte	Ft. Lupton	131.4	.....
	Platteville	R. F.	.....	51.8
	Meadow Isl. No. 1	R. F.	.....	23.3
	Volmar Slough	Mouth	(2.0)	.....
	Hodgson Slough	Mouth	(4.0)	.....
	Mutual	R. F.	.....	32.9
	Farmers Ind.	R. F.	.....	59.1
	South Platte	Hodgson Bridge	.....	29.3
			131.4	196.4

Apparent seepage return—65.0.
Distance—10 miles.

Hodgson Bridge to Twin Bridges

July 13	South Platte	Hodgson Bridge	23.2	.....
	Western Ditch	R. F.	.....	21.0
	St. Vrain	Mouth	119.8	.....
	Union Ditch	R. F.	.....	90.4
	Union Wasteway	Mouth	.....	21.6
	South Platte	Twin Bridges	.....	22.4
			143.0	155.4

Apparent seepage return—12.4.
Distance—8 miles.

Twin Bridges to Heil Bridge

Date 1929	Name of Stream or Ditch	Place of Measurement	Inflow Sec. Ft.	Outflow Sec. Ft.
July 15	South Platte	Twin Bridges	45.1	.....
	Union Wasteway	Mouth	21.6	.....
	Big Thompson	Mouth	8.8	.....
	Sec. No. 3 Ditch	R. F.	.....	34.6
	Latham Seep. Ditch	Mouth (Seep.)	(19.1)	.....
	Latham Ditch	R. F.	.....	109.3
	Patterson Ditch	R. F.	.....	18.2
	Plumb Ditch	R. F.	.....	12.2
	South Platte	Heil Bridge	.....	43.1
			75.5	217.4

Apparent seepage return—141.9.
Distance—13 miles.

Heil Bridge to Kersey

July 16	South Platte	Heil Bridge	43.1	.....
	Cache la Poudre	Mouth	25.2	.....
	Sand Creek	Mouth	(5.3)	.....
	Lone Tree Creek	Mouth	(1.0)	.....
	South Platte	Kersey	.....	135.2
			68.3	135.2

Apparent seepage return—66.9.
Distance—5 miles.

Kersey to Hardin

July 16	South Platte	Kersey	135.2	.....
	Crow Creek	Mouth	(10.8)	.....
	Illinois	R. F.	.....	21.2
	Box Elder Creek	(Dry)	.....	.....
	South Platte	Hardin	.....	181.0
			135.2	202.2

Apparent seepage return—67.0.
Distance—9 miles.

Hardin to Mouth of Riverside Outlet

July 16	South Platte	Hardin	181.0	.....
	Bijou	R. F.	.....	96.0
	South Platte	Above Riverside Out.	.....	115.1
			181.0	211.1

Apparent seepage return—30.1.
Distance—8 miles.

RECAPITULATION

Date 1929	Section	Apparent Seepage Return	Measured Surface Seep.	Total Seep. Return from Initial Point
July 9	Waterton to Littleton	62.5	7.2	62.5
July 10	Littleton to 16th St. Bridge	30.7	3.8	93.2
July 11	16th St. Bridge Below Mouth of Sand Creek	84.4	0.0	177.6
July 11	Mouth Sand Creek to Henderson	22.4	0.0	200.0
July 12	Henderson to Ft. Lupton	43.4	8.2	243.4
July 12	Ft. Lupton to Hodgson Bridge	65.0	6.0	308.4
July 13	Hodgson Bridge to Twin Bridges	12.4	0.0	320.8
July 15	Twin Bridges to Heil Bridge	141.9	19.1	462.7
July 16	Heil Bridge to Kersey	66.9	6.3	529.6
July 16	Kersey to Hardin	67.0	10.8	596.6
July 18	Hardin to Mouth of Riverside Outlet	30.1	0.0	626.7

Total seepage return—626.7.
Distance—100 miles.
Average per mile—6.27.

SEEPAGE INVESTIGATION

South Platte River

Kersey to Julesburg

April 7 to 12, 1930

By C. E. McGRAW and J. E. WHITTEN

Kersey to Hardin

Date 1930	Name of Stream or Ditch	Place of Measurement	Inflow Sec. Ft.	Outflow Sec. Ft.
April 7	South Platte River	Kersey	430.4	.....
	Small Drain		(1.5)	.....
	Hoover Ditch		.....	Dry
	Crow Creek		(1.5)	.....
	Riverside Intake		.....	67.1
	Empire Intake		.....	387.8
	Box Elder Creek		(6.9)	.....
	South Platte River	Hardin	.....	18.8
			430.4	473.7

Distance—9 miles.
Apparent seepage return—43.3 sec. ft.

Hardin to Sublette

April 7	South Platte River	Hardin	18.8	.....
	Riverside Outlet		(14.3)	.....
	Jackson Lake Intake		.....	94.8
	Day Seepage		(5.2)	.....
	South Platte River	Sublette	.....	69.4
			18.8	164.2

Distance—15 miles.
Apparent seepage return—145.4 sec. ft.

Sublette to Weldona

April 8	South Platte River	Sublette	69.4	.....
	Weldon Valley Ditch		.....	Dry
	Jackson Lake Outlet		.....	Dry
	Putnam Seepage Ditch		(12.0)	.....
	Weldon Valley Seep. Ditch		(5.8)	.....
	Upper Sheaffer Seep. Ditch		(3.4)	.....
	South Platte River	Weldona	.....	203.9
			69.4	203.9

Distance—11 miles.
Apparent seepage return—134.5 sec. ft.

Weldona to Ft. Morgan

Date 1930	Name of Stream or Ditch	Place of Measurement	Inflow Sec. Ft.	Outflow Sec. Ft.
April 8	South Platte River	Weldona	203.9	.....
	Lower Sheaffer Seep. Ditch		(8.7)	.....
	Ft. Morgan Seepage		(1.2)	.....
	Bijou Creek at Mouth		(26.3)	.....
	Upper Platte and Beaver Ditch		.....	52.4
	*South Platte River	Ft. Morgan	.....	226.8
			203.9	279.2

Distance—11 miles.
Apparent seepage return—75.3 sec. ft.

Ft. Morgan to Snyder

April 9	South Platte River	Ft. Morgan	226.8	.....
	Ft. Morgan Power Plant Waste		(3.9)	.....
	Sewage		(1.0)	.....
	Edwards and Gill Seepage Ditch		(1.5)	.....
	Lower Platte and Beaver Ditch		.....	105.5
	Wildcat Creek		(3.5)	.....
	Tremont Ditch		.....	10.7
	Snyder Ditch		.....	Dry
	A. A. Smith Ditch		.....	Dry
	South Platte River	Snyder	.....	249.8
			226.8	366.0

Distance—13 miles.
Apparent seepage return—139.2 sec. ft.

Snyder to Balzac

April 9	South Platte River	Snyder	249.8	.....
	Big Beaver Creek	Mouth	(7.0)	.....
	Big Beaver Creek	Mouth	25.2	.....
	North Sterling Intake		.....	274.8
	Prewitt Intake		.....	32.8
	South Platte River	Balzac	.....	19.4
			275.0	327.0

Distance—10 miles.
Apparent seepage return—52.0 sec. ft.

Balzac to Merino

April 10	South Platte River	Balzac	19.4	.....
	Prewitt Outlet (Seepage)		(12.2)	.....
	Pawnee Ditch		.....	34.6
	Prewitt Drainage Ditch		(43.6)	.....
	Davis Brothers Ditch		.....	Dry
	South Platte River	Merino	.....	88.8
			19.4	123.4

Distance—9 miles.
Apparent seepage return—104.0 sec. ft.

*The mean of two measurements used, i. e. the measurement made on the evening of the 8th and the morning of the 9th. The same amount used on next section.

Merino to Sterling

Date 1930	Name of Stream or Ditch	Place of Measurement	Inflow Sec. Ft.	Outflow Sec. Ft.
April 10	South Platte River	Merino	88.8	.....
	Pawnee Ditch Waste		11.7	.....
	Pawnee Creek		(6.1)	.....
	South Platte River	Sterling	.....	160.7
			100.5	160.7

Distance—14 miles.

Apparent seepage return—60.2 sec. ft.

Note.—In previous sets of measurements the Prewitt Seepage Ditch was thrown into the Section Merino to Sterling.

Sterling to Iliff

April 10	South Platte River	Sterling	160.7	.....
	Henderson and Smith Ditch		.....	36.1
	Sterling Power Plant waste		(4.0)	.....
	Sterling Sewer Outlet		(2.0)	.....
April 11	Pioneer Drain		(6.9)	.....
	Community Drain		(4.2)	.....
	Cedar Creek	Mouth	(8.2)	.....
	Iliff & Platte Valley Ditch		.....	Dry
	Lone Tree Ditch		.....	Dry
	South Platte River	Iliff	.....	189.9
			160.7	226.0

Distance—12 miles.

Apparent seepage return—65.3 sec. ft.

Iliff to Crook

April 11	South Platte River	Iliff	189.9	.....
	New Iliff Drain		(7.2)	.....
	Small Drain		(1.0)	.....
	Powell and Dillon Ditch		.....	1.0
	Chambers Ditch		.....	16.1
	E. B. Rice Ditch		.....	9.9
	Harmony No. 2 Ditch		.....	Dry
	Ramsey Ditch		.....	Dry
	Harmony No. 1 Ditch		.....	157.2
	Harmony Waste		(10.2)	.....
	South Platte River	Crook	.....	52.2
			189.9	236.4

Distance—16 miles.

Apparent seepage return—46.5 sec. ft.

Crook to Sedgwick

April 12	South Platte River	Crook	120.6	.....
	Settlers Ditch		.....	32.0
	Long Island Ditch		.....	Dry
	Red Lion Supply		.....	15.6
	Peterson Ditch		.....	75.1
	Moores Creek		(7.0)	.....
	South Platte River	Sedgwick	.....	17.8
			120.6	140.5

Distance—16 miles.

Apparent seepage return—19.9 sec. ft.

Note.—Raise at Crook due to local rain so the results on this section are probably not accurate.

Sedgwick to Julesburg

Date 1930	Name of Stream or Ditch	Place of Measurement	Inflow Sec. Ft.	Outflow Sec. Ft.
April 12	South Platte River	Sedgwick	17.8	.....
	South Reservation Ditch		.....	Dry
	Carlson Ditch		.....	Dry
	Liddle Ditch		.....	Dry
	Lodgepole Creek		13.5	.....
	South Platte River	Julesburg	.....	99.4
			31.3	99.4

Distance—16 miles.
Apparent seepage return—68.1 sec. ft.

RECAPITULATION

Section	Measured Surface Return Sec.-Ft.	Total Seepage Return Sec.-Ft.
Kersey to Hardin	9.9	43.3
Hardin to Sublette	19.5	145.4
Sublette to Weldona	21.2	134.5
Weldona to Ft. Morgan	36.2	75.3
Ft. Morgan to Snyder	9.9	139.2
Snyder to Balzac	7.0	52.0
Balzac to Merino	55.8	104.0
Merino to Sterling	61.1	60.2
Sterling to Iliff	25.3	65.3
Iliff to Crook	18.4	46.5
Crook to Sedgwick	7.0	19.9
Sedgwick to Julesburg	.0	68.1
	271.3	953.7

SEEPAGE INVESTIGATION

South Platte River

Waterton to Kersey

May 5 to 14, 1930

By J. E. WHITTEN

Waterton to Littleton

Date 1930	Name of Stream or Ditch	Place of Measurement	Inflow Sec. Ft.	Outflow Sec. Ft.
May 5	South Platte River	Waterton	269.6	.....
	Brush Creek		.3	.....
	Platte Canon Ditch Waste		16.1	.....
	City Ditch or Northern Irrig. Co.		.....	26.0
	Deer Creek		5.2	.....
		Seep.	(6.0)	.....
	Plum Creek	Howarth Bridge 16.8 s. f.	10.8	.....
	Massie Gulch Drain		(.3)	.....
	Nevada Ditch		.....	33.4
	Dutch Creek		7.0	.....
	Dutch Creek (seep.)		(4.2)	.....
	Little Dry Creek No. 1		(.5)	.....
	Len Hardt Gulch		(1.0)	.....
	Brown Ditch		.....	Est. .5
	Rough and Reddy Ditch		.....	Dry
	South Platte River	Littleton	.....	272.8
			309.0	332.7

Distance—10 miles.
Apparent seepage return—23.7 sec. ft.

Littleton to 16th St., Denver

May 6	South Platte River	Littleton	255.2	.....
	Rough and Reddy Seep		(.5)	.....
	Petersburg Ditch	R. F.	.....	3.6
	Big Dry Creek		(2.3)	.....
	Mullen Ditch		.....	Dry
	Bear Creek		5.1	.....
	Little Dry No. 2		(.7)	.....
	Epperson Ditch		.....	Dry
	Platte Valley Ditch		.....	5.3
	Smith Canal		.....	Dry
	Lacombe Plant Non-consumptive use		.....	.....
	West Dry Creek		(3.2)	.....
	Miss. Ave. Storm Sewer		.5	.....
	7th St. Storm Sewer		.2	.....
	Farmers & Gardeners Ditch		.....	12.7
	Cherry Creek		3.1	.....
	South Platte River	Denver	.....	300.7
			264.1	323.3

Distance—10 miles.
Apparent seepage return—59.2 sec. ft.

16th St., Denver to Sand Creek below Burlington Hdwks.

Date 1930	Name of Stream or Ditch	Place of Measurement	Inflow Sec. Ft.	Outflow Sec. Ft.
May 7	South Platte River	Denver	213.8	.....
	Farmers & Gardeners (Waste)		3.0	.....
	Burlington Canal		.....	36.3
	Heller Ditch		.....	3.0
	Sand Creek		Dry	.....
	South Platte River	Below Sand Creek	.....	296.8
			216.8	336.1

Distance—5 miles.
Apparent seepage return including Denver sewers—120.3 sec. ft.

Burlington Hdwks. (Sand Creek) to Henderson

May 7	South Platte River	Sand Creek	296.8	.....
	Clear Creek	Mouth	14.5	.....
	Fulton Ditch		.....	79.7
	Brantner Ditch		.....	39.4
	South Platte	Henderson	.....	222.5
			311.3	341.6

Distance—8 miles.
Apparent seepage return—30.3 sec. ft.

Henderson to Ft. Lupton

May 8	South Platte River	Henderson	223.0	.....
	Unnamed Drain		(2.0)	.....
	Brighton Ditch		.....	26.7
	Lupton Short Line		.....	Dry
	Big Dry Creek No. 2		9.3	.....
	Lupton Bottom Ditch		.....	54.2
	South Platte River	Ft. Lupton	.....	201.8
			232.3	282.7

Distance—12 miles.
Apparent seepage return—50.4 sec. ft.

Ft. Lupton to Western Hdwks. (Platteville)

May 13	South Platte River	Ft. Lupton	160.2	.....
	Platteville Ditch	R. F.	.....	40.7
	Meadow Island No. 1	R. F.	.....	10.2
	Evans No. 2 Ditch	R. F.	.....	53.2
	Mutual Ditch		.....	28.6
	Vollmar Sloughs		(5.00)	.....
	M. I. No. 1 & Lup. Bottom Waste		39.2	.....
	Lou Birkle Slough		(1.0)	.....
	Platteville Ditch Waste		7.8	.....
	Grafflin Slough		(3.4)	.....
	Buckers Ditch		.....	Dry
	Farmers Independent Ditch	R. F.	.....	61.6
	Western Ditch	R. F.	.....	57.3
	South Platte River	Below Western Hdwks.	Dry	.....
			207.2	251.6

Distance—11 miles.
Apparent seepage return—44.4 sec. ft.

Western Headgate to Lower Latham Headworks

Date 1930	Name of Stream or Ditch	Place of Measurement	Inflow Sec. Ft.	Outflow Sec. Ft.
May 14	South Platte River	Western Headworks	Dry	.....
	Jay Thomas Ditch		.....	3.87
	St. Vrain Creek	Mouth	60.9	.....
	Union Ditch	R. F.	.....	72.80
	Section No. 3 Ditch	R. F.	.....	16.45
	Union Seep		(3.0)	.....
	Big Thompson Creek	Mouth	2.0	.....
	Big Bend Ditch	R. F.	.....	3.12
	(Lower Latham Seep.)		(16.5)	.....
	(Sect. No. 3 Waste)		(10.0)	.....
	Kingsbury Seep		(1.0)	.....
	Lower Latham Ditch	R. F.	.....	69.50
	South Platte River, below lower Latham Headworks		Leakage	3.0
			72.9	168.74

Distance—15 miles.
Apparent seepage return—95.8 sec. ft.

Lower Latham Headworks to Kersey Gaging Station

May 14	South Platte River	Lower Latham Hdwks. (Leakage)	3.0	.....
	Patterson Ditch	R. F.	.....	13.0
	Plumb Ditch	R. F.	.....	10.1
	Cache La Poudre	Mouth	8.5	.....
	Seepage Stream		Dry	.....
	Lone Tree Creek		Dry	.....
	Drain near Kersey Station		(3.0)	.....
	South Platte River	Kersey	.....	78.0
			11.5	101.1

Distance—10 miles.
Apparent seepage return—89.6 sec. ft.

RECAPITULATION

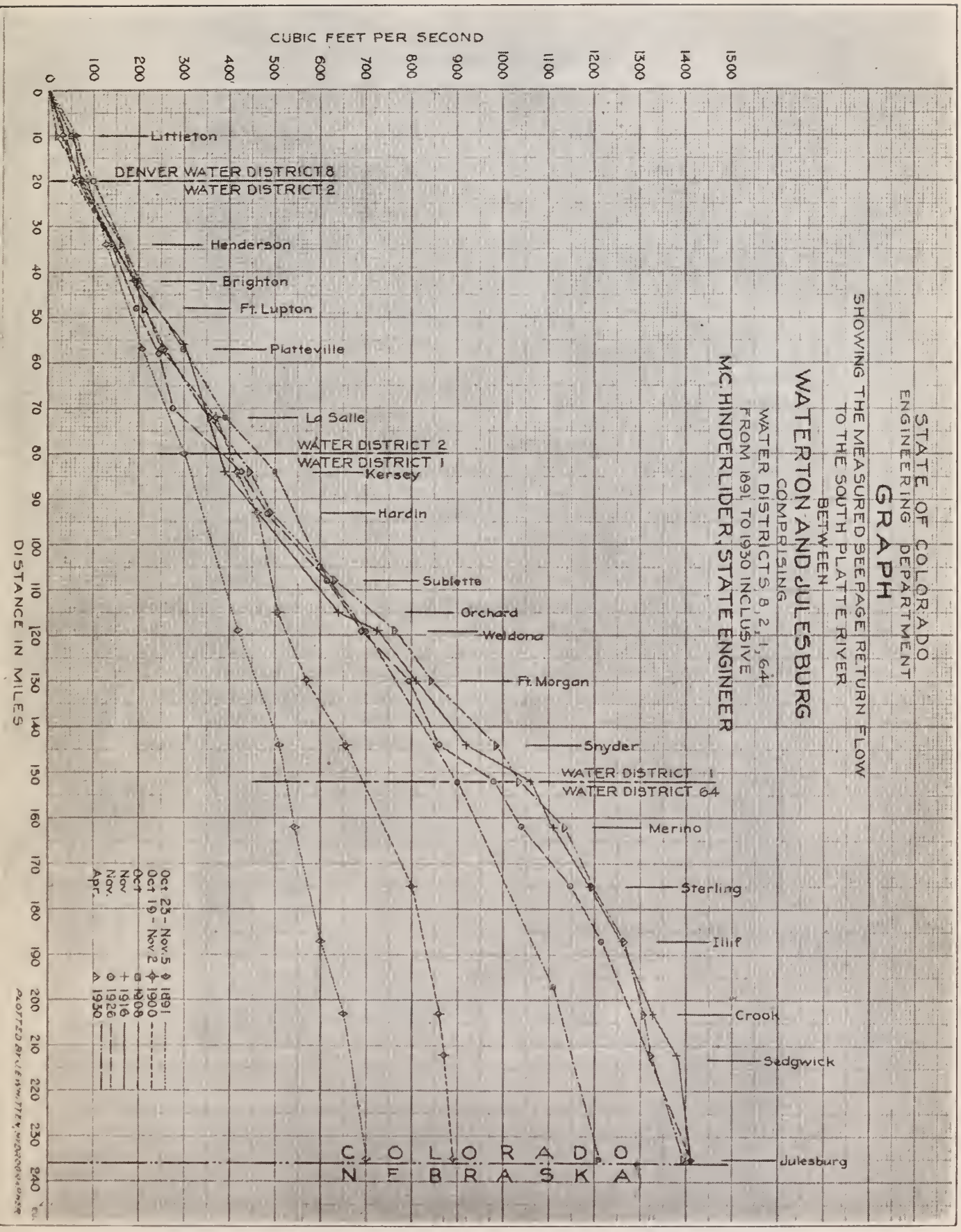
Date 1930	Section	Apparent Seepage Return Sec. Ft.	Measured Surface Seep. Sec. Ft.	Total Seep. Return from Initial Point Sec. Ft.
May 5	Watertown to Littleton	23.7	12.0	23.7
May 6	Littleton to 16th St., Denver	59.2	6.7	82.9
May 7	16th St., Denver, to Sand Creek	*120.3	0.0	203.2
May 7	(Burlington headworks) Sand Creek to Henderson	30.3	0.0	233.5
May 8	Henderson to Fort Lupton	50.4	2.0	283.9
May 13	Fort Lupton to West. Ditch Hdwks.	44.4	9.4	328.3
May 14	Western Headworks to Lower Latham Headworks	95.8	20.5	424.1
May 14	Lower Latham Hdwks. to Kersey	89.6	3.0	513.7

*Includes Denver sewage.
Distance—81 miles.
Apparent seepage return average—6.34 sec. ft. per miles.

MEAN MONTHLY DISCHARGE IN CUBIC FEET PER SECOND OF THE DENVER SEWERS TO THE SOUTH PLATTE RIVER, FROM DECEMBER, 1927, TO NOVEMBER, 1930

													Mean flow in sec. ft. for year	Total acre ft. for year
Dec., 1927, to Nov., 1928, inc.	Dec.	Jan.	Feb.	Mch.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.		
Mean Sec. Ft.....	80.0	76.5	76.1	73.1	71.8	75.5	78.8	74.1	70.9	66.4	69.5	68.8	73.4	
Acre Feet.....	4920	4790	4230	4490	4270	4640	4690	4560	4360	3950	4270	1090		53170
Dec., 1928, to Nov., 1929, inc.														
Mean Sec. Ft.....	72.5	71.6	75.8	73.6	72.2	73.6	70.5	71.5	76.2	72.2	67.2	73.6	72.5	
Acre Feet.....	4460	4400	4210	4520	4300	4520	4200	4400	4690	4300	4130	4380		52510
Dec., 1929, to Nov., 1930, inc.														
Mean Sec. Ft.....	75.6	84.0	80.5	74.0	69.9	66.0	66.4	67.4	70.7	64.6	64.1	64.1	70.6	
Acre Feet.....	4650	5160	4470	4550	4160	4060	3950	4140	4350	3840	3940	3810		51080

Records furnished by the Board of Water Commissioners.


STATE OF COLORADO
ENGINEERING DEPARTMENT
GRAPH
SHOWING THE MEASURED SEEPAGE RETURN FLOW
TO THE SOUTH PLATTE RIVER
BETWEEN
WATERTON AND JULESBURG
COMPRISING
WATER DISTRICTS 8, 2, 1, 64
FROM 1891 TO 1930 INCLUSIVE
M.C. HINDERLIDER, STATE ENGINEER
CUBIC FEET PER SECOND
DISTANCE IN MILES
Littleton
DENVER WATER DISTRICT 8
WATER DISTRICT 2
Henderson
Brighton
Ft. Lupton
Platteville
La Salle
WATER DISTRICT 2
WATER DISTRICT 1
Kersey
Hardin
Sublette
Orchard
Weldona
Ft. Morgan
Snyder
WATER DISTRICT 1
WATER DISTRICT 64
Merino
Sterling
Iliff
Crook
Sedgwick
Julesburg
COLORADO
NEBRASKA
Oct 25 - Nov 5
Oct 19 - Nov 2
Oct
Nov
Nov
Apr.
1891
1900
1908
1916
1926
1930

SEEPAGE INVESTIGATION

Arkansas River

Granite to Pueblo

May 1 to 3, 1929

By J. H. BAILY and F. C. SNYDER

Date	Stream or Ditch	G. H.	Inflow Sec. Ft.	Outflow Sec. Ft.
May 1	Sugar Loaf Reservoir Outlet	18⅛"	146.4	.....
	Twin Lakes Reservoir Outlet	1.88	288.4	.....
	Granite to Salida			
May 1	Arkansas River at Granite	2.40	557.1	.....
	Cache Creek	.....	3.0	.....
	Clear Creek Reservoir Outlet	0.32	10.8	.....
	Pine Creek	.....	8.2	.....
	Langhoff Ditch	.....	.....	0.0
	Dryfield Ditch	.....	.....	0.0
	Lenhardy Creek	.....	0.6	.....
	Riverside and Allen Extension Ditch	.....	.....	3.1
	Harvard Creek	.....	0.3	.....
	Cottonwood Creek	.....	1.5	.....
	Reformatory Ditch	.....	.....	0.0
	Helena Ditch	.....	.....	0.0
	Bray Morrison Ditch	.....	.....	0.0
	Swazee Creek	.....	1.0	.....
	Maxwell Creek	.....	1.0	.....
	Trout Creek	.....	0.0	.....
	Chalk Creek	.....	3.7	.....
	Gas Creek	.....	0.5	.....
	Browns Creek	.....	0.5	.....
	Kraft Ditch	.....	.....	4.6
	Salida Ditch	1.36	.....	10.1
	Sunnyside Ditch	1.89	.....	13.7
	Williams & Hamm Ditch	.....	.....	0.0
	Squaw Creek	.....	0.0	.....
	Arkansas River at Salida	2.39	.....	573.2
			588.2	604.7

Apparent seepage return—16.5 sec. ft.
Distance—61 miles.

	Salida to Canon City			
May 2	Arkansas at Salida	2.39	573.2	.....
	South Fork Arkansas	.....	1.8	.....
	Bear Creek	.....	0.4	.....
	Pickett Ditch	.....	.....	0.8
	Badger Creek	.....	2.1	.....
	Pleasant Valley Ditch (3′ Venturi)	0.75	.....	7.6
	Howard Creek	.....	0.6	.....
	Stout Creek	.....	0.5	.....
	West Creek	.....	0.0	.....
	Cherry Creek	.....	0.5	.....
	Roger & Walden Ditch	.....	.....	1.6
	Seepage Springs at Coaldale	.....	1.1	.....

Date	Stream or Ditch	G. H.	Inflow Sec. Ft.	Outflow Sec. Ft.
	Cottonwood Creek	.....	1.6	.....
	Bernard Creek	.....	0.3	.....
	Oak Grove Creek	.....	0.2	.....
	Old Placer (?) Ditch (at mouth Oak Grove Creek)	.....	.....	1.3
	Fernleaf Creek	.....	0.5	.....
	Texas Creek	.....	2.0	.....
	Currant Creek	.....	0.5	.....
	Copper Gulch	.....	0.0	.....
	Canon City Water Works	.....	.....	3.0
	Fruitland Ditch	.....	.....	12.0
	South Canon Ditch	1.93	.....	33.7
	Canon City Hydraulic Ditch	2.29	.....	64.0
	Grape Creek	.....	0.9	.....
	So. Colo. Power Co.'s Cooling System	.....	.....	13.0
	Arkansas at Canon City	1.25	.....	471.0
			586.2	608.0

Apparent seepage return—21.8 sec. ft.
Distance—55 miles.

Canon City to Pueblo

Date	Stream or Ditch	G. H.	Inflow Sec. Ft.	Outflow Sec. Ft.
May 2	Arkansas River at Canon City	1.25	471.0	.....
	So. Colo. Power Co.'s Cooling System	.....	13.0	.....
	Canon City & Oil Creek Ditch	1.05	.....	26.6
	Pump Hill Waste (from So. Canon Ditch)	.....	5.5	.....
	Four Mile Creek	.....	12.7	.....
	Oil Creek	.....	4.5	.....
	Fremont Ditch (4′ Rect. weir, bot. supp.)	.90	.....	12.0
	Union Ditch	1.24	.....	34.3
	Chandler Creek	.....	1.2	.....
	Oak Creek (1.2′ above Union waste)	.....	12.5	.....
	Sand Creek	.....	1.0	.....
May 3	Seepage from Rainbow Park	.....	1.0	.....
	Ditch below Rainbow Park left side of river	.....	.....	3.2
	Eight Mile Creek	.....	1.0	.....
	Arkansas Valley Conduit	4.32	.....	63.7
	Seepage from Beaver Park (4 Streams)	.....	2.0	.....
	Beaver Creek	.....	0.2	.....
	Turkey Creek	.....	0.6	.....
	Rock Creek	.....	0.0	.....
	Boggs Creek	.....	0.0	.....
	Bessemer Ditch	4.51	.....	123.7
	West Pueblo Ditch	0.69	.....	5.7
	North Side Water Works (probably wasting about 30′ below S. S. Dam)	.....	.....	49.8
	South Side Water Works	.....	.....	20.7
	Arkansas River at S. S. Dam, Pueblo	1.14	.....	345.0
			526.2	684.7

Apparent seepage return—158.5 sec. ft.
Distance—45 miles.

Alamosa, Colo., December 10, 1929.

Mr. M. C. Hinderlider,
State Engineer,
Capitol Building,
Denver, Colorado.

Dear Sir:

I herewith submit a report on An Investigation to Determine the Loss of Reservoir Water in Transit between the Rio Grande Reservoir and The Farmers Union ditch on the Rio Grande river which was made by Mr. Baily and me between October 21st and October 25th, 1929.

On October 18th, I ordered the valves of the Rio Grande Reservoir closed so that Mr. Baily and I might begin measurements on October 21st to determine the loss in reservoir water being run from the Rio Grande Reservoir to the headgate of the Farmers Union Ditch. I also arranged to have all the intervening headgates closed or held steady during the investigation.

We started at one o'clock, October 21st, by measuring the river below the reservoir and continued down the river, measuring all inflow (there being no outflow), as far as Fir Creek and spent the night at Antlers Park.

On October 22nd we continued in the same manner and also measured the river at the Wason and Del Norte Gaging stations. We advanced as far as the Rio Grande Canal this day and finished measuring it at dark. A light snow started to fall during this measurement and continued until about ten o'clock that night when it turned very cold.

At six A. M., October 23rd, I ordered the valves of the reservoir opened to increase the flow approximately 200 sec. ft., so that we might make another set of measurements with the reservoir water in the river.

It having been impossible to divert all of the water into the Farmers Union ditch, it was necessary to measure the amounts passing both the upper and lower headgates.

After measuring at the upper headgate we visited the Venturi-flumes on the Midland and Kane and Callen ditches and determined the amounts being diverted by them. These were the only ditches drawing water in this section.

We finished the set at the Farmers Union ditch shortly after one o'clock and returned to Antlers Park that afternoon, so that we might start the second set on the morning of the 24th.

A tabulation of the measurements made during this "run" will be found attached to this report.

On arriving at the reservoir on the morning of October 24th, we found that no snow had fallen there since our previous visit

but it had turned very cold on the night of the 22nd, and had continued cold. There was thick ice on both of the Squaw creeks and some ice along the edges of the river.

We found that Big Squaw creek had frozen back so that instead of discharging 22 second feet, as it had on the 21st, it was discharging only 12 second feet. Although we realized that this condition would give us erroneous results in the determination, we decided to go through with the run hoping to get approximate results at least.

We came back down the river, measuring all inflow and outflow as in the first set of measurements. In most cases we found the side streams running much less water than in the first set. However, some of them were discharging the same as in the first set, as shown by the reference points which we set on our first trip, while Miners creek, which drains a south slope, showed an increase.

We completed the measurement at the South Fork of the Rio Grande just before dark on the 24th and spent the night in South Fork.

Before starting down the river on the morning of the 25th, we returned to the South Fork and found that the flow had increased from 66 second feet to 82 second feet since the night before when we were there.

On studying the automatic register chart at the gaging station above Del Norte, we found that the flow there had increased 85 second feet from 6 P. M. October 24th, to 4 A. M. October 25th. The river was dropping at nine o'clock when we measured it and the flow was about 30 second feet less than the peak for the day. The diurnal fluctuation for the 25th was more than 60 second feet, while for the 21st and 22nd it was practically negligible.

A further study of the chart showed that the increase in flow caused by the reservoir water, which reached the station at 11 A. M. on the 24th, was 163 second feet or a loss of 24 second feet of the 187 second feet released. This would indicate a loss of approximately 13 per cent. The river was dropping before the reservoir water reached the station and continued to drop at the same rate afterward. My conclusions are based upon the assumption that, had there been no reservoir water in the river, the stage would have dropped the same during the three hour interval required for all of the reservoir water to reach the gage as it did in a like interval before and after.

You will note attached to this report, a tabulation showing the apparent gains and losses for the various sections with values corrected for decrease in inflow between the first and second sets. In this tabulation a gain in reservoir water of 17.6 second feet is shown at the Del Norte gaging station and a net loss of 00.3 second feet for the entire distance.

The above mentioned gain is due to the fact that the river was measured at the Del Norte gaging station at a time when it was near its peak for the day. If we had had an hour more of time before dark the previous night we should have made this measurement when there was some 70 second feet less and a loss of some 30 per cent in reservoir water would have been shown.

I have mentioned the above conclusions to show the futility of attempting a determination such as this, except under ideal conditions when there is no fluctuation in the stream.

Since the weather conditions at the time of the second set of measurements were so unfavorable and the results obtained are apparently so far out of line, I am of the opinion that no determination of the loss of reservoir water in transit can be reached from this investigation.

There have been periods in the past few years when the ideal condition for a determination such as this existed, although it has not in the two years of my administration, and I have hopes that such a condition may be found next season when another study may be made and accurate results obtained.

In conclusion I wish to thank Mr. Baily for his assistance in the investigation as well as the water users for their cooperation in maintaining a steady flow in their ditches during the time we were making the measurements.

Respectfully submitted,

D. S. JONES, JR.,
Special Deputy State Engineer.

INVESTIGATION OF LOSS OF RESERVOIR WATER IN TRANSIT RIO GRANDE RESERVOIR TO FARMERS UNION DITCH

By J. H. BAILY and D. S. JONES, JR.

October 21-25, 1929

First Set

	Outflow Sec. Ft.	Inflow Sec. Ft.
Rio Grande River below Reservoir	.....	61.2
Squaw Creek	.....	22.0
Little Squaw Creek	.....	17.4
Crooked Creek	.....	5.8
Clear Creek	.....	13.9
Trout Creek	.....	33.8
Red Mountain Creek	.....	31.7
Seepage Creek	.....	4.3
Fir Creek	.....	0.8
Lime Creek	.....	2.0
Shallow Creek	.....	7.8
Miners Creek	.....	15.5
Deep Creek	.....	2.2
Willow Creek	.....	18.2
River at Wason	284.5	.....
Total	284.5	236.4
Apparent gain Reservoir to Wason		48.1
Distance—32 miles.		
River at Wason	.....	284.5
Farmers Creek	.....	2.4
Bellows Creek	.....	26.6
Goose Creek	.....	38.4
Blue Creek	.....	1.9
Elk Creek	.....	1.2
South Fork of River	.....	104.7
Alder Creek	.....	5.8
Bear Creek	.....	1.6
Willow Creek	.....	5.2
Shaw Creek	.....	1.1
Embargo Creek	.....	7.6
River at Del Norte Gaging Station	528.3	.....
Total	528.3	481.0
Apparent gain, Wason to Del Norte		47.3
Distance—30 miles.		
River at Del Norte Station	.....	528.3
Pinos Creek	.....	1.7
Rio Grande Canal	224.7	.....
Midland Ditch	7.6	.....
So. Ch. River at Farmers Union upper H. G.	100.4	.....
Kane and Callen	6.7	.....
No. Ch. River at Farmers Union lower H. G.	6.5	.....
Farmers Union Ditch	181.5	.....
Total	527.4	530.0
Apparent loss	2.6	
Total apparent gain Reservoir to Farmers Union Headgate		92.8
Distance, Reservoir to Headgate—74 miles.		

Second Set

	Outflow Sec. Ft.	Inflow Sec. Ft.
River below Reservoir		248.6
Squaw Creek		12.3
Little Squaw Creek		10.5
Crooked Creek		4.1
Clear Creek		7.9
Red Mountain Creek		31.7
Trout Creek		18.5
Seepage Creek		4.3
Fir Creek		0.6
Shallow Creek		7.1
Miners Creek		15.9
Willow Creek		16.8
Lime Creek		2.0
Deep Creek		2.0
River at Wason	413.7	.....
Total	413.7	382.3
Apparent gain		31.4
River at Wason		413.7
Farmers Creek		1.9
Bellows Creek		24.2
Goose Creek		38.4
Blue Creek		1.5
Elk Creek		1.0
South Fork		82.0
Willow Creek		2.5
Alder Creek		3.1
Bear Creek		0.9
Shaw Creek		0.6
Embargo Creek		5.1
River at Del Norte Gaging Sta.	656.8	.....
Total	656.8	574.9
Apparent gain		81.9
River at Del Norte Gaging Station		656.8
Pinos Creek		4.5
Rio Grande Canal	224.6	.....
Midland Ditch	7.6	.....
So. Ch. River at Farmers Union upper gate	133.6	.....
Kane and Callen ditch	6.7	.....
No. Ch. River at Farmers Union lower gate	53.8	.....
Farmers Union Ditch	213.8	.....
Total	640.1	661.3
Apparent loss	21.2	.....
Total apparent gain		92.1
Increase at Wason from Res. water between 1st and 2nd sets		129.2
Decrease in inflow, Reservoir to Wason betwen 1st and 2nd sets		41.5
Apparent net increase from Res. water in section		170.7
Total reservoir water released		187.4
Apparent loss in reservoir water at Wason		16.7
Percentage lost		8.93
Increase from reservoir water at Del Norte Sta.		128.5
Decrease in inflow, Reservoir to Del Norte Sta.		76.8
Apparent net increase from reservoir water to Del Norte Sta.		205.3
Apparent "gain" in reservoir water at Del Norte Sta.		17.6
Increase from reservoir water at Farmers Union ditch		113.1
Total decrease in inflow		74.0
Apparent net increase from reservoir water at ditch		187.1
Total apparent loss		00.3

(All ditches above the Farmers Union were personally inspected by T. W. Carr, water commissioner, to see that no changes occurred during the investigation.)

November 21, 1930.

Mr. M. C. Hinderlider,
State Engineer,
Denver, Colorado.

Dear Sir:

I herewith submit report of my investigation to determine the loss of reservoir water in transit between the Rio Grande Reservoir and the State gaging station at the State Bridge, seven miles above Del Norte, which I made on October 17th and 18th, 1930.

Following your suggestion, I decided to make the determination by measuring a quantity of water out of the reservoir and then measuring the river at the State Bridge and at the Farmers Union upper headgate before and after the reservoir water passed these points, assuming that the difference between the two results would be the amount of reservoir water which reached the two points, after correcting for increases in diversions by headgates between the reservoir and the Farmers Union headgate.

It would have been preferable to continue the investigations to the lower headgate of the Farmers Union, where the increase from reservoir water could be measured through the rating flume in the ditch. However, this was impossible, due to the fact that the river could not be correctly controlled at the upper gates.

In order that you may fully understand all conditions which might have any bearing on the results, I shall go into them in detail.

Following ten days of dry weather, the river at the State Bridge raised, on October 12th, on account of rain and snow, from 325 sec. feet to 565 sec. feet, and dropped back to 435 on the 13th, and continued to drop gradually so that the discharge on October 17th was 400 sec. feet.

The temperatures from October 13th to 21st were very warm during the day and below freezing at night, with almost the same conditions prevailing each day. This condition caused a slight diurnal fluctuation which had to be considered in the results.

Due to the low stage of the river there were but four ditches between the Reservoir and the headgate diverting water.

Starting up the river on October 16th I checked all these diversions and made sure that the automatic gages were functioning properly. With the exception of the Rio Grande Canal, Ehrowitz, Anaconda and San Juan ditches, all the headgates were securely closed. On reaching the San Juan headgate, 20 miles above Creede, I found that it had been "wrecked" and could not be closed. I measured this diversion on the 16th and again after the reservoir water had reached it.

Reaching the Thirty Mile Bridge gaging station, below the Rio Grande Reservoir, just before dark, I measured the river

there, double-checking each observation. I then instructed the reservoir attendant to increase the flow approximately 100 sec. feet at 1 A. M. on October 17th.

I had the water released at this hour so that it would reach the State Bridge about 8 A. M. next morning, based on a previous run at the same stage.

After measuring the river below the reservoir on the morning of the 17th, I continued down the river measuring the San Juan ditch, the river at Wason and at Del Norte.

As I crossed the Wason ranch diversion from Willow Creek, I noted that it was running 4 or 5 sec. feet, while it had been dry the day before. I located the headgate man and found that the water had been turned in at 11 A. M. As a result of this diverson the Wason gage showed a sharp drop of 4 sec. feet at 12 noon. The river at Wason started to rise at 2 P. M. As the velocity of the water was increased by the reservoir water, the drop due to this diversion was overtaken between Wason and the State Bridge, so I have credited this 4 sec. feet to increased diversion.

When I arrived at Del Norte on the morning of the 18th, I found that the reservoir water had started to come in at 2 A. M. and had all reached there at 7 A. M. As I had anticipated that it could not reach here before 8 o'clock, I hurried down to the lower headgate of the Farmers Union to get ahead of the reservoir water, and staked the river so that I might measure the increase at that point. There are 10 or 12 headgates between here and the upper gates, and I found it impossible to check them before the raise reached them.

I made some measurements and estimates in this section, but I do not consider them accurate enough to use in the determination, so I have confined my study to the section between the reservoir and the State Bridge.

You will note in the attached tabulation of results an item of 6 sec. feet for raise due to the diurnal fluctuation during the period from 2 A. M. to 7 A. M., the time required for the reservoir water to settle. A study of the chart shows that every day from October 14th to 20th there was a raise between the above hours varying from 3 to 11 sec. feet, the mean of which was 6 sec. feet.

When the Farmers Union is running reservoir water during the irrigation season, from ten to twenty-five per cent of the total flow is reservoir water. This determination was made with exactly 20% of the flow being reservoir water. The larger part of the reservoir water is used during the latter part of June, all of July and most of August, when the total flow varies from 600 to 2,000 sec. feet, with an average of around 1,500 second feet. The runs usually continue for a period of six weeks. It is probable that the loss shown by this determination is nearly a maximum.

The reservoir water caused a raise in stage of 0.12 feet at Del Norte, 0.16 feet at Wason, and 0.50 feet at Thirty Mile Bridge over that of the day before.

The reservoir water caused an increase in width of exactly five feet at both the measuring sections at the Thirty Mile Bridge and at Del Norte. Assuming that this figure is the average for the distance of 65½ miles, the increased area would be approximately 40 acres. It is my opinion that the loss from this source is accounted for in the initial loss.

The initial loss of 13 acre feet was determined by deducting the number of acre feet which actually passed the State Bridge Station from 2 A. M. to 7 A. M. from the amount which would have passed had all the reservoir water reached there at 2 A. M.

I should like to have you study the report and attach your comments and conclusions to it.

Respectfully submitted,

D. S. JONES, Jr.,
Special Deputy.

DETERMINATION OF LOSS OF RESERVOIR WATER IN TRANSIT FROM RIO GRANDE RESERVOIR TO STATE BRIDGE NEAR DEL NORTE.

October, 1930.

DISCHARGE

Station	Without Res. Water	With Res. Water	Increase
River at 30 Mi. Bridge	83.2	185.2	102.0
San Juan Ditch	1.00	6.03	5.03
Willow Creek	...	...	4.00
Anaconda Ditch	6.50	6.82	0.32
River at State Bridge	377.0	467.0	90.0
Natural raise at State Bridge 2 A. M. to 7 P. M. (Estimated) (deduct from increase)			(6.00)
Res. Water Released		102.0	
Increase in Diversions			9.35
Net Increase at State Bridge			84.00
Total Res. Water accounted for to State Bridge			93.35
Loss to State Bridge			8.65
		102.0	102.0
Per cent loss to State Bridge			8.48
Per cent loss to Farmers Union Headgate (comparative)			10.00
Time in hours for all water to travel to State Bridge			30
Distance, Reservoir to State Bridge, Miles			65½
Distance, Reservoir to Farmers Union Headgate			77½
Width of Section at 30 Mile Bridge			
Without Res. Water, ft.			40.5
With Res. Water, ft.			45.5
Width of Section at State Bridge			
Without Res. Water, ft.			135.0
With Res. Water, ft.			140.0
Increase in width, ft.			5.0
Loss per mile to State Bridge, sec. ft.			0.132
Initial loss, acre ft.			13
Per cent of total of reservoir water			20

CHAPTER XIV

DESCRIPTION OF STREAM GAGING STATIONS AND TABLES OF STREAM DISCHARGE

RELATED RUNOFF IN PERCENTAGE OF THE NORMAL FOR STREAMS IN COLORADO.

Stream	Years of Record	Mean Ac. Ft.	1929 %	1930 %
Animas River at Durango	31	700,000	110	77
Arkansas River at Canon City	43	551,000	101	89
Bear Creek at Idledale (Starbuck)	11	49,000	63	67
Big Thompson River near Drake	13	153,740	86	70
Blue River at Dillon	20	95,500	89	86
Boulder Creek near Orodell	24	73,200	97	86
Cache la Poudre River at Canon	47	321,000	104	69
Clear Creek near Golden	21	186,000	76	84
Colorado River at Glenwood Springs	31	2,309,900	118	91
Colorado River at Lee's Ferry, Ariz	36	15,160,000	126	86
Conejos River near Mogote	28	285,000	116	75
Dolores River at Dolores	21	344,000	113	89
Fraser River at West Portal	20	33,800	104	96
La Plata River at Hesperus	16	39,100	98	61
Laramie River near Jelm, Wyo	22	138,000	114	72
Little Snake at Lily Park	10	537,000	163	55
North Platte River near Northgate	15	476,000	110	52
Purgatoire River at Trinidad	23	73,800	71	99
Rio Grande River near Del Norte	41	726,000	118	82
Roaring Fork at Glenwood Springs	25	1,144,400	97	82
Saguache Creek near Saguache	20	65,000	106	53
South Boulder Creek at Eldorado Springs	37	57,500	75	88
South Platte River at South Platte	39	278,000	*85	*106
St. Vrain Creek at Lyons	41	103,000	83	57
White River near Meeker	27	487,000	146	100
White River near Watson, Utah	9	673,000	187	90
Yampa River at Steamboat Springs	24	379,000	124	90
Yampa River at Maybell	20	1,330,000	153	80

*Corrected for storage.

NOTE—The mean in acre feet is based on all available years of record as shown in the first column, including the year 1930.

PLATTE DRAINAGE

SOUTH FORK OF SOUTH PLATTE RIVER NEAR LAKE GEORGE

Location—In NW¼ Sec. 21, T. 13 S., R. 72 W., in Eleven Mile Canon, eight miles west of Lake George.

Records Available—Oct. 1, 1929, to Sept. 30, 1930. On station at Lake George eight miles below from Oct. 22, 1910, to Sept. 30, 1929.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with the United States Geological Survey and the City of Denver.

SOUTH FORK OF SOUTH PLATTE RIVER AT LAKE GEORGE

Location—At highway bridge in Sec. 19, T. 12 S., R. 71 W., one-fourth mile below Lake George.

Records Available—October 22, 1910, to September 30, 1929.

Gage—Automatic and staff gages.

Accuracy—Records considered good.

SOUTH FORK SOUTH PLATTE RIVER ABOVE LAKE CHEESMAN

Location—One-half mile above high water line of Lake Cheesman. Sharp crested weir.

Records Available—October 1, 1924, to September 30, 1930. Acre-foot estimates 1909 to date.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Records kept by the City of Denver.

SOUTH FORK SOUTH PLATTE RIVER BELOW LAKE CHEESMAN

Location—One-quarter mile below dam.

Records Available—October 1, 1924, to September 30, 1930. Acre-foot estimates 1909 to date.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with the City of Denver.

NORTH FORK OF SOUTH PLATTE RIVER AT SOUTH PLATTE

Location—In Sec. 25, T. 7 S., R. 70 W., one-third mile above South Platte.

Records Available—January 4, 1909, to September 30, 1910; April 1, 1913, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with the United States Geological Survey.

SOUTH PLATTE RIVER AT SOUTH PLATTE

Location—In Sec. 25, T. 7 S., R. 70 W., three-fourths of a mile east of South Platte and about 300 feet below junction of North and South Forks.

Records Available—March 28, 1902, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Estimates are considered good.

Co-operation—Station maintained in co-operation with the United States Geological Survey.

SOUTH PLATTE RIVER AT WATERTON

Location—In Sec. 34, T. 6 S., R. 69 W., 6th P. M. at pipe line crossing from Platte Canon Reservoir to filter beds.

Records Available—May 1, 1926, to Sept. 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

SOUTH PLATTE RIVER AT DENVER

Location—Between 15th Street and 16th Street Bridges in Denver and about 500 feet below the mouth of Cherry Creek.

Records Available—May 7, 1895, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Estimates considered good.

SOUTH PLATTE RIVER AT HENDERSON

Location—In Sec. 34, T. 1 S., R. 67 W., 6th P. M. just below highway bridge at Henderson.

Records Available—May 1, 1926, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

SOUTH PLATTE RIVER AT FT. LUPTON

Location—300 feet below highway bridge at Ft. Lupton in Sec. 6, T. 1 N., R. 66 W.

Records Available—May 10 to Sept. 15, 1906; Apr. 29, 1929, to Sept. 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

SOUTH PLATTE RIVER NEAR KERSEY

Location—Fifty feet below highway bridge in Sec. 9, T. 5 N., R. 64 W., and one and three-quarters mile north of Kersey.

Records Available—April 27, 1901, to October 31, 1903; March 1, 1905, to November 30, 1912; January 1, 1914, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Estimates considered good.

SOUTH PLATTE RIVER AT SUBLETTE

Location—In Sec. 14, T. 4 N., R. 61 W., at highway bridge south of Sublette.

Records Available—April 19, 1926, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

SOUTH PLATTE RIVER AT BALZAC

Location—One-half mile below highway in Sec. 13, T. 5 N., R. 55 W., and three-quarters mile east of Balzac.

Records Available—January, 1917, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Estimates considered fair.

SOUTH PLATTE RIVER AT JULESBURG

Location—In Sec. 33, T. 12 N., R. 44 W., at highway bridge at Julesburg, Colorado.

Records Available—April 2, 1902, to November 16, 1906; May 12, 1908, to November 30, 1912; April 8, 1914, to September 30, 1930.

Gage—Two automatic recording gages.

Accuracy—Records considered fair.

Co-operation—Station maintained in co-operation with the State of Nebraska.

TARRYALL CREEK NEAR LAKE GEORGE

Location—In Sec. 22, T. 11 S., R. 72 W., at McLaughlin's ranch.

Records Available—June 19 to October 26, 1916; April 1, 1925, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

GOOSE CREEK AT LAKE CHEESMAN

Location—About one mile above high water line of Lake Cheesman. Sharp crested weir.

Records Available—October 1, 1924, to September 30, 1930. Acre-foot estimates, 1909 to date.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

Co-operation—Records furnished by City of Denver.

BEAR CREEK AT (STARBUCK) IDLEDALE

Location—In Sec. 32, T. 4 S., R. 70 W., at highway bridge at Idledale postoffice. Name of Starbuck changed to Idledale, 1930.

Records Available—October 1, 1919, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

BEAR CREEK AT MOUTH

Location—In Sec. 5, T. 5 S., R. 68 W.

Records Available—April 1 to November 30, 1914; February 23, 1927, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

CLEAR CREEK NEAR GOLDEN

Location—In Sec. 32, T. 3 S., R. 70 W., one and one-half miles above Golden.

Records Available—December 4, 1908, to December 31, 1909; June 8 to September 24, 1911; January 26, 1912, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Records were furnished by the United States Geological Survey, to Sept. 30, 1928.

CLEAR CREEK AT MOUTH

Location—In Sec. 36, T. 2 S., R. 68 W., where East Lake Highway crosses Clear Creek.

Records Available—April 1, 1914, to November 30, 1914; February 25, 1927, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

WEST CLEAR CREEK NEAR EMPIRE

Location—In Sec. 27, T. 3 S., R. 74 W., below highway bridge one mile east of Empire on Georgetown road.

Records Available—June 1, 1929, to Sept. 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Records furnished by the United States Geological Survey.

FALL RIVER NEAR IDAHO SPRINGS

Location—At highway bridge one and one-half miles above Idaho Springs in Sec. 28, T. 3 S., R. 73 W.

Records Available—Apr. 1, 1930, to Sept. 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

SOUTH BOULDER CREEK NEAR ELDORADO SPRINGS

Location—In Sec. 25, T. 1 S., R. 71 W., one-half mile above Community dam. Station moved to present location Sept. 25, 1929.

Records Available—May 15, 1895, to Sept. 30, 1901; July 1, 1904, to Sept. 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

BOULDER CREEK NEAR ORODELL

Location—One mile above Orodell in Sec. 34, T. 1 N., R. 71 W.

Records Available—May 12, 1917, to September 30, 1930. From May 14, 1895, to December 20, 1909, station was located 4 miles below present station. From March 8, 1907, to November 26, 1914, and February 27 to December 12, 1916, station was located one mile below present station. Four Mile Creek enters one and one-half miles below present station.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with Public Service Company.

BOULDER CREEK AT MOUTH

Location—On Section line between Secs. 16 and 17, T. 2 N., R. 68 W., about ¼ mile below highway bridge and four and one-half miles southeast of Longmont.

Records Available—March 16, 1927, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

MIDDLE BOULDER CREEK AT NEDERLAND

Location—In Sec. 13, T. 1 S., R. 73 W., at inlet of Barker Meadow Reservoir. This record includes North Beaver Creek.

Records Available—Jan., 1908, to Sept. 30, 1930.

Gage—Automatic gage.

Accuracy—Records considered good.

Co-operation—Records furnished by Public Service Company.

NORTH BOULDER CREEK NEAR NEDERLAND

Location—In SW¼ Sec. 6, T. 1 S., R. 72 W., 100 yards above highway bridge on Nederland-Ward highway.

Records Available—June 19, 1929, to Sept. 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Records furnished by the United States Geological Survey.

ST. VRAIN CREEK AT LYONS

Location—Three-fourths mile below Lyons in Sec. 17, T. 3 N., R. 70 W., and one-fourth mile below the junction of the North and South Forks.

Records Available—August 1, 1887, to October 31, 1890; June 13, 1895, to October 31, 1903; July 1, 1904, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

NORTH FORK OF ST. VRAIN CREEK NEAR ALLENS PARK

Location—In Sec. 14, T. 3 N., R. 73 W., at highway bridge near Copeland Lodge.

Records Available—October 23, 1925, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with Geological Survey and Barton M. Jones.

NORTH FORK OF ST. VRAIN CREEK AT LONGMONT DAM

Location—In Sec. 16, T. 3 N., R. 71 W., just below the upper concrete dam of City of Longmont.

Records Available—1913 to 1917 (partial records); June 1, 1926, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

MIDDLE FORK ST. VRAIN CREEK NEAR ALLENS PARK

Location—In Sec. 3, T. 2 N., R. 72 W., one mile above Riverside.

Records Available—April 26, 1926, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with the U. S. Geological Survey and Barton M. Jones.

SOUTH ST. VRAIN CREEK NEAR WARD

Location—In Sec. 36, T. 2 N., R. 73 W.

Records Available—May 29 to Sept. 30, 1926; May 21, 1929, to Sept. 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Records furnished by the United States Geological Survey.

ST. VRAIN CREEK AT MOUTH

Location—In Sec. 4, T. 3 N., R. 67 W., four miles northwest of Platteville.

Records Available—April 1 to December 31, 1915; February 24, 1927, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

LEFT HAND CREEK NEAR BOULDER

Location—In Sec. 26, T. 2 N., R. 71 W., 1.8 miles west of highway bridge on Boulder-Lyons highway.

Records Available—May 16, 1929, to Sept. 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Records furnished by the United States Geological Survey.

LEFT HAND CREEK NEAR MOUTH

Location—In Sec. 15, T. 2 N., R. 69 W.

Records Available—March 1, 1927, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

BIG THOMPSON NEAR ESTES PARK

Location—In SW¼ Sec. 21, T. 5 N., R. 72 W., on highway bridge at Mike's Roost, 3 miles east of Estes Park P. O.

Records Available—June 24 to Sept. 30, 1930.

Gage—Staff gage.

Accuracy—Records good.

BIG THOMPSON RIVER BELOW LOVELAND POWER PLANT NEAR DRAKE

Location—In Sec. 7, T. 5 N., R. 70 W., ¼ mile below City of Loveland Power Plant.

Records Available—Oct. 1, 1929, to Sept. 30, 1930.

Accuracy—Records considered good.

Co-operation—Records furnished by the United States Geological Survey in co-operation with City of Loveland.

BIG THOMPSON RIVER AT CANON

Location—In Sec. 4, T. 5 N., R. 70 W., at highway bridge five miles east of Drake. This station is four miles east of location used prior to 1927.

Records Available—September 18, 1917, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

BIG THOMPSON RIVER AT MOUTH

Location—On Section line between Secs. 33 and 34, T. 5 N., R. 66 W., at the first bridge on Big Thompson River above mouth.

Records Available—April 1 to November 30, 1914; March 1, 1927, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

LITTLE THOMPSON RIVER NEAR BERTHOUD

Location—In NW¼ Sec. 2, T. 3 N., R. 70 W., at old Lykins Ranch in Canon.

Records Available—May 26, 1929, to Sept. 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Records furnished by the United States Geological Survey.

BIG SOUTH CACHE LA POUDRE RIVER NEAR HOME

Location—In Sec. 28, T. 8 N., R. 75 W., 3½ miles above Laramie-Poudre tunnel.

Records Available—May 20, 1929, to Sept. 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Records furnished by the United States Geological Survey.

LITTLE SOUTH CACHE LA POUDRE RIVER NEAR EGGERS

Location—In Sec. 36, T. 8 N., R. 73 W., at highway bridge 8 miles southwest of Eggers above the mouth of Little Beaver Creek.

Records Available—May 31, 1929, to Sept. 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Records furnished by the United States Geological Survey.

CACHE LA POUDRE RIVER NEAR LOG CABIN

Location—In Sec. 33, T. 9 N., R. 73 W., one-half mile east of Rustic.

Records Available—Jan. 6, 1909, to Dec. 31, 1911; June 22, 1929, to Sept. 30, 1930.

Gage—Staff gage.

Co-operation—Records furnished by the United States Geological Survey.

CACHE LA POUDRE RIVER AT MOUTH OF CANON NEAR FORT COLLINS

Location—In Sec. 15, T. 8 N., R. 70 W., 3 miles below the intake of Fort Collins Water Works.

Records Available—May 15, 1884, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

CACHE LA POUDRE RIVER NEAR MOUTH

Location—In Sec. 2, T. 5 N., R. 65 W., 2 miles east of Greeley just below highway bridge.

Records Available—March 24, 1903, to November 30, 1904; February 1, 1914, to December 17, 1919, and May 27, 1924, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

NORTH FORK CACHE LA POUDRE RIVER AT LIVERMORE

Location—In Sec. 32, T. 10 N., R. 70 W., at highway bridge at Livermore.

Records Available—May 24, 1929, to Sept. 30, 1930.

Gage—Chain gage.

Accuracy—Records considered good.

Co-operation—Records furnished by the United States Geological Survey.

NORTH PLATTE RIVER NEAR WALDEN

Location—In Sec. 12, T. 8 N., R. 81 W., on highway bridge 9 miles southwest of Walden. Roaring Fork enters above station.

Records Available—May 13, 1904, to October 31, 1905, and October 1, 1923, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with the United States Geological Survey.

NORTH PLATTE RIVER NEAR NORTH GATE

Location—In Sec. 11, T. 11 N., R. 80 W., at highway bridge 6 miles south of Colorado-Wyoming line.

Records Available—May 23, 1915, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Results considered good.

Co-operation—Station maintained by the United States Geological Survey.

BIG GRIZZLY CREEK NEAR WALDEN

Location—Sec. 14, T. 7 N., R. 81 W., 14 miles southwest of Walden.

Records Available—May 13, 1904, to October 1, 1905; May 1 to September 30, 1923; October 1, 1926, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with the United States Geological Survey.

ROARING FORK NEAR WALDEN

Location—In Sec. 11, T. 8 N., R. 81 W., on highway bridge 10 miles southwest of Walden.

Records Available—July 20, 1904, to October 31, 1905, and October 27, 1923, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with United States Geological Survey.

ILLINOIS CREEK NEAR WALDEN

Location—Sec. 20, T. 9 N., R. 79 W., on highway bridge one-half mile north of Walden.

Records Available—May 1, 1917, to August 31, 1918, and May 1, 1923, to September 30, 1930.

Gage—Staff gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with the United States Geological survey.

MICHIGAN RIVER NEAR WALDEN

Location—Sec. 20, T. 9 N., R. 79 W., on highway bridge north of Walden.

Records Available—May 8, 1904, to October 31, 1905; June 1, 1918, to July 26, 1918, and May 1, 1923, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with the United States Geological Survey.

CANADIAN RIVER NEAR COWDREY

Location—In Sec. 6, T. 10 N., R. 79 W., ½ mile east of Cowdrey on main highway.

Records Available—May 12, 1904, to Oct. 31, 1905; May 23, 1929, to Sept. 30, 1930.

Gage—Chain gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with the United States Geological Survey.

LARAMIE RIVER NEAR GLENDEVEY

Location—In Sec. 36, T. 10 N., R. 76 W., 5 miles east of Glendevey Postoffice.

Records Available—June 24, 1904, to October 31, 1905, and August 18, 1910, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with the United States Geological Survey.

LARAMIE RIVER NEAR JELM, WYOMING

Location—At highway bridge in Sec. 15, T. 12 N., R. 77 W., one-fourth mile north of the Colorado-Wyoming line.

Records Available—May 7, 1911, to September 30, 1930. From June 22, 1904, to October 31, 1905, a station was maintained three-fourths of a mile south of this station.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Station maintained by the United States Geological Survey.

Discharge of South Fork of South Platte River at Lake George for Year Ending Sept. 30, 1929. Drainage Area, 1,070 Square Miles. Altitude, 7,693 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	17	14	....	....	....	....	140	15	45	397	665	411
2....	17	11	....	....	....	....	141	14	60	415	698	296
3....	18	12	....	....	....	....	124	16	89	406	764	280
4....	17	76	....	....	....	....	132	16	86	411	890	272
5....	14	12	....	....	....	....	104	14	91	415	1060	280
6....	12	12	....	....	....	....	93	13	102	411	956	333
7....	10	16	....	....	....	....	80	12	100	380	890	354
8....	8	25	....	....	....	....	58	12	104	362	962	362
9....	8	30	....	....	....	....	55	11	113	384	832	362
10....	9	25	....	....	....	....	30	12	238	357	681	337
11....	9	31	....	....	....	....	38	16	280	337	560	337
12....	10	35	....	....	....	....	38	17	280	328	415	280
13....	10	31	....	....	....	....	39	18	320	366	337	246
14....	12	28	....	....	....	....	35	17	228	341	280	220
15....	12	25	....	....	....	....	28	16	180	402	272	180
16....	14	35	....	....	....	....	31	19	206	434	257	174
17....	14	34	....	....	....	....	32	17	257	540	213	187
18....	13	31	....	....	....	....	27	18	242	500	231	186
19....	12	39	....	....	....	....	25	19	220	708	280	174
20....	12	39	....	....	....	....	24	15	242	607	253	168
21....	12	35	....	....	....	....	20	15	371	457	220	168
22....	11	35	....	....	....	....	19	51	362	388	253	163
23....	10	35	....	....	....	....	17	72	384	545	272	163
24....	11	35	....	....	....	....	17	52	362	764	246	152
25....	12	35	....	....	....	....	16	52	380	676	296	144
26....	12	30	....	....	....	....	16	74	388	581	296	144
27....	12	30	....	....	....	....	16	136	388	510	316	141
28....	12	30	....	....	....	....	16	82	406	556	471	132
29....	12	30	....	....	....	....	11	86	397	719	540	127
30....	13	30	....	....	....	....	14	77	406	692	505	122
31....	15	....	....	....	....	....	....	50	....	612	420	....
Total	380	886	....	....	....	....	1436	1054	7327	15002	15331	6889
Mean.	12.3	29.5	....	....	....	....	47.9	34.0	244	484	495	230
Max..	18	76	....	....	....	....	141	136	406	764	1060	411
Min...	8	11	....	....	....	....	11	11	45	328	213	122
Acre-ft.	756	1760	....	....	....	....	2850	2090	14500	29800	30400	13700

Discharge of South Platte River Near Lake George for Year Ending Sept. 30, 1930. Drainage Area, 929 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	130	....	....	....	....	....	45	7.0	317	114	517	153
2....	120	....	....	....	....	....	48	7.0	185	88	483	138
3....	115	....	....	....	....	....	50	8.2	90	81	436	127
4....	108	....	....	....	....	....	52	8.2	45	85	344	178
5....	105	....	....	....	....	....	52	8.7	21	70	398	346
6....	98	....	....	....	....	....	54	14	26	74	438	371
7....	89	....	....	....	....	....	54	12	53	66	458	365
8....	79	....	....	....	....	....	54	11	88	54	450	379
9....	80	....	....	....	....	....	56	8.7	123	43	392	390
10....	82	....	....	....	....	....	56	9.2	185	45	411	365
11....	79	....	....	....	....	....	56	9.2	201	59	506	352
12....	72	....	....	....	....	....	57	11	160	85	514	336
13....	65	....	....	....	....	....	47	11	144	90	542	319
14....	63	....	....	....	....	....	44	13	170	268	717	311
15....	63	....	....	....	....	....	33	26	172	193	915	306
16....	63	....	....	....	....	....	31	24	151	90	884	303
17....	51	....	....	....	....	....	30	50	160	72	611	322
18....	48	....	....	....	....	....	38	85	165	60	475	306
19....	45	....	....	....	....	....	32	68	172	88	373	295
20....	41	....	....	....	....	....	26	56	158	118	314	290
21....	39	....	....	....	37	....	20	43	142	167	271	284
22....	38	....	....	....	....	....	17	37	144	246	260	284
23....	37	....	....	....	....	....	12	50	151	142	241	295
24....	38	....	....	....	....	....	11	51	107	72	204	273
25....	38	....	....	0	....	42	9.2	40	73	48	183	249
26....	38	....	....	....	....	....	8.7	34	60	77	175	254
27....	39	....	5	....	....	....	8.7	36	55	142	167	249
28....	38	....	....	....	....	....	9.2	40	69	172	236	244
29....	32	....	....	....	....	....	8.7	66	74	365	260	260
30....	24	....	....	....	....	....	7.0	123	77	506	201	282
31....	33	....	....	....	....	....	....	252	....	427	180	....
Total	1990	....	....	....	....	....	1026.5	1219.2	3738	4207	12556	8626
Mean.	64.2	20	10	2	30	40	34.2	39.3	125	136	405	288
Max..	130	....	....	....	....	....	57	252	317	506	915	390
Min...	24	....	....	....	....	....	7.0	7.0	21	43	167	127
Acre-ft.	3950	1190	615	123	1670	2460	2040	2420	7440	8360	24900	17100

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of South Fork of South Platte River Above Lake Cheesman for Year Ending Sept. 30, 1929. Drainage Area, 1,680 Square Miles. Altitude, 6,835 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	71	64	52	25	27	32	83	60	127	396	717	696
2....	63	47	45	32	27	31	146	70	109	383	842	551
3....	51	43	44	25	27	32	146	65	174	403	952	544
4....	60	56	40	25	27	32	150	62	209	386	963	483
5....	53	64	31	24	27	35	151	72	157	398	1230	500
6....	53	85	31	26	27	35	151	70	184	400	1280	529
7....	63	79	36	26	27	36	151	66	169	379	1140	587
8....	63	79	32	26	31	39	152	65	166	348	1340	661
9....	49	91	27	22	31	40	88	64	161	352	1320	750
10....	63	79	20	26	31	38	74	53	224	363	1100	650
11....	49	71	23	26	31	40	72	82	297	310	925	573
12....	46	73	38	26	31	37	73	68	229	312	765	533
13....	71	74	33	26	31	37	95	65	378	324	640	485
14....	60	71	25	26	31	37	95	57	345	345	546	417
15....	62	74	37	30	28	37	95	87	253	385	492	401
16....	92	76	26	26	27	37	95	98	215	443	478	356
17....	64	62	26	30	27	40	94	65	287	476	457	245
18....	72	43	26	31	27	40	132	96	292	623	420	254
19....	64	49	31	30	27	60	139	82	241	666	592	258
20....	56	38	26	30	28	60	120	86	246	736	541	255
21....	66	53	26	30	28	60	103	91	365	629	459	221
22....	63	60	31	26	28	60	80	66	340	521	477	212
23....	75	60	33	27	28	60	73	129	384	479	529	220
24....	63	56	28	27	28	60	80	120	381	732	498	215
25....	53	56	37	27	28	60	73	113	379	849	497	195
26....	31	60	25	26	28	89	77	119	374	618	546	201
27....	48	61	24	26	28	89	69	155	376	473	551	190
28....	47	79	25	23	28	87	66	188	371	423	587	188
29....	73	56	29	23	....	84	67	145	373	975	816	181
30....	33	48	32	23	....	82	55	147	373	969	823	175
31....	55	....	25	23	....	84	....	123	....	674	717	....
Total	1921	1907	964	819	794	1590	3045	2829	8179	15770	23240	11726
Mean.	62.0	63.6	31.1	26.4	28.3	51.3	102	91.3	273	509	750	391
Max..	92	91	52	32	31	89	152	188	384	975	1340	750
Min...	31	38	20	22	27	31	55	53	109	310	420	175
Acre-ft.	3810	3780	1910	1620	1570	3150	6070	5610	16200	31300	46100	23300

Discharge of South Platte River Above Lake Cheesman for Year Ending Sept. 30, 1930. Drainage Area, 1,680 Square Miles. Altitude, 6,835 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	169	76	62	24	15	65	79	60	537	125	972	373
2....	175	76	53	12	16	64	91	58	492	145	1030	343
3....	164	110	57	12	12	64	112	51	251	115	889	356
4....	167	94	71	29	20	56	105	50	149	118	726	376
5....	154	102	69	13	17	56	130	58	113	113	684	430
6....	146	63	71	5	20	53	163	49	84	96	921	553
7....	127	122	55	25	16	53	307	58	73	99	810	619
8....	119	88	58	30	20	53	424	52	137	91	766	633
9....	128	95	62	10	16	54	365	48	179	78	713	628
10....	118	96	62	17	21	54	320	39	234	45	636	574
11....	129	90	62	7	24	70	284	49	352	56	692	527
12....	115	102	59	26	24	70	233	39	356	81	878	489
13....	109	50	59	26	24	74	196	66	264	143	907	463
14....	105	48	63	13	24	74	202	40	217	198	1120	409
15....	104	79	58	14	24	74	209	48	248	407	1420	455
16....	101	69	55	10	25	73	183	58	240	179	1490	442
17....	93	86	55	16	25	73	120	95	240	157	1220	451
18....	86	57	43	11	24	94	103	141	232	116	907	455
19....	80	72	25	13	54	95	121	190	261	117	835	429
20....	87	80	41	11	57	95	108	182	351	207	614	422
21....	63	69	34	15	57	98	93	107	277	266	563	417
22....	73	49	25	11	60	98	88	112	249	326	622	397
23....	84	58	33	11	65	99	82	107	233	462	511	400
24....	73	40	21	15	68	99	84	135	239	246	496	412
25....	60	44	24	11	60	99	72	154	141	212	428	360
26....	51	44	17	14	63	99	79	111	127	185	523	378
27....	73	47	21	11	63	60	82	104	95	196	444	382
28....	91	40	25	15	65	61	68	101	86	256	467	378
29....	94	41	33	15	....	57	81	111	100	522	538	381
30....	69	65	12	15	....	73	63	192	110	1010	466	397
31....	55	....	24	15	....	79	....	265	....	1060	429	....
Total	3262	2152	1409	472	979	2286	4647	2930	6667	7427	23717	13329
Mean.	105	71.7	45.5	15.2	35.0	73.7	155	94.5	222	240	765	444
Max..	175	122	71	30	68	99	424	265	537	1060	1490	633
Min...	51	40	12	5	12	53	63	39	73	45	428	343
Acre-ft.	6460	4270	2800	935	1940	4530	9220	5810	13200	14800	47000	26400

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of South Fork of South Platte River Below Lake Cheesman for Year Ending Sept. 30, 1929. Drainage Area, 1,766 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	211	167	33	80	80	80	30	83	168	299	468	630
2....	233	134	33	80	80	80	30	83	138	342	724	505
3....	208	118	33	80	80	80	30	84	154	335	737	484
4....	196	120	28	80	80	80	30	84	229	326	780	430
5....	185	145	27	80	80	80	30	101	239	326	834	418
6....	192	177	27	80	80	80	30	120	198	344	650	446
7....	215	177	27	80	80	80	30	120	198	335	650	553
8....	227	110	27	80	80	80	30	120	198	290	408	601
9....	204	73	27	80	80	80	30	120	194	257	857	662
10....	190	73	27	80	80	80	30	122	181	290	1450	568
11....	189	73	42	80	80	70	62	122	188	273	1260	517
12....	192	73	58	80	80	30	67	100	219	241	842	511
13....	198	73	58	80	80	30	67	83	217	235	731	369
14....	202	93	58	80	80	30	68	84	272	284	617	350
15....	200	200	58	80	80	30	67	129	247	311	559	324
16....	211	25	58	80	80	30	67	138	149	386	523	300
17....	196	38	58	80	80	30	85	98	145	428	490	302
18....	138	33	58	80	80	30	88	98	225	555	476	300
19....	138	33	58	80	80	30	88	100	249	473	589	288
20....	138	33	58	80	80	30	73	100	161	509	550	308
21....	140	33	58	80	80	30	60	110	628	410	481	328
22....	162	33	58	80	80	30	60	124	650	408	484	341
23....	172	32	58	80	80	30	60	145	644	638	520	456
24....	163	32	58	80	80	30	60	174	606	748	484	339
25....	134	32	74	80	80	30	60	161	606	567	487	282
26....	96	33	81	80	80	30	60	159	588	546	511	278
27....	117	33	81	80	80	30	73	165	618	537	508	268
28....	113	33	81	80	80	30	81	215	615	509	565	322
29....	174	33	81	80	....	30	83	219	389	700	758	341
30....	138	33	81	80	....	30	83	183	290	787	768	288
31....	134	....	81	80	....	30	....	181	....	727	665	....
Total	5406	2295	1645	2480	2240	1470	1712	3925	9603	13416	20426	12109
Mean.	174	76.5	53.1	80	80	47.4	57.1	127	320	433	659	404
Max..	233	200	81	....	....	....	88	219	650	787	1450	662
Min...	96	25	27	....	....	....	30	83	138	235	408	268
Acre-ft.	10700	4550	3260	4920	4440	2910	3400	7810	19000	26600	40500	24000

Discharge of South Fork of South Platte River Below Lake Cheesman for Year Ending Sept. 30, 1930. Drainage Area, 1,766 Square Miles. Altitude .... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	295	37	24	62	62	22	22	98	526	574	1180	448
2....	284	37	24	62	62	22	22	91	733	565	1160	394
3....	284	37	24	62	62	22	22	93	655	562	950	392
4....	276	37	24	62	62	22	22	97	274	523	803	389
5....	276	30	27	62	62	22	22	95	222	511	769	359
6....	272	27	40	62	62	22	22	84	237	511	1020	381
7....	241	27	56	62	62	22	22	84	222	553	970	405
8....	219	27	62	62	62	22	22	82	212	559	898	407
9....	219	27	62	62	62	22	148	78	371	559	784	439
10....	237	27	62	62	62	22	310	71	415	550	787	484
11....	264	27	62	62	62	22	302	71	593	547	863	357
12....	239	27	62	62	62	22	249	74	490	600	1080	389
13....	121	26	62	62	62	22	226	82	347	628	1070	381
14....	118	26	62	62	61	22	228	75	347	606	1100	330
15....	123	26	62	62	61	22	213	78	364	841	910	306
16....	132	25	62	62	61	22	196	144	420	600	709	317
17....	122	24	62	62	59	22	159	226	310	420	716	352
18....	112	24	62	62	27	22	136	302	237	499	580	386
19....	101	24	62	62	22	22	141	317	392	493	508	302
20....	95	24	62	62	22	22	138	319	508	268	514	260
21....	93	24	62	62	22	22	136	284	423	467	520	249
22....	87	24	62	62	22	22	144	217	357	550	514	249
23....	74	24	62	62	22	22	142	222	352	606	590	249
24....	83	24	62	62	22	22	130	272	381	415	600	293
25....	71	24	62	62	22	22	141	302	274	315	514	612
26....	107	24	62	62	22	22	144	291	200	402	580	568
27....	147	24	62	62	22	22	134	228	213	397	580	550
28....	206	24	62	62	22	22	123	226	177	402	538	550
29....	212	24	62	62	....	22	111	237	226	638	568	565
30....	147	24	62	62	....	22	104	319	541	1140	600	550
31....	71	....	62	62	....	22	....	428	....	1250	476	....
Total	5328	806	1707	1922	1295	682	3931	5587	11019	17551	23451	11913
Mean.	172	26.9	55.1	62.0	46.2	22.0	131	180	367	566	756	397
Max..	295	37	62	62	62	22	310	428	733	1250	1180	612
Min...	71	24	24	62	22	22	22	71	177	268	476	249
Acre-ft.	10600	1600	3390	3810	2570	1350	7800	11100	21800	34800	46500	23600

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of North Fork of South Platte River at South Platte for Year Ending Sept. 30, 1929. Drainage Area, 484 Square Miles. Altitude, 6,097 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	44	49	....	....	....	....	58	90	271	146	274	258
2....	40	31	....	....	....	....	58	74	324	150	284	239
3....	38	33	....	....	....	....	58	79	301	142	612	290
4....	31	45	....	....	....	....	58	82	264	144	488	255
5....	39	47	....	....	....	....	58	90	258	137	621	248
6....	40	50	....	....	....	....	42	95	255	131	760	293
7....	44	52	....	....	....	....	42	99	242	124	746	321
8....	45	48	....	....	....	....	42	108	256	131	612	363
9....	43	44	....	....	....	....	42	121	258	164	583	345
10....	43	42	....	....	....	....	42	135	242	158	512	311
11....	47	46	....	....	....	....	44	131	218	156	440	299
12....	42	44	....	....	....	....	59	112	207	154	375	287
13....	44	45	....	....	....	....	65	121	189	148	364	264
14....	45	45	....	....	....	....	64	152	177	154	345	258
15....	52	40	....	....	....	....	67	182	191	171	335	264
16....	57	40	....	....	....	....	74	207	175	137	298	258
17....	57	38	....	....	....	....	79	191	171	133	314	239
18....	53	36	....	....	....	....	87	218	158	144	324	224
19....	57	36	....	....	....	....	90	186	150	150	277	221
20....	56	34	....	....	....	....	87	196	144	164	274	215
21....	52	34	....	....	....	....	79	233	139	160	283	209
22....	51	32	....	....	....	....	74	204	139	154	258	202
23....	47	32	....	....	....	....	72	221	139	268	264	199
24....	47	30	....	....	....	....	76	268	137	298	331	194
25....	48	40	....	....	....	....	76	274	148	199	364	182
26....	50	48	....	....	....	....	75	318	150	158	335	177
27....	49	40	....	....	....	....	72	248	150	135	293	166
28....	48	40	....	....	....	....	65	207	150	194	352	164
29....	49	40	....	....	....	....	72	184	148	182	335	162
30....	48	40	....	....	....	....	87	173	148	173	304	160
31....	48	....	....	....	....	....	....	212	....	233	268	....
Total	1454	1221	....	....	....	....	1964	5211	5899	5092	12225	7267
Mean.	46.9	40.7	....	....	....	....	65.5	168	197	164	394	242
Max..	57	52	....	....	....	....	90	318	324	298	760	363
Min...	31	30	....	....	....	....	....	74	137	124	258	160
Acre-ft.	2880	2420	....	....	....	....	3900	10300	11700	10100	24200	14400

Discharge of North Fork of South Platte River at South Platte for Year Ending Sept. 30, 1930. Drainage Area, 484 Square Miles. Altitude, 6,097 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	190	94	....	....	....	....	....	183	487	208	292	268
2....	183	94	....	....	....	....	....	199	400	192	273	258
3....	190	135	....	....	....	....	....	208	348	179	273	255
4....	162	92	....	....	....	....	....	183	329	175	286	260
5....	160	121	....	....	....	....	....	172	329	166	354	301
6....	155	118	....	....	....	....	....	153	335	166	316	307
7....	155	131	....	....	....	....	....	151	364	166	301	295
8....	150	....	....	....	....	....	....	145	390	164	307	338
9....	150	....	....	....	....	....	....	127	400	158	322	316
10....	145	....	....	....	....	....	....	127	396	158	351	289
11....	144	....	....	....	....	....	....	121	393	166	420	234
12....	141	....	....	....	....	....	....	125	416	204	403	215
13....	141	....	....	....	....	....	....	127	410	313	547	199
14....	139	....	....	....	....	....	....	133	383	342	660	181
15....	137	....	....	....	....	....	179	149	406	250	655	179
16....	133	....	....	....	....	....	175	186	436	213	578	175
17....	127	....	....	....	....	....	141	195	424	197	578	164
18....	123	....	....	....	....	....	137	186	426	208	512	160
19....	121	....	....	....	....	....	135	192	443	220	477	160
20....	127	....	....	....	....	....	131	195	406	218	433	160
21....	125	....	....	....	....	....	139	220	393	236	406	158
22....	116	....	....	....	....	....	162	265	406	338	406	153
23....	112	....	....	....	....	....	177	234	329	238	387	150
24....	104	....	....	....	....	....	181	246	298	227	354	145
25....	106	....	....	....	....	....	204	241	276	213	345	145
26....	123	....	....	....	....	....	213	265	263	199	387	140
27....	104	....	....	....	....	....	220	316	253	181	351	139
28....	120	....	....	....	....	....	197	342	234	222	351	131
29....	130	....	....	....	....	....	179	374	227	345	332	127
30....	150	....	....	....	....	....	181	446	211	316	298	119
31....	123	....	....	....	....	....	....	560	....	307	278	....
Total	4286	....	....	....	....	....	....	6766	10811	6885	12233	6121
Mean.	138	....	....	....	....	....	....	218	360	222	395	204
Max..	190	....	....	....	....	....	....	560	487	345	660	338
Min...	104	....	....	....	....	....	....	121	211	158	273	119
Acre-ft.	8480	....	....	....	....	....	....	13400	21400	13600	24300	12100

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of South Platte River at South Platte for Year Ending Sept. 30, 1929.
Drainage Area, 2,550 Square Miles. Altitude, 6,097 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	222	162	....	....	....	....	159	155	424	402	755	892
2....	238	164	....	....	....	....	155	142	460	456	1170	850
3....	219	132	....	....	....	....	171	147	409	448	1690	836
4....	190	153	....	....	....	....	185	151	428	440	1520	704
5....	192	164	....	....	....	....	194	160	503	424	1810	716
6....	188	192	....	....	....	....	179	190	440	428	1660	782
7....	213	210	....	....	....	....	158	202	418	421	1640	928
8....	233	192	....	....	....	....	146	213	432	405	1980	1040
9....	230	113	....	....	....	....	122	236	436	405	2220	1100
10....	210	104	....	....	....	....	112	264	413	421	1850	985
11....	197	108	....	....	....	....	85	274	390	424	1530	878
12....	202	106	....	....	....	....	155	250	417	394	1250	822
13....	210	108	....	....	....	....	132	236	398	369	1060	632
14....	219	104	....	....	....	....	130	284	413	405	907	620
15....	238	216	....	....	....	....	118	331	452	468	822	609
16....	255	130	....	....	....	....	131	405	362	508	762	577
17....	253	76	....	....	....	....	133	331	348	526	762	556
18....	192	71	....	....	....	....	155	341	376	609	775	541
19....	192	59	....	....	....	....	162	327	405	666	788	526
20....	185	58	....	....	....	....	171	338	324	609	762	541
21....	183	68	....	....	....	....	140	383	503	551	710	546
22....	180	88	....	....	....	....	126	381	795	432	704	577
23....	210	95	....	....	....	....	123	387	808	815	736	643
24....	197	94	....	....	....	....	123	460	755	1140	775	541
25....	192	92	....	....	....	....	123	448	822	729	843	494
26....	147	83	....	....	....	....	119	481	729	691	843	481
27....	149	71	....	....	....	....	123	424	775	678	749	481
28....	149	82	....	....	....	....	130	405	782	742	1080	531
29....	173	54	....	....	....	....	140	436	536	950	1240	526
30....	208	48	....	....	....	....	151	369	440	878	1120	498
31....	149	....	....	....	....	....	....	402	....	775	936	....
Total	6215	3397	....	....	....	....	4251	9553	15193	17609	35449	20453
Mean.	200	113	78	94	93	108	142	308	506	568	1140	682
Max..	255	216	....	....	....	....	194	481	822	1140	2220	1100
Min...	147	48	....	....	....	....	85	142	324	369	704	481
Acre-ft.	12300	6720	4800	5780	5610	6640	8450	18900	30100	34900	70100	40600

Discharge of South Platte River at South Platte for Year Ending Sept. 30, 1930.
Drainage Area, 2,550 Square Miles. Altitude, 6,097 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	492	203	....	....	....	....	150	373	990	801	1580	630
2....	457	173	....	....	....	....	150	362	1080	768	1530	580
3....	457	227	....	....	....	....	150	376	1100	768	1350	555
4....	457	177	....	....	....	....	150	358	630	726	1090	570
5....	441	208	....	....	....	....	150	338	1170	684	1060	585
6....	437	198	....	....	....	....	150	331	550	666	1290	585
7....	422	210	....	....	....	....	150	314	580	702	1320	590
8....	404	....	....	....	....	....	150	299	565	690	1200	640
9....	397	....	....	....	....	....	150	275	666	714	998	630
10....	390	....	....	....	....	....	150	263	768	684	1090	650
11....	411	....	....	....	....	....	340	265	899	696	1180	510
12....	425	....	....	....	....	....	340	265	920	808	1550	470
13....	324	....	....	....	....	....	340	278	738	1080	1730	483
14....	288	....	....	....	....	....	340	273	678	934	2010	453
15....	283	....	....	....	....	....	433	285	732	1130	1850	418
16....	290	....	....	....	....	....	418	369	829	998	1390	411
17....	285	....	....	....	....	....	359	492	762	565	1360	421
18....	273	....	....	....	....	....	327	575	645	660	1200	449
19....	260	....	....	....	....	....	330	635	787	525	962	401
20....	258	....	....	....	....	....	327	625	934	465	906	355
21....	248	....	....	....	....	....	348	672	885	655	871	334
22....	240	....	....	....	....	....	376	640	794	1010	878	324
23....	228	....	....	....	....	....	394	545	666	906	836	334
24....	220	....	....	....	....	....	394	600	678	732	892	344
25....	220	....	....	....	....	....	437	605	590	515	762	610
26....	233	....	....	....	....	....	437	640	492	535	843	592
27....	290	....	....	....	....	....	433	615	492	525	892	575
28....	310	....	....	....	....	....	415	575	441	600	801	555
29....	350	....	....	....	....	....	383	620	425	998	787	560
30....	410	....	....	....	....	....	376	750	672	1540	843	615
31....	240	....	....	....	....	....	....	948	....	1760	660	....
Total	10440	4950	4216	3596	3864	3617	9047	14561	22158	24840	35711	15229
Mean.	337	165	136	116	138	107	302	469	739	801	1150	508
Max..	492	....	....	....	....	....	437	948	1170	1760	2010	650
Min...	220	....	....	....	....	....	150	263	425	465	660	324
Acre-ft.	20700	9820	8360	7130	7660	6580	18000	28800	44000	49300	70700	30200

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of South Platte River at Waterton for Year Ending Sept. 30, 1929.
Drainage Area, 2,621 Square Miles. Altitue, 5,507 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	34	46	22	2	6	7	11	8	305	226	295	478
2....	60	27	5	2	7	6	9	8	325	290	436	430
3....	44	6	16	2	6	5	12	7	277	277	1070	490
4....	15	3	95	2	4	4	14	8	295	254	1180	310
5....	12	8	54	2	5	3	16	12	400	238	920	210
6....	21	41	54	2	6	5	15	16	345	242	1510	234
7....	32	68	22	2	6	6	14	18	310	234	740	340
8....	37	52	63	2	7	11	8	22	320	222	1400	454
9....	44	6	19	2	7	9	7	22	310	226	1670	490
10....	24	3	29	2	14	14	5	19	277	226	1400	460
11....	15	3	65	3	6	21	4	22	259	238	905	400
12....	22	2	19	3	4	7	4	11	315	206	606	356
13....	36	3	21	3	6	2	4	9	272	180	460	315
14....	46	3	7	3	6	19	4	11	264	195	389	206
15....	63	74	5	3	5	24	4	11	282	290	394	202
16....	86	66	2	4	6	12	5	49	222	320	514	195
17....	101	6	2	4	4	4	7	18	145	378	584	199
18....	83	11	2	4	3	5	7	16	180	466	720	210
19....	15	14	2	4	4	6	15	16	226	606	638	191
20....	19	34	2	4	5	7	34	18	158	576	534	176
21....	16	52	2	4	5	5	19	49	195	541	541	195
22....	12	57	2	4	5	4	8	152	315	448	598	187
23....	29	68	2	5	6	6	8	277	340	606	654	199
24....	24	66	2	5	5	8	8	335	282	770	710	195
25....	29	7	2	5	3	6	7	335	325	335	730	128
26....	12	6	2	5	6	6	7	372	246	315	866	98
27....	5	19	2	5	7	6	7	310	268	356	794	89
28....	6	44	4	5	6	5	6	295	295	345	740	180
29....	9	22	2	5	....	5	7	367	295	490	1090	234
30....	60	14	2	7	....	6	7	285	286	750	740	195
31....	7	....	2	7	....	7	....	272	....	569	555	....
Total	1018	831	530	112	160	241	283	3370	8334	11415	24383	8046
Mean.	32.8	27.7	17.1	3.61	5.71	7.77	9.43	109	278	369	787	268
Max..	101	68	95	7	14	24	34	372	400	770	1670	490
Min...	5	2	2	2	3	2	4	7	145	180	295	89
Acre-ft.	2020	1650	1050	222	317	478	561	6700	16500	22700	48400	15900

Discharge of South Platte River at Waterton for Year Ending Sept. 30, 1930.
Drainage Area, 2,621 Square Miles. Altitude, 5,507 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	168	63	91	26	16	16	23	187	448	268	878	183
2....	199	34	63	26	16	29	16	242	412	268	806	112
3....	118	95	39	23	13	39	13	286	466	264	842	154
4....	57	60	88	20	34	29	12	268	172	234	1160	290
5....	39	82	82	18	29	29	13	250	254	295	670	378
6....	34	202	48	17	16	26	13	226	389	484	680	367
7....	91	202	54	26	16	23	18	206	424	527	806	325
8....	112	180	60	22	23	13	48	191	424	514	614	356
9....	29	187	85	20	45	18	108	172	520	548	508	367
10....	18	183	91	20	63	23	129	165	508	490	562	362
11....	16	183	82	18	29	16	158	161	436	502	670	199
12....	23	195	69	15	39	36	172	161	569	614	1230	42
13....	150	122	54	15	39	34	150	172	638	965	1470	39
14....	259	112	63	15	31	13	112	168	508	430	1820	39
15....	18	136	51	15	23	16	101	176	460	598	1490	39
16....	21	129	48	13	42	21	118	199	680	750	794	98
17....	16	150	44	13	29	18	91	268	662	345	794	234
18....	39	129	42	13	29	18	57	132	562	454	590	282
19....	42	104	40	13	29	18	45	108	670	430	430	250
20....	39	115	36	13	18	18	31	54	534	286	345	234
21....	34	115	30	13	21	13	31	180	448	300	315	210
22....	34	95	24	13	16	16	21	242	400	335	268	210
23....	36	143	20	13	23	21	13	31	310	206	282	214
24....	18	129	20	13	31	21	34	82	372	250	362	210
25....	13	143	20	13	21	18	129	150	436	340	259	206
26....	13	126	22	13	23	18	143	295	590	418	300	161
27....	13	129	24	13	16	13	112	389	583	400	472	140
28....	21	140	26	13	16	12	95	418	250	478	400	108
29....	31	118	26	13	....	16	154	448	238	890	400	66
30....	122	95	26	13	....	13	180	555	254	965	430	95
31....	101	....	26	13	....	21	....	614	....	1180	259	....
Total	1924	3896	1494	504	743	635	2340	7196	13617	15028	20906	5970
Mean.	62.1	130	48.2	16.3	26.5	20.5	78.0	232	454	485	674	199
Max..	259	202	91	....	63	36	180	614	680	1180	1820	378
Min...	13	34	....	....	13	12	12	31	172	206	259	39
Acre-ft.	3820	7740	2960	1000	1470	1260	4640	14300	27000	29800	41400	11800

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of South Platte River at Denver for Year Ending Sept. 30, 1929.
Drainage Area, 3,840 Square Miles. Altitude, 5,240 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	118	138	118	92	73	81	154	95	374	226	524	567
2....	114	177	123	95	76	82	136	93	379	212	319	540
3....	120	147	127	93	74	81	132	105	393	254	891	600
4....	120	129	118	87	76	92	132	96	384	265	1200	589
5....	110	129	118	88	76	145	130	102	472	269	1150	447
6....	106	145	113	89	74	830	130	98	514	243	1680	573
7....	113	169	127	96	61	646	118	102	457	254	1600	508
8....	114	185	138	93	59	276	119	100	403	250	1320	686
9....	132	179	138	95	64	232	120	100	398	261	1480	830
10....	121	141	143	90	67	243	121	121	365	254	1800	843
11....	120	147	136	93	72	243	118	265	310	276	1420	771
12....	130	129	136	90	71	229	100	215	328	265	1090	728
13....	152	123	113	98	72	197	95	166	360	257	778	710
14....	174	123	113	99	72	136	94	166	315	219	578	535
15....	315	123	110	103	75	156	80	145	319	302	472	388
16....	360	261	95	87	85	154	77	143	319	374	540	432
17....	324	172	93	87	80	136	77	169	236	408	573	417
18....	276	105	88	94	77	136	75	200	172	442	710	452
19....	236	129	88	79	70	136	82	243	212	790	728	422
20....	197	127	88	73	76	134	182	250	219	778	578	369
21....	169	156	96	84	81	149	154	222	145	634	562	351
22....	177	182	90	83	79	161	120	239	229	562	578	346
23....	154	197	92	83	82	182	95	306	365	816	669	369
24....	174	185	98	65	83	328	120	427	356	784	716	374
25....	149	236	95	68	77	261	114	529	310	612	778	328
26....	161	113	95	74	77	174	114	519	265	529	830	229
27....	130	116	105	72	78	174	111	514	239	342	843	202
28....	116	159	108	73	78	159	95	398	265	369	765	194
29....	129	174	118	73	....	154	86	437	250	403	1010	302
30....	143	145	105	74	....	159	88	369	319	740	920	365
31....	172	....	102	72	....	169	....	328	....	722	704	....
Total	5126	4641	3427	2642	2085	6435	3369	7262	9672	13112	27806	14467
Mean.	165	155	111	85.2	74.5	208	112	234	322	423	897	482
Max..	360	261	143	103	85	830	182	529	514	816	1800	843
Min...	106	105	88	65	59	81	75	93	145	212	319	194
Acre-ft.	10100	9220	6820	5240	4140	12800	6660	14400	19200	26000	55200	28700

Discharge of South Platte River at Denver for Year Ending Sept. 30, 1930.
Drainage Area, 3,840 Square Miles. Altitude, 5,240 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	337	209	203	113	94	111	102	273	611	219	1160	388
2....	328	197	143	106	99	118	93	284	422	239	1040	360
3....	284	209	161	99	102	105	94	351	524	246	978	328
4....	177	219	185	105	93	138	93	374	398	254	1680	417
5....	156	209	191	106	120	141	85	324	188	215	1380	600
6....	120	257	194	114	265	130	84	288	360	457	1100	686
7....	123	324	174	93	398	113	95	239	388	488	1100	584
8....	203	315	177	88	457	120	100	257	427	498	1020	567
9....	200	293	182	85	388	100	143	246	462	508	891	640
10....	129	293	209	82	288	108	310	203	623	477	1260	634
11....	147	297	204	90	284	110	562	200	379	482	1200	482
12....	129	284	185	87	328	98	551	200	498	710	1460	280
13....	125	229	177	89	284	106	398	179	704	1100	1930	200
14....	269	206	179	81	229	103	284	169	584	778	2120	172
15....	169	226	166	81	179	94	250	191	477	573	2040	159
16....	123	236	159	78	141	100	306	243	730	913	1640	147
17....	114	250	159	76	152	108	315	342	720	498	1400	254
18....	114	257	138	78	141	105	219	324	640	514	1360	346
19....	123	232	111	78	147	98	141	222	722	589	1090	365
20....	120	166	127	82	147	93	166	143	816	388	870	346
21....	125	179	121	85	134	102	143	98	524	578	663	324
22....	111	164	110	90	128	98	120	337	462	584	540	302
23....	123	185	125	90	136	100	105	229	398	342	524	315
24....	136	194	145	90	156	98	116	130	315	293	657	293
25....	129	206	154	94	152	98	182	136	447	422	573	297
26....	130	236	166	94	130	108	412	212	351	529	595	284
27....	127	229	141	93	121	102	442	384	246	514	686	265
28....	147	246	138	92	113	90	276	422	243	508	734	229
29....	179	222	127	92	....	96	232	427	222	830	675	194
30....	200	209	123	95	....	94	269	529	209	1150	704	179
31....	302	....	113	95	....	98	....	651	....	1240	535	....
Total	5199	6978	4887	2821	5406	3283	6688	8607	14090	17136	33605	10637
Mean.	168	233	158	91.0	193	106	223	278	470	553	1080	355
Max..	337	324	209	114	457	141	562	651	816	1240	2120	686
Min...	111	164	110	76	93	90	84	98	188	215	524	147
Acre-ft.	10300	13900	9720	5600	10700	6520	13300	17100	28000	34000	66400	21100

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of South Platte River at Henderson for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	70	95	90	49	....	....	224	178	358	418	404	457
2....	58	95	80	40	....	....	204	192	447	304	304	381
3....	56	108	58	92	....	....	208	192	462	292	540	367
4....	53	108	67	44	....	....	252	146	363	272	556	630
5....	51	92	67	49	....	....	244	92	428	300	477	371
6....	102	90	65	56	....	....	256	80	513	280	1310	612
7....	127	92	58	62	....	....	240	72	414	240	1450	524
8....	56	84	70	56	....	....	252	60	395	196	758	738
9....	42	90	62	58	....	....	260	34	386	228	809	841
10....	58	95	53	60	....	....	252	56	409	244	949	802
11....	58	111	58	49	....	....	232	395	404	196	847	556
12....	82	92	62	40	....	....	208	376	462	163	497	381
13....	95	72	62	30	....	....	200	178	452	163	462	317
14....	90	74	70	30	....	....	163	98	399	130	399	212
15....	292	67	67	34	....	....	90	70	453	178	363	90
16....	452	67	58	42	....	240	80	95	487	376	363	134
17....	252	70	65	34	....	....	74	174	452	457	447	244
18....	160	70	56	40	....	....	70	224	438	477	545	224
19....	130	70	51	56	....	....	72	248	399	584	630	156
20....	127	70	58	42	44	....	214	188	414	574	529	124
21....	105	70	65	26	....	....	181	156	423	452	457	118
22....	82	60	60	26	....	....	98	174	409	442	438	108
23....	74	56	51	34	....	240	84	178	573	758	471	170
24....	77	58	49	34	....	258	111	276	562	271	477	240
25....	84	56	46	34	....	276	133	358	462	442	497	260
26....	82	60	44	34	....	150	252	507	447	304	492	220
27....	80	65	53	34	....	118	268	534	423	280	524	178
28....	80	72	56	34	....	98	248	404	409	404	513	163
29....	74	70	56	34	....	87	220	326	414	404	606	212
30....	111	70	56	34	....	80	192	312	390	462	758	268
31....	111	....	46	34	....	105	....	240	....	534	578	....
Total	3371	2349	1859	1321	....	....	5582	6613	13027	10825	18450	10098
Mean.	109	78.3	60.0	42.6	42	145	186	213	434	349	595	337
Max..	452	111	90	92	....	....	268	534	573	758	1450	841
Min...	42	56	44	26	....	....	70	34	358	130	304	90
Acre-ft.	6700	4660	3690	2620	2330	8920	11100	13100	25800	21500	36600	20100

Discharge of South Platte River at Henderson for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	268	457	113	236	100	110	50	236	738	386	584	318
2....	232	428	127	232	100	66	50	236	336	381	803	276
3....	216	345	143	232	80	48	47	332	428	367	745	244
4....	127	140	156	252	80	52	43	336	395	363	869	293
5....	89	107	160	244	120	56	41	285	268	323	1370	354
6....	64	99	102	244	260	56	43	240	367	293	822	428
7....	70	96	86	260	477	56	41	236	442	268	770	372
8....	86	86	107	264	528	58	50	216	573	276	803	340
9....	240	91	121	252	502	64	68	192	595	297	636	345
10....	41	86	153	244	252	72	94	167	624	268	903	310
11....	64	84	167	252	156	84	119	178	524	212	1030	260
12....	82	82	134	252	153	72	94	174	584	244	958	140
13....	54	79	124	244	104	64	107	178	764	672	1560	116
14....	54	79	116	248	91	56	94	156	751	790	2240	118
15....	50	124	200	256	167	56	110	156	606	462	1910	96
16....	18	153	212	252	163	52	336	260	562	590	1430	89
17....	17	84	216	240	174	52	390	409	666	487	1030	121
18....	17	96	228	230	228	54	336	487	666	280	1570	260
19....	17	86	181	230	289	56	220	146	889	390	1390	297
20....	21	74	170	230	297	50	167	153	829	457	1130	293
21....	20	91	170	230	310	45	160	134	624	636	809	276
22....	24	94	134	230	280	47	104	248	601	770	595	252
23....	28	99	146	230	268	41	84	363	562	534	404	260
24....	20	116	153	90	260	38	68	174	418	390	457	268
25....	21	121	150	90	228	41	143	124	482	399	340	256
26....	34	94	163	90	174	48	323	188	467	462	293	248
27....	31	77	146	80	153	50	336	318	492	462	545	216
28....	34	82	130	80	140	43	260	487	467	399	573	192
29....	99	84	130	80	....	45	208	487	404	648	529	163
30....	220	84	121	80	....	47	252	567	358	979	502	153
31....	462	....	228	80	....	47	....	720	....	803	477	....
Total	2820	3818	4687	6254	6134	1726	4438	8583	16482	14288	28077	7354
Mean.	91.0	127	151	202	219	55.7	148	277	549	461	906	245
Max..	462	457	228	864	528	110	390	720	889	979	2240	428
Min...	17	74	86	80	....	38	41	124	268	212	293	89
Acre-ft.	5600	7560	9280	12400	12200	3420	8810	17000	32700	28300	55700	14600

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of South Platte River at Ft. Lupton for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	....	....	....	....	....	....	....	226	258	372	388	438
2....	....	....	....	....	....	....	....	258	372	311	318	348
3....	....	....	....	....	....	....	....	255	404	311	404	348
4....	....	....	....	....	....	....	....	229	368	314	576	566
5....	....	....	....	....	....	....	....	150	311	326	456	447
6....	....	....	....	....	....	....	....	115	404	307	1000	562
7....	....	....	....	....	....	....	....	95	356	268	1410	519
8....	....	....	....	....	....	....	....	78	311	222	817	689
9....	....	....	....	....	....	....	....	64	300	229	749	800
10....	....	....	....	....	....	....	....	55	318	226	846	800
11....	....	....	....	....	....	....	....	219	318	169	823	636
12....	....	....	....	....	....	....	....	396	368	142	482	430
13....	....	....	....	....	....	....	....	242	413	140	438	352
14....	....	....	....	....	....	....	....	115	345	148	380	296
15....	....	....	....	....	....	....	....	82	345	125	356	192
16....	....	....	....	....	....	....	....	61	392	307	318	127
17....	....	....	....	....	....	....	....	125	345	425	396	235
18....	....	....	....	....	....	....	....	222	352	447	460	201
19....	....	....	....	....	....	....	....	258	304	510	596	161
20....	....	....	....	....	....	....	....	238	326	552	491	122
21....	....	....	....	....	....	....	....	164	329	438	413	97
22....	....	....	....	....	....	....	....	155	286	464	380	86
23....	....	....	....	....	....	....	....	150	396	606	413	105
24....	....	....	....	....	....	....	....	210	421	678	438	178
25....	....	....	....	....	....	....	....	304	380	542	464	232
26....	....	....	....	....	....	....	....	409	333	333	464	201
27....	....	....	....	....	....	....	....	482	318	293	473	145
28....	....	....	....	....	....	....	....	384	311	318	482	142
29....	....	....	....	....	....	....	289	296	329	413	505	164
30....	....	....	....	....	....	....	272	293	337	425	673	229
31....	....	....	....	....	....	....	....	242	....	591	533	....
Total	....	....	....	....	....	....	....	6572	10350	10952	16942	9848
Mean.	....	....	....	....	....	....	....	212	345	353	547	328
Max..	....	....	....	....	....	....	....	482	421	678	1410	800
Min...	....	....	....	....	....	....	....	55	258	125	318	86
Acre-ft.	....	....	....	....	....	....	....	13000	20500	21700	33600	19500

Discharge of South Platte River at Ft. Lupton for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	312	586	186	312	195	242	92	186	462	292	545	361
2....	320	514	152	304	195	171	92	183	408	288	666	304
3....	328	476	195	296	195	138	90	272	268	268	717	253
4....	221	288	228	300	195	136	88	426	324	276	711	260
5....	177	232	246	304	195	136	81	324	198	257	1250	292
6....	118	221	228	308	186	133	83	430	212	212	740	395
7....	104	202	195	304	350	123	79	195	300	171	655	369
8....	116	202	183	284	950	123	77	202	404	155	824	328
9....	138	195	198	268	740	123	79	208	505	174	723	340
10....	108	183	232	253	376	118	97	195	866	146	1140	352
11....	95	177	260	260	272	138	126	195	514	104	1100	296
12....	123	174	242	276	242	126	123	198	495	104	842	215
13....	113	165	208	268	183	116	130	171	677	378	1370	149
14....	102	162	195	250	143	113	128	162	655	806	2080	113
15....	118	183	246	250	189	113	113	143	550	467	1820	108
16....	99	242	292	250	208	113	218	198	458	430	1370	106
17....	86	242	296	250	218	113	399	344	529	495	980	95
18....	83	232	288	250	221	113	378	571	555	264	1300	160
19....	81	208	257	250	276	116	296	284	660	296	1310	208
20....	77	192	221	250	332	113	215	174	717	404	1040	235
21....	70	168	253	270	361	108	174	154	597	545	788	250
22....	64	189	208	270	365	104	113	165	505	806	666	250
23....	64	171	189	270	336	99	79	399	490	581	453	255
24....	62	160	221	270	340	102	70	260	348	365	421	246
25....	62	202	214	250	344	106	95	154	328	332	417	228
26....	70	198	202	200	304	111	99	149	336	352	253	232
27....	68	177	208	196	268	104	104	221	344	390	430	250
28....	68	189	202	196	250	99	111	365	369	344	540	242
29....	95	195	198	196	....	95	152	448	344	448	510	264
30....	228	174	171	196	....	92	183	505	312	764	495	183
31....	430	....	215	196	....	92	....	671	....	818	500	....
Total	4200	6899	6829	7997	8424	3729	4164	8552	13730	11732	26656	7339
Mean.	135	230	220	258	301	120	139	276	458	378	860	245
Max..	430	586	296	312	....	242	399	671	866	818	2080	395
Min...	62	160	152	....	143	92	70	143	198	104	253	95
Acre-ft.	8300	13700	13500	15900	16700	7380	8270	17000	27200	23200	52900	14600

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of South Platte River Near Kersey for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, 4,612 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	249	800	670	661	462	455	626	724	98	71	187	388
2....	244	800	661	644	469	490	644	670	71	83	187	356
3....	235	800	646	635	476	476	654	652	101	80	178	345
4....	226	770	679	644	483	483	644	617	101	86	715	408
5....	221	780	688	626	490	591	644	582	143	95	1080	724
6....	221	780	652	559	476	644	654	527	140	108	760	992
7....	226	790	626	566	469	882	654	469	249	108	1880	1380
8....	221	780	617	574	448	1460	654	441	244	115	2820	1710
9....	221	770	617	609	448	992	654	388	381	109	1800	1890
10....	226	770	617	600	448	882	663	339	626	118	1350	2070
11....	235	751	635	591	414	780	654	394	476	125	1210	2010
12....	316	742	652	582	441	850	643	414	414	132	1020	1740
13....	375	750	688	582	421	882	608	566	300	115	600	1520
14....	388	742	706	574	427	820	574	448	240	112	362	1340
15....	427	724	706	600	441	733	574	368	230	136	230	1150
16....	559	706	679	608	455	679	520	279	274	125	170	970
17....	1040	706	652	600	462	679	483	240	253	112	147	770
18....	1070	679	617	574	462	688	455	212	305	125	140	706
19....	893	670	617	559	462	706	441	204	263	118	136	670
20....	810	688	617	504	448	706	559	208	230	158	159	574
21....	770	697	626	490	462	706	742	170	217	178	143	462
22....	751	679	644	512	448	770	893	129	208	162	140	388
23....	742	670	644	527	434	661	780	129	208	174	129	351
24....	724	670	635	512	448	654	1070	108	279	333	125	351
25....	715	651	635	490	448	697	1020	80	204	591	125	345
26....	715	661	635	483	434	810	948	89	162	490	125	333
27....	706	661	635	476	441	733	904	212	122	294	132	339
28....	697	661	652	455	448	688	871	155	95	191	136	351
29....	697	679	697	469	....	654	840	118	77	204	151	350
30....	715	679	705	469	....	626	751	83	63	217	217	368
31....	742	....	697	469	....	626	....	74	....	195	316	....
Total	16377	21706	20247	17244	12665	22503	20821	10089	6774	5260	16870	25351
Mean.	528	724	653	556	452	726	694	325	226	170	544	845
Max..	1070	800	706	661	490	1460	1070	724	626	591	2820	2070
Min...	221	651	617	455	414	455	441	74	63	71	125	333
Acre-ft.	32500	43100	40200	34200	25100	44600	41300	20000	13500	10500	33400	50300

Discharge of South Platte River near Kersey for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, 4,612 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	448	1050	760	635	652	626	469	140	240	71	166	421
2....	476	1260	706	670	559	617	462	125	617	80	105	427
3....	490	1200	661	626	504	551	448	129	305	74	71	356
4....	535	1080	706	617	504	551	441	125	147	74	132	289
5....	520	1050	780	617	504	559	448	159	105	77	112	244
6....	448	948	840	617	551	559	441	143	95	83	401	244
7....	434	948	830	617	661	543	427	136	95	86	333	249
8....	434	992	760	626	948	535	434	122	92	92	258	316
9....	448	970	742	600	1580	520	434	118	92	83	381	715
10....	448	926	751	626	1610	559	427	132	95	83	312	770
11....	448	882	800	582	1390	559	427	132	105	80	1390	810
12....	434	840	840	582	1290	551	427	112	92	89	2510	770
13....	401	800	790	520	1160	543	381	95	95	89	2860	715
14....	394	742	790	500	959	543	345	80	95	151	3880	661
15....	448	742	780	480	850	543	333	80	86	381	5990	574
16....	448	790	790	475	830	520	333	74	89	166	5370	520
17....	448	820	840	460	800	535	388	140	92	105	3820	434
18....	434	840	840	480	790	591	600	600	83	89	3170	356
19....	434	780	800	490	790	608	724	742	86	92	3290	310
20....	421	724	760	490	790	591	715	490	86	74	3050	322
21....	421	652	742	500	810	559	644	310	118	83	2360	300
22....	441	582	733	500	830	559	591	208	112	112	1770	310
23....	469	608	670	500	790	526	535	217	98	333	1290	289
24....	483	697	644	500	780	512	476	339	89	263	840	274
25....	527	706	688	500	742	520	356	240	108	140	644	289
26....	543	670	679	510	742	551	535	155	112	89	512	351
27....	559	800	582	540	706	535	381	105	108	63	388	375
28....	240	780	679	580	670	520	316	101	105	63	388	356
29....	600	800	652	580	....	504	258	95	92	63	476	362
30....	697	810	635	600	....	476	178	101	87	63	448	368
31....	882	....	626	608	....	476	....	101	....	68	388	....
Total	14853	25489	22896	17228	23792	16936	13374	5846	3821	3459	47305	12777
Mean.	479	850	738	556	850	546	446	188	127	112	1530	426
Max..	882	1260	840	670	1610	626	728	742	617	381	5990	810
Min...	240	582	582	....	504	476	178	74	83	63	71	244
Acre-ft.	29500	50600	45400	34200	47200	33600	26500	11600	7560	6890	94100	25300

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of South Platte River at Sublette for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	331	66	110	80	660	152	88	1120	239	148	218	301
2....	312	66	124	88	718	136	213	1080	244	179	229	331
3....	331	77	255	82	700	120	318	1030	234	170	229	340
4....	306	71	189	80	691	114	306	1060	244	170	880	389
5....	301	63	132	132	691	120	700	1029	363	184	940	452
6....	324	68	194	174	660	128	865	980	475	174	980	781
7....	331	80	244	94	652	117	875	828	460	179	780	1040
8....	337	74	194	82	640	165	894	430	554	170	1360	1420
9....	396	74	156	85	630	174	884	350	682	170	1320	1720
10....	403	80	165	148	620	117	903	306	424	189	578	1880
11....	337	77	189	234	612	117	612	295	665	179	452	1900
12....	331	66	324	266	560	94	283	260	536	165	604	1470
13....	467	77	160	595	560	189	203	229	396	184	587	860
14....	545	88	110	809	560	229	184	110	389	203	482	840
15....	621	88	110	856	560	369	165	88	376	208	324	800
16....	498	74	104	894	560	424	156	77	382	208	213	480
17....	389	85	107	856	530	312	160	68	460	174	165	360
18....	396	82	156	837	564	306	179	60	460	170	144	240
19....	260	77	174	827	494	331	203	77	536	170	132	107
20....	120	85	184	827	396	647	260	140	452	179	203	120
21....	91	94	424	692	410	545	382	312	417	160	208	140
22....	71	88	505	718	396	312	692	306	382	255	194	104
23....	71	85	528	745	382	174	932	277	369	260	179	88
24....	74	88	452	709	382	156	1360	295	369	260	189	91
25....	66	88	403	665	477	148	1510	260	417	475	179	156
26....	63	85	260	682	403	213	1410	250	301	467	174	255
27....	66	88	144	727	272	382	1380	239	239	350	184	266
28....	63	101	110	718	165	312	1310	344	198	208	208	356
29....	55	94	110	691	....	117	1250	324	170	170	208	382
30....	55	101	94	674	....	104	1190	295	170	198	198	312
31....	66	....	74	647	....	132	....	266	....	239	231	....
Total	8077	2430	6485	15714	14945	6956	19867	12776	11603	6615	12972	17981
Mean.	261	81.0	209	507	534	224	662	412	387	213	418	599
Max..	621	101	528	894	718	647	1510	1120	682	475	1360	1900
Min...	55	63	94	80	165	94	88	60	170	148	132	88
Acre-ft.	16000	4820	12900	31200	29700	13800	39400	25300	23000	13100	25700	35600

Discharge of South Platte River at Sublette for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	312	140	85	85	874	343	126	168	168	143	157	578
2....	210	290	72	70	874	478	93	164	288	143	200	605
3....	180	220	88	80	821	612	85	168	360	123	160	537
4....	140	160	95	104	843	605	75	188	309	120	150	384
5....	110	140	110	106	851	420	80	196	272	123	176	304
6....	105	120	246	115	836	366	77	267	237	120	164	251
7....	100	100	168	115	821	354	72	293	223	120	256	232
8....	100	90	126	115	843	326	72	246	214	126	184	237
9....	100	90	106	115	858	246	80	232	209	140	146	315
10....	100	80	93	115	1140	228	82	228	223	140	267	612
11....	95	75	80	115	1180	188	80	228	237	140	378	605
12....	95	75	72	130	1160	143	85	251	223	157	988	612
13....	95	75	72	220	1050	133	88	228	168	160	2130	571
14....	95	70	75	340	1000	133	82	188	160	160	2440	465
15....	95	75	72	403	1000	129	77	160	168	218	3500	384
16....	95	75	68	390	996	126	85	160	160	402	3220	315
17....	95	75	69	390	965	126	80	200	172	251	2550	232
18....	95	75	70	390	972	126	77	304	176	223	2480	168
19....	95	77	70	390	972	120	88	133	157	237	1170	146
20....	95	98	68	390	957	120	168	93	160	228	1140	209
21....	95	101	72	400	980	126	200	104	172	209	813	237
22....	95	126	68	400	858	146	209	126	176	218	725	239
23....	95	293	63	400	754	304	200	126	172	262	704	272
24....	95	366	63	400	647	293	180	153	172	440	511	237
25....	90	440	72	400	478	184	164	218	176	390	498	205
26....	95	440	120	420	396	168	188	218	267	309	654	282
27....	90	188	237	440	337	146	232	209	277	251	551	315
28....	82	129	237	459	309	143	164	205	293	218	558	309
29....	88	95	160	500	....	143	164	168	277	200	682	272
30....	98	98	93	740	....	133	192	160	176	176	718	153
31....	95	....	88	864	....	123	....	164	....	160	612	....
Total	3425	4476	3178	9601	23642	7231	3645	5946	6442	6307	28882	10283
Mean.	110	149	102	310	844	233	122	192	215	203	932	343
Max..	....	440	246	864	1180	612	232	304	360	440	3500	612
Min...	....	....	63	70	309	120	72	93	157	120	146	146
Acre-ft.	6760	8870	6270	19100	46900	14300	7260	11800	12800	12500	57300	20400

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of South Platte River at Balzac for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, 4,090 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	118	42	30	45	750	260	580	1530	146	135	71	276
2....	88	29	30	48	755	185	540	1500	155	127	71	258
3....	91	38	26	42	812	131	500	1430	151	146	78	240
4....	91	33	30	45	810	130	460	1370	128	135	83	258
5....	94	30	33	50	810	128	440	1430	121	135	142	218
6....	94	33	38	51	800	124	380	1460	124	146	246	222
7....	159	34	146	107	780	122	336	1340	138	185	223	174
8....	159	33	146	111	760	120	464	1210	107	176	234	905
9....	159	32	86	121	740	118	540	880	114	155	352	1529
10....	163	32	74	167	738	121	561	826	121	167	607	1790
11....	167	32	63	209	740	234	583	750	146	172	320	2000
12....	270	23	58	264	730	276	607	561	138	163	218	1750
13....	304	24	71	312	730	296	607	368	118	155	190	1270
14....	352	24	53	360	720	320	328	228	121	155	163	876
15....	529	23	46	665	720	344	163	121	124	155	180	558
16....	454	22	42	787	710	388	114	91	135	155	209	383
17....	344	24	54	738	676	416	91	88	142	155	194	193
18....	172	22	86	665	660	397	76	172	194	146	180	54
19....	65	20	88	880	640	406	81	167	194	135	151	30
20....	60	22	91	787	600	387	131	167	185	121	172	30
21....	51	23	91	770	570	387	218	167	185	118	135	25
22....	48	23	96	760	540	397	228	121	163	131	114	22
23....	48	23	92	760	500	572	368	114	155	138	135	54
24....	48	24	88	750	500	584	976	135	185	135	159	40
25....	43	23	83	750	500	584	1530	155	180	159	155	75
26....	42	21	77	740	507	562	1560	138	180	138	142	127
27....	36	21	71	740	480	529	1590	121	185	131	138	134
28....	36	25	63	750	400	595	1460	121	167	121	185	142
29....	36	26	57	750	....	583	1350	155	151	194	240	158
30....	45	27	51	750	....	572	1460	240	146	101	270	217
31....	46	....	42	750	....	572	....	159	....	71	276	....
Total	4412	808	3002	14724	18638	10840	18322	17315	4499	4456	6033	13999
Mean.	142	26.9	96.8	475	665	350	611	559	150	144	195	467
Max..	529	42	146	880	....	595	1590	1530	194	194	607	2000
Min...	36	20	26	42	....	....	76	88	107	71	71	22
Acre-ft.	8730	1600	5950	29200	36900	21500	36400	34400	8930	8850	12000	27800

Discharge of South Platte River at Balzac for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, 4,090 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	165	81	326	44	620	435	22	91	88	95	134	226
2....	165	136	248	34	620	442	22	150	76	142	144	173
3....	135	182	284	30	620	512	22	131	71	156	142	167
4....	110	400	295	27	680	572	21	93	71	136	150	176
5....	70	407	284	26	720	626	20	84	95	117	124	167
6....	72	188	284	24	780	608	20	61	126	110	150	182
7....	97	188	316	24	840	520	19	112	117	95	139	243
8....	112	194	356	27	860	456	19	136	122	126	161	212
9....	91	194	265	29	920	350	19	106	144	134	176	150
10....	63	91	194	44	1040	239	19	86	164	124	153	147
11....	64	34	114	72	1060	161	52	91	179	117	279	208
12....	81	36	89	190	1080	102	136	74	176	153	248	274
13....	74	48	60	170	1440	66	156	45	164	198	290	252
14....	76	95	48	170	2440	64	147	29	158	194	714	201
15....	86	104	34	170	2200	61	176	27	176	134	1320	164
16....	97	110	30	170	1680	61	219	27	188	102	1520	52
17....	104	117	36	200	1560	61	99	30	198	93	2520	55
18....	124	54	119	240	1610	64	35	25	194	104	2090	54
19....	136	26	230	280	1920	64	30	23	188	129	1380	53
20....	114	32	234	320	2090	64	30	25	182	142	1020	50
21....	11	173	239	320	1830	53	30	24	156	131	626	45
22....	13	500	374	320	1630	41	30	25	170	131	350	49
23....	13	500	456	340	1330	30	29	25	179	119	274	48
24....	13	500	442	340	1160	29	28	24	170	112	274	52
25....	13	500	435	360	896	29	26	32	147	134	182	38
26....	14	500	414	380	685	24	24	79	126	156	153	33
27....	13	500	400	420	590	20	22	91	129	131	164	45
28....	32	500	393	480	536	19	22	112	139	156	161	45
29....	50	500	344	547	....	21	29	106	131	158	216	49
30....	53	456	234	600	....	21	53	110	102	176	428	43
31....	84	....	93	600	....	21	....	114	....	153	414	....
Total	2345	7346	7670	6998	33437	5836	1576	2188	4326	4158	16096	3653
Mean.	75.6	245	247	226	1190	188	52.5	70.6	144	134	519	122
Max..	165	....	456	....	....	626	219	150	198	198	2520	274
Min...	11	26	30	24	536	19	19	23	71	93	124	33
Acre-ft.	4650	14600	15200	13900	66100	11600	3120	4340	8570	8240	31900	7260

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of South Platte River at Julesburg for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, 3,469 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	17	269	439	....	....	....	854	1480	36	17	27	26
2....	33	230	428	....	777	....	807	1540	44	18	27	22
3....	29	437	401	....	....	....	812	1660	35	17	26	28
4....	52	532	397	....	....	....	718	1580	36	18	24	37
5....	62	546	384	....	....	....	646	1540	44	18	23	35
6....	72	490	316	....	....	....	593	1540	53	21	23	58
7....	82	454	322	....	....	....	542	1580	59	20	22	74
8....	80	403	329	....	....	....	519	1610	64	19	21	88
9....	76	367	343	....	....	....	658	1470	56	20	21	117
10....	77	355	338	486	....	....	854	1380	49	21	19	232
11....	79	346	361	....	....	....	1030	1170	48	22	19	603
12....	90	452	362	....	....	....	1000	1220	44	22	16	896
13....	112	463	365	....	....	....	985	937	40	21	16	1040
14....	165	491	397	....	....	....	897	827	37	25	16	984
15....	307	485	385	....	....	....	713	691	42	29	15	847
16....	355	479	384	....	....	....	617	573	34	33	14	712
17....	490	468	386	....	....	....	469	461	30	42	14	525
18....	556	452	366	....	....	....	386	377	30	32	14	390
19....	505	434	343	....	....	....	457	293	24	26	18	294
20....	450	428	358	....	....	....	470	236	19	25	18	242
21....	398	458	379	....	....	....	466	211	17	22	16	199
22....	361	447	401	....	....	....	459	189	22	87	16	160
23....	320	441	433	....	....	....	538	167	20	130	15	127
24....	296	444	428	....	....	....	836	141	17	65	17	97
25....	276	430	448	....	....	....	1770	107	15	51	16	95
26....	261	425	461	....	895	....	1880	98	19	45	14	85
27....	258	425	461	....	....	813	1820	70	18	37	15	93
28....	245	439	459	....	....	813	1740	64	18	31	31	81
29....	244	421	459	....	....	806	1660	62	17	29	28	74
30....	242	446	442	....	....	814	1580	43	17	29	25	69
31....	249	....	431	....	....	885	....	35	....	29	26	....
Total	6839	12957	12206	....	....	....	26776	23352	1004	1021	612	8330
Mean.	221	432	394	580	850	870	893	753	33.5	32.9	19.7	278
Max..	556	546	461	....	....	....	1880	1660	64	130	31	1040
Min...	17	230	316	....	....	....	386	35	15	17	14	22
Acre-ft.	13600	25700	24200	35700	47200	53500	53100	46300	1990	2020	1210	16500

Discharge of South Platte River at Julesburg for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, 3,469 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	70	439	562	483	409	1220	248	136	190	27	33	141
2....	74	456	562	463	393	1200	226	123	158	30	30	115
3....	69	399	542	443	468	1150	205	116	137	30	27	107
4....	68	378	564	422	556	1040	178	113	155	33	28	96
5....	67	369	584	402	666	1230	166	110	158	30	28	85
6....	57	375	634	382	928	1490	139	101	135	27	25	82
7....	53	369	676	382	1110	1400	121	93	107	23	25	81
8....	48	400	716	352	1330	1280	126	80	84	23	25	75
9....	65	414	760	352	1640	750	111	86	79	23	26	77
10....	60	366	748	352	1710	732	90	268	73	23	27	72
11....	54	415	733	323	2280	714	70	786	61	24	25	72
12....	54	452	679	303	2490	733	71	765	49	45	27	73
13....	45	471	618	309	2490	617	66	625	47	171	29	71
14....	50	482	620	305	2620	546	62	528	43	143	28	79
15....	53	519	585	293	2780	485	65	524	37	80	43	114
16....	56	531	550	293	2930	443	119	533	24	57	117	115
17....	58	551	505	283	3220	402	326	600	34	48	513	122
18....	64	564	504	273	2820	403	403	807	32	44	1130	108
19....	91	564	481	274	2590	455	387	860	36	45	1980	99
20....	120	509	484	273	2380	413	327	770	37	39	2420	91
21....	178	455	468	273	2620	374	253	644	37	34	1580	86
22....	222	293	478	273	2560	370	202	562	35	35	1230	82
23....	244	317	478	273	2430	343	173	517	36	37	925	91
24....	210	346	476	275	2180	295	171	477	34	33	720	91
25....	190	331	486	287	1910	300	177	372	32	34	483	88
26....	184	529	496	318	1710	279	196	339	30	39	361	121
27....	169	643	496	318	1600	268	175	288	33	39	285	138
28....	187	650	494	320	1360	276	165	271	32	38	239	162
29....	243	570	494	342	....	317	165	238	29	36	260	162
30....	349	560	494	342	....	299	168	223	27	37	203	173
31....	439	....	492	366	....	270	....	211	....	35	172	....
Total	3891	13717	17459	10349	52180	20094	5351	12166	2001	1362	13044	3069
Mean.	126	457	563	334	1860	648	178	392	66.7	43.9	421	102
Max..	439	650	760	483	3220	1490	403	860	190	171	2420	173
Min...	45	293	468	273	393	268	62	80	24	23	25	71
Acre-ft.	7750	27200	34600	20500	103000	39800	10600	24100	3970	2700	25900	6070

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Tarryall Creek Near Lake George for Year Ending Sept. 30, 1929.
Drainage Area, 460 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	13	18	....	....	....	....	65	33	27	8	190	132
2....	13	21	....	....	....	....	68	18	52	7	271	135
3....	12	22	....	....	....	....	76	16	72	14	196	118
4....	12	22	....	....	....	....	76	19	52	15	282	118
5....	11	22	....	....	....	....	72	20	36	12	236	107
6....	11	28	....	....	....	....	68	17	27	11	265	117
7....	11	28	....	....	....	....	63	18	27	11	385	169
8....	9	18	....	....	....	....	60	17	31	11	404	226
9....	11	24	....	....	....	....	59	12	27	11	267	262
10....	11	16	....	....	....	....	58	11	32	11	263	166
11....	11	22	....	....	....	....	60	11	33	11	198	130
12....	11	18	....	....	....	....	60	11	51	15	159	114
13....	12	13	....	....	....	....	58	11	68	25	131	104
14....	15	20	....	....	....	....	50	18	38	34	118	93
15....	15	20	....	....	....	....	35	31	30	27	102	85
16....	15	21	....	....	....	....	35	17	26	23	90	89
17....	13	24	....	....	....	....	39	15	27	72	88	93
18....	17	18	....	....	....	....	48	16	21	48	161	81
19....	20	18	....	....	....	....	44	18	23	68	153	76
20....	19	18	....	....	....	....	39	15	19	142	125	75
21....	16	18	....	....	....	....	26	15	12	170	112	75
22....	16	18	....	....	....	....	20	16	11	134	134	72
23....	14	18	....	....	....	....	23	17	10	99	134	70
24....	17	18	....	....	....	....	24	18	9	167	110	70
25....	14	18	....	....	....	....	18	16	9	110	114	66
26....	15	16	....	....	....	....	20	16	8	48	121	63
27....	16	16	....	....	....	....	20	17	8	31	109	60
28....	16	16	....	....	....	....	17	20	8	124	100	60
29....	16	16	....	....	....	....	20	20	8	530	158	58
30....	18	16	....	....	....	....	29	20	8	177	162	56
31....	20	....	....	....	....	....	....	20	....	137	159	....
Total	440	581	....	....	....	....	1350	539	810	2303	5497	3140
Mean.	14.2	19.4	....	....	....	....	45.0	17.4	27.0	74.3	177	105
Max..	20	28	....	....	....	....	76	33	72	530	404	262
Min...	9	13	....	....	....	....	17	11	8	7	88	56
Acre-ft.	873	1150	....	....	....	....	2680	1070	1610	4570	10900	6250

Discharge of Tarryall Creek Near Lake George for Year Ending Sept. 30, 1930.
Drainage Area, 460 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	53	....	....	....	....	....	30	28	277	42	286	108
2....	55	....	....	....	....	....	30	24	192	38	281	98
3....	51	....	....	....	....	....	32	25	111	33	213	102
4....	50	....	....	....	....	....	39	28	74	32	189	94
5....	49	....	....	....	....	....	47	27	66	34	288	102
6....	47	....	....	....	....	....	126	24	53	35	416	104
7....	47	....	....	....	....	....	235	22	53	35	277	104
8....	47	....	....	....	....	....	313	20	72	31	209	113
9....	52	....	....	....	....	....	195	20	84	27	211	152
10....	54	....	....	....	....	....	153	20	147	24	179	108
11....	49	....	....	....	....	....	120	19	198	27	252	90
12....	48	....	....	....	....	....	103	17	144	33	338	79
13....	44	....	....	....	....	....	103	16	96	42	346	75
14....	42	....	....	....	....	....	100	16	86	168	418	71
15....	42	....	....	....	....	....	86	19	86	147	414	66
16....	39	....	....	....	....	....	79	26	79	56	319	63
17....	37	....	....	....	....	....	63	44	82	28	284	64
18....	37	....	....	....	....	....	51	75	89	24	240	62
19....	36	....	....	....	....	....	50	84	148	55	214	59
20....	35	....	....	....	....	....	52	61	159	107	192	58
21....	32	....	....	....	....	....	44	41	95	104	170	57
22....	31	....	....	....	....	....	51	41	96	203	159	56
23....	29	....	....	....	....	....	48	57	95	219	165	61
24....	24	....	....	....	....	....	42	78	79	113	153	64
25....	24	....	....	....	....	....	53	72	56	123	138	57
26....	26	....	....	....	....	....	44	61	42	126	168	55
27....	30	....	....	....	....	....	43	59	35	106	156	56
28....	32	....	....	....	....	....	43	59	30	154	146	57
29....	32	....	....	....	....	....	42	63	47	349	179	60
30....	32	....	....	....	....	....	36	112	46	503	153	60
31....	32	....	....	....	....	....	....	171	....	420	126	....
Total	1238	....	....	....	....	....	2453	1429	2917	3438	7279	2355
Mean.	39.9	....	....	....	....	....	81.8	46.1	97.2	111	235	78.5
Max..	55	....	....	....	....	....	313	171	277	503	418	152
Min...	24	....	....	....	....	....	....	16	30	24	126	55
Acre-ft.	2450	....	....	....	....	....	4870	2830	5780	6820	14400	4670

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Goose Creek at Lake Cheesman for Year Ending Sept. 30, 1929.
Drainage Area, 86 Square Miles. Altitude, 6,835 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	9	9	9	8	7	7	30	29	35	11	48	54
2....	9	10	8	8	7	7	40	19	31	12	39	53
3....	9	11	8	8	7	7	40	16	30	12	59	64
4....	10	10	8	8	7	7	41	19	28	10	154	57
5....	9	9	8	8	7	7	41	33	27	11	82	52
6....	9	9	8	7	7	7	41	44	28	12	151	57
7....	8	9	7	7	7	7	41	48	27	11	168	90
8....	8	8	7	7	7	7	41	56	26	10	151	105
9....	8	8	8	7	7	7	35	54	24	12	138	93
10....	8	9	7	7	7	8	30	54	22	12	168	74
11....	8	8	7	7	7	8	24	39	21	12	126	78
12....	8	10	8	7	7	8	18	23	21	12	110	63
13....	8	10	9	7	7	8	11	27	24	13	100	58
14....	9	9	9	7	7	8	11	55	22	12	95	55
15....	11	9	9	7	7	8	11	81	21	15	91	53
16....	12	9	8	7	7	8	11	60	19	20	87	56
17....	11	8	8	7	7	8	10	47	17	21	81	55
18....	12	8	8	7	7	9	14	43	17	17	94	50
19....	16	8	8	7	7	15	15	46	16	23	81	49
20....	16	7	8	7	7	15	14	46	16	28	67	49
21....	14	8	8	7	7	15	12	45	15	20	75	48
22....	12	8	8	7	7	15	11	50	14	17	74	46
23....	11	9	9	7	7	15	11	47	14	30	72	48
24....	11	9	9	7	7	15	11	44	13	32	68	46
25....	10	9	9	7	7	18	11	46	14	26	58	43
26....	11	8	9	7	7	20	11	44	13	18	70	42
27....	10	8	9	7	7	20	11	40	12	15	61	40
28....	9	10	8	7	7	22	11	38	12	16	53	39
29....	9	9	8	7	....	25	14	39	12	28	88	35
30....	9	9	8	7	....	28	26	36	11	27	81	35
31....	9	....	8	7	....	30	....	36	....	34	63	....
Total	369	265	253	222	196	389	648	1304	602	549	2853	1687
Mean.	11.9	8.83	8.16	7.16	7.0	12.5	21.6	42.1	20.1	17.7	92.0	56.2
Max..	16	11	9	8	7	30	41	81	35	34	168	105
Min...	8	7	7	7	7	7	10	16	11	10	39	35
Acre-ft.	732	525	502	440	389	769	1290	2590	1200	1090	5660	3340

Discharge of Goose Creek at Lake Cheesman for Year Ending Sept. 30, 1930.
Drainage Area, 86 Square Miles. Altitude, 6,835 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	33	20	7	7	4	7	15	45	86	29	129	67
2....	32	21	7	7	4	8	16	44	79	27	95	62
3....	33	20	8	7	4	8	16	43	65	25	84	61
4....	34	19	10	7	4	7	20	47	58	24	88	59
5....	31	21	10	6	4	7	25	44	56	23	142	59
6....	31	18	10	1	4	6	30	39	54	22	125	65
7....	31	26	9	6	4	6	35	37	52	20	106	54
8....	31	14	7	6	4	6	40	37	50	22	99	64
9....	35	16	8	5	4	6	40	35	49	19	109	67
10....	34	14	8	6	4	6	32	36	56	18	136	50
11....	33	12	8	4	4	10	30	32	57	20	146	47
12....	32	17	7	6	4	10	27	37	49	22	182	44
13....	30	10	7	6	5	10	30	36	46	25	171	42
14....	29	8	7	6	5	10	35	35	42	50	240	38
15....	29	11	7	6	5	10	25	33	39	36	265	36
16....	28	12	7	4	4	12	30	33	37	25	208	35
17....	27	12	6	4	4	12	36	37	37	22	204	35
18....	27	11	6	4	4	15	35	44	37	22	181	33
19....	27	10	6	6	9	15	36	57	47	29	162	31
20....	25	10	7	4	10	15	40	68	44	35	146	30
21....	23	8	6	5	10	16	53	63	37	40	136	28
22....	19	7	6	4	11	16	66	49	36	107	137	27
23....	15	6	7	4	6	16	69	48	40	52	128	30
24....	12	7	6	5	6	16	56	66	34	38	113	30
25....	11	8	7	4	5	16	70	61	31	36	106	26
26....	18	8	6	6	4	16	69	54	30	43	106	27
27....	17	8	6	4	4	12	61	52	29	38	100	26
28....	17	7	6	5	7	12	53	53	27	37	94	21
29....	18	7	7	5	....	11	47	53	25	116	85	19
30....	7	8	7	5	....	12	47	62	25	123	77	17
31....	8	....	7	5	....	15	....	77	....	199	71	....
Total	777	376	223	160	147	344	1184	1457	1354	1344	4171	1230
Mean.	25.1	12.5	7.19	5.16	5.25	11.1	39.5	47.0	45.1	43.4	135	41.0
Max..	35	26	10	7	11	16	70	77	86	199	265	67
Min...	7	6	6	1	4	6	15	32	25	18	71	17
Acre-ft.	1540	744	442	317	292	682	2350	2890	2680	2670	8300	2440

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Bear Creek at Idledale for Year Ending Sept. 30, 1929.
Drainage Area, 111 Square Miles. Altitude, 6,400 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	17	31	15	....	....	11	17	23	68	26	109	94
2....	20	26	16	....	....	....	17	19	68	26	120	90
3....	23	28	13	16	....	....	18	20	59	24	185	111
4....	21	31	14	....	....	....	19	21	56	22	216	115
5....	21	30	14	....	....	....	19	24	56	26	195	98
6....	22	31	14	....	....	....	20	26	57	22	332	102
7....	20	30	....	....	....	....	21	26	50	21	309	111
8....	20	29	....	....	....	....	22	35	51	17	270	107
9....	20	26	....	....	....	....	23	40	50	18	220	102
10....	21	27	....	....	....	....	21	42	45	20	209	98
11....	23	21	....	....	....	....	17	50	44	20	176	90
12....	24	18	....	....	....	....	20	42	48	22	176	79
13....	28	20	....	....	....	....	22	46	44	22	176	84
14....	28	19	....	....	....	....	18	68	37	22	166	86
15....	30	17	....	....	....	....	18	90	37	24	149	86
16....	35	26	....	....	....	....	20	94	38	24	136	77
17....	35	21	....	....	....	....	21	90	37	24	129	79
18....	34	26	....	....	....	....	24	90	35	38	131	79
19....	32	28	....	....	....	....	26	79	32	37	124	73
20....	30	29	....	....	....	....	30	73	29	54	115	70
21....	30	29	....	....	....	....	22	81	27	57	120	70
22....	28	21	....	....	....	....	20	70	26	120	107	70
23....	26	20	....	....	....	....	21	64	29	287	102	66
24....	29	19	....	....	....	....	26	68	31	120	102	68
25....	29	16	....	....	....	....	19	60	32	94	98	66
26....	29	16	....	....	....	....	20	60	28	86	107	64
27....	29	19	....	....	....	....	24	62	24	82	94	64
28....	27	17	....	....	....	....	20	56	23	94	98	64
29....	28	15	....	7	....	....	21	50	24	88	107	64
30....	28	17	....	....	....	....	23	44	24	109	102	64
31....	30	....	....	....	....	....	....	48	....	113	98	....
Total	817	703	....	....	....	....	629	1661	1209	1759	4778	2491
Mean.	26.4	23.4	15	13	8	13	21.0	53.5	40.3	56.7	154	83.0
Max..	35	31	....	....	....	....	30	94	68	287	332	115
Min...	17	15	....	....	....	....	17	19	23	17	94	64
Acre-ft.	1620	1390	922	799	444	799	1250	3290	2400	3490	9470	4940

Discharge of Bear Creek at Idledale for Year Ending Sept. 30, 1930.
Drainage Area, 111 Square Miles. Altitude, 6,400 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	70	22	14	....	12	32	18	45	79	38	101	84
2....	70	28	14	....	12	22	21	46	64	30	101	81
3....	64	34	15	....	12	28	23	59	54	27	95	79
4....	57	34	10	....	12	22	22	53	54	26	128	79
5....	57	33	10	....	12	20	24	45	48	30	97	77
6....	51	70	10	17	14	17	29	39	51	33	88	81
7....	52	62	10	....	14	17	30	39	53	30	86	75
8....	54	27	12	....	16	21	35	38	53	28	131	81
9....	51	21	12	....	16	18	37	34	54	26	170	75
10....	52	20	12	....	16	14	48	36	56	28	209	72
11....	54	20	16	....	16	16	49	34	51	29	203	68
12....	54	18	16	....	16	20	48	34	51	33	203	65
13....	57	16	16	....	18	22	46	34	50	65	237	62
14....	54	16	16	....	18	17	46	34	49	56	282	59
15....	50	14	16	....	18	18	48	38	48	36	253	57
16....	49	18	14	....	18	20	51	42	48	28	237	57
17....	47	16	14	....	19	21	39	56	49	25	230	56
18....	46	16	14	....	22	20	38	48	50	32	206	48
19....	45	14	12	....	22	19	37	46	53	56	200	42
20....	43	14	12	....	20	18	36	45	51	51	176	40
21....	42	10	12	....	20	18	46	48	51	36	158	41
22....	32	12	12	....	21	20	44	49	53	99	156	49
23....	30	14	14	....	20	21	41	56	50	62	153	56
24....	31	14	14	....	19	17	49	49	50	53	147	54
25....	30	16	14	....	21	18	64	49	50	59	131	53
26....	31	16	16	....	25	17	70	54	38	70	133	51
27....	31	18	16	....	25	17	65	59	37	65	144	53
28....	31	16	14	....	30	18	56	56	36	74	126	51
29....	38	16	14	....	....	22	56	56	31	131	126	50
30....	29	16	14	....	....	18	51	68	35	118	118	49
31....	26	....	14	....	....	20	....	97	....	118	103	....
Total	1428	661	419	....	504	608	1267	1486	1497	1592	4928	1845
Mean.	46.1	22.0	13.5	12.0	18.	19.6	42.2	47.9	49.9	51.4	159	61.5
Max..	70	70	....	....	30	32	70	97	79	131	282	84
Min...	26	....	....	....	....	14	18	34	31	25	86	40
Acre-ft.	2830	1310	830	738	1000	1210	2510	2950	2970	3160	9780	3660

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Bear Creek at Mouth for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	12	19	17	....	....	8	10	6	3	4	20	5
2....	13	19	....	....	....	10	7	5	3	4	21	5
3....	12	18	....	....	....	10	6	3	3	4	66	6
4....	12	18	....	....	....	8	6	4	3	4	106	19
5....	12	17	....	....	....	8	5	4	3	4	121	23
6....	13	20	....	....	....	13	6	4	3	3	147	25
7....	14	20	22	11	....	16	6	5	3	3	152	26
8....	13	18	....	....	....	11	5	6	3	3	134	23
9....	10	18	....	....	....	10	5	6	3	3	108	18
10....	12	39	....	....	....	10	5	5	3	4	87	21
11....	11	34	....	....	....	10	4	18	4	3	61	31
12....	12	16	....	....	....	13	4	9	6	3	47	22
13....	13	16	....	....	....	10	4	5	5	3	32	17
14....	14	16	....	....	....	11	4	5	4	3	22	8
15....	11	16	....	....	....	9	4	5	8	3	18	9
16....	12	16	....	....	....	11	4	4	6	6	15	10
17....	10	16	....	....	....	10	4	4	6	6	22	8
18....	10	16	....	....	....	10	4	5	5	6	25	7
19....	23	16	....	....	....	10	4	5	4	7	23	6
20....	31	16	....	....	....	11	8	4	4	4	17	5
21....	27	16	....	....	....	10	7	4	3	5	10	5
22....	27	16	....	....	....	10	4	5	4	3	8	5
23....	26	15	....	....	....	12	5	5	4	76	6	4
24....	26	16	....	....	....	13	8	4	5	31	5	4
25....	25	16	....	....	....	12	6	5	4	13	6	5
26....	24	16	....	....	....	11	5	4	4	14	9	4
27....	23	16	....	....	....	10	5	3	4	10	16	4
28....	22	17	....	....	9	10	6	3	4	13	13	5
29....	22	16	....	....	....	10	6	3	3	10	32	5
30....	21	16	....	....	....	12	6	3	4	5	10	5
31....	20	....	....	....	....	12	....	3	....	39	7	....
Total	533	544	....	....	....	331	163	154	121	305	1356	340
Mean.	17.2	18.1	16	14	12	10.7	5.43.	4.97	4.03	9.84	43.7	11.3
Max..	31	39	....	....	....	13	10	18	8	76	152	31
Min...	10	15	....	....	....	8	4	3	3	3	5	4
Acre-ft.	1060	1080	984	861	666	658	323	306	240	605	2690	672

Discharge of Bear Creek at Mouth for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	9	13	15	15	10	12	9	8	9	1	7	12
2....	9	12	18	16	10	11	8	7	1	7	6	11
3....	8	14	18	22	8	10	8	10	1	3	5	12
4....	8	12	18	19	8	10	7	14	1	2	40	12
5....	8	14	14	19	7	10	7	14	1	2	118	12
6....	8	14	14	12	10	9	7	9	1	2	46	12
7....	10	17	14	15	11	9	7	9	1	2	21	11
8....	11	16	13	16	11	9	7	10	1	1	29	8
9....	10	15	13	16	11	9	7	9	1	1	36	8
10....	9	14	14	15	10	9	7	9	4	1	85	8
11....	10	14	14	15	10	9	7	9	1	2	105	8
12....	8	15	14	15	10	9	7	8	1	2	110	10
13....	9	15	12	14	10	9	8	8	1	13	134	10
14....	8	16	12	14	10	9	8	8	1	14	198	10
15....	8	16	13	14	11	10	7	8	5	8	188	9
16....	9	16	14	12	11	11	10	8	2	4	151	7
17....	9	16	14	12	14	10	9	10	3	3	127	9
18....	11	17	15	10	14	11	7	12	8	3	66	10
19....	11	16	11	10	13	11	7	11	9	9	38	10
20....	11	18	10	10	13	10	8	10	2	12	34	11
21....	11	19	11	10	11	9	7	9	1	17	25	10
22....	11	18	11	10	11	9	7	9	2	18	21	10
23....	12	18	11	12	12	9	7	8	4	15	19	10
24....	12	15	11	12	12	9	8	8	2	11	16	10
25....	11	15	13	14	12	9	9	8	3	11	15	13
26....	9	14	13	16	13	9	8	8	2	10	14	15
27....	9	15	14	16	11	9	8	8	2	8	14	14
28....	9	15	13	10	11	9	8	8	1	9	14	12
29....	12	14	14	10	....	9	8	8	1	11	14	12
30....	13	16	13	10	....	9	11	8	1	11	13	13
31....	14	....	14	10	....	9	....	8	....	11	13	....
Total	307	459	418	421	305	296	233	281	73	224	1722	319
Mean.	9.9	15.3	13.5	13.6	10.9	9.55	7.77	9.06	2.43	7.23	55.5	10.6
Max..	14	19	18	22	14	12	11	14	9	18	198	15
Min...	8	12	10	....	7	9	7	7	1	1	5	7
Acre-ft.	609	910	830	836	605	587	462	557	145	445	3410	631

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Clear Creek Near Golden for Year Ending Sept. 30, 1929.
Drainage Area, 392 Square Miles. Altitude, 5,620 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	71	46	....	....	....	34	....	19	512	559	559	314
2....	66	36	....	....	....	....	....	41	595	525	498	310
3....	80	79	....	53	....	....	....	38	624	492	552	319
4....	114	87	....	....	....	....	....	56	624	486	532	324
5....	119	52	....	....	....	....	....	50	646	453	588	286
6....	66	66	31	....	....	....	....	34	661	411	722	305
7....	61	66	....	....	....	....	....	67	653	371	706	276
8....	110	80	....	....	....	....	....	94	691	393	661	319
9....	80	56	....	....	....	....	50	154	761	350	588	334
10....	80	70	....	....	....	....	....	125	769	319	573	295
11....	80	90	....	....	....	....	....	114	676	310	559	286
12....	121	....	....	....	....	....	....	130	616	314	525	286
13....	63	....	....	....	....	....	....	116	580	310	466	241
14....	53	....	....	....	....	....	....	119	653	276	447	232
15....	114	....	....	....	....	....	....	202	776	479	405	232
16....	123	....	....	....	....	....	....	236	588	428	393	254
17....	80	....	....	....	....	....	....	267	638	405	371	228
18....	70	....	....	....	....	....	....	245	609	393	434	220
19....	110	....	....	....	....	....	....	254	588	366	382	232
20....	76	....	....	....	....	....	....	295	595	393	382	232
21....	58	....	....	....	....	....	....	319	623	405	329	232
22....	87	....	....	....	....	....	....	290	631	486	340	217
23....	80	....	....	....	....	....	....	360	631	539	310	217
24....	66	....	....	....	....	....	....	299	646	653	305	213
25....	66	....	....	....	....	....	....	466	616	539	319	202
26....	87	....	....	....	....	....	30	580	595	472	314	202
27....	52	....	....	....	....	....	30	518	602	405	295	191
28....	41	....	....	35	....	....	28	485	602	595	276	187
29....	87	....	....	....	....	....	24	376	602	532	371	187
30....	60	....	....	....	....	....	33	334	573	580	382	183
31....	80	....	....	....	....	....	....	290	....	566	329	....
Total	2501	....	....	....	....	....	....	7073	18976	13805	13913	7556
Mean.	80.7	52	44	42	34	38	44	228	633	445	449	252
Max..	123	....	....	....	....	....	....	580	776	653	722	334
Min...	41	....	....	....	....	....	....	19	512	276	276	183
Acre-ft.	4960	3090	2710	2580	1890	2340	2620	14000	37700	27400	27600	15000

Discharge of Clear Creek Near Golden for Year Ending Sept. 30, 1930.
Drainage Area, 392 Square Miles. Altitude, 5,620 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	172	103	....	....	....	40	38	262	792	510	482	201
2....	165	....	....	....	....	40	46	274	638	510	428	192
3....	167	....	....	....	....	43	47	274	600	475	378	195
4....	167	....	....	....	....	78	56	254	640	454	384	211
5....	159	....	....	....	....	70	59	231	584	397	421	207
6....	149	....	....	....	....	55	76	214	681	378	397	207
7....	152	....	....	....	....	42	99	204	792	373	340	195
8....	154	....	....	47	....	44	110	181	911	367	315	211
9....	149	....	....	....	....	79	123	159	911	378	324	201
10....	152	....	....	....	....	33	130	172	911	384	310	190
11....	162	....	....	....	....	46	132	178	1010	378	301	175
12....	154	....	69	....	....	43	132	170	1110	356	306	162
13....	159	....	....	....	....	41	142	184	1130	258	397	157
14....	152	....	....	....	....	39	154	201	1110	266	510	144
15....	142	....	....	....	....	42	172	224	1010	390	454	137
16....	139	....	....	....	....	46	175	246	950	468	525	132
17....	135	....	....	....	....	50	159	258	950	440	525	132
18....	132	....	....	....	....	44	152	246	970	367	454	125
19....	130	....	....	....	....	32	157	231	980	351	434	103
20....	123	....	....	....	....	24	178	238	864	351	378	127
21....	121	....	....	....	....	29	159	266	873	315	340	121
22....	103	....	....	....	....	36	181	287	930	324	329	121
23....	98	....	....	....	....	42	201	238	706	315	319	130
24....	101	....	....	....	....	29	224	246	731	316	301	127
25....	99	....	....	....	....	36	274	258	748	319	283	118
26....	101	....	....	....	39	36	319	296	664	324	292	110
27....	103	....	....	....	....	41	301	415	584	397	274	121
28....	103	....	....	....	....	51	278	510	584	373	270	121
29....	103	....	....	....	....	71	266	632	584	496	254	107
30....	103	....	....	....	....	55	270	783	547	577	238	101
31....	103	....	....	....	....	38	....	960	....	532	214	....
Total	4152	....	....	....	....	1395	4810	9292	24495	12129	11177	4581
Mean.	134	85	60	38	42	45.0	160	300	816	391	361	153
Max..	172	....	....	....	....	79	319	960	1130	577	525	211
Min...	98	....	....	....	....	24	38	159	547	258	214	101
Acre-ft.	8240	5060	3690	2340	2330	2770	9520	18400	48600	24000	22200	9100

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Clear Creek at Mouth for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	10	26	29	17	14	....	20	11	166	182	131	34
2....	4	28	28	17	14	16	20	12	250	191	39	31
3....	7	44	30	17	14	....	20	11	238	182	89	50
4....	5	43	29	10	14	....	20	11	191	177	117	70
5....	5	35	29	15	....	....	20	11	223	188	58	71
6....	7	30	28	18	....	....	14	11	247	146	410	89
7....	7	29	28	18	....	....	14	10	196	75	417	134
8....	10	29	25	17	....	....	14	12	146	52	342	196
9....	10	31	28	17	....	....	13	13	174	66	272	129
10....	11	29	29	17	....	....	13	20	205	34	226	73
11....	10	29	28	16	....	....	13	122	238	17	214	46
12....	11	28	25	16	....	....	16	64	265	15	238	26
13....	12	26	24	16	....	....	5	26	191	21	79	17
14....	12	28	24	16	....	....	5	11	188	13	79	10
15....	12	28	23	16	....	....	4	14	250	93	58	8
16....	44	26	23	16	....	....	3	37	223	117	40	7
17....	60	26	24	16	....	....	3	37	247	109	47	8
18....	32	29	25	16	....	....	4	34	262	122	166	8
19....	23	34	28	16	....	....	5	37	238	113	136	8
20....	23	31	26	14	....	....	16	22	259	34	75	7
21....	23	29	28	14	....	....	18	37	241	17	61	7
22....	22	29	26	14	....	....	18	28	262	18	77	7
23....	22	28	28	14	....	....	18	15	268	199	43	7
24....	21	23	25	14	....	....	19	20	247	229	43	6
25....	21	28	25	12	....	....	20	60	177	71	43	6
26....	20	32	24	13	....	....	21	191	188	20	43	7
27....	22	29	23	14	....	....	21	202	220	15	42	7
28....	22	30	21	14	....	....	15	111	226	174	42	8
29....	21	30	18	14	....	....	10	30	208	129	88	8
30....	24	39	18	14	....	....	11	18	202	109	91	8
31....	25	....	18	14	....	....	....	18	....	191	55	....
Total	558	906	787	472	....	....	413	1256	6636	3119	3861	1093
Mean.	18.0	30.2	25.4	15.2	15	17	13.8	40.5	221	101	125	36.4
Max..	60	44	30	....	....	....	21	202	268	229	417	196
Min...	4	23	18	....	....	....	3	10	146	15	39	6
Acre-ft.	1110	1800	1560	935	833	1050	821	2490	13200	6210	7690	2170

Discharge of Clear Creek at Mouth for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	10	63	40	19	24	27	18	26	136	156	37	12
2....	10	57	35	25	24	29	17	40	41	132	26	10
3....	10	39	40	25	26	31	13	58	16	128	22	10
4....	9	55	45	....	26	32	8	52	8	114	33	12
5....	9	55	50	....	26	32	7	29	27	97	58	10
6....	9	50	45	....	30	29	6	20	33	76	37	13
7....	10	50	45	....	28	28	6	16	55	64	26	13
8....	12	55	50	....	28	27	19	13	156	57	23	10
9....	11	63	50	....	28	28	19	8	163	62	25	12
10....	10	52	53	....	28	43	29	4	106	54	33	9
11....	10	44	50	....	26	37	29	2	100	49	30	9
12....	10	43	50	....	26	29	21	3	185	78	31	8
13....	10	30	50	....	26	26	23	3	232	183	32	7
14....	9	35	50	....	26	25	24	3	198	209	29	7
15....	9	40	45	....	26	24	26	3	130	134	12	6
16....	9	42	32	....	27	22	35	10	104	56	18	6
17....	10	45	31	....	25	22	36	30	118	27	25	6
18....	9	40	24	....	26	23	19	35	201	32	27	6
19....	9	40	22	....	27	24	15	21	281	60	23	7
20....	9	35	29	....	50	24	15	9	198	76	15	7
21....	9	30	27	....	60	20	12	5	209	116	11	7
22....	10	35	40	....	34	20	12	10	227	138	12	8
23....	9	40	43	10	27	21	15	24	178	78	11	7
24....	9	40	39	....	26	20	36	14	124	52	11	7
25....	10	40	29	....	27	21	68	9	68	24	11	8
26....	9	51	31	....	27	22	64	7	64	17	12	8
27....	8	50	31	....	28	23	47	6	180	19	24	8
28....	8	45	24	....	26	22	40	20	188	12	18	8
29....	25	45	27	....	....	19	32	46	178	56	27	8
30....	48	40	27	....	....	18	30	76	152	78	15	7
31....	70	....	26	....	....	18	....	180	....	57	10	....
Total	409	1349	1180	....	808	786	741	782	4056	2491	724	256
Mean.	13.2	45.0	38.1	18.0	28.9	25.4	24.7	25.2	135	80.4	23.4	8.53
Max..	70	63	....	....	60	43	68	180	281	202	58	13
Min...	8	30	22	....	24	18	6	2	8	12	10	6
Acre-ft.	812	2680	2340	1110	1600	1560	1470	1550	8030	4940	1440	507

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of West Fork Clear Creek Near Empire for Year Ending Sept. 30, 1929.
Drainage Area, 57.3 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	....	....	....	....	....	....	....	....	160	219	172	68
2....	....	....	....	....	....	....	....	....	180	208	152	69
3....	....	....	....	....	....	....	....	....	190	193	152	71
4....	....	....	....	....	....	....	....	....	193	182	145	69
5....	....	....	....	....	....	....	....	....	255	160	148	70
6....	....	....	....	....	....	....	....	....	269	145	186	72
7....	....	....	....	....	....	....	....	....	281	136	186	74
8....	....	....	....	....	....	....	....	....	309	132	168	75
9....	....	....	....	....	....	....	....	....	321	119	160	71
10....	....	....	....	....	....	....	....	....	329	112	152	70
11....	....	....	....	....	....	....	....	....	321	108	138	71
12....	....	....	....	....	....	....	....	....	285	105	127	69
13....	....	....	....	....	....	....	....	....	238	106	117	67
14....	....	....	....	....	....	....	....	....	242	115	112	64
15....	....	....	....	....	....	....	....	....	265	119	106	63
16....	....	....	....	....	....	....	....	....	261	123	101	62
17....	....	....	....	....	....	....	....	....	273	127	103	59
18....	....	....	....	....	....	....	....	....	258	140	98	56
19....	....	....	....	....	....	....	....	....	261	134	88	54
20....	....	....	....	....	....	....	....	....	269	134	85	54
21....	....	....	....	....	....	....	....	....	265	130	85	53
22....	....	....	....	....	....	....	....	....	273	132	79	53
23....	....	....	....	....	....	....	....	....	273	145	75	53
24....	....	....	....	....	....	....	....	....	269	148	74	52
25....	....	....	....	....	....	....	....	....	265	138	72	52
26....	....	....	....	....	....	....	....	....	261	136	71	53
27....	....	....	....	....	....	....	....	....	246	172	71	53
28....	....	....	....	....	....	....	....	....	242	215	77	52
29....	....	....	....	....	....	....	....	....	238	179	77	52
30....	....	....	....	....	....	....	....	....	227	176	75	51
31....	....	....	....	....	....	....	....	....	....	160	69	....
Total	....	....	....	....	....	....	....	....	7719	4548	3521	1852
Mean.	....	....	....	....	....	....	....	....	257	147	114	61.7
Max..	....	....	....	....	....	....	....	....	329	219	186	75
Min...	....	....	....	....	....	....	....	....	160	105	69	51
Acre-ft.	....	....	....	....	....	....	....	....	15300	9040	7010	3670

Discharge of West Fork Clear Creek Near Empire for Year Ending Sept. 30, 1930.
Drainage Area, 57.3 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	49	28	12	12	12	9	14	70	365	235	129	55
2....	49	30	12	12	12	9	15	76	264	213	124	52
3....	51	28	12	12	12	9	16	82	222	191	119	51
4....	48	28	12	12	12	9	14	75	200	172	114	52
5....	46	28	12	12	12	9	16	70	212	165	110	52
6....	44	29	15	12	12	9	21	65	244	146	106	50
7....	44	28	15	12	12	9	25	60	299	132	104	47
8....	43	28	15	12	12	9	30	56	350	121	102	51
9....	42	28	15	12	12	9	34	51	342	114	94	45
10....	44	28	15	12	12	9	37	49	372	108	100	44
11....	44	28	15	11	10	10	37	46	420	106	93	42
12....	44	26	15	11	10	10	40	44	588	108	90	42
13....	40	20	15	11	10	10	43	44	534	157	110	41
14....	41	20	15	11	10	10	46	46	552	132	129	40
15....	40	20	15	11	10	10	47	53	516	108	121	39
16....	39	20	12	11	10	10	44	58	516	100	119	37
17....	38	20	12	11	10	8	42	57	516	104	116	36
18....	37	20	12	11	10	7	42	56	507	110	112	35
19....	36	15	12	11	10	12	38	56	498	104	108	32
20....	34	15	12	11	10	12	37	58	498	94	102	31
21....	34	15	12	10	9	12	40	70	525	102	98	31
22....	31	15	12	10	9	12	43	80	534	100	94	31
23....	31	15	12	10	9	12	46	73	454	83	90	32
24....	26	18	12	10	8	12	52	78	438	86	85	32
25....	31	18	12	10	10	12	59	86	404	88	80	33
26....	31	18	14	10	10	10	61	102	358	85	76	34
27....	30	18	14	10	9	10	64	138	328	85	72	33
28....	31	18	14	10	9	10	64	183	306	112	72	32
29....	35	18	14	10	....	10	64	244	278	132	65	32
30....	28	18	14	10	....	10	67	320	250	142	62	32
31....	27	....	14	10	....	10	....	412	....	132	58	....
Total	1188	658	414	340	293	309	1198	2958	11890	3867	3054	1196
Mean.	38.3	21.9	13.4	11.0	10.5	10.0	39.9	95.4	396	125	98.5	39.9
Max..	51	30	....	....	....	....	67	412	588	235	129	55
Min...	26	....	....	....	....	....	14	44	200	83	58	31
Acre-ft.	2360	1300	824	676	583	615	2370	5870	23600	7690	6060	2370

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Fall River Near Idaho Springs for Year Ending Sept. 30, 1930.
Drainage Area, 23.6 Square Miles. Altitude, 7,720 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	....	....	....	....	....	....	7	33	60	45	41	21
2....	....	....	....	....	....	....	7	38	56	43	38	24
3....	....	....	....	....	....	....	7	36	55	41	36	28
4....	....	....	....	....	....	....	7	31	55	40	37	39
5....	....	....	....	....	....	....	8	28	55	39	38	38
6....	....	....	....	....	....	....	9	26	60	39	33	35
7....	....	....	....	....	....	....	12	25	62	36	34	33
8....	....	....	....	....	....	....	18	24	68	35	36	34
9....	....	....	....	....	....	....	18	22	69	45	37	30
10....	....	....	....	....	....	....	18	19	69	36	39	28
11....	....	....	....	....	....	....	16	18	74	35	41	24
12....	....	....	....	....	....	....	18	18	84	36	37	20
13....	....	....	....	....	....	....	16	21	86	47	45	17
14....	....	....	....	....	....	....	36	22	79	33	55	16
15....	....	....	....	....	....	....	30	25	74	33	53	15
16....	....	....	....	....	....	....	26	25	76	33	46	13
17....	....	....	....	....	....	....	24	23	73	33	42	13
18....	....	....	....	....	....	....	16	22	74	33	43	13
19....	....	....	....	....	....	....	16	24	76	31	40	12
20....	....	....	....	....	....	....	15	25	72	32	32	12
21....	....	....	....	....	....	4	19	28	72	36	31	11
22....	....	....	....	....	....	....	22	28	72	36	30	12
23....	....	....	....	....	....	....	24	25	64	34	28	12
24....	....	....	....	....	....	....	26	27	61	33	27	12
25....	....	....	....	....	....	....	28	35	54	34	28	13
26....	....	....	....	....	....	....	28	46	51	34	28	14
27....	....	....	....	....	....	....	31	55	50	32	28	14
28....	....	....	....	....	....	....	30	61	50	37	32	14
29....	....	....	....	....	....	....	31	66	47	41	33	13
30....	....	....	....	....	....	....	32	70	45	45	30	14
31....	....	....	....	....	....	....	....	70	....	44	27	....
Total	....	....	....	....	....	....	595	1016	1943	1151	1125	594
Mean.	....	....	....	....	....	....	19.8	32.8	64.8	37.1	36.3	19.8
Max..	....	....	....	....	....	....	....	70	86	47	55	39
Min...	....	....	....	....	....	....	....	18	45	31	27	11
Acre-ft.	....	....	....	....	....	....	1180	2020	3860	2280	2230	1180

Discharge of South Boulder Creek Near Eldorado Springs for Year Ending Sept. 30, 1929.
Drainage Area, 114 Square Miles. Altitude, 5,800 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	15	15	....	6.5	....	9	32	41	398	188	129	63
2....	16	11	....	....	....	9	32	39	271	173	97	54
3....	16	15	....	....	....	10	32	40	271	166	134	58
4....	15	15	....	....	....	11	32	41	296	158	96	62
5....	16	16	....	....	....	11	32	41	305	139	90	56
6....	16	17	....	....	....	12	32	41	316	134	174	69
7....	15	23	....	....	....	12	32	46	310	122	155	67
8....	15	16	....	....	....	12	32	56	319	124	117	60
9....	14	9	....	....	....	12	34	54	310	109	97	55
10....	14	10	....	....	....	14	37	64	305	96	102	54
11....	14	16	....	....	....	14	37	75	279	90	62	50
12....	15	12	....	....	....	14	36	75	271	90	73	43
13....	17	15	....	....	....	14	36	90	227	93	84	42
14....	15	14	....	....	....	14	37	85	227	105	79	44
15....	16	10	....	....	....	14	37	97	259	99	69	44
16....	16	18	....	....	....	14	38	98	235	108	64	47
17....	16	10	....	....	....	14	38	98	248	126	65	47
18....	20	9	....	....	....	14	36	113	240	94	88	45
19....	20	11	....	....	....	14	35	111	224	79	84	42
20....	21	12	....	....	....	14	36	106	230	85	68	38
21....	18	14	....	....	....	14	35	120	237	74	67	42
22....	16	17	....	....	....	14	35	120	246	81	66	40
23....	13	15	....	7.1	....	14	34	136	243	148	59	38
24....	15	14	....	....	....	22	34	198	241	155	56	36
25....	15	11	....	....	....	22	33	242	243	88	58	20
26....	16	11	6.5	....	....	22	34	267	230	77	57	19
27....	18	11	....	....	....	22	34	226	221	66	56	17
28....	17	9	....	....	....	22	38	218	215	118	63	17
29....	17	9	....	....	....	21	41	199	213	86	74	18
20....	15	9	....	....	....	22	46	143	195	74	84	16
31....	17	....	....	....	....	32	....	161	....	147	69	....
Total	499	394	....	....	....	479	1057	3441	7825	3492	2636	1303
Mean.	16.1	13.1	7.8	6.8	7.0	15.5	35.2	111	261	113	85.0	43.4
Max..	21	23	....	....	....	32	46	267	398	188	174	69
Min...	13	9	....	....	....	9	32	39	195	66	56	16
Acre-ft.	990	780	480	418	389	953	2090	6820	15500	6950	5230	2580

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of South Boulder Creek Near Eldorado Springs for Year Ending Sept. 30, 1930.
Drainage Area, 114 Square Miles. Altitude, 5,800 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	32	23	21	11	....	....	16	150	332	107	79	47
2....	33	40	19	10	....	....	17	175	270	102	73	47
3....	29	35	23	10	....	....	21	204	236	100	68	48
4....	30	40	24	10	....	....	36	163	241	96	70	44
5....	27	31	21	10	....	....	39	153	222	100	77	45
6....	26	34	17	9	....	....	52	130	236	96	70	46
7....	26	31	17	....	....	....	58	127	280	92	73	42
8....	29	27	17	....	....	....	82	120	305	90	66	48
9....	31	25	17	....	....	....	90	102	300	92	65	44
10....	31	21	17	....	....	....	96	100	290	86	92	41
11....	31	27	17	....	....	....	100	96	311	84	94	39
12....	31	40	15	....	....	....	112	94	354	88	88	37
13....	29	52	15	....	....	....	125	82	366	163	107	36
14....	29	51	16	....	8	....	122	80	338	130	167	32
15....	29	53	16	....	....	....	130	86	305	98	192	30
16....	27	55	11	....	....	....	109	96	295	82	163	30
17....	23	37	12	....	....	....	82	112	300	75	143	30
18....	23	25	9	....	....	15	77	98	305	88	125	28
19....	23	23	10	....	....	....	80	98	383	102	114	25
20....	21	22	10	....	....	....	77	98	285	92	107	26
21....	20	19	11	....	....	....	80	112	295	96	94	24
22....	19	27	11	....	....	....	100	143	395	107	86	22
23....	13	37	11	....	....	....	114	125	265	84	84	24
24....	17	40	11	....	....	....	137	122	213	82	77	24
25....	22	42	14	....	....	....	163	140	184	82	70	25
26....	23	29	12	....	....	....	167	171	163	75	71	25
27....	23	25	12	....	....	....	163	222	163	63	68	23
28....	24	21	12	....	....	....	161	250	163	70	66	25
29....	28	21	12	....	....	....	161	300	130	94	60	23
30....	31	21	12	....	....	....	161	343	114	120	55	24
31....	27	....	12	....	....	....	....	395	....	96	50	....
Total	807	974	454	....	....	....	2922	4687	8039	2932	2814	1004
Mean.	26.0	32.5	14.6	8.0	9.0	12.5	97.4	151	268	94.6	90.8	33.5
Max..	33	55	24	....	....	....	167	395	383	163	192	48
Min...	13	19	....	....	....	....	16	80	114	63	50	22
Acre ft.	1600	1930	898	492	500	769	5800	9280	15900	5890	5580	1990

Discharge of Boulder Creek Near Orodell for Year Ending Sept. 30, 1929.
Drainage Area, 105 Square Miles. Altitude, 5,800 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	55	32	17	26	38	24	36	33	290	361	226	136
2....	45	20	19	64	33	49	37	26	299	351	219	121
3....	61	62	22	48	13	20	54	26	299	361	219	134
4....	27	18	28	47	27	51	58	34	290	336	136	129
5....	45	25	48	46	29	55	73	22	290	313	230	129
6....	44	20	48	22	26	64	20	28	336	290	250	129
7....	17	23	48	46	24	62	21	26	386	270	163	114
8....	16	20	29	46	25	86	26	55	425	286	170	104
9....	40	16	24	47	23	48	47	70	431	247	186	96
10....	22	16	22	39	17	16	22	110	454	210	160	80
11....	31	12	21	40	18	28	20	94	403	183	136	104
12....	39	14	25	45	21	29	17	52	346	226	121	94
13....	23	17	46	19	21	28	21	82	327	216	118	98
14....	23	20	27	39	21	37	16	92	313	198	110	78
15....	41	18	29	36	20	29	20	100	366	233	118	39
16....	36	13	12	36	18	25	35	100	356	266	114	64
17....	48	12	28	34	13	14	39	110	366	313	94	70
18....	46	10	30	36	32	45	47	94	351	270	94	64
19....	42	16	34	32	24	36	39	64	346	192	102	75
20....	29	18	38	16	26	36	26	100	386	155	114	73
21....	26	21	49	36	25	43	20	110	442	178	129	49
22....	33	18	48	39	20	38	27	118	472	181	121	55
23....	34	18	38	41	26	48	36	132	460	250	129	62
24....	36	18	38	42	12	17	26	165	478	195	118	65
25....	34	10	17	41	22	23	20	240	414	155	121	65
26....	35	16	51	30	35	25	22	226	442	155	118	64
27....	30	21	37	16	76	22	24	299	466	160	114	64
28....	16	19	46	22	36	23	17	278	460	216	68	48
29....	38	22	30	31	....	32	29	216	490	236	83	31
30....	24	17	43	24	....	46	58	198	402	236	89	40
31....	34	....	55	30	....	21	....	266	....	219	65	....
Total	1070	582	1047	1116	721	1120	953	3566	11586	7458	4235	2474
Mean.	34.5	19.4	33.8	36.0	25.7	36.1	31.8	115	386	241	137	82.5
Max..	61	62	55	64	76	86	73	299	490	361	250	136
Min...	16	10	12	16	12	14	16	22	290	155	65	31
Acre-ft.	2120	1150	2080	2210	1430	2220	1890	7070	23000	14800	8420	4910

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Boulder Creek Near Orodell for Year Ending Sept. 30, 1930.
Drainage Area, 105 Square Miles. Altitude, 5,800 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	43	38	38	18	27	29	18	123	254	155	210	78
2....	38	22	28	29	28	13	14	110	266	216	210	83
3....	49	25	24	28	36	32	17	104	262	216	192	75
4....	40	56	24	21	41	25	19	83	270	223	181	64
5....	29	49	24	15	25	27	20	104	195	210	168	55
6....	24	62	25	29	25	28	22	108	170	207	148	46
7....	39	40	18	29	39	20	32	94	181	181	155	34
8....	35	32	19	24	34	21	37	94	216	186	168	52
9....	40	24	18	26	26	13	86	98	278	192	160	65
10....	44	21	18	24	35	17	94	88	341	192	192	83
11....	34	28	17	20	36	16	91	56	397	204	192	62
12....	36	32	17	13	36	19	100	70	408	176	186	48
13....	28	26	16	17	32	22	82	88	425	195	216	45
14....	40	26	6	20	35	16	104	108	414	160	219	56
15....	42	29	4	15	27	16	112	132	392	207	186	76
16....	38	21	10	20	25	27	108	114	386	210	176	49
17....	33	14	13	15	39	15	98	104	361	230	160	47
18....	27	24	13	29	36	18	96	92	356	204	160	56
19....	31	29	8	13	40	19	67	129	376	186	150	54
20....	24	43	20	17	36	16	49	143	420	186	132	39
21....	35	35	30	20	40	16	78	141	386	192	118	29
22....	28	24	17	29	38	15	89	160	397	181	104	38
23....	26	21	33	24	18	10	91	114	397	165	89	33
24....	22	28	30	24	38	10	102	104	420	158	64	24
25....	24	29	20	20	36	10	114	73	386	153	83	30
26....	30	24	24	13	36	8	104	98	270	136	83	28
27....	25	23	38	17	32	8	88	158	112	116	75	36
28....	35	11	23	20	33	13	100	173	176	134	81	22
29....	30	24	21	29	....	14	88	223	243	176	94	31
30....	29	19	32	30	....	20	88	226	213	189	84	36
31....	31	....	28	39	....	11	....	282	....	204	70	....
Total	1029	879	656	687	929	544	2208	3794	9368	5740	4506	1474
Mean.	33.2	29.3	21.2	22.2	33.2	17.5	73.6	122	312	185	145	49.1
Max..	49	62	38	39	41	32	114	282	425	230	219	83
Min...	22	11	4	13	18	8	14	56	112	116	64	22
Acre-ft.	2040	1740	1300	1360	1840	1080	4380	7500	18600	11400	8920	2920

Discharge of Boulder Creek at Mouth for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	4	28	13	105	....	....	59	60	36	7	41	6
2....	3	27	18	51	....	....	63	42	68	4	37	7
3....	2	28	25	94	....	....	65	44	56	4	40	10
4....	2	28	15	79	....	....	68	44	32	8	110	13
5....	1	27	19	82	....	....	75	44	20	4	51	13
6....	2	26	24	94	....	....	75	42	11	4	176	38
7....	3	25	23	48	....	....	62	36	18	3	232	38
8....	3	23	25	79	....	....	40	36	38	5	138	42
9....	3	23	25	62	....	....	43	40	55	5	40	76
10....	3	23	29	62	....	....	53	33	46	4	32	78
11....	4	22	42	70	....	....	41	39	18	3	22	54
12....	7	19	53	85	....	....	38	36	4	4	11	45
13....	8	14	51	89	....	....	36	36	4	6	10	46
14....	10	14	58	58	....	....	37	36	5	8	8	46
15....	12	13	51	100	....	....	35	32	16	7	6	29
16....	12	15	51	89	....	....	34	32	46	14	6	38
17....	12	18	61	89	....	....	38	32	18	12	6	34
18....	9	23	61	94	....	....	42	35	15	10	5	36
19....	9	19	70	96	....	....	51	47	11	8	4	30
20....	12	16	70	96	....	....	70	47	4	8	5	32
21....	13	19	74	97	....	....	115	51	4	7	8	32
22....	10	14	74	97	....	36	64	62	38	7	6	18
23....	12	14	76	97	....	38	59	44	46	201	6	26
24....	19	14	76	95	....	61	80	31	49	162	6	26
25....	20	15	84	95	....	51	59	41	40	69	5	28
26....	18	17	84	98	....	55	51	48	14	46	4	27
27....	18	18	93	98	....	69	50	40	9	42	5	22
28....	16	11	90	98	....	65	38	50	8	72	5	19
29....	9	8	100	98	....	59	38	36	9	73	4	19
30....	9	14	90	98	....	61	43	37	10	71	7	19
31....	14	....	72	98	....	75	....	36	....	48	8	....
Total	279	575	1697	2691	....	....	1622	1269	748	926	1044	947
Mean.	9.0	19.2	54.7	86.8	90	75	54.1	40.9	24.9	29.9	33.7	31.6
Max..	20	28	....	....	....	....	115	62	68	201	232	78
Min...	1	8	....	....	....	....	34	31	4	3	4	6
Acre-ft.	553	1140	3360	5340	5000	4610	3220	2510	1480	1840	2070	1880

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Boulder Creek at Mouth for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	28	15	72	93	100	58	20	18	84	7	7	24
2....	28	17	74	64	100	62	19	8	81	6	8	32
3....	28	19	76	62	100	46	17	5	69	7	12	44
4....	28	24	79	74	100	68	15	18	19	12	15	36
5....	28	37	80	86	100	67	15	5	8	12	14	25
6....	28	38	86	80	110	62	15	5	8	10	15	15
7....	28	23	86	88	110	62	13	5	8	7	13	7
8....	26	25	76	88	110	56	13	4	10	6	12	7
9....	26	32	84	88	110	55	14	5	4	6	115	7
10....	26	34	93	88	110	48	14	6	23	4	185	8
11....	26	22	115	85	112	48	15	6	19	20	155	7
12....	26	30	80	85	115	39	20	4	7	34	172	5
13....	26	23	75	85	117	32	26	4	8	142	190	9
14....	26	20	74	85	123	29	15	3	8	59	163	7
15....	26	32	54	85	130	19	15	2	10	17	163	10
16....	26	32	44	80	137	26	51	4	8	10	200	19
17....	20	28	55	80	115	30	82	13	10	4	250	9
18....	13	24	62	80	128	34	131	60	13	4	250	6
19....	12	26	64	80	128	34	125	28	17	4	192	6
20....	12	22	64	80	103	29	100	8	25	6	163	7
21....	12	20	66	85	93	28	55	4	39	9	131	8
22....	12	69	66	85	76	27	67	4	60	25	89	6
23....	8	74	66	85	76	25	53	4	38	18	84	6
24....	9	66	66	85	56	20	55	13	27	15	54	8
25....	8	66	66	85	79	21	84	8	12	12	31	7
26....	7	70	70	90	72	24	102	3	4	17	49	4
27....	8	64	70	90	74	24	74	2	3	12	80	6
28....	28	70	70	90	68	26	64	4	4	7	44	9
29....	24	59	70	90	....	26	40	10	10	14	22	4
30....	20	80	70	90	....	25	32	26	10	12	28	8
31....	17	....	70	90	....	21	....	42	....	9	29	....
Total	640	1161	2243	2601	2852	1171	1361	331	646	527	2935	356
Mean.	20.6	38.7	72.4	83.9	102	37.8	45.4	10.7	21.5	17.0	94.7	11.9
Max..	28	80	115	....	137	68	125	60	84	142	250	44
Min...	7	15	....	....	56	19	13	2	3	4	7	4
Acre-ft.	1270	2300	4450	5160	5660	2320	2700	658	1280	1040	5820	708

Discharge of Middle Boulder Creek at Nederland for Year Ending Sept. 30, 1929.
Drainage Area, 38.0 Square Miles. Altitude, 8,180 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	27	10	8.0	5.4	4.5	4.5	6.0	16	153	174	138	155
2....	26	12	7.4	5.3	4.5	4.5	6.0	16	246	174	110	151
3....	24	11	7.1	5.2	4.4	4.3	7.0	13	246	168	103	151
4....	25	11	6.8	5.3	4.3	4.3	7.9	17	220	172	137	159
5....	24	11	6.8	5.3	4.3	4.6	9.0	16	226	150	107	150
6....	23	11	6.6	5.2	4.4	4.6	10	14	246	145	181	166
7....	22	12	6.6	5.0	4.5	5.3	7.0	22	236	152	211	170
8....	21	11	6.4	5.0	4.5	5.2	7.0	33	268	147	153	170
9....	19	11	6.2	5.0	5.0	5.2	5.7	42	257	137	124	172
10....	18	12	6.0	4.8	4.5	5.5	5.2	48	257	115	116	170
11....	18	10	5.9	4.7	4.4	5.3	6.0	42	226	118	105	168
12....	18	11	5.7	4.6	4.5	5.0	7.0	41	208	113	94	170
13....	17	10	5.5	4.8	4.6	5.2	7.0	53	187	115	83	168
14....	16	8.9	5.2	4.8	4.6	6.2	7.0	75	216	138	72	169
15....	14	12	5.0	4.6	4.7	4.8	7.7	92	216	132	57	169
16....	12	11	4.8	4.6	4.8	4.3	10	92	199	139	54	170
17....	16	10	4.5	4.8	4.0	4.5	7.9	105	220	156	51	163
18....	17	10	4.0	4.8	4.0	4.3	8.7	104	199	125	27	157
19....	15	9.3	4.4	4.6	3.8	4.3	7.9	102	226	111	49	154
20....	15	10	4.3	4.5	3.8	4.5	7.9	111	230	113	47	153
21....	14	10	4.3	4.5	3.8	4.3	10	142	246	110	48	161
22....	10	9.1	4.1	4.5	4.2	4.5	11	179	226	105	50	159
23....	12	8.9	4.2	4.5	4.2	5.2	11	216	236	107	22	155
24....	12	8.3	4.3	4.6	4.3	5.0	10	236	246	139	33	150
25....	12	8.2	5.0	4.6	4.3	4.8	9.0	246	246	112	48	142
26....	12	7.7	5.3	4.5	4.3	4.8	10	199	246	92	48	138
27....	12	8.6	5.3	4.3	4.5	4.3	11	161	246	92	41	134
28....	13	7.6	5.5	4.2	4.3	5.3	12	124	246	175	48	127
29....	14	8.5	5.3	4.6	....	7.9	17	94	246	135	47	126
30....	13	9.1	5.3	5.2	....	7.1	20	89	246	103	66	121
31....	13	....	5.3	5.3	....	5.2	....	110	....	131	48	....
Total	524	300.2	171.1	149.1	122.0	154.8	268.9	2850	6912	4095	2518	4668
Mean.	16.9	10.0	5.52	4.81	4.36	4.99	8.96	91.9	230	132	81.2	156
Max..	27	12	8.0	5.4	5.0	7.9	20	246	257	175	211	172
Min...	10	7.6	4.0	4.2	3.8	4.3	5.2	13	153	92	22	121
Acre-ft.	1040	595	339	296	242	307	533	5650	13700	8120	4990	9280

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Middle Boulder Creek at Nederland for Year Ending Sept. 30, 1930.
Drainage Area, 38.0 Square Miles. Altitude, 8,180 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	115	14	10	6.8	5.5	5.7	5.7	82	222	123	109	33
2....	28	21	6.6	7.1	5.6	5.0	6.2	103	155	118	76	32
3....	31	19	6.0	7.5	5.8	7.3	7.3	117	123	111	69	32
4....	38	20	5.8	7.7	5.9	6.4	8.7	90	118	109	65	32
5....	30	19	5.7	6.6	6.2	5.8	9.6	72	121	109	65	38
6....	27	19	5.5	6.6	6.6	5.2	13	60	132	103	69	46
7....	26	19	5.3	6.6	6.6	5.2	16	55	177	100	68	36
8....	28	18	6.2	6.8	6.7	5.2	25	51	208	98	72	36
9....	31	17	6.2	6.6	7.0	5.0	32	46	228	102	75	38
10....	32	16	4.8	6.4	6.8	4.8	43	43	220	102	97	33
11....	32	16	5.7	6.4	6.6	4.6	50	39	222	95	97	33
12....	30	16	5.7	6.0	6.6	5.0	58	38	259	88	78	30
13....	28	14	5.5	6.0	6.6	5.2	62	37	276	141	80	27
14....	27	16	5.5	6.2	7.5	4.8	64	40	263	155	89	25
15....	26	16	6.0	6.4	7.3	5.7	67	48	208	112	177	24
16....	25	15	8.5	5.5	6.6	10	63	54	199	95	155	22
17....	24	14	8.1	6.2	6.0	7.5	51	52	214	87	135	21
18....	28	14	5.0	6.2	5.7	6.0	43	48	201	96	116	20
19....	37	14	5.0	6.0	5.7	5.7	40	51	238	85	89	19
20....	35	11	5.0	6.0	5.5	6.0	35	54	209	86	70	19
21....	32	14	6.0	6.0	6.0	5.5	40	66	232	79	62	18
22....	31	12	6.0	6.0	5.7	6.0	54	101	261	88	58	17
23....	30	12	6.0	6.0	5.7	6.8	59	82	238	68	55	20
24....	25	12	7.0	6.0	6.0	5.7	68	70	185	70	53	20
25....	29	14	8.0	6.0	5.7	5.7	85	75	156	71	51	21
26....	27	13	7.0	4.6	5.7	6.2	85	84	144	67	49	20
27....	22	11	6.0	4.8	5.8	5.7	89	124	142	62	46	24
28....	19	11	6.8	6.0	5.5	6.4	90	158	141	63	48	21
29....	18	11	6.6	7.0	....	6.8	82	187	135	189	52	20
30....	16	11	6.8	6.2	....	5.7	77	232	120	120	44	19
31....	17	....	7.0	5.7	....	5.5	....	263	....	109	36	....
Total	914	449	195.3	193.9	172.9	182.1	1428.5	2622	5747	3101	2405	796
Mean.	30.5	15.0	6.30	6.25	6.18	5.87	47.6	84.6	192	100	77.6	26.5
Max..	115	21	10	7.7	7.5	10	90	263	276	189	177	46
Min...	16	11	4.8	4.6	5.5	4.6	5.7	37	118	62	36	17
Acre-ft.	1880	893	387	384	343	361	2830	5200	11400	6150	4770	1580

Discharge of North Boulder Creek Near Nederland for Year Ending Sept. 30, 1929.
Drainage Area, 24.6 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	....	....	....	....	....	....	....	....	....	138	125	61
2....	....	....	....	....	....	....	....	....	....	130	95	58
3....	....	....	....	....	....	....	....	....	....	112	134	65
4....	....	....	....	....	....	....	....	....	....	103	20	52
5....	....	....	....	....	....	....	....	....	....	103	217	51
6....	....	....	....	....	....	....	....	....	....	98	83	54
7....	....	....	....	....	....	....	....	....	....	92	8	54
8....	....	....	....	....	....	....	....	....	....	83	109	55
9....	....	....	....	....	....	....	....	....	....	81	77	55
10....	....	....	....	....	....	....	....	....	....	77	69	49
11....	....	....	....	....	....	....	....	....	....	75	109	41
12....	....	....	....	....	....	....	....	....	....	71	26	34
13....	....	....	....	....	....	....	....	....	....	67	41	33
14....	....	....	....	....	....	....	....	....	....	71	36	26
15....	....	....	....	....	....	....	....	....	....	60	28	24
16....	....	....	....	....	....	....	....	....	....	79	17	25
17....	....	....	....	....	....	....	....	....	....	121	16	16
18....	....	....	....	....	....	....	....	....	....	106	8	14
19....	....	....	....	....	....	....	....	....	95	95	9	26
20....	....	....	....	....	....	....	....	....	98	65	27	26
21....	....	....	....	....	....	....	....	....	98	67	28	25
22....	....	....	....	....	....	....	....	....	109	37	29	25
23....	....	....	....	....	....	....	....	....	116	147	58	28
24....	....	....	....	....	....	....	....	....	121	109	51	22
25....	....	....	....	....	....	....	....	....	121	83	51	22
26....	....	....	....	....	....	....	....	....	125	81	46	31
27....	....	....	....	....	....	....	....	....	130	79	15	24
28....	....	....	....	....	....	....	....	....	134	95	23	23
29....	....	....	....	....	....	....	....	....	134	95	30	22
30....	....	....	....	....	....	....	....	....	134	106	28	22
31....	....	....	....	....	....	....	....	....	....	103	44	....
Total	....	....	....	....	....	....	....	....	....	2829	1657	1063
Mean.	....	....	....	....	....	....	....	....	....	91.3	53.5	35.4
Max..	....	....	....	....	....	....	....	....	....	147	217	65
Min...	....	....	....	....	....	....	....	....	....	37	8	14
Acre-ft.	....	....	....	....	....	....	....	....	....	5610	3290	2110

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of North Boulder Creek Near Nederland for Year Ending Sept. 30, 1930.
Drainage Area, 24.6 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	22	10	....	....	....	....	0	38	94	64	55	50
2....	29	23	....	....	....	....	0	41	81	60	58	33
3....	24	1.2	....	....	....	....	0	41	72	60	60	26
4....	26	5.0	....	....	....	....	0	25	70	60	56	29
5....	23	58	....	....	....	....	0	22	66	58	52	29
6....	19	24	....	....	....	....	0	22	64	58	50	26
7....	20	12	....	....	....	....	11	22	72	56	48	20
8....	20	8	....	....	....	....	11	18	70	70	46	23
9....	26	1.4	....	....	....	....	14	17	74	70	64	29
10....	24	1.6	....	....	....	....	16	15	70	68	116	34
11....	25	3.2	....	....	....	....	16	14	74	58	92	19
12....	21	2.3	....	....	....	....	19	14	81	39	92	16
13....	15	2.0	....	....	....	....	21	16	78	50	134	17
14....	11	2.0	....	....	....	....	21	17	68	40	182	30
15....	11	1.5	....	....	....	....	16	20	68	64	191	24
16....	13	1.5	....	....	....	....	11	19	72	86	202	20
17....	9.9	1.1	....	....	....	....	10	18	76	86	167	24
18....	11	.6	....	....	....	....	9	19	89	72	141	28
19....	15	.2	....	....	....	....	8	20	137	64	109	27
20....	21	.3	....	....	....	....	11	21	177	64	78	17
21....	15	.2	....	....	....	....	15	29	191	74	56	14
22....	12	.2	....	....	....	....	18	30	200	60	48	20
23....	10	.2	....	....	....	....	21	25	180	48	39	9.7
24....	3	.2	....	....	....	....	25	26	160	44	39	9.7
25....	17	.2	....	....	....	....	28	33	140	43	33	10
26....	16	.2	....	....	....	....	30	48	130	43	30	19
27....	12	.2	....	....	....	....	32	66	115	43	31	17
28....	11	.2	....	....	....	....	29	89	102	56	33	18
29....	15	.2	....	....	....	....	25	109	72	58	31	20
30....	18	.2	....	....	....	....	26	134	68	56	27	17
31....	17	....	....	....	....	....	....	116	....	52	35	....
Total	531.9	140.2	....	....	....	....	443	1144	3011	1824	2395	675
Mean.	17.2	4.67	0	0	0	0	14.8	36.9	100	58.8	77.2	22.5
Max..	29	58	....	....	....	....	32	134	200	86	202	50
Min...	3	.2	....	....	....	....	0	14	64	39	30	9.7
Acre-ft.	1060	278	....	....	....	....	881	2270	5950	3620	4750	1340

Discharge of St. Vrain Creek at Lyons for Year Ending Sept. 30, 1929.
Drainage Area, 226 Square Miles. Altitude, 5,349 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	31	19	14	10	10	9	25	74	298	466	290	147
2....	34	21	14	10	10	10	24	68	406	435	290	123
3....	31	22	17	10	10	10	26	65	406	430	461	152
4....	30	19	24	9	10	11	44	66	392	388	331	147
5....	30	20	20	10	10	13	58	76	426	357	302	144
6....	26	22	21	10	10	16	37	78	456	340	440	174
7....	25	24	16	11	10	16	32	74	471	335	461	150
8....	24	24	18	12	8	15	28	95	476	314	374	152
9....	22	23	20	12	8	13	21	97	482	252	310	144
10....	22	24	19	10	8	15	13	126	471	255	262	142
11....	20	22	19	9	10	16	15	118	440	262	220	131
12....	24	21	19	8	9	13	10	108	406	274	193	120
13....	24	22	18	10	8	16	12	106	366	340	174	113
14....	23	21	18	10	9	15	18	120	426	509	193	113
15....	24	23	18	10	11	16	22	153	430	471	183	116
16....	25	22	18	9	10	17	27	180	411	406	167	110
17....	24	17	18	10	11	17	42	174	435	388	161	110
18....	26	16	16	9	10	17	57	177	374	323	196	108
19....	23	16	16	8	8	13	55	152	348	306	180	110
20....	9	18	13	8	8	16	63	170	370	327	180	108
21....	6	23	8	9	8	18	55	206	435	298	177	118
22....	6	24	6	9	8	19	52	220	456	259	174	120
23....	7	21	4	7	8	19	55	306	456	344	164	115
24....	6	20	9	8	8	17	51	241	461	302	158	106
25....	8	23	14	8	9	18	36	262	461	237	133	95
26....	7	21	15	8	10	25	52	314	476	206	123	88
27....	7	20	12	8	10	23	57	282	498	259	115	80
28....	10	16	12	8	9	22	57	302	514	383	113	76
29....	14	18	12	10	....	21	68	237	503	262	150	76
30....	18	20	11	8	....	24	86	196	498	252	156	74
31....	18	....	10	8	....	19	....	220	....	262	139	....
Total	604	622	469	286	258	509	1198	5063	13048	10242	6964	3562
Mean.	19.5	20.7	15.1	9.23	9.21	16.4	39.9	163	435	330	225	119
Max..	34	24	24	12	11	25	86	314	514	509	461	174
Min...	6	16	4	7	8	9	10	65	298	206	113	74
Acre-ft.	1200	1230	928	568	512	1010	2370	10000	25900	20300	13800	7080

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of St. Vrain Creek at Lyons for Year Ending Sept. 30, 1930.
Drainage Area, 226 Square Miles. Altitude, 5,349 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	73	25	26	16	13	14	14	117	280	212	237	117
2....	71	32	24	16	14	15	15	138	272	212	212	100
3....	71	41	28	16	13	15	16	179	237	202	188	97
4....	130	36	28	17	13	15	24	158	233	198	215	97
5....	136	40	17	16	14	14	30	147	245	198	195	112
6....	122	34	15	16	14	14	41	114	252	188	182	117
7....	117	33	14	17	15	16	53	109	313	173	185	107
8....	114	30	13	15	15	17	54	104	362	164	170	120
9....	127	34	13	14	16	16	69	97	376	167	185	117
10....	130	33	17	14	14	14	91	89	372	176	322	100
11....	120	32	22	14	15	13	89	78	420	176	237	95
12....	107	25	22	15	15	13	97	78	522	185	256	80
13....	95	14	21	14	14	13	97	71	522	241	309	75
14....	78	20	19	12	14	13	102	69	522	219	661	71
15....	58	34	18	11	14	15	95	82	435	202	643	71
16....	58	33	19	11	15	17	125	97	410	191	344	68
17....	53	33	19	11	14	22	112	117	410	176	292	78
18....	53	30	14	11	14	17	100	114	400	208	292	84
19....	48	26	14	11	15	16	56	125	372	208	179	86
20....	46	24	14	12	16	14	54	122	395	202	150	89
21....	43	16	15	11	16	14	58	164	415	198	152	89
22....	42	17	14	13	16	19	69	233	478	212	147	89
23....	44	22	13	14	16	17	68	179	430	191	164	91
24....	43	27	16	13	16	13	89	158	331	179	161	89
25....	35	26	20	13	15	12	127	173	280	219	161	89
26....	35	26	21	13	15	11	112	195	256	195	173	91
27....	42	26	19	13	13	11	114	264	245	173	167	89
28....	42	27	17	13	14	11	112	318	226	208	152	84
29....	38	23	16	13	....	11	109	353	222	313	161	84
30....	33	28	19	13	....	11	114	390	202	313	141	78
31....	35	....	18	13	....	13	....	425	....	280	125	....
Total	2239	847	565	421	408	446	2306	5057	10435	6379	7158	2754
Mean.	72.2	28.2	18.2	13.6	14.6	14.4	76.9	163	348	206	231	91.8
Max..	136	41	28	17	16	22	127	425	522	313	661	120
Min...	33	14	13	11	13	11	14	69	202	164	125	68
Acre-ft.	4440	1680	1120	836	811	885	4580	10000	20700	12700	14200	5460

Discharge of North St. Vrain Creek Near Allen's Park for Year Ending Sept. 30, 1929.
Drainage Area, 109 Square Miles. Altitude, 6,080 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	28	15	11	....	....	....	10	18	171	272	170	78
2....	26	16	11	....	....	....	10	15	211	270	160	100
3....	24	16	11	....	....	....	10	17	204	230	180	94
4....	25	16	11	....	....	....	12	20	213	204	160	90
5....	24	16	11	....	....	9	10	20	244	204	160	102
6....	24	16	11	....	....	....	10	23	252	204	170	90
7....	25	18	11	....	....	....	10	29	270	200	154	97
8....	23	17	11	....	....	....	12	34	300	182	152	90
9....	22	13	11	....	....	....	7	38	280	182	132	84
10....	21	17	11	....	....	....	8	37	235	184	117	78
11....	21	16	11	....	....	....	8	32	217	187	107	78
12....	21	16	11	....	....	....	9	38	192	204	94	67
13....	23	12	11	....	....	....	8	54	187	242	100	71
14....	24	11	9	....	....	....	8	68	192	254	90	73
15....	24	10	9	....	....	....	9	75	214	224	78	84
16....	25	10	9	....	....	....	10	77	196	217	78	75
17....	26	10	9	....	....	....	11	79	210	214	87	71
18....	22	10	9	....	....	....	11	80	190	200	80	75
19....	19	10	9	....	....	....	11	82	185	204	90	73
20....	19	10	9	....	....	....	12	90	245	204	92	71
21....	20	12	8	6	....	....	12	102	260	187	87	75
22....	18	12	8	....	....	....	13	104	272	190	84	80
23....	19	12	8	....	....	....	13	123	250	212	82	80
24....	19	12	8	....	....	....	12	125	260	214	64	75
25....	18	12	8	....	....	....	10	162	262	202	54	62
26....	18	12	8	....	....	....	11	169	260	180	51	62
27....	18	12	8	....	....	....	10	129	272	184	52	58
28....	19	12	8	....	....	....	11	110	274	217	52	56
29....	20	12	8	....	....	....	10	91	272	187	69	52
30....	19	12	8	....	....	....	13	93	267	174	69	48
31....	19	....	8	....	....	....	....	116	....	180	64	....
Total	673	395	294	186	168	279	311	2250	7057	6409	3179	2289
Mean.	21.7	13.2	9.48	6	6	9	10.4	72.6	235	207	103	76.3
Max..	28	18	11	....	....	....	13	169	300	272	180	102
Min...	18	10	8	....	....	....	7	15	171	174	51	48
Acre-ft.	1330	786	583	369	333	553	619	4460	14000	12700	6330	4540

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of North St. Vrain Creek Near Allen's Park for Year Ending Sept. 30, 1930. Drainage Area, 109 Square Miles. Altitude, 6,080 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	46	20	....	....	....	4	10	62	152	....	....	....
2....	46	18	....	....	....	4	10	64	140	....	....	....
3....	45	20	....	....	....	4	10	87	114	....	....	....
4....	46	24	....	....	....	4	10	84	127	....	....	....
5....	48	25	....	....	....	4	11	64	110	....	....	....
6....	48	18	....	....	....	4	11	44	122	....	....	....
7....	50	16	....	....	....	4	11	43	142	....	....	....
8....	48	14	....	....	....	4	12	37	154	....	....	....
9....	48	14	....	....	....	4	12	29	160	....	....	....
10....	56	24	....	....	....	4	14	28	192	....	....	....
11....	52	33	....	....	....	4	19	27	210	....	....	....
12....	46	35	....	....	....	4	27	30	227	....	....	....
13....	44	34	....	....	....	4	37	27	240	....	....	....
14....	39	31	....	....	....	4	39	31	222	....	....	....
15....	37	27	....	....	....	4	44	37	192	....	....	....
16....	35	22	....	....	....	6	43	40	197	....	....	....
17....	34	20	....	....	....	6	35	43	207	....	....	....
18....	32	17	....	....	....	6	26	43	214	....	....	....
19....	30	16	....	....	....	6	23	40	224	....	....	....
20....	25	14	....	....	....	6	26	54	232	....	....	....
21....	23	14	....	....	....	6	30	102	217	....	....	....
22....	22	14	....	....	....	6	38	100	214	....	....	....
23....	25	14	....	....	....	7	39	90	207	....	....	....
24....	26	11	....	....	....	7	50	78	187	....	....	....
25....	25	11	....	....	....	8	60	75	174	....	....	....
26....	23	10	....	....	....	8	54	117	170	....	....	....
27....	20	10	....	....	....	9	52	150	154	....	....	....
28....	18	9	....	....	....	9	54	174	142	....	....	....
29....	17	10	....	....	....	7	52	194	140	....	....	....
30....	18	9	....	....	....	9	52	182	140	....	....	....
31....	20	....	....	....	....	9	....	154	....	....	....	....
Total	1092	554	248	217	112	175	911	2330	5323	....	....	....
Mean.	35.2	18.4	8	7	4	5.6	30.3	75.1	177	....	....	....
Max..	56	35	....	....	....	9	60	194	240	....	....	....
Min...	17	9	....	....	....	....	10	27	110	....	....	....
Acre-ft.	2160	1090	492	430	222	344	1800	4620	10500	....	....	....

Discharge of North St. Vrain Creek at Longmont Dam for Year Ending Sept. 30, 1929. Drainage Area, 109 Square Miles. Altitude, 6,080 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	28	30	16	11	10	10	20	53	206	387	231	143
2....	32	33	17	11	10	9.6	20	48	262	363	209	134
3....	33	33	16	12	10	8.9	26	47	273	374	294	150
4....	32	29	16	11	9.6	9.2	37	47	276	336	262	143
5....	32	26	15	11	9.6	10.7	46	42	317	313	276	146
6....	31	24	16	11	9.4	12	36	47	347	231	332	163
7....	29	18	18	11	9.8	12	19	48	347	209	302	143
8....	30	21	18	11	10	12	24	59	370	206	269	146
9....	33	22	15	11	10	12	29	63	403	202	242	153
10....	32	22	13	11	10	13	23	81	351	196	206	136
11....	30	20	13	10	9.8	14	24	83	332	209	188	128
12....	34	14	13	10	8.9	13	25	88	284	225	163	123
13....	31	17	12	11	9.4	12	30	93	259	276	158	113
14....	29	19	11	11	9.4	11	29	112	298	363	160	115
15....	29	12	11	11	9.6	12	30	130	340	344	146	117
16....	28	17	11	11	9.8	12	40	132	347	306	133	110
17....	27	15	11	10	10	13	52	128	340	262	128	102
18....	26	16	8.9	11	10	12	57	125	273	225	168	97
19....	26	24	8.7	10	10	12	54	125	242	215	152	98
20....	29	23	8.5	10	9.8	13	47	136	266	245	152	100
21....	27	22	10	11	9.6	13	44	153	202	252	150	100
22....	24	22	12	11	10	13	46	160	355	255	149	102
23....	25	24	13	10	10	13	48	182	363	287	142	102
24....	25	18	12	9.8	10	13	47	179	363	284	137	98
25....	26	18	12	8.5	10	16	40	228	366	248	120	89
26....	26	17	12	8.9	10	16	37	228	363	228	118	83
27....	25	16	12	9.4	10	16	42	196	378	294	114	80
28....	23	15	13	9.2	10	17	44	193	391	276	112	76
29....	26	16	13	9.2	....	25	63	156	382	242	130	70
30....	23	16	12	9.6	....	25	64	130	366	222	135	70
31....	26	....	11	9.8	....	20	....	163	....	248	125	....
Total	877	619	400	322	275	420	1143	3655	9662	8323	5603	3430
Mean.	28.3	20.6	12.9	10.4	9.81	13.6	38.1	118	322	268	181	114
Max..	34	33	18	12	10	25	64	228	403	387	332	163
Min...	23	12	8.5	8.5	8.9	8.9	19	42	202	196	112	70
Acre-ft.	1740	1230	793	639	545	836	2270	7260	19200	16500	11100	6780

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of North St. Vrain Creek at Longmont Dam for Year Ending Sept. 30, 1930.
Drainage Area, 109 Square Miles. Altitude, 6,080 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	67	40	23	14	11	11	14	105	232	174	174	89
2....	64	26	18	13	11	10	16	122	180	169	164	82
3....	82	30	24	12	11	10	20	140	157	164	169	78
4....	73	26	22	12	11	12	24	118	154	159	190	80
5....	65	30	22	13	11	13	26	103	157	157	185	96
6....	67	26	22	14	12	12	36	92	162	154	174	100
7....	82	24	22	13	12	11	43	82	196	145	177	89
8....	80	24	18	13	12	12	55	78	226	138	159	103
9....	89	26	24	12	12	11	68	71	238	140	159	96
10....	83	26	23	11	11	11	75	64	238	136	164	87
11....	74	20	22	11	10	11	74	58	260	140	177	80
12....	67	41	21	11	13	13	75	57	249	142	196	74
13....	67	16	19	11	12	13	82	54	292	187	190	65
14....	54	29	19	10	12	14	85	52	286	204	376	60
15....	50	35	19	8.3	12	16	82	67	257	185	394	56
16....	48	34	18	8.1	12	17	82	78	266	154	304	56
17....	48	32	18	8.1	12	17	83	78	252	140	274	52
18....	48	30	8.9	8.9	12	13	74	76	266	159	246	46
19....	48	25	10	10	13	13	69	83	260	159	240	46
20....	48	11	15	11	13	13	62	94	280	154	164	51
21....	45	13	13	11	14	14	60	129	280	159	140	48
22....	40	23	13	11	12	15	71	164	316	169	138	46
23....	36	24	15	11	14	17	78	122	295	152	131	50
24....	32	24	16	11	13	12	92	111	289	147	118	45
25....	27	27	17	10	12	12	100	125	229	177	116	50
26....	35	25	17	11	14	12	100	159	212	157	114	46
27....	38	26	15	11	13	13	109	201	204	136	100	45
28....	35	26	14	11	12	11	100	246	196	136	111	44
29....	37	23	14	11	....	16	96	274	185	185	94	41
30....	38	24	15	11	....	15	96	301	174	221	94	33
31....	38	....	15	11	....	12	....	280	....	198	89	....
Total	1705	786	551.9	344.4	339	402	2047	3784	6988	4997	5521	1934
Mean.	55.0	26.2	17.8	11.1	12.1	13.0	68.2	122	233	161	178	64.5
Max..	89	41	24	14	14	17	109	301	316	221	394	103
Min...	27	11	8.9	8.1	10	10	14	52	154	136	89	33
Acre-ft.	3380	1560	1090	682	672	799	4060	7500	13900	9900	10900	3840

Discharge of Middle St. Vrain Creek Near Allen's Park for Year Ending Sept. 30, 1929.
Drainage Area, 28.5 Square Miles. Altitude, 7,550 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	13	....	....	....	....	....	....	18	166	154	150	56
2....	12	....	....	....	....	....	....	17	195	154	134	53
3....	12	....	....	....	....	....	....	17	181	152	179	56
4....	11	....	....	....	....	....	10	19	179	130	154	57
5....	11	....	....	....	....	3.1	....	20	185	126	150	56
6....	11	....	....	....	....	....	....	20	197	128	183	56
7....	10	....	....	....	....	....	....	23	204	130	181	53
8....	11	....	....	....	....	....	....	29	224	114	170	50
9....	11	....	....	....	....	....	....	**34**	**213**	**94**	**116**	**47**
10....	11	....	....	....	....	....	....	39	189	92	105	45
11....	9.8	....	....	....	....	....	....	36	181	94	90	43
12....	9.8	....	....	....	....	....	....	42	164	96	75	39
13....	9.6	....	....	....	....	....	....	44	157	127	72	40
14....	8.6	....	....	....	....	....	....	52	171	152	71	42
15....	8.8	....	....	....	....	....	....	62	179	154	67	43
16....	9.2	....	....	....	....	....	....	70	162	142	63	37
17....	8.6	....	....	....	....	....	....	74	175	138	64	35
18....	8.6	....	....	....	....	....	....	76	152	119	62	34
19....	8.2	....	....	....	....	....	....	75	145	118	57	36
20....	8.6	....	....	....	....	....	....	87	161	132	56	37
21....	8.6	....	....	5.4	....	....	....	110	173	118	60	44
22....	7.0	....	....	....	....	....	....	119	181	105	63	44
23....	7.8	....	....	....	....	....	....	130	173	129	58	40
24....	7.0	....	....	....	....	....	....	137	180	130	56	35
25....	7.2	....	....	....	....	....	....	154	180	116	54	31
26....	7.0	....	....	....	....	....	....	166	180	105	52	29
27....	7.2	....	....	....	....	....	....	140	184	129	51	26
28....	8.2	....	....	....	....	....	18	127	185	161	52	24
29....	8.4	....	....	....	....	....	19	113	180	106	69	23
30....	8.2	....	....	....	....	....	22	98	170	102	67	23
31....	8.6	....	....	....	....	....	....	222	....	130	63	....
Total	288.0	....	....	....	....	....	....	2270	5366	3877	2844	1234
Mean.	9.29	6	6	5	4	3	12	73.2	179	125	91.7	41.1
Max..	13	....	....	....	....	....	....	166	224	154	183	57
Min...	7.0	....	....	....	....	....	....	17	145	92	51	23
Acre-ft.	571	357	369	307	222	184	714	4500	10700	7690	5640	2450

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Middle St. Vrain Creek Near Allens Park for Year Ending Sept. 30, 1930.
Drainage Area, 28.5 Square Miles. Altitude, 7,550 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	26	....	....	....	....	....	20	60	143	86	....	....
2....	26	....	....	....	....	....	20	66	108	81	....	....
3....	34	....	....	....	....	....	20	72	94	79	....	....
4....	31	....	....	....	....	....	20	60	94	85	....	....
5....	26	....	....	....	....	....	20	55	98	81	....	....
6....	25	....	....	....	....	....	20	50	105	72	....	....
7....	26	....	....	....	....	....	20	47	124	68	....	....
8....	28	....	....	....	....	....	20	44	136	....	....	....
9....	30	....	....	....	....	....	20	42	136	....	....	....
10....	33	....	....	....	....	....	35	40	138	....	....	....
11....	35	....	....	....	....	....	36	36	148	....	....	....
12....	35	....	....	....	....	....	42	35	164	....	....	....
13....	30	....	....	....	....	....	46	34	163	....	....	....
14....	28	....	....	....	....	....	46	37	152	....	....	....
15....	28	....	....	....	....	....	46	42	143	....	....	....
16....	27	....	....	....	....	....	42	42	136	....	....	....
17....	26	....	....	....	....	....	36	41	143	....	....	....
18....	25	....	....	....	....	....	34	39	152	....	....	....
19....	24	....	....	....	....	....	34	40	146	....	....	....
20....	22	....	....	....	....	....	32	45	143	....	....	....
21....	22	....	....	....	....	....	35	66	159	....	....	....
22....	20	....	....	....	....	....	39	86	170	....	....	....
23....	20	....	....	....	....	....	42	63	150	....	....	....
24....	18	....	....	....	....	....	47	57	126	....	....	....
25....	22	....	....	....	....	....	54	64	106	....	....	....
26....	22	....	....	....	....	....	54	78	98	....	....	....
27....	22	....	....	....	....	....	56	114	95	....	....	....
28....	21	....	....	....	....	....	54	143	94	....	....	....
29....	20	....	....	....	....	....	54	154	91	....	....	....
30....	22	....	....	....	....	....	54	163	86	....	....	....
31....	22	....	....	....	....	....	....	170	....	....	....	....
Total	796	450	217	124	112	217	1098	2085	3841	....	....	....
Mean.	25.7	15	7	4	4	7	36.6	67.3	128	....	....	....
Max..	35	....	....	....	....	....	56	170	170	....	....	....
Min...	18	....	....	....	....	....	....	34	86	....	....	....
Acre-ft.	1580	893	430	246	222	430	2180	4140	7620	....	....	....

Discharge of South St. Vrain Creek Near Ward for Year Ending Sept. 30, 1929.
Drainage Area, 15 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	....	....	....	....	....	....	....	....	97	146	134	58
2....	....	....	....	....	....	....	....	....	129	129	105	52
3....	....	....	....	....	....	....	....	....	140	129	138	50
4....	....	....	....	....	....	....	....	....	136	125	118	46
5....	....	....	....	....	....	....	....	....	136	108	96	45
6....	....	....	....	....	....	....	....	....	165	118	148	46
7....	....	....	....	....	....	....	....	....	179	112	129	40
8....	....	....	....	....	....	....	....	....	210	98	88	42
9....	....	....	....	....	....	....	....	....	207	88	75	40
10....	....	....	....	....	....	....	....	....	183	88	68	37
11....	....	....	....	....	....	....	....	....	161	96	63	37
12....	....	....	....	....	....	....	....	....	149	103	55	36
13....	....	....	....	....	....	....	....	....	140	125	54	36
14....	....	....	....	....	....	....	....	....	161	165	60	38
15....	....	....	....	....	....	....	....	....	173	159	82	41
16....	....	....	....	....	....	....	....	....	149	125	81	36
17....	....	....	....	....	....	....	....	....	151	124	84	33
18....	....	....	....	....	....	....	....	....	131	106	74	30
19....	....	....	....	....	....	....	....	....	108	97	68	31
20....	....	....	....	....	....	....	....	....	131	100	70	31
21....	....	....	....	....	....	....	....	20	149	92	90	38
22....	....	....	....	....	....	....	....	24	163	80	80	37
23....	....	....	....	....	....	....	....	46	149	87	69	36
24....	....	....	....	....	....	....	....	60	159	131	80	32
25....	....	....	....	....	....	....	....	66	163	97	78	28
26....	....	....	....	....	....	....	....	70	149	84	64	26
27....	....	....	....	....	....	....	....	87	159	94	64	24
28....	....	....	....	....	....	....	....	75	159	153	68	25
29....	....	....	....	....	....	....	....	60	165	98	64	24
30....	....	....	....	....	....	....	....	58	163	82	56	22
31....	....	....	....	....	....	....	....	78	....	133	64	....
Total	....	....	....	....	....	....	....	....	4614	3472	2567	1097
Mean.	....	....	....	....	....	....	....	....	154	112	82.8	36.6
Max..	....	....	....	....	....	....	....	....	210	165	148	58
Min...	....	....	....	....	....	....	....	....	97	80	54	22
Acre-ft.	....	....	....	....	....	....	....	....	9160	6890	5090	2180

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of South St. Vrain Creek Near Ward for Year Ending Sept. 30, 1930.
Drainage Area, 15 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	18	....	....	....	....	....	....	26	96	86	59	11
2....	18	....	....	....	....	....	....	35	67	85	54	11
3....	33	....	....	....	....	....	....	35	55	81	49	12
4....	25	....	....	....	....	....	....	26	55	82	45	14
5....	19	....	....	....	....	....	....	22	58	81	37	16
6....	18	....	....	....	....	....	....	19	64	80	35	16
7....	20	....	....	....	....	....	....	17	84	75	32	15
8....	25	....	....	....	....	....	....	15	96	72	32	20
9....	26	....	....	....	....	....	....	13	98	73	50	19
10....	26	....	....	....	....	....	....	11	105	71	70	18
11....	22	....	....	....	....	....	....	11	119	75	53	19
12....	18	....	....	....	....	....	....	10	154	72	53	17
13....	18	....	....	....	....	....	....	11	138	86	78	15
14....	17	....	....	....	....	....	....	16	121	80	126	14
15....	16	....	....	....	....	....	....	18	102	70	94	13
16....	16	....	....	....	....	....	....	20	100	60	47	12
17....	15	....	....	....	....	....	....	25	107	55	32	12
18....	15	....	....	....	....	....	....	30	107	55	26	11
19....	14	....	....	....	....	....	....	35	108	54	20	11
20....	12	....	....	....	....	....	....	40	105	54	16	11
21....	12	....	....	....	....	....	....	42	121	60	15	11
22....	13	....	....	....	....	....	....	40	156	58	15	11
23....	13	....	....	....	....	....	....	38	130	45	14	11
24....	13	....	....	....	....	....	....	35	94	38	13	10
25....	13	....	....	....	....	....	....	37	78	40	12	11
26....	11	....	....	....	....	....	....	52	72	40	13	11
27....	11	....	....	....	....	....	....	77	70	50	13	11
28....	12	....	....	....	....	....	....	91	73	75	14	10
29....	13	....	....	....	....	....	....	107	86	82	15	9
30....	12	....	....	....	....	....	....	115	90	77	13	9
31....	12	....	....	....	....	....	....	126	....	67	12	....
Total	526	300	248	155	112	124	600	1195	2909	2079	1157	391
Mean.	17	10	8	5	4	4	20	38.5	97.0	67.1	37.3	13
Max..	33	....	....	....	....	....	....	126	156	86	126	20
Min...	11	....	....	....	....	....	....	10	55	38	12	9
Acre-ft.	1050	595	492	307	222	246	1190	2370	5770	4130	2290	774

Discharge of St. Vrain Creek at Mouth for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	71	104	93	....	....	....	142	134	65	109	242	189
2....	68	123	....	....	....	....	138	109	123	98	253	182
3....	66	114	....	....	....	....	136	104	109	95	280	172
4....	64	119	....	....	....	....	132	99	83	98	1000	201
5....	60	114	....	....	....	....	130	101	90	128	570	236
6....	64	114	....	....	....	....	130	102	98	117	630	275
7....	65	121	....	....	....	....	128	99	101	102	1120	278
8....	64	119	....	....	....	....	112	95	112	99	895	287
9....	65	121	....	....	....	....	104	88	148	96	596	323
10....	65	121	....	....	....	....	106	86	172	95	392	275
11....	64	116	....	....	....	....	102	86	142	89	323	244
12....	68	107	....	....	....	....	90	86	99	107	284	228
13....	77	106	....	....	....	....	85	95	82	102	281	219
14....	83	101	....	....	....	....	82	114	92	144	278	222
15....	104	95	....	....	....	....	82	114	99	191	267	222
16....	104	90	....	....	....	....	80	122	142	194	261	225
17....	104	93	....	....	....	....	80	134	177	184	264	214
18....	108	96	....	....	....	....	85	152	156	174	261	196
19....	116	96	....	....	....	....	96	174	132	179	258	172
20....	117	96	....	....	106	....	146	146	108	174	258	159
21....	112	98	103	....	....	....	217	142	106	179	256	161
22....	104	96	....	105	....	109	177	146	132	196	250	172
23....	116	99	....	....	....	116	152	134	140	849	258	170
24....	104	99	....	....	....	116	89	102	150	772	258	163
25....	119	99	....	....	....	130	98	106	172	416	253	165
26....	116	95	....	....	....	152	126	112	132	317	261	179
27....	121	90	....	....	....	161	123	106	77	256	261	174
28....	121	90	....	....	....	159	114	98	64	261	261	165
29....	112	96	....	....	....	142	104	128	68	354	228	170
30....	110	90	....	....	....	142	98	82	80	272	201	172
31....	99	....	....	....	....	146	....	63	....	228	184	....
Total	2831	3118	....	....	....	....	3484	3459	3451	6675	11384	6210
Mean.	91.3	104	85	95	100	140	116	112	115	215	367	207
Max..	121	123	....	....	....	....	217	174	177	849	1120	323
Min...	60	90	....	....	....	....	80	63	64	89	184	159
Acre-ft.	5610	6190	5230	5840	5550	8610	6900	6890	6840	13200	22600	12300

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of St. Vrain Creek at Mouth for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	167	129	129	....	....	142	70	75	176	93	108	145
2....	165	129	130	....	....	141	67	70	169	93	110	142
3....	160	128	135	....	....	141	66	73	114	98	110	145
4....	158	135	140	....	....	138	65	80	95	111	120	141
5....	156	139	145	....	....	142	65	104	96	127	140	138
6....	145	144	158	....	....	132	63	93	83	111	150	141
7....	141	158	165	....	....	125	62	98	76	114	150	145
8....	141	158	162	....	....	125	62	87	75	104	150	147
9....	158	158	158	....	....	121	63	87	88	110	150	148
10....	152	155	162	....	....	118	65	89	85	125	165	147
11....	147	141	165	....	....	103	63	89	98	125	405	142
12....	155	125	170	....	....	101	70	84	86	136	370	139
13....	147	125	162	....	....	99	89	75	78	196	361	142
14....	147	120	165	....	....	96	78	72	77	320	918	118
15....	150	122	162	....	....	92	71	70	78	192	1220	117
16....	144	132	160	....	....	84	76	76	90	148	696	114
17....	141	142	150	....	....	82	144	121	99	120	607	95
18....	136	136	145	....	....	81	194	234	104	114	550	88
19....	134	134	130	....	....	88	208	169	124	115	408	85
20....	122	132	130	....	....	90	174	138	186	128	323	89
21....	108	131	130	....	....	81	135	106	152	141	264	94
22....	103	131	130	....	....	77	122	100	156	167	214	94
23....	107	131	140	85	....	75	122	172	220	188	192	88
24....	106	131	140	....	....	72	108	172	176	160	162	94
25....	103	128	130	....	....	72	127	132	125	148	144	103
26....	100	129	120	....	....	73	147	124	101	136	144	111
27....	100	131	110	....	....	72	129	98	89	120	155	118
28....	100	129	110	....	....	71	117	89	88	117	158	108
29....	110	129	110	....	....	72	92	89	88	113	150	106
30....	129	131	110	....	....	72	82	122	88	117	145	107
31....	132	....	110	....	....	71	....	152	....	113	142	....
Total	4164	4043	4353	....	....	3049	2996	3340	3360	4200	9081	3591
Mean.	134	135	140	90	160	98.4	99.9	108	112	135	293	120
Max..	167	158	165	....	....	142	208	234	220	320	1220	148
Min...	100	120	....	....	....	71	62	70	75	93	108	85
Acre-ft.	8240	8030	8610	5530	8890	6050	5940	6640	6660	8300	18000	7140

Discharge of Left Hand Creek Near Boulder for Year Ending Sept. 30, 1929.
Drainage Area, 48.3 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	....	....	....	....	....	....	....	....	103	136	129	61
2....	....	....	....	....	....	....	....	....	132	127	105	66
3....	....	....	....	....	....	....	....	....	147	127	140	64
4....	....	....	....	....	....	....	....	....	154	123	138	58
5....	....	....	....	....	....	....	....	....	145	103	129	56
6....	....	....	....	....	....	....	....	....	152	103	180	60
7....	....	....	....	....	....	....	....	....	152	99	182	53
8....	....	....	....	....	....	....	....	....	163	96	152	54
9....	....	....	....	....	....	....	....	....	165	80	127	50
10....	....	....	....	....	....	....	....	....	158	76	107	47
11....	....	....	....	....	....	....	....	....	149	84	88	45
12....	....	....	....	....	....	....	....	....	143	92	80	41
13....	....	....	....	....	....	....	....	....	123	101	69	39
14....	....	....	....	....	....	....	....	....	134	129	65	38
15....	....	....	....	....	....	....	....	....	152	161	57	42
16....	....	....	....	....	....	....	....	75	138	129	54	42
17....	....	....	....	....	....	....	....	78	145	138	54	37
18....	....	....	....	....	....	....	....	75	138	103	53	36
19....	....	....	....	....	....	....	....	72	123	86	48	35
20....	....	....	....	....	....	....	....	81	138	86	47	36
21....	....	....	....	....	....	....	....	90	149	83	50	39
22....	....	....	....	....	....	....	....	88	156	78	48	39
23....	....	....	....	....	....	....	....	97	154	96	45	38
24....	....	....	....	....	....	....	....	101	154	121	45	37
25....	....	....	....	....	....	....	....	107	154	96	51	33
26....	....	....	....	....	....	....	....	119	149	81	57	31
27....	....	....	....	....	....	....	....	121	161	75	55	30
28....	....	....	....	....	....	....	....	105	156	125	54	30
29....	....	....	....	....	....	....	....	76	154	99	69	30
30....	....	....	....	....	....	....	....	66	149	76	66	29
31....	....	....	....	....	....	....	....	80	....	107	62	....
Total	....	....	....	....	....	....	....	....	4390	3216	2606	1296
Mean.	....	....	....	....	....	....	....	....	146	104	84.1	43.2
Max..	....	....	....	....	....	....	....	....	165	161	182	66
Min...	....	....	....	....	....	....	....	....	103	75	45	29
Acre-ft.	....	....	....	....	....	....	....	....	8690	6400	5170	2570

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Left Hand Creek Near Boulder for Year Ending Sept. 30, 1930.
Drainage Area, 48.3 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	21	2.9	....	....	....	4.4	4.1	43	92	87	55	19
2....	20	9.6	....	....	....	4.4	3.1	48	84	84	52	18
3....	29	10	....	....	....	4.4	4.6	52	73	78	47	19
4....	30	14	....	....	....	4.4	5.5	46	70	79	44	21
5....	24	8.4	....	....	....	4.2	6.0	38	70	79	43	25
6....	20	8.0	....	....	....	4.0	9.6	30	71	73	34	25
7....	20	55	....	....	....	3.8	14	29	84	67	39	22
8....	26	5.8	....	....	....	3.5	20	27	99	64	61	30
9....	28	6.4	....	....	....	3.2	26	25	101	64	65	29
10....	27	5.0	....	....	....	3.0	31	21	101	62	87	31
11....	26	5.0	....	....	....	2.8	34	19	108	67	76	47
12....	21	5.3	....	....	....	2.4	39	18	119	70	62	40
13....	21	4.3	....	....	....	2.2	43	17	119	91	82	35
14....	19	5.3	....	....	....	2.2	44	20	114	89	130	30
15....	17	5.8	....	....	....	2.2	46	26	108	71	140	28
16....	16	5.5	....	....	....	3.1	46	27	106	61	92	23
17....	14	5.3	....	....	....	2.9	34	30	110	57	68	20
18....	14	3.4	....	....	....	2.8	31	25	114	61	55	16
19....	13	4.1	....	....	....	3.8	29	26	123	57	44	13
20....	12	4.6	....	....	....	1.9	28	27	114	57	39	12
21....	12	4.0	....	....	....	2.2	32	41	117	64	34	13
22....	8.8	4.0	....	....	....	2.6	40	58	136	62	30	12
23....	8.0	4.0	....	....	....	2.6	44	46	130	48	27	12
24....	7.6	4.0	....	....	....	2.1	50	41	105	39	24	10
25....	8.0	4.0	....	....	....	2.1	60	46	87	42	22	12
26....	8.0	4.0	....	....	....	2.8	57	49	73	42	26	12
27....	8.0	4.0	....	....	....	2.9	57	71	71	35	27	12
28....	8.0	4.0	....	....	....	4.1	53	86	68	39	28	11
29....	8.0	4.0	....	....	....	5.3	47	92	82	79	27	10
30....	7.6	4.0	....	....	....	4.6	43	99	86	78	23	9.2
31....	6.8	....	....	....	....	4.1	....	101	....	65	21	....
Total	508.8	164.2	....	....	....	101.0	980.9	1324	2935	2011	1604	616.2
Mean.	16.4	5.47	....	....	....	3.26	32.7	42.7	97.8	64.9	51.7	20.5
Max..	30	14	....	....	....	5.3	60	101	136	91	140	47
Min...	6.8	....	....	....	....	1.9	3.1	17	68	35	21	9.2
Acre-ft.	1010	325	....	....	....	200	1940	2620	5820	3990	3180	1220

Discharge of Left Hand Creek Near Mouth for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	3	4	....	....	....	3	6	5	4	6	70	5
2....	4	3	....	....	....	3	5	4	4	7	51	5
3....	3	6	....	....	....	3	5	4	4	7	150	4
4....	4	4	....	....	....	4	6	4	4	8	130	12
5....	3	3	....	....	....	4	6	4	4	8	104	18
6....	4	3	....	....	....	4	6	4	4	9	196	26
7....	3	3	....	....	4	4	7	3	5	8	225	26
8....	3	3	....	....	....	4	8	4	5	11	174	28
9....	4	3	....	....	....	6	8	3	7	9	137	29
10....	4	3	....	....	....	8	8	7	8	6	112	24
11....	3	3	....	....	....	8	7	16	5	6	96	24
12....	3	3	....	....	....	8	6	12	8	6	78	18
13....	5	3	....	....	....	8	6	8	10	8	59	20
14....	4	3	....	....	....	8	6	23	13	7	52	22
15....	3	2	....	....	....	8	6	32	11	29	43	22
16....	6	2	....	....	....	8	5	36	9	34	29	19
17....	6	3	....	....	....	9	6	40	9	14	12	15
18....	4	3	....	....	....	7	5	53	9	19	14	14
19....	4	4	....	....	....	7	7	39	12	9	4	8
20....	6	4	....	....	....	7	16	24	10	6	3	6
21....	4	4	....	....	....	5	9	32	16	30	3	9
22....	5	4	....	....	....	4	8	22	12	24	3	15
23....	4	3	....	....	....	8	9	6	14	69	3	12
24....	5	3	....	....	....	9	10	3	9	65	4	14
25....	6	3	....	....	....	8	6	3	8	48	4	9
26....	3	3	....	....	....	7	9	7	7	31	6	9
27....	6	3	3.5	....	....	8	5	6	6	21	4	15
28....	5	3	....	....	....	6	4	9	5	74	6	15
29....	4	3	....	....	....	5	6	6	5	56	7	16
30....	5	3	....	....	....	6	8	4	6	41	4	12
31....	6	....	....	....	....	8	....	4	....	40	4	....
Total	132	97	....	....	....	195	209	427	233	716	1787	471
Mean.	4.26	3.23	3.2	3.5	3.5	6.29	6.97	13.8	7.77	23.1	57.6	15.7
Max..	6	6	....	....	....	9	16	53	16	74	225	29
Min...	3	2	....	....	....	3	4	3	4	6	3	4
Acre-ft.	262	192	197	215	194	387	415	848	462	1420	3540	934

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Left Hand Creek Near Mouth for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	11	7	4	....	4	5	7	4	22	7	5	13
2....	10	9	5	....	4	5	7	2	16	7	5	14
3....	10	14	5	7	4	4	7	4	12	5	7	13
4....	12	10	5	....	4	5	7	5	10	5	5	10
5....	9	11	4	....	4	5	8	4	9	5	6	13
6....	9	10	7	....	5	4	8	12	9	5	7	14
7....	9	13	7	....	5	5	8	5	8	6	8	9
8....	9	11	6	....	5	4	8	6	9	7	11	8
9....	9	10	7	8	5	3	9	6	9	8	21	7
10....	7	10	8	....	5	2	10	10	9	6	46	5
11....	6	8	7	....	5	2	10	7	8	7	75	7
12....	5	10	7	....	5	2	13	5	8	14	32	7
13....	5	7	7	....	5	2	14	4	6	40	80	11
14....	5	8	7	....	5	3	19	4	6	28	148	13
15....	5	10	7	....	7	4	15	4	7	16	125	8
16....	5	8	6	....	7	3	16	6	7	17	76	10
17....	4	5	6	....	4	4	9	25	7	12	67	9
18....	4	4	6	....	4	6	6	13	7	9	60	8
19....	5	5	6	....	4	6	9	7	20	15	47	5
20....	5	8	6	....	3	4	8	6	8	13	37	5
21....	5	10	6	....	3	5	8	7	10	14	27	5
22....	5	10	6	....	3	4	6	28	35	17	24	4
23....	6	12	6	....	3	4	6	25	25	9	20	4
24....	5	11	6	....	4	5	4	17	15	7	17	4
25....	6	10	6	....	5	5	9	14	13	7	13	4
26....	6	11	7	....	5	7	14	11	10	8	13	4
27....	5	7	7	....	5	7	14	10	10	6	14	7
28....	6	6	6	....	5	7	5	15	7	7	10	7
29....	8	4	6	....	....	7	4	27	7	12	10	8
30....	10	5	6	....	....	7	4	22	6	13	8	10
31....	8	....	6	....	....	6	....	24	....	9	8	....
Total	214	264	191	....	127	142	272	339	335	341	1032	246
Mean.	6.90	8.80	6.16	6.5	4.54	4.58	9.07	10.9	11.2	11.0	33.3	8.20
Max..	12	14	....	....	....	7	19	28	35	40	148	14
Min...	4	4	....	....	....	2	4	4	6	5	5	4
Acre-ft.	424	524	379	400	252	282	540	670	666	676	2050	488

Discharge of Big Thompson River Near Estes Park for Year Ending Sept. 30, 1930.
Drainage Area, 158 Square Miles. Altitude, 7,360 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	....	....	....	....	....	....	....	....	....	258	258	194
2....	....	....	....	....	....	....	....	....	....	220	245	138
3....	....	....	....	....	....	....	....	....	....	220	241	138
4....	....	....	....	....	....	....	....	....	....	205	343	138
5....	....	....	....	....	....	....	....	....	....	205	311	140
6....	....	....	....	....	....	....	....	....	....	209	276	150
7....	....	....	....	....	....	....	....	....	....	220	307	148
8....	....	....	....	....	....	....	....	....	....	194	293	142
9....	....	....	....	....	....	....	....	....	....	187	298	142
10....	....	....	....	....	....	....	....	....	....	202	302	140
11....	....	....	....	....	....	....	....	....	....	258	330	140
12....	....	....	....	....	....	....	....	....	....	191	311	114
13....	....	....	....	....	....	....	....	....	....	446	330	103
14....	....	....	....	....	....	....	....	....	....	307	878	87
15....	....	....	....	....	....	....	....	....	....	191	558	87
16....	....	....	....	....	....	....	....	....	....	187	520	87
17....	....	....	....	....	....	....	....	....	....	180	498	87
18....	....	....	....	....	....	....	....	....	....	364	391	79
19....	....	....	....	....	....	....	....	....	....	229	353	71
20....	....	....	....	....	....	....	....	....	....	254	330	82
21....	....	....	....	....	....	....	....	....	....	233	271	82
22....	....	....	....	....	....	....	....	....	....	237	216	75
23....	....	....	....	....	....	....	....	....	....	216	216	79
24....	....	....	....	....	....	....	....	....	316	205	216	82
25....	....	....	....	....	....	....	....	....	307	198	216	96
26....	....	....	....	....	....	....	....	....	262	191	233	85
27....	....	....	....	....	....	....	....	....	241	198	216	71
28....	....	....	....	....	....	....	....	....	280	202	209	71
29....	....	....	....	....	....	....	....	....	254	220	216	75
30....	....	....	....	....	....	....	....	....	276	241	216	79
31....	....	....	....	....	....	....	....	....	....	271	180	....
Total	....	....	....	....	....	....	....	....	....	7139	9778	3202
Mean.	....	....	....	....	....	....	....	....	....	230	315	107
Max..	....	....	....	....	....	....	....	....	....	446	878	194
Min...	....	....	....	....	....	....	....	....	....	180	180	71
Acre-ft.	....	....	....	....	....	....	....	....	....	14100	19400	6370

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Big Thompson River Below Power House Near Drake for Year Ending Sept. 30, 1929. Drainage Area, 277 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	58	41	25	18	....	....	....	90	448	597	585	295
2....	59	28	28	20	....	....	....	82	578	564	550	278
3....	61	19	26	18	....	....	....	80	550	554	597	338
4....	58	28	24	17	....	....	....	83	546	526	554	356
5....	56	47	26	17	....	....	....	84	597	498	522	329
6....	55	46	28	14	....	....	....	90	633	490	673	362
7....	53	47	27	16	....	....	....	87	657	466	717	365
8....	52	44	25	17	....	....	....	105	709	462	645	353
9....	50	41	24	16	....	....	....	124	713	407	571	326
10....	49	36	25	15	....	....	....	158	649	398	518	320
11....	47	38	24	16	....	....	....	154	629	392	476	315
12....	48	38	22	15	....	....	....	147	557	410	445	310
13....	48	37	23	15	....	....	....	148	515	473	414	305
14....	49	38	22	18	....	....	....	187	550	574	395	308
15....	50	36	20	18	....	....	....	241	645	568	365	310
16....	51	41	16	17	....	....	51	285	582	560	344	310
17....	51	38	16	15	....	....	57	275	657	536	332	288
18....	53	28	17	15	....	....	68	300	550	480	386	270
19....	56	24	16	16	....	....	66	248	484	456	359	260
20....	56	23	15	14	....	....	77	275	532	484	329	255
21....	53	35	15	16	....	....	67	338	574	470	312	262
22....	51	47	15	....	....	....	67	347	625	445	300	272
23....	44	43	13	....	....	....	66	410	633	574	290	270
24....	41	37	13	....	....	....	71	431	605	645	278	265
25....	39	32	13	....	....	....	52	498	605	540	308	248
26....	41	35	14	....	....	....	67	560	597	498	292	239
27....	41	37	14	....	....	....	67	500	633	494	265	229
28....	38	38	15	....	....	....	66	442	625	741	270	217
29....	42	36	16	....	....	....	76	392	621	609	285	209
30....	43	30	19	....	....	....	92	335	574	621	335	205
31....	41	....	22	....	....	....	....	377	....	609	315	....
Total	1534	1088	618	343	....	....	1010	7873	17873	16141	13027	8669
Mean.	49.5	36.3	20.0	....	....	....	....	254	596	521	420	289
Max..	61	47	28	....	....	....	....	560	713	741	717	365
Min...	38	19	13	....	....	....	....	80	448	392	265	205
Acre-ft.	3040	2160	1230	....	....	....	....	15600	35500	32000	25800	17200

Discharge of Big Thompson River Below Power House Near Drake, Colo., for Year Ending Sept. 30, 1930. Drainage Area, 277 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	200	61	57	28	20	20	20	157	541	276	320	190
2....	190	78	46	27	20	18	30	188	404	270	276	178
3....	220	96	50	25	20	21	35	246	326	254	257	170
4....	210	88	61	25	20	22	42	226	302	239	347	170
5....	182	98	56	23	20	23	44	186	293	244	347	180
6....	156	89	55	29	25	23	54	157	329	241	332	190
7....	150	88	52	26	25	22	62	134	412	226	377	172
8....	157	71	46	25	25	21	70	124	488	217	344	176
9....	182	93	53	24	25	18	83	118	530	219	341	182
10....	192	76	54	25	25	21	96	111	516	224	362	159
11....	190	78	52	23	22	22	96	106	510	231	380	145
12....	178	58	50	17	22	24	101	101	541	282	371	134
13....	165	47	48	12	22	26	105	98	544	440	380	126
14....	157	61	48	12	22	25	112	96	502	429	712	118
15....	149	78	44	12	22	29	117	110	436	332	760	111
16....	142	86	44	12	22	26	116	128	432	259	608	106
17....	137	86	43	12	25	25	97	135	443	234	566	104
18....	132	66	26	12	27	24	90	126	443	338	510	100
19....	129	60	16	12	28	21	84	138	422	287	457	96
20....	123	25	21	12	26	23	82	163	429	296	412	95
21....	117	23	22	16	30	27	84	205	478	268	371	89
22....	106	23	20	16	29	29	96	314	548	273	347	85
23....	98	49	33	16	28	29	112	224	510	241	317	89
24....	88	62	32	16	32	22	130	186	418	231	290	88
25....	98	68	33	16	24	24	197	219	365	222	273	102
26....	101	72	38	18	22	19	180	257	326	210	268	98
27....	100	30	36	18	22	18	170	390	314	190	259	95
28....	97	71	33	18	19	17	163	474	308	190	270	89
29....	98	63	28	18	....	19	149	520	305	254	270	88
30....	96	62	32	18	....	22	152	576	279	408	234	85
31....	95	....	34	18	....	24	....	611	....	394	205	....
Total	4435	2006	1263	581	669	704	2969	6824	12694	8419	11563	3810
Mean.	143	66.9	40.7	18.7	23.9	22.7	99.0	220	423	272	373	127
Max..	220	98	61	29	....	....	197	611	548	440	760	190
Min...	88	23	16	....	....	....	....	96	279	190	205	85
Acre-ft.	8790	3980	2500	1150	1330	1400	5890	13500	25200	16700	22900	7560

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Big Thompson River at Canon Near Drake for Year Ending Sept. 30, 1929.
Drainage Area, 301 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	45	....	....	....	....	....	....	....	560	748	805	298
2....	49	....	....	....	....	....	....	....	670	670	720	290
3....	47	....	....	....	....	....	....	....	630	670	865	378
4....	44	....	....	....	....	....	....	....	645	620	695	363
5....	44	....	....	....	....	....	....	....	748	552	645	342
6....	43	....	....	....	....	....	....	....	835	552	1140	387
7....	41	....	....	....	....	....	....	....	835	490	1060	372
8....	39	....	....	....	....	....	....	....	995	490	865	357
9....	38	....	....	....	....	....	....	....	1030	417	720	330
10....	38	....	....	....	....	....	....	....	835	405	620	330
11....	38	....	....	....	....	....	....	....	805	393	552	339
12....	38	....	....	....	....	....	....	....	670	417	510	327
13....	37	....	....	....	....	....	....	....	575	510	490	324
14....	....	....	....	....	....	....	....	375	645	670	451	333
15....	....	....	....	....	....	....	....	258	835	645	417	339
16....	....	....	....	....	....	....	....	179	775	670	387	312
17....	....	....	....	....	....	....	....	197	740	645	366	288
18....	....	....	....	....	....	....	....	173	700	530	372	280
19....	....	....	....	....	....	....	....	260	630	490	424	270
20....	....	....	....	....	....	....	....	242	645	552	381	258
21....	....	....	....	....	....	....	....	130	720	530	351	270
22....	....	....	....	....	....	....	....	116	805	530	336	280
23....	....	....	....	....	....	....	....	120	835	600	330	278
24....	....	....	....	....	....	....	....	150	775	700	318	262
25....	....	....	....	....	....	....	....	200	775	695	288	245
26....	....	....	....	....	....	....	....	250	748	598	336	235
27....	....	....	....	....	....	....	....	240	805	620	272	220
28....	....	....	....	....	....	....	....	220	805	1240	272	208
29....	....	....	....	....	....	....	....	200	805	805	303	201
30....	....	....	....	....	....	....	....	200	720	865	354	199
31....	....	....	....	....	....	....	....	300	....	805	309	....
Total	541	....	....	....	....	....	....	3810	22596	19124	15954	8915
Mean.	....	....	....	....	....	....	....	....	753	617	515	297
Max..	....	....	....	....	....	....	....	....	1030	1240	1140	387
Min...	....	....	....	....	....	....	....	....	560	393	272	199
Acre-ft.	....	....	....	....	....	....	....	....	44800	37900	31700	17700

Discharge of Big Thompson River at Canon Near Drake for Year Ending Sept. 30, 1930.
Drainage Area, 301 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	192	80	....	....	....	....	20	161	530	292	339	194
2....	183	85	....	....	....	....	28	179	390	288	298	183
3....	206	97	....	....	....	....	33	232	306	270	282	179
4....	197	90	....	....	....	....	40	201	295	260	339	175
5....	175	101	....	....	....	....	42	171	288	262	366	186
6....	163	85	....	....	....	....	52	149	312	258	351	197
7....	161	78	....	....	....	....	60	130	396	248	396	183
8....	188	73	....	....	....	....	68	126	498	238	330	190
9....	215	89	....	....	....	....	82	123	552	240	363	192
10....	206	67	....	....	....	....	94	113	539	245	396	173
11....	192	65	....	....	....	....	94	105	518	252	414	157
12....	175	52	....	....	....	....	98	98	598	298	430	141
13....	169	50	....	....	....	....	105	95	602	472	483	130
14....	159	60	....	....	....	....	125	92	544	469	1140	123
15....	149	83	....	....	....	....	139	105	448	357	1200	116
16....	143	81	....	....	....	....	135	134	452	285	823	107
17....	134	76	....	....	....	....	85	159	462	262	670	104
18....	132	....	....	....	....	....	77	137	462	345	548	92
19....	126	....	....	....	....	....	64	157	438	306	462	92
20....	118	....	....	....	....	....	60	151	441	318	396	89
21....	110	....	....	....	....	....	63	206	510	290	372	85
22....	104	....	....	....	....	....	86	295	630	295	348	83
23....	95	....	....	....	....	....	104	230	562	268	324	84
24....	81	....	....	....	....	....	137	180	430	255	300	86
25....	95	....	....	....	....	....	192	210	378	245	275	102
26....	101	....	....	....	....	....	181	240	336	235	268	102
27....	99	....	....	....	....	....	171	360	330	215	255	95
28....	94	....	....	....	....	....	163	450	321	215	265	90
29....	95	....	....	....	....	....	159	480	315	280	270	86
30....	91	....	....	....	....	....	153	530	292	430	232	84
31....	94	....	....	....	....	....	....	570	....	417	213	....
Total	4442	1312	....	....	....	....	2910	6569	13175	9110	13178	3900
Mean.	143	77.2	....	....	....	....	97	212	439	294	425	130
Max..	215	101	....	....	....	....	192	570	630	472	1200	197
Min...	81	50	....	....	....	....	20	92	288	215	213	83
Acre-ft.	8790	2600	....	....	....	....	5770	13000	26100	18100	26100	7740

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Big Thompson River at Mouth for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	26	78	73	67	....	....	57	34	53	53	16	29
2....	25	80	72	66	....	....	57	34	77	46	12	27
3....	24	81	70	66	....	....	55	31	83	36	87	30
4....	22	80	68	66	....	....	52	31	56	21	207	46
5....	22	78	66	67	....	....	50	33	68	18	88	42
6....	23	78	66	63	....	....	50	30	105	16	95	46
7....	24	82	66	52	....	....	50	30	54	14	375	60
8....	24	80	68	50	....	....	50	32	34	14	360	62
9....	22	81	68	53	....	....	51	30	41	12	200	54
10....	21	86	67	57	....	....	51	29	60	12	88	36
11....	20	83	68	62	....	....	49	31	44	12	72	33
12....	22	80	68	63	....	....	48	30	30	10	54	30
13....	20	78	65	62	....	....	49	26	28	10	44	28
14....	38	76	65	59	....	....	47	20	26	10	34	26
15....	50	75	68	59	....	....	45	16	26	9	30	26
16....	69	78	67	59	....	....	44	19	33	7	30	24
17....	72	81	64	56	....	....	43	9	25	6	31	24
18....	73	80	64	52	....	....	42	8	30	5	30	25
19....	72	76	64	53	....	....	44	7	12	5	30	26
20....	76	74	72	51	32	....	64	6	6	30	28	27
21....	76	72	68	50	....	....	55	7	29	32	26	23
22....	74	71	70	49	....	....	41	6	38	27	25	23
23....	74	68	71	47	....	....	42	5	44	20	23	25
24....	74	72	69	46	....	....	41	5	41	22	28	20
25....	76	71	69	47	....	63	40	6	31	20	30	20
26....	76	66	68	47	....	64	44	4	28	20	30	20
27....	78	67	64	47	....	64	45	3	22	20	28	22
28....	82	69	64	47	....	61	40	4	13	28	23	31
29....	78	70	68	47	....	59	36	4	43	17	19	31
30....	76	71	68	47	....	59	35	3	76	8	20	32
31....	78	....	67	47	....	59	....	5	....	8	25	....
Total	1587	2282	2095	1704	....	....	1417	538	1256	568	2188	948
Mean.	51.2	76.1	67.6	55.0	40	48	47.2	17.4	41.9	18.3	70.6	31.6
Max..	82	86	73	67	....	....	64	34	105	53	375	62
Min...	20	66	64	46	....	....	35	3	6	5	12	20
Acre-ft.	3150	4530	4160	3380	2220	2950	2810	1070	2490	1130	4340	1880

Discharge of Big Thompson River at Mouth for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	36	91	107	48	....	55	44	9	6	15	36	20
2....	35	95	106	52	....	55	44	4	6	14	36	21
3....	32	95	106	52	....	55	44	4	6	12	36	21
4....	27	93	108	55	....	55	44	65	2	12	40	19
5....	25	92	107	56	....	55	44	49	2	13	42	19
6....	23	94	88	58	....	55	44	29	2	12	54	19
7....	22	92	79	60	....	57	44	25	2	11	54	19
8....	31	93	78	60	....	59	44	24	2	7	54	23
9....	23	95	79	59	....	59	44	16	8	7	31	49
10....	34	100	80	57	....	58	44	3	16	7	39	49
11....	34	88	80	60	....	58	44	2	18	6	138	48
12....	34	91	79	59	....	57	44	2	16	6	120	48
13....	33	92	76	58	....	56	43	2	16	16	120	49
14....	44	90	76	60	....	55	38	2	14	74	320	61
15....	67	87	75	61	....	54	28	2	13	41	488	67
16....	65	95	75	58	....	55	29	2	15	29	320	60
17....	60	98	78	24	....	54	28	2	14	27	290	53
18....	59	95	78	26	....	55	34	2	18	22	260	48
19....	62	96	72	26	....	55	48	3	16	19	180	44
20....	62	93	72	28	....	54	53	3	8	24	120	40
21....	61	88	72	28	....	54	55	3	7	36	110	35
22....	65	88	72	30	....	54	54	3	7	38	98	34
23....	68	110	71	32	....	53	50	3	3	52	84	30
24....	67	110	71	34	....	50	34	3	2	48	56	30
25....	67	110	71	34	....	50	28	3	3	42	46	31
26....	67	112	64	36	....	50	29	2	2	36	42	32
27....	67	117	57	36	....	48	22	2	2	36	44	34
28....	69	108	56	36	....	48	18	2	7	36	38	34
29....	80	108	56	36	....	44	18	2	19	36	28	33
30....	85	111	55	36	....	44	18	2	16	36	21	34
31....	90	....	53	36	....	44	....	6	....	36	19	....
Total	1594	2927	2397	1391	....	1655	1155	281	268	806	3364	1104
Mean.	51.4	97.6	77.3	44.9	70	53.4	38.5	9.06	8.93	26.0	108	36.8
Max..	90	117	108	61	....	59	55	65	19	74	....	67
Min...	22	87	53	....	....	....	18	2	2	6	....	19
Acre-ft.	3160	5810	4750	2760	3890	3280	2290	557	531	1600	6640	2190

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Little Thompson River Near Berthoud for Year Ending Sept. 30, 1929.
Drainage Area, 49.7 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	....	....	....	....	....	....	....	....	17	1.2	15	10
2....	....	....	....	....	....	....	....	....	15	1.2	10	9.2
3....	....	....	....	....	....	....	....	....	13	1.2	66	8.8
4....	....	....	....	....	....	....	....	....	11	1.1	43	11
5....	....	....	....	....	....	....	....	....	13	1.1	32	12
6....	....	....	....	....	....	....	....	....	14	1.1	61	18
7....	....	....	....	....	....	....	....	....	13	1.0	80	21
8....	....	....	....	....	....	....	....	....	11	1.1	66	21
9....	....	....	....	....	....	....	....	....	9.6	1.1	57	23
10....	....	....	....	....	....	....	....	....	8.8	1.0	49	23
11....	....	....	....	....	....	....	....	....	8.4	1.1	41	23
12....	....	....	....	....	....	....	....	....	8.8	1.1	35	21
13....	....	....	....	....	....	....	....	....	9.2	1.1	31	19
14....	....	....	....	....	....	....	....	....	7.2	1.0	28	18
15....	....	....	....	....	....	....	....	....	6.0	1.1	27	16
16....	....	....	....	....	....	....	....	....	4.5	1.5	20	16
17....	....	....	....	....	....	....	....	....	4.0	1.4	18	14
18....	....	....	....	....	....	....	....	....	3.5	1.5	16	13
19....	....	....	....	....	....	....	....	....	2.8	10	22	11
20....	....	....	....	....	....	....	....	....	2.4	34	15	11
21....	....	....	....	....	....	....	....	....	2.2	24	16	11
22....	....	....	....	....	....	....	....	....	2.1	7.6	13	11
23....	....	....	....	....	....	....	....	....	2.0	8.4	13	11
24....	....	....	....	....	....	....	....	....	1.8	24	14	8.4
25....	....	....	....	....	....	....	....	....	1.7	18	13	7.6
26....	....	....	....	....	....	....	....	15	1.5	16	13	6.8
27....	....	....	....	....	....	....	....	13	1.4	15	12	6.3
28....	....	....	....	....	....	....	....	19	1.2	13	10	6.0
29....	....	....	....	....	....	....	....	22	1.2	21	8.8	6.0
30....	....	....	....	....	....	....	....	16	1.2	17	10	6.3
31....	....	....	....	....	....	....	....	13	....	11	11	....
Total	....	....	....	....	....	....	....	....	198.5	239.9	865.8	399.4
Mean.	....	....	....	....	....	....	....	....	6.62	7.74	27.9	13.3
Max..	....	....	....	....	....	....	....	....	17	34	80	23
Min...	....	....	....	....	....	....	....	....	1.2	1.0	8.8	6.0
Acre-ft.	....	....	....	....	....	....	....	....	394	476	1720	791

Discharge of Little Thompson River Near Berthoud for Year Ending Sept. 30, 1930.
Drainage Area, 49.7 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	5.4	3.4	4.1	....	....	1.6	2.5	8.1	18	.4	6.9	20
2....	5.2	3.6	4.3	....	....	1.5	2.4	7.3	17	.3	5.8	20
3....	4.7	4.1	....	....	....	1.4	3.4	7.3	16	.3	5.0	20
4....	4.5	5.0	....	....	....	1.3	6.9	9.2	15	.3	4.1	20
5....	4.5	4.1	....	....	....	1.3	6.9	8.8	14	.3	5.8	20
6....	4.1	5.2	....	....	....	1.3	6.2	8.4	13	.3	12	25
7....	3.6	5.0	....	....	....	1.2	7.7	8.4	12	.3	8.1	25
8....	3.6	4.3	....	....	....	1.1	8.1	8.4	10	.3	6.4	25
9....	4.3	5.0	....	....	....	1.1	8.3	10	9.8	.2	6.2	25
10....	4.3	5.0	....	....	....	1.1	8.3	12	9.8	.3	170	25
11....	3.4	4.7	....	....	....	1.0	12	12	9.2	.3	188	28
12....	2.8	4.3	....	....	....	1.2	12	10	7.3	.3	212	28
13....	1.3	3.2	....	....	....	1.1	10	9.2	6.2	.4	157	28
14....	1.0	4.1	....	....	....	1.2	11	8.4	5.0	.9	584	28
15....	.8	4.5	....	0.4	....	1.4	9.2	8.5	4.5	1.0	299	28
16....	.7	4.5	....	....	....	1.7	9.2	13	4.3	.6	181	20
17....	.7	4.7	....	....	....	2.4	12	21	3.4	.5	141	20
18....	1.0	5.0	....	....	....	2.5	12	18	2.8	.4	95	20
19....	2.4	5.0	....	....	....	2.4	9.8	18	3.1	.5	64	20
20....	2.9	3.6	....	....	....	2.4	8.8	16	2.9	1.2	48	20
21....	3.1	3.8	....	....	....	1.8	8.6	13	2.1	1.8	40	12
22....	3.4	4.1	....	....	....	2.1	8.1	13	1.7	3.1	32	12
23....	3.9	4.5	....	....	....	3.6	8.1	15	1.7	3.2	30	12
24....	4.1	4.3	....	....	....	3.2	9.8	14	1.6	2.5	28	12
25....	4.3	4.1	....	....	1.6	3.4	13	13	1.2	2.4	28	12
26....	4.3	4.3	....	....	1.6	3.0	11	13	.9	2.1	130	8
27....	4.1	4.1	....	....	1.6	2.4	8.8	13	.8	1.7	53	8
28....	4.1	4.1	....	....	1.6	2.4	8.8	12	.6	2.2	35	8
29....	3.9	3.9	....	....	....	2.2	8.8	13	.5	6.2	33	8
30....	3.6	4.3	....	....	....	2.4	8.8	13	.5	11	28	8
31....	3.6	....	....	....	....	2.4	....	14	....	8.4	23	....
Total	103.6	129.8	93	12.4	28	59.1	260.5	368.0	194.9	53.7	2659.3	565
Mean.	3.34	4.33	3	.4	1.0	1.91	8.68	11.9	6.5	1.73	85.8	18.8
Max..	5.4	5.2	....	....	....	3.6	13	21	18	11	584	....
Min...	3.2	3.2	....	....	....	1.0	2.4	7.3	.5	.2	4.1	....
Acre-ft.	205	258	184	25	56	117	516	732	387	106	5280	1120

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Big South Cache La Poudre River Near Home for Year Ending Sept. 30, 1929.
Drainage Area, 91 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	....	....	....	....	....	....	....	....	892	727	315	92
2....	....	....	....	....	....	....	....	....	1080	660	254	94
3....	....	....	....	....	....	....	....	....	943	577	227	115
4....	....	....	....	....	....	....	....	....	943	538	216	137
5....	....	....	....	....	....	....	....	....	995	500	258	110
6....	....	....	....	....	....	....	....	....	1100	465	321	126
7....	....	....	....	....	....	....	....	....	1220	448	269	128
8....	....	....	....	....	....	....	....	....	1370	432	234	126
9....	....	....	....	....	....	....	....	....	1280	369	203	112
10....	....	....	....	....	....	....	....	....	1220	358	181	120
11....	....	....	....	....	....	....	....	....	1100	350	159	125
12....	....	....	....	....	....	....	....	....	868	367	144	151
13....	....	....	....	....	....	....	....	....	820	448	130	172
14....	....	....	....	....	....	....	....	....	868	465	123	174
15....	....	....	....	....	....	....	....	....	1020	386	118	153
16....	....	....	....	....	....	....	....	....	1050	361	112	132
17....	....	....	....	....	....	....	....	....	1130	342	125	121
18....	....	....	....	....	....	....	....	....	796	321	123	112
19....	....	....	....	....	....	....	....	....	820	313	107	104
20....	....	....	....	....	....	....	....	185	995	297	100	99
21....	....	....	....	....	....	....	....	....	995	282	94	102
22....	....	....	....	....	....	....	....	386	1000	295	98	104
23....	....	....	....	....	....	....	....	482	1020	416	87	98
24....	....	....	....	....	....	....	....	577	796	401	94	93
25....	....	....	....	....	....	....	....	750	773	310	90	87
26....	....	....	....	....	....	....	....	843	750	302	88	83
27....	....	....	....	....	....	....	....	482	796	358	88	77
28....	....	....	....	....	....	....	....	386	727	401	87	73
29....	....	....	....	....	....	....	....	318	796	350	96	79
30....	....	....	....	....	....	....	....	361	773	416	102	87
31....	....	....	....	....	....	....	....	538	....	353	94	....
Total	....	....	....	....	....	....	....	....	28936	12608	4737	3386
Mean.	....	....	....	....	....	....	....	....	965	407	153	113
Max..	....	....	....	....	....	....	....	....	1370	727	315	174
Min...	....	....	....	....	....	....	....	....	727	282	87	73
Acre-ft.	....	....	....	....	....	....	....	....	57400	25000	9410	6720

Discharge of Big South Cache La Poudre River near Home for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	73	30	15	12	8	5	18	272	805	221	128	52
2....	72	30	15	12	8	5	18	336	566	202	106	49
3....	94	30	15	12	8	5	18	320	510	193	99	77
4....	77	30	15	12	8	5	18	209	454	177	154	214
5....	76	30	15	12	8	5	18	158	427	163	120	204
6....	90	30	18	12	8	5	18	120	566	168	134	207
7....	100	30	18	12	8	5	18	107	724	161	190	195
8....	114	30	18	12	8	5	18	94	823	156	130	202
9....	112	30	18	12	8	5	40	86	841	152	122	202
10....	102	30	18	12	8	5	40	76	814	145	120	59
11....	89	25	18	12	6	8	40	69	828	147	156	47
12....	78	25	18	12	6	8	40	65	890	147	154	45
13....	72	25	18	12	6	8	40	64	832	279	202	45
14....	67	25	18	12	6	8	40	79	702	214	582	45
15....	64	25	18	12	6	8	40	107	590	165	411	42
16....	60	25	12	12	6	8	55	110	558	122	288	40
17....	60	25	12	12	6	8	55	120	514	106	260	38
18....	57	25	12	12	6	8	55	128	464	100	204	37
19....	55	25	12	12	6	8	55	136	437	109	170	34
20....	52	25	12	12	6	8	55	236	458	143	141	33
21....	51	20	12	10	6	15	65	390	510	132	114	32
22....	42	20	12	10	6	15	90	411	598	114	111	32
23....	48	20	12	10	6	15	112	250	510	87	100	38
24....	75	20	12	10	6	15	145	291	387	89	94	40
25....	73	20	12	10	6	15	250	387	320	86	97	46
26....	58	20	14	10	6	15	262	478	303	77	104	42
27....	58	20	14	10	6	15	226	715	293	69	120	47
28....	47	20	14	10	6	15	190	841	274	91	136	49
29....	46	20	14	10	....	15	179	985	250	165	126	47
30....	45	20	14	10	....	15	200	1110	238	240	102	45
31....	40	....	14	10	....	15	....	1080	....	134	64	....
Total	2147	750	459	350	188	295	2418	9830	16486	4554	5039	2285
Mean.	69.3	25	14.8	11.3	6.7	9.5	80.6	317	550	147	163	76.2
Max..	114	....	....	....	....	....	262	1110	890	279	582	214
Min...	40	....	....	....	....	....	....	64	238	69	64	32
Acre-ft.	4260	1490	910	695	372	584	4800	19500	32700	9040	10000	4530

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Little South Cache La Poudre River Near Eggers for Year Ending Sept. 30, 1929.
Drainage Area, 69.3 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	....	....	....	....	....	....	....	....	172	222	185	88
2....	....	....	....	....	....	....	....	....	235	203	185	90
3....	....	....	....	....	....	....	....	....	215	200	177	90
4....	....	....	....	....	....	....	....	....	228	191	152	95
5....	....	....	....	....	....	....	....	....	248	175	147	95
6....	....	....	....	....	....	....	....	....	274	159	175	100
7....	....	....	....	....	....	....	....	....	285	162	140	105
8....	....	....	....	....	....	....	....	....	329	147	115	95
9....	....	....	....	....	....	....	....	....	321	117	104	85
10....	....	....	....	....	....	....	....	....	309	117	95	82
11....	....	....	....	....	....	....	....	....	293	122	90	79
12....	....	....	....	....	....	....	....	....	263	149	85	78
13....	....	....	....	....	....	....	....	....	235	154	82	81
14....	....	....	....	....	....	....	....	....	248	188	79	85
15....	....	....	....	....	....	....	....	....	241	162	76	87
16....	....	....	....	....	....	....	....	....	232	152	75	73
17....	....	....	....	....	....	....	....	....	263	149	76	69
18....	....	....	....	....	....	....	....	....	200	145	78	68
19....	....	....	....	....	....	....	....	....	185	142	78	65
20....	....	....	....	....	....	....	....	....	215	145	75	63
21....	....	....	....	....	....	....	....	....	232	175	72	66
22....	....	....	....	....	....	....	....	....	255	175	73	64
23....	....	....	....	....	....	....	....	....	240	212	68	65
24....	....	....	....	....	....	....	....	....	225	225	71	60
25....	....	....	....	....	....	....	....	....	241	188	75	58
26....	....	....	....	....	....	....	....	....	248	175	69	57
27....	....	....	....	....	....	....	....	....	274	215	67	52
28....	....	....	....	....	....	....	....	....	281	215	75	50
29....	....	....	....	....	....	....	....	....	270	197	78	48
30....	....	....	....	....	....	....	....	....	238	194	82	48
31....	....	....	....	....	....	....	....	142	....	185	86	....
Total	....	....	....	....	....	....	....	....	7495	5357	3085	2241
Mean.	....	....	....	....	....	....	....	....	250	173	99.5	74.7
Max..	....	....	....	....	....	....	....	....	329	225	185	105
Min...	....	....	....	....	....	....	....	....	172	117	67	48
Acre-ft.	....	....	....	....	....	....	....	....	14900	10600	6120	4440

Discharge of Little South Cache La Poudre River Near Eggers for Year Ending Sept. 30, 1930
Drainage Area, 69.3 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	40	20	18	12	11	8	18	48	234	94	81	44
2....	40	20	18	12	11	8	18	59	171	96	70	40
3....	48	20	18	12	11	8	18	78	144	94	100	39
4....	40	20	18	12	11	8	18	59	141	85	151	39
5....	38	20	18	12	11	8	18	50	134	76	136	39
6....	37	20	18	12	11	8	18	42	141	72	144	38
7....	38	20	18	12	11	8	18	42	171	78	151	36
8....	48	20	18	12	11	8	18	40	212	91	146	38
9....	45	20	18	12	11	8	18	37	230	68	134	36
10....	44	20	18	12	11	8	18	35	224	70	100	35
11....	39	20	18	12	11	9	25	35	230	72	91	34
12....	36	20	18	12	11	9	25	33	264	94	78	32
13....	34	20	18	12	11	9	25	32	250	148	89	31
14....	32	20	18	12	11	9	25	33	190	107	150	29
15....	31	20	18	12	11	9	25	38	158	89	130	28
16....	31	15	12	10	12	9	25	37	158	64	122	27
17....	31	15	12	10	12	9	25	37	158	66	107	27
18....	31	15	12	10	12	9	25	36	156	70	94	26
19....	31	15	12	10	12	9	25	39	151	81	81	26
20....	29	15	12	10	12	9	25	38	164	85	74	24
21....	28	15	12	10	12	10	35	68	193	78	70	24
22....	27	15	12	10	12	10	35	100	224	74	64	24
23....	27	15	12	10	12	10	35	68	184	64	61	24
24....	25	15	12	10	12	10	35	63	144	59	61	25
25....	25	15	12	10	12	10	35	81	126	57	61	29
26....	25	15	12	10	12	10	35	94	119	55	63	26
27....	25	15	12	10	12	10	35	151	117	45	64	27
28....	25	15	12	10	12	10	35	182	117	46	59	26
20....	25	15	12	10	....	10	35	209	117	70	55	25
30....	25	15	12	10	....	10	45	240	105	94	50	25
31....	25	....	12	10	....	10	....	271	....	81	45	....
Total	1025	525	462	340	321	280	790	2375	5127	2423	2882	923
Mean.	33.1	17.5	14.9	11.0	11.5	9.03	26.3	76.6	171	78.2	93.0	30.8
Max..	48	....	....	....	....	....	....	271	264	148	151	44
Min...	25	....	....	....	....	....	....	32	105	45	45	24
Acre-ft.	2040	1040	916	676	639	555	1560	4710	10200	4810	5720	1830

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Cache La Poudre River Near Log Cabin for Year Ending Sept. 30, 1929.
Drainage Area, 235 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	....	....	....	....	....	....	....	....	1660	1830	592	391
2....	....	....	....	....	....	....	....	....	2190	1660	500	443
3....	....	....	....	....	....	....	....	....	1830	1410	500	500
4....	....	....	....	....	....	....	....	....	1740	1490	417	500
5....	....	....	....	....	....	....	....	....	1740	1490	500	500
6....	....	....	....	....	....	....	....	....	2100	1250	500	472
7....	....	....	....	....	....	....	....	....	2370	1100	500	302
8....	....	....	....	....	....	....	....	....	2560	960	443	248
9....	....	....	....	....	....	....	....	....	2560	848	417	199
10....	....	....	....	....	....	....	....	....	2560	748	343	191
11....	....	....	....	....	....	....	....	....	2460	748	343	205
12....	....	....	....	....	....	....	....	....	2100	748	322	218
13....	....	....	....	....	....	....	....	....	1580	848	284	248
14....	....	....	....	....	....	....	....	....	1660	900	265	500
15....	....	....	....	....	....	....	....	....	2100	795	248	530
16....	....	....	....	....	....	....	....	....	2010	795	265	443
17....	....	....	....	....	....	....	....	....	2460	748	322	391
18....	....	....	....	....	....	....	....	....	1740	702	343	174
19....	....	....	....	....	....	....	....	....	1740	664	322	158
20....	....	....	....	....	....	....	....	....	1740	625	302	144
21....	....	....	....	....	....	....	....	....	1740	592	284	146
22....	....	....	....	....	....	....	....	559	1920	559	284	144
23....	....	....	....	....	....	....	....	795	1920	592	265	140
24....	....	....	....	....	....	....	....	900	1830	702	265	142
25....	....	....	....	....	....	....	....	1020	1920	592	391	133
26....	....	....	....	....	....	....	....	1580	1740	559	443	127
27....	....	....	....	....	....	....	....	1100	2100	559	443	151
28....	....	....	....	....	....	....	....	848	2010	702	443	148
29....	....	....	....	....	....	....	....	748	2010	559	472	148
30....	....	....	....	....	....	....	....	795	2100	592	472	164
31....	....	....	....	....	....	....	....	900	....	559	417	....
Total	....	....	....	....	....	....	....	....	60190	26926	11907	8200
Mean.	....	....	....	....	....	....	....	....	2010	869	384	273
Max..	....	....	....	....	....	....	....	....	2560	1830	592	530
Min...	....	....	....	....	....	....	....	....	1580	559	248	127
Acre-ft.	....	....	....	....	....	....	....	....	120000	53400	23600	16200

Discharge of Cache La Poudre Near Log Cabin for Year Ending Sept. 30, 1930.
Drainage Area, 235 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	148	44	35	30	20	15	38	401	1530	275	252	217
2....	137	66	35	30	20	15	43	506	1030	280	241	248
3....	202	61	35	30	20	15	42	572	840	317	201	248
4....	179	70	35	30	20	15	42	472	762	379	230	379
5....	154	94	35	30	20	15	41	386	655	342	241	398
6....	142	90	40	30	20	15	45	327	801	424	237	424
7....	142	90	40	30	20	15	45	302	1190	424	288	393
8....	240	87	40	30	20	15	48	269	1310	398	255	370
9....	218	90	40	30	20	15	59	265	1410	393	227	365
10....	199	81	40	30	20	15	74	240	1440	398	259	347
11....	156	72	40	30	15	20	87	224	1370	409	296	170
12....	146	62	40	30	15	20	101	211	1600	430	304	113
13....	158	45	40	30	15	20	110	205	1490	524	308	100
14....	139	50	40	30	15	20	116	221	1260	325	752	91
15....	142	58	40	30	15	20	137	310	1200	217	742	82
16....	135	70	30	20	15	20	135	372	952	198	599	77
17....	142	65	30	20	15	20	126	372	762	181	517	72
18....	139	58	30	20	15	20	122	269	733	176	388	75
19....	131	45	30	20	15	20	122	272	615	181	300	75
20....	122	40	30	20	15	20	142	339	762	404	292	70
21....	126	45	30	20	15	30	139	541	896	379	255	75
22....	122	50	30	20	15	32	182	730	1220	347	248	77
23....	106	50	30	20	15	34	202	489	1000	304	217	78
24....	90	50	30	20	15	35	258	506	801	313	208	88
25....	104	50	30	20	15	42	372	553	631	317	208	91
26....	87	50	35	22	15	33	433	679	591	296	192	91
27....	101	50	35	22	15	38	381	1050	575	201	237	104
28....	92	50	35	22	15	35	343	1430	538	211	201	102
29....	89	50	35	22	....	40	318	1440	477	370	234	100
30....	72	45	35	22	....	43	335	1710	459	404	227	94
31....	89	....	35	22	....	43	....	1940	....	292	241	....
Total	4249	1836	1085	782	470	755	4638	17603	28900	10109	9397	5214
Mean.	137	61.2	35.0	25.2	16.8	24.4	155	568	963	326	303	174
Max..	240	94	....	....	....	43	433	1940	1600	524	752	424
Min...	72	40	....	....	....	....	38	205	459	176	192	70
Acre-ft.	8420	3640	2150	1550	933	1500	9220	34900	57300	20000	18600	10400

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Cache La Poudre River at Mouth of Canon Near Fort Collins for Year Ending Sept. 30, 1929. Drainage Area, 1,048 Square Miles. Altitude, 5,070 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	97	57	51	....	....	....	51	233	3540	2040	668	452
2....	95	51	....	....	....	....	55	215	2660	1790	610	440
3....	90	52	....	....	....	....	52	220	2340	1400	800	555
4....	84	59	....	....	....	28	61	237	2420	1470	618	576
5....	82	66	....	....	....	....	80	265	2420	1380	589	632
6....	77	63	....	....	....	68	75	270	2850	1260	714	676
7....	75	60	....	....	....	....	61	237	2890	1190	768	535
8....	75	57	....	....	26	....	59	251	3180	1130	576	434
9....	70	57	....	....	....	....	58	194	2270	928	496	365
10....	71	52	....	....	....	....	55	215	3190	867	452	354
11....	74	55	....	....	....	....	50	220	3060	833	394	365
12....	75	54	....	....	....	....	51	99	2660	850	365	354
13....	73	53	....	....	....	....	53	69	2340	928	337	377
14....	73	53	....	....	....	....	57	119	2340	1080	310	535
15....	70	52	....	....	....	....	58	305	2920	964	284	683
16....	72	51	....	....	....	....	59	389	2480	867	284	639
17....	70	50	....	....	....	....	61	354	2910	850	299	496
18....	68	48	....	....	....	....	73	428	2470	776	316	416
19....	62	42	....	....	....	....	74	365	2070	683	332	365
20....	68	48	....	....	....	....	87	371	2140	683	305	299
21....	66	58	....	....	....	....	95	490	2290	746	326	242
22....	68	52	....	....	....	....	119	625	2340	683	316	224
23....	62	52	....	....	....	....	133	841	2380	752	299	220
24....	58	52	....	....	....	....	175	1210	2160	893	289	215
25....	57	50	....	....	....	....	161	1530	2280	721	316	202
26....	59	51	....	....	....	....	175	2050	2260	618	470	187
27....	60	50	32	....	....	....	172	1780	2440	646	440	198
28....	59	51	....	....	....	....	175	2860	2300	991	477	151
29....	62	51	....	....	....	....	175	3080	2260	706	452	168
30....	63	54	....	....	....	....	190	2480	2100	736	528	183
31....	57	....	....	....	....	52	....	3070	....	706	470	....
Total	2192	1601	....	....	....	....	2800	25072	75960	30167	13900	11538
Mean.	70.7	53.4	36	28	27	55	93.3	809	2530	973	448	385
Max..	97	66	....	....	....	....	190	3080	3540	2040	800	676
Min...	57	42	....	....	....	....	50	69	2070	618	284	151
Acre-ft.	4350	3180	2210	1720	1500	3380	5550	49700	151000	59800	27500	22900

Discharge of Cache La Poudre River at Mouth of Canon Near Fort Collins for Year Ending Sept. 30, 1930. Drainage Area, 1,048 Square Miles. Altitude, 5,070 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	172	92	....	....	....	12	15	416	2200	404	452	216
2....	146	77	....	....	....	12	15	528	1420	343	416	440
3....	172	106	....	....	....	12	15	639	1180	354	404	422
4....	220	87	....	....	....	12	15	542	1160	496	502	535
5....	149	106	....	....	....	12	15	490	1160	452	502	596
6....	146	97	....	....	....	14	15	394	1140	515	483	603
7....	146	108	....	9	....	14	25	348	1370	509	562	625
8....	194	95	....	....	11	14	20	332	1500	496	555	610
9....	220	104	....	....	....	14	18	316	1680	490	535	618
10....	202	97	14	....	....	14	18	275	1620	464	548	596
11....	191	97	....	....	....	15	15	265	1520	470	752	528
12....	168	84	....	....	....	15	15	237	1700	515	833	371
13....	161	97	....	....	....	15	15	224	1710	768	729	211
14....	168	80	....	....	....	15	16	224	1500	490	1420	164
15....	149	106	....	....	....	15	49	260	1320	337	1690	156
16....	144	115	....	....	....	15	194	377	1190	251	1240	138
17....	136	102	....	....	....	15	149	452	928	187	1070	138
18....	133	106	....	....	....	15	161	416	901	183	714	138
19....	128	101	....	....	....	15	161	490	760	159	784	133
20....	117	101	....	....	....	15	138	589	1020	416	729	131
21....	110	100	....	....	....	15	138	729	1130	440	596	126
22....	108	100	....	....	....	15	191	1050	1390	410	528	124
23....	104	100	....	....	....	15	224	784	1210	321	470	128
24....	97	20	....	....	....	15	337	714	1000	280	428	144
25....	88	20	....	....	....	15	542	928	776	321	428	198
26....	102	20	....	....	....	15	528	1080	377	332	470	198
27....	106	20	....	....	....	15	496	1360	661	265	496	198
28....	106	18	....	....	....	15	434	1520	661	242	477	206
29....	110	18	....	....	....	15	394	1620	661	337	496	198
30....	102	18	....	....	....	15	394	1960	603	515	446	202
31....	101	....	....	....	....	15	....	2700	....	446	440	....
Total	4396	2392	....	....	....	445	4762	22259	35448	12208	20195	9091
Mean.	142	79.7	13.6	9.0	12.0	14.4	159	718	1180	394	651	303
Max..	220	115	....	....	....	....	542	2700	2200	768	1690	625
Min...	88	....	....	....	....	....	15	224	377	159	404	124
Acre-ft.	8370	4740	836	553	666	885	9460	44100	70200	24200	40000	18000

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Cache La Poudre River Near Mouth for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, 4,610 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	26	166	150	120	88	95	119	124	33	23	24	27
2....	27	173	134	119	88	95	106	117	50	20	26	24
3....	26	173	124	115	88	97	104	117	22	19	53	34
4....	26	166	134	126	93	140	104	113	14	22	72	50
5....	26	166	136	108	82	171	101	113	10	28	36	53
6....	30	177	122	104	....	158	99	113	32	29	50	124
7....	36	173	122	108	....	134	92	113	130	27	58	150
8....	37	164	132	104	....	124	92	110	276	35	37	158
9....	39	171	122	108	....	115	95	101	498	25	34	184
10....	41	171	120	97	....	106	95	99	621	31	88	203
11....	52	160	126	95	....	106	92	117	397	40	97	200
12....	86	156	132	93	....	122	88	113	257	43	77	182
13....	136	162	138	93	....	106	88	88	101	23	59	168
14....	148	160	138	92	....	115	85	58	67	31	49	168
15....	179	158	140	95	....	110	80	53	59	36	20	156
16....	252	162	134	99	....	119	72	55	132	26	18	148
17....	249	168	115	99	....	117	72	69	74	29	18	120
18....	223	166	115	92	95	119	70	64	142	31	22	75
19....	198	158	120	85	101	117	75	63	72	29	22	70
20....	188	162	120	91	97	122	144	50	45	59	22	66
21....	179	162	126	72	....	122	144	40	42	42	23	40
22....	171	158	124	91	....	110	144	35	67	37	22	38
23....	171	154	122	90	....	117	142	36	102	39	22	28
24....	168	144	119	90	....	122	142	20	218	40	22	24
25....	160	142	120	90	....	120	142	13	64	39	21	34
26....	152	156	124	88	....	120	140	28	18	78	22	41
27....	152	148	126	88	....	128	140	228	16	34	24	45
28....	150	152	126	88	....	130	140	70	16	32	24	49
29....	154	154	130	88	....	128	128	32	15	33	28	59
30....	158	150	124	88	....	124	120	23	18	28	28	74
31....	164	....	120	88	....	124	....	27	....	27	38	....
Total	3804	4832	3935	3004	....	3733	3255	2402	3608	1035	1156	2792
Mean.	123	161	127	96.9	90	120	108	77.5	120	33.4	37.3	93.1
Max..	252	177	150	126	....	171	144	228	621	78	97	203
Min...	26	142	115	....	....	....	70	13	10	19	18	24
Acre-ft.	7560	9580	7810	5960	5000	7380	6430	4770	7140	2050	2290	5540

Discharge of Cache La Poudre River Near Mouth for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, 4,610 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	97	156	146	99	82	115	110	45	290	14	10	25
2....	95	152	146	99	74	110	111	32	228	14	11	24
3....	93	152	150	102	82	108	104	24	48	12	15	21
4....	93	146	150	104	108	119	106	16	25	12	36	19
5....	99	146	144	104	119	132	110	21	13	12	12	20
6....	99	150	146	99	121	126	110	39	13	12	11	26
7....	95	148	150	102	171	113	115	59	14	11	11	31
8....	101	148	146	106	215	117	113	52	23	12	12	39
9....	106	150	140	106	246	120	117	39	31	13	13	124
10....	99	146	140	106	268	117	113	34	36	15	15	97
11....	88	144	136	106	296	117	99	31	30	14	120	80
12....	82	140	126	106	284	119	101	27	19	17	156	72
13....	72	136	124	95	244	117	102	16	15	18	345	72
14....	66	136	126	90	188	119	82	16	16	17	518	70
15....	66	142	128	85	160	119	62	18	17	17	607	61
16....	69	150	126	80	160	119	59	32	15	14	448	40
17....	70	150	132	80	164	124	58	92	15	14	244	30
18....	66	148	124	80	171	144	61	144	18	16	193	25
19....	61	146	113	80	171	144	74	83	18	18	179	25
20....	61	138	111	80	156	136	75	32	21	18	158	29
21....	80	126	110	84	148	115	62	23	27	14	32	32
22....	117	120	111	86	132	115	58	28	42	21	16	34
23....	150	144	110	88	140	110	59	33	32	38	14	31
24....	156	126	113	90	160	106	59	29	26	12	12	28
25....	160	142	120	88	128	110	144	22	48	11	12	46
26....	162	150	117	102	126	111	290	16	39	11	14	52
27....	152	148	117	104	124	106	122	14	38	10	14	67
28....	158	146	117	100	115	104	85	17	39	10	16	69
29....	164	146	106	98	....	106	67	29	19	10	18	74
30....	168	148	99	94	....	108	55	34	14	12	20	95
31....	166	....	99	88	....	110	....	27	....	10	25	....
Total	3321	4320	3923	2931	4553	3636	2883	1124	1229	449	3307	1458
Mean.	107	144	126	94.5	163	117	96.1	36.2	41.0	14.5	107	48.6
Max..	168	156	150	106	296	144	290	144	290	38	607	124
Min...	61	120	99	....	....	104	55	14	13	10	10	19
Acre-ft.	6580	8570	7750	5810	9050	7190	5720	2230	2440	892	6580	2890

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of North Fork Cache La Poudre River at Livermore for Year Ending Sept. 30, 1929. Drainage Area, 541 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	....	....	....	....	....	....	....	....	348	14	12	10
2....	....	....	....	....	....	....	....	....	366	14	13	10
3....	....	....	....	....	....	....	....	....	373	13	130	12
4....	....	....	....	....	....	....	....	....	406	12	54	12
5....	....	....	....	....	....	....	....	....	432	13	72	14
6....	....	....	....	....	....	....	....	....	466	13	75	17
7....	....	....	....	....	....	....	....	....	443	12	80	26
8....	....	....	....	....	....	....	....	....	443	12	70	29
9....	....	....	....	....	....	....	....	....	384	10	64	67
10....	....	....	....	....	....	....	....	....	417	12	64	80
11....	....	....	....	....	....	....	....	....	395	12	59	75
12....	....	....	....	....	....	....	....	....	363	12	57	75
13....	....	....	....	....	....	....	....	....	366	11	57	77
14....	....	....	....	....	....	....	....	....	327	11	37	59
15....	....	....	....	....	....	....	....	....	291	8.5	22	42
16....	....	....	....	....	....	....	....	....	265	8.5	17	30
17....	....	....	....	....	....	....	....	....	273	7.5	14	27
18....	....	....	....	....	....	....	....	....	276	6.5	14	24
19....	....	....	....	....	....	....	....	....	222	6.5	14	22
20....	....	....	....	....	....	....	....	....	136	19	14	22
21....	....	....	....	....	....	....	....	....	113	11	13	20
22....	....	....	....	....	....	....	....	....	95	13	13	19
23....	....	....	....	....	....	....	....	....	89	12	12	17
24....	....	....	....	....	....	....	....	208	70	9.2	12	16
25....	....	....	....	....	....	....	....	276	64	7.5	12	14
26....	....	....	....	....	....	....	....	305	37	8.5	8.5	14
27....	....	....	....	....	....	....	....	316	20	9.2	10	13
28....	....	....	....	....	....	....	....	373	12	13	9.2	13
29....	....	....	....	....	....	....	....	421	13	12	9.2	14
30....	....	....	....	....	....	....	....	312	12	12	10	13
31....	....	....	....	....	....	....	....	319	....	9.2	10	....
Total	....	....	....	....	....	....	....	....	7517	344.1	1057.9	883
Mean.	....	....	....	....	....	....	....	....	251	11.1	34.1	29.4
Max..	....	....	....	....	....	....	....	....	466	19	130	80
Min...	....	....	....	....	....	....	....	....	12	6.5	8.5	10
Acre-ft.	....	....	....	....	....	....	....	....	14900	682	2100	1750

Discharge of North Fork Cache La Poudre River at Livermore for Year Ending Sept. 30, 1930. Drainage Area, 541 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	14	16	10	7	7	8	8	8	451	9	12	34
2....	14	16	10	7	7	8	8	8	355	10	9	35
3....	14	14	10	7	7	8	10	8	298	10	7	35
4....	13	16	10	7	7	8	10	10	241	8	9	30
5....	13	14	10	7	7	8	10	11	219	8	14	29
6....	13	13	10	7	7	8	13	9	179	8	14	33
7....	13	13	10	7	7	8	14	8	56	9	10	52
8....	14	13	10	7	7	7	16	9	39	7	11	51
9....	16	14	10	7	7	7	16	8	81	7	7	56
10....	13	12	10	7	7	6	14	9	29	7	99	50
11....	12	12	10	7	8	6	13	8	26	7	877	45
12....	13	12	10	7	8	6	12	8	21	12	276	40
13....	13	12	10	7	8	6	13	7	16	20	309	29
14....	13	12	10	7	8	6	12	8	14	11	470	21
15....	13	12	10	7	8	6	11	8	13	10	459	20
16....	11	12	9	6	8	6	10	10	12	8	258	18
17....	13	12	9	6	8	6	9	26	10	10	179	31
18....	13	12	9	6	8	7	8	150	10	15	150	29
19....	13	12	9	6	8	7	10	345	11	26	168	30
20....	13	12	9	6	8	9	9	352	10	50	117	27
21....	13	10	9	6	8	8	10	305	10	53	72	26
22....	13	10	9	6	8	9	12	276	9	33	52	26
23....	13	10	9	6	8	9	10	283	9	21	46	35
24....	14	10	9	6	9	8	425	294	10	17	44	39
25....	13	10	9	6	9	8	72	276	14	14	42	39
26....	13	10	9	6	12	8	28	247	11	12	80	41
27....	13	10	9	6	10	8	14	226	9	11	62	51
28....	14	10	9	6	10	8	10	226	7	10	55	50
29....	13	10	9	6	....	7	10	183	9	10	55	48
30....	14	10	9	6	....	8	8	150	9	11	48	48
31....	17	....	9	6	....	7	....	1670	....	11	42	....
Total	414	361	294	201	214	229	825	5146	2188	455	4053	1098
Mean.	13.4	12.0	9.5	6.5	7.6	7.4	27.5	166	72.9	14.7	131	36.6
Max..	17	16	....	....	12	9	425	1670	451	53	877	56
Min...	11	....	....	....	....	6	8	7	7	7	7	18
Acre-ft.	824	714	584	400	422	455	1640	10200	4340	904	8060	2180

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of North Platte River Near Walden for Year Ending Sept. 30, 1929.
Drainage Area, 446 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	50	58	....	....	....	....	....	330	740	1180	285	106
2....	47	66	....	....	....	....	....	340	790	1080	273	97
3....	43	69	....	....	....	....	....	350	815	960	246	97
4....	41	86	....	....	....	....	....	359	815	870	226	126
5....	43	74	....	....	....	....	....	359	860	850	223	159
6....	46	66	....	....	....	....	....	373	940	760	270	204
7....	46	80	....	....	....	....	....	439	1020	625	380	232
8....	45	88	....	....	....	....	....	580	1040	527	267	290
9....	48	72	....	....	....	....	....	670	1120	419	210	250
10....	43	65	....	....	....	....	....	780	1230	352	179	215
11....	40	72	....	....	....	....	....	860	1260	325	150	205
12....	40	78	....	....	....	....	....	810	1200	300	138	196
13....	41	76	....	....	....	....	....	780	1200	303	130	196
14....	41	66	....	....	....	....	....	940	1160	345	132	191
15....	45	58	....	....	....	....	....	1260	1140	306	122	189
16....	54	61	....	....	....	....	....	1260	1120	309	119	186
17....	59	69	....	....	....	....	....	1150	1200	312	119	184
18....	56	....	....	....	....	....	....	1150	1400	366	140	165
19....	54	....	....	....	....	....	....	1060	1020	270	126	138
20....	56	....	....	....	....	....	....	1060	790	223	122	120
21....	56	....	....	....	....	....	670	1090	840	212	117	124
22....	56	....	....	....	....	....	580	1060	990	240	130	126
23....	53	....	....	....	....	....	580	1040	1200	210	119	138
24....	51	....	....	....	....	....	566	1110	1400	345	109	182
25....	48	....	....	....	....	....	390	1180	1340	294	108	182
26....	55	....	....	....	....	....	342	1260	1340	249	99	159
27....	61	....	....	....	....	....	356	1230	1400	315	97	140
28....	62	....	....	....	....	....	373	1040	1460	261	96	130
29....	69	....	....	....	....	....	440	1040	1400	235	97	130
30....	71	....	....	....	....	....	380	790	1400	235	101	130
31....	74	....	....	....	....	....	....	660	....	232	108	....
Total	1594	....	....	....	....	....	....	26410	33635	13510	5038	4987
Mean.	51.4	....	....	....	....	....	....	852	1120	436	163	166
Max..	74	....	....	....	....	....	....	1260	1460	1180	380	290
Min...	40	....	....	....	....	....	....	330	740	232	96	97
Acre-ft.	3160	....	....	....	....	....	....	52400	66600	26800	10000	9880

Discharge of North Platte River Near Walden for Year Ending Sept. 30, 1930.
Drainage Area, 446 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	130	136	....	....	....	....	160	608	860	111	175	90
2....	130	....	....	....	....	....	170	608	710	101	154	84
3....	128	....	....	....	....	....	190	670	570	92	157	84
4....	152	....	....	....	....	....	250	670	435	86	209	90
5....	154	....	....	....	....	....	410	532	414	82	233	95
6....	117	....	....	....	....	....	600	494	392	76	212	100
7....	109	....	....	....	....	....	970	407	446	78	221	102
8....	130	....	....	....	....	....	1500	381	608	78	186	105
9....	161	....	....	....	....	....	850	378	692	78	183	105
10....	183	....	....	....	....	....	1100	291	760	76	181	98
11....	183	....	....	....	....	....	1750	246	785	80	178	88
12....	161	....	....	....	....	....	1770	218	735	117	178	85
13....	152	....	....	....	....	....	1500	189	760	150	192	88
14....	141	....	....	....	....	....	810	175	785	227	367	78
15....	122	....	....	....	....	....	610	183	649	170	670	57
16....	115	....	....	....	....	....	589	206	608	126	461	60
17....	108	....	....	....	....	....	590	227	608	120	308	62
18....	101	....	....	....	....	....	600	249	628	124	265	65
19....	102	....	....	....	....	....	600	236	628	128	243	60
20....	91	....	....	....	....	....	660	215	589	128	215	52
21....	94	....	....	....	....	....	790	221	608	134	197	50
22....	92	....	....	....	....	....	930	360	628	230	181	52
23....	94	....	....	....	....	....	1040	435	715	218	140	55
24....	92	....	....	....	....	....	1100	312	532	186	97	90
25....	88	....	....	....	....	....	1110	252	356	175	98	115
26....	91	....	....	....	....	....	1110	275	262	159	110	124
27....	91	....	....	....	....	....	935	389	197	141	135	120
28....	91	....	....	....	....	....	860	589	166	137	150	108
29....	100	....	....	....	....	....	760	738	134	152	145	108
30....	110	....	....	....	....	....	628	710	119	209	120	108
31....	120	....	....	....	....	....	....	810	....	203	97	....
Total	3733	....	....	....	....	....	24942	12274	16379	4172	6458	2578
Mean.	120	....	....	....	....	....	831	396	546	135	208	85.9
Max..	183	....	....	....	....	....	1770	810	860	230	670	124
Min...	88	....	....	....	....	....	160	175	119	76	97	50
Acre-ft.	7380	....	....	....	....	....	49400	24300	32500	8300	12800	5110

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of North Platte River Near North Gate for Year Ending Sept. 30, 1929.
Drainage Area, 1,440 Square Miles. Altitude, 7,600 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	121	167	....	....	....	....	....	1790	1620	2470	810	314
2....	112	....	....	....	....	....	....	1170	1730	2320	785	286
3....	106	....	....	....	....	....	....	952	2040	1970	704	277
4....	108	....	....	....	....	....	....	962	2170	1790	665	318
5....	114	....	....	....	....	....	....	944	2320	1680	688	414
6....	121	....	....	....	....	....	....	914	2470	1620	735	614
7....	121	....	....	....	....	....	....	1070	2640	1400	981	681
8....	121	....	....	....	....	....	....	1620	2720	1200	876	885
9....	121	....	....	....	....	....	....	2100	2890	1070	673	990
10....	119	....	....	....	....	....	....	2390	3070	895	551	876
11....	119	....	....	....	....	....	....	2320	3360	768	480	752
12....	119	....	....	....	....	....	....	1480	3450	712	449	681
13....	130	....	....	....	....	....	....	1470	3450	681	397	600
14....	155	....	....	....	....	....	....	1850	3160	735	364	564
15....	180	....	....	....	....	....	....	2320	2980	785	323	537
16....	199	....	....	....	....	....	....	2720	2980	760	304	530
17....	203	....	....	....	....	....	....	2720	2890	744	299	510
18....	210	....	....	....	....	....	....	2470	3260	838	337	467
19....	214	....	....	....	....	....	....	2170	2390	777	353	420
20....	206	....	....	....	....	....	....	1970	1850	727	332	397
21....	214	....	....	....	....	....	....	1910	1850	704	309	375
22....	206	....	....	....	....	....	....	1970	2040	688	332	375
23....	180	....	....	....	....	....	....	1970	2240	643	348	397
24....	167	....	....	....	....	....	....	2100	2470	600	323	443
25....	167	....	....	....	....	....	....	2320	2390	643	304	461
26....	177	....	....	....	....	....	1040	2550	2240	600	309	426
27....	199	....	....	....	....	....	971	2980	2240	592	295	397
28....	203	....	....	....	....	....	990	3160	2320	600	299	364
29....	210	....	....	....	....	....	1460	3360	2240	680	332	353
30....	210	....	....	....	....	....	2040	2470	2390	768	318	353
31....	210	....	....	....	....	....	....	1850	....	735	314	....
Total	5042	....	....	....	....	....	....	62042	75860	31195	14589	15057
Mean.	163	....	....	....	....	....	....	2000	2530	1010	471	502
Max..	214	....	....	....	....	....	....	3360	3450	2470	810	990
Min...	106	....	....	....	....	....	....	914	1620	592	295	277
Acre-ft.	10000	....	....	....	....	....	....	123000	151000	62100	29000	29900

Discharge of North Platte River Near North Gate for Year Ending Sept. 30, 1930.
Drainage Area, 1,440 Square Miles. Altitude, 7,600 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	353	....	....	....	....	....	350	1060	1980	265	397	286
2....	342	....	....	....	....	....	360	1010	2020	250	328	256
3....	391	....	....	....	....	....	410	1060	1560	220	323	244
4....	486	....	....	....	....	....	600	1110	1170	190	369	237
5....	455	....	....	....	....	....	950	942	990	170	397	240
6....	391	....	....	....	....	....	1400	802	914	148	443	256
7....	359	....	....	....	....	....	2000	688	838	140	414	282
8....	386	....	....	....	....	....	3200	628	829	135	414	295
9....	443	....	....	....	....	....	3100	607	942	145	414	295
10....	480	....	....	....	....	....	3500	578	1070	180	432	265
11....	492	....	....	....	....	....	3900	486	1200	210	386	225
12....	461	....	....	....	....	....	3600	449	1260	260	364	199
13....	414	....	....	....	....	....	3200	391	1300	309	391	180
14....	369	....	....	....	....	....	2700	353	1240	369	600	167
15....	353	....	....	....	....	....	2390	323	1080	314	1330	164
16....	337	....	....	....	....	....	2070	323	1000	252	1260	161
17....	328	....	....	....	....	....	1640	348	923	184	971	158
18....	318	....	....	....	....	....	1200	364	923	203	604	158
19....	314	....	....	....	....	....	1110	375	1120	240	600	148
20....	309	....	....	....	....	....	1140	348	1010	309	492	139
21....	304	....	....	....	....	....	1160	295	981	337	426	129
22....	295	....	....	....	....	....	1320	318	1100	359	369	132
23....	290	....	....	....	....	....	1470	537	900	391	342	132
24....	277	....	....	....	....	....	1580	504	750	337	318	184
25....	273	....	....	....	....	....	1710	449	650	328	304	233
26....	269	....	....	....	....	....	1790	443	544	304	299	309
27....	282	....	....	....	....	....	1720	455	437	265	309	304
28....	290	....	....	....	....	....	1640	607	369	244	332	277
29....	282	....	....	....	....	....	1440	866	318	261	348	261
30....	180	....	....	....	....	....	1190	1140	286	359	323	248
31....	188	....	....	....	....	....	....	1390	....	414	295	....
Total	10711	....	....	....	....	....	53840	19249	29704	8092	14594	6564
Mean.	346	250	200	130	220	235	1790	621	990	261	471	219
Max..	492	....	....	....	....	....	3900	1390	2020	414	1330	309
Min...	180	....	....	....	....	....	350	295	286	135	295	129
Acre-ft.	21300	14900	12300	8000	12200	14400	107000	38200	58900	16000	29000	13000

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Big Grizzly Creek Near Walden for Year Ending Sept. 30, 1929.
Drainage Area, 181 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	16	25	....	....	....	....	....	....	329	164	85	31
2....	16	25	....	....	....	....	....	....	362	136	96	31
3....	14	25	....	....	....	....	....	....	388	119	80	37
4....	14	18	....	....	....	....	....	....	362	102	62	40
5....	16	....	....	....	....	....	....	....	355	106	56	52
6....	17	....	....	....	....	....	....	....	355	88	74	70
7....	17	....	....	....	....	....	....	....	375	66	122	89
8....	17	....	....	....	....	....	....	....	365	54	91	124
9....	17	....	....	....	....	....	....	....	385	46	66	112
10....	18	....	....	....	....	....	....	....	402	41	58	98
11....	17	....	....	....	....	....	....	....	402	38	52	89
12....	17	....	....	....	....	....	....	234	392	37	50	77
13....	17	....	....	....	....	....	....	331	398	36	48	65
14....	14	....	....	....	....	....	....	428	370	35	46	68
15....	14	....	....	....	....	....	....	526	350	37	44	71
16....	18	....	....	....	....	....	....	642	358	46	42	68
17....	23	....	....	....	....	....	....	653	329	45	52	66
18....	22	....	....	....	....	....	....	547	412	45	60	63
19....	22	....	....	....	....	....	....	588	348	43	55	60
20....	25	....	....	....	....	....	....	523	271	41	50	59
21....	23	....	....	....	....	....	....	550	264	38	48	59
22....	22	....	....	....	....	....	....	552	255	33	45	56
23....	21	....	....	....	....	....	....	515	259	45	42	62
24....	20	....	....	....	....	....	....	563	257	70	40	76
25....	20	....	....	....	....	....	....	512	248	51	38	80
26....	22	....	....	....	....	....	....	520	225	86	34	52
27....	24	....	....	....	....	....	....	528	205	85	30	38
28....	24	....	....	....	....	....	....	481	189	62	29	31
29....	22	....	....	....	....	....	....	507	174	57	38	31
30....	25	....	....	....	....	....	....	402	168	55	39	31
31....	26	....	....	....	....	....	....	322	....	50	36	....
Total	600	....	....	....	....	....	....	....	9552	1957	1708	1886
Mean.	19.4	....	....	....	....	....	....	....	318	63.1	55.1	62.9
Max..	26	....	....	....	....	....	....	....	412	164	122	124
Min...	14	....	....	....	....	....	....	....	168	33	29	31
Acre-ft.	1190	....	....	....	....	....	....	....	18900	3880	3390	3740

Discharge of Big Grizzly Creek Near Walden for Year Ending Sept. 30, 1930.
Drainage Area, 181 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	40	....	....	....	....	....	80	322	355	25	39	31
2....	43	27	....	....	....	....	82	341	303	22	37	32
3....	29	....	....	....	....	....	90	353	225	19	35	33
4....	45	....	....	....	....	....	100	305	177	19	44	31
5....	52	....	....	....	....	....	130	255	172	19	66	31
6....	38	....	....	....	....	....	162	221	153	19	48	34
7....	35	....	....	....	....	....	270	175	140	17	42	34
8....	38	....	....	....	....	....	540	159	157	17	40	38
9....	44	....	....	....	....	....	470	150	172	17	56	37
10....	49	....	....	....	....	....	512	133	191	17	52	34
11....	54	....	....	....	....	....	596	111	181	34	42	30
12....	54	....	....	....	....	....	585	95	168	37	43	29
13....	45	....	....	....	....	....	517	92	162	39	50	31
14....	39	....	....	....	....	....	523	96	151	41	133	32
15....	38	....	....	....	....	....	499	112	136	41	211	31
16....	38	....	....	....	....	....	430	120	116	29	114	30
17....	35	....	....	....	....	....	259	127	93	26	84	30
18....	35	....	....	....	....	....	227	120	88	24	71	26
19....	36	....	....	....	....	....	223	119	98	22	64	19
20....	33	....	....	....	....	....	207	110	96	21	54	19
21....	31	....	....	....	....	....	300	125	88	24	48	17
22....	31	....	....	....	....	....	398	162	108	47	44	17
23....	31	....	....	....	....	....	463	211	140	49	40	21
24....	26	....	....	....	....	....	504	151	89	40	35	26
25....	25	....	....	....	....	....	542	127	63	47	31	32
26....	25	....	....	....	....	....	563	130	49	38	32	40
27....	28	....	....	....	....	....	523	140	43	31	36	38
28....	28	....	....	....	....	....	520	189	39	28	40	32
29....	28	....	....	....	....	....	398	240	37	31	38	29
30....	27	....	....	....	....	....	346	271	31	55	38	29
31....	27	....	....	....	....	....	....	305	....	55	34	....
Total	1127	....	....	....	....	....	11059	5577	4021	950	1741	893
Mean.	36.4	....	....	....	....	....	369	180	134	30.6	56.2	29.8
Max..	54	....	....	....	....	....	596	352	355	55	211	40
Min...	25	....	....	....	....	....	80	92	31	17	31	17
Acre-ft.	2240	....	....	....	....	....	22000	11100	7970	1880	3460	1770

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Roaring Fork Near Walden for Year Ending Sept. 30, 1929.
Drainage Area, 84 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	22	20	....	....	....	....	....	68	60	493	113	56
2....	22	....	....	....	....	....	....	70	132	433	110	53
3....	21	....	....	....	....	....	....	74	144	370	107	59
4....	20	....	....	....	....	....	....	72	154	348	105	83
5....	21	....	....	....	....	....	....	78	173	325	105	88
6....	22	....	....	....	....	....	....	76	224	270	132	107
7....	22	....	....	....	....	....	....	99	247	222	134	104
8....	22	....	....	....	....	....	....	107	320	191	120	117
9....	22	....	....	....	....	....	....	122	330	185	110	105
10....	19	....	....	....	....	....	....	129	394	144	107	99
11....	20	....	....	....	....	....	....	99	383	137	92	89
12....	18	....	....	....	....	....	....	96	325	136	76	88
13....	20	....	....	....	....	....	....	120	312	130	75	74
14....	21	21	....	....	....	....	....	142	304	141	64	74
15....	22	20	....	....	....	....	....	168	380	134	63	72
16....	24	19	....	....	....	....	....	171	307	132	64	70
17....	26	....	....	....	....	....	....	161	442	137	78	66
18....	24	....	....	....	....	....	....	180	338	156	96	62
19....	22	....	....	....	....	....	....	170	187	137	86	58
20....	23	....	....	....	....	....	....	163	176	124	83	54
21....	25	....	....	....	....	....	....	136	222	132	78	60
22....	25	20	....	....	....	....	....	134	333	142	81	65
23....	23	20	....	....	....	....	....	144	417	134	76	70
24....	22	20	....	....	....	....	....	166	414	146	70	75
25....	21	....	....	....	....	....	86	198	383	134	68	80
26....	25	....	....	....	....	....	64	243	417	127	60	70
27....	25	....	....	....	....	....	68	185	490	120	56	63
28....	25	....	....	....	....	....	80	152	487	113	56	62
29....	29	....	....	....	....	....	117	120	474	122	53	62
30....	22	....	....	....	....	....	83	78	468	107	54	63
31....	22	....	....	....	....	....	....	60	....	105	59	....
Total	697	....	....	....	....	....	....	3981	9437	5727	2631	2248
Mean.	22.5	20	....	....	....	....	....	128	315	185	84.9	74.9
Max..	28	....	....	....	....	....	....	243	490	493	134	117
Min...	18	....	....	....	....	....	....	60	60	105	53	53
Acre-ft.	1380	1190	....	....	....	....	....	7870	18700	11400	5220	4460

Discharge of Roaring Fork Near Walden for Year Ending Sept. 30, 1930.
Drainage Area, 84 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	60	....	....	....	....	....	45	142	230	40	79	36
2....	60	....	....	....	....	....	48	153	160	36	87	36
3....	80	....	....	....	....	....	50	142	96	26	88	36
4....	78	....	....	....	....	....	75	117	66	23	107	35
5....	69	....	....	....	....	....	100	95	64	23	102	35
6....	60	....	....	....	....	....	198	85	55	26	107	38
7....	58	....	....	....	....	....	270	75	87	23	100	43
8....	76	....	....	....	....	....	430	66	144	22	88	45
9....	83	....	....	....	....	....	230	45	216	43	83	48
10....	88	....	....	....	....	....	248	24	238	83	79	43
11....	78	....	....	....	....	....	344	20	261	96	80	38
12....	72	....	....	....	....	....	465	14	320	96	75	33
13....	63	....	....	....	....	....	183	14	340	86	83	35
14....	59	....	....	....	....	....	67	12	290	77	188	27
15....	56	....	....	....	....	....	63	12	218	56	218	22
16....	54	....	....	....	....	....	113	14	216	42	142	19
17....	50	....	....	....	....	....	280	16	228	38	110	22
18....	49	....	....	....	....	....	310	16	255	39	93	19
19....	50	....	....	....	....	....	320	14	224	50	82	16
20....	48	....	....	....	....	....	350	12	238	69	71	18
21....	44	....	....	....	....	....	290	12	244	80	58	16
22....	44	....	....	....	....	....	240	22	246	110	54	18
23....	44	....	....	....	....	....	220	18	240	88	52	25
24....	41	....	....	....	....	....	215	12	175	90	48	32
25....	41	....	....	....	....	....	203	11	137	79	46	52
26....	41	....	....	....	....	....	199	13	117	87	52	49
27....	42	....	....	....	....	....	188	55	95	82	58	46
28....	43	....	....	....	....	....	173	125	85	80	55	45
29....	44	....	....	....	....	....	157	175	58	93	50	42
30....	46	....	....	....	....	....	149	224	46	110	46	45
31....	46	....	....	....	....	....	....	257	....	90	42	....
Total	1767	....	....	....	....	....	6223	2012	5389	1983	2623	1014
Mean.	57.0	....	....	....	....	....	207	64.9	180	64.0	84.6	33.8
Max..	88	....	....	....	....	....	465	257	340	110	218	52
Min...	41	....	....	....	....	....	45	11	46	22	42	16
Acre-ft.	3500	....	....	....	....	....	12300	3990	10700	3940	5200	2010

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Illinois Creek Near Walden for Year Ending Sept. 30, 1929.
Drainage Area, 254 Square Miles. Altitude, 8,300 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	3	23	....	....	....	....	....	240	217	168	53	24
2....	3	21	....	....	....	....	....	171	237	162	58	24
3....	4	21	....	....	....	....	....	159	339	124	60	24
4....	5	16	....	....	....	....	....	124	366	102	54	36
5....	9	18	....	....	....	....	....	111	382	93	47	43
6....	9	18	....	....	....	....	....	117	410	95	69	46
7....	10	20	....	....	....	....	....	196	394	89	97	54
8....	9	20	....	....	....	....	....	346	410	69	95	74
9....	8	18	....	....	....	....	....	320	386	56	65	109
10....	8	16	....	....	....	....	....	378	382	48	48	127
11....	7	....	....	....	....	....	....	298	402	38	40	134
12....	7	....	....	....	....	....	....	153	439	34	37	129
13....	5	....	....	....	....	....	....	147	468	31	34	84
14....	4	....	....	....	....	....	....	177	423	29	34	70
15....	5	....	....	....	....	....	....	246	339	28	24	65
16....	9	....	....	....	....	....	925	263	298	26	22	65
17....	10	....	....	....	....	....	950	284	280	26	21	60
18....	13	....	....	....	....	....	1650	280	316	25	19	58
19....	16	....	....	....	....	....	1050	250	402	28	31	48
20....	16	....	....	....	....	....	625	196	274	31	32	48
21....	18	....	....	....	....	....	513	196	205	32	31	40
22....	18	....	....	....	....	....	312	165	192	25	33	38
23....	16	....	....	....	....	....	257	153	186	31	36	40
24....	16	....	....	....	....	....	243	202	211	32	37	48
25....	18	....	....	....	....	....	147	237	217	25	32	56
26....	18	....	....	....	....	....	142	280	224	25	31	56
27....	15	....	....	....	....	....	150	410	180	26	29	52
28....	16	....	....	....	....	....	183	542	174	28	29	45
29....	18	....	....	....	....	....	331	578	156	28	28	40
30....	21	....	....	....	....	....	452	488	150	38	26	40
31....	21	....	....	....	....	....	....	342	....	40	25	....
Total	355	....	....	....	....	....	....	8049	9059	1632	1277	1777
Mean.	11.5	....	....	....	....	....	....	260	302	52.6	41.2	59.2
Max..	21	....	....	....	....	....	....	578	468	168	97	134
Min...	3	....	....	....	....	....	....	111	150	25	19	24
Acre-ft.	707	....	....	....	....	....	....	16000	18000	3230	2530	3520

Discharge of Illinois Creek Near Walden for Year Ending Sept. 30, 1930.
Drainage Area, 254 Square Miles. Altitude, 8,300 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	45	....	....	....	....	....	50	108	275	10	34	40
2....	48	24	....	....	....	....	50	92	360	8	31	36
3....	50	....	....	....	....	....	60	88	245	5	35	32
4....	54	....	....	....	....	....	80	92	161	2	43	30
5....	52	....	....	....	....	....	100	94	132	2	43	31
6....	50	....	....	....	....	....	200	72	115	2	34	34
7....	48	....	....	....	....	....	300	72	90	1	34	36
8....	46	....	....	....	....	....	455	77	74	1	33	42
9....	48	....	....	....	....	....	1070	81	88	1	57	36
10....	50	....	....	....	....	....	1070	68	118	2	45	27
11....	52	....	....	....	....	....	712	62	115	3	34	22
12....	52	....	....	....	....	....	622	44	108	3	40	21
13....	48	....	....	....	....	....	515	42	101	6	44	22
14....	46	....	....	....	....	....	308	34	83	6	108	22
15....	45	....	....	....	....	....	248	24	103	4	161	17
16....	45	....	....	....	....	....	224	23	81	6	185	16
17....	40	....	....	....	....	....	155	22	69	5	170	16
18....	39	....	....	....	....	....	143	20	63	5	94	16
19....	38	....	....	....	....	....	137	23	55	5	90	15
20....	37	....	....	....	....	....	140	21	50	6	72	15
21....	35	....	....	....	....	....	143	19	46	8	35	13
22....	35	....	....	....	....	....	140	17	45	10	50	12
23....	34	....	....	....	....	....	152	23	74	12	43	13
24....	38	....	....	....	....	....	170	53	57	11	42	16
25....	38	....	....	....	....	....	185	50	40	10	37	17
26....	37	....	....	....	....	....	224	51	34	10	36	26
27....	38	....	....	....	....	....	191	45	24	15	34	27
28....	37	....	....	....	....	....	164	43	18	13	32	29
29....	34	....	....	....	....	....	120	45	15	15	44	29
30....	32	....	....	....	....	....	120	72	11	27	52	22
31....	32	....	....	....	....	....	....	155	....	31	47	....
Total	1323	....	....	....	....	....	8248	1732	2830	245	1839	730
Mean.	42.7	....	....	....	....	....	275	55.9	95.0	7.90	59.3	24.3
Max..	54	....	....	....	....	....	1070	155	360	31	185	42
Min...	32	....	....	....	....	....	50	17	11	1	31	12
Acre-ft.	2630	....	....	....	....	....	16400	3440	5650	486	3650	1450

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Michigan River Near Walden for Year Ending Sept. 30, 1929.
Drainage Area, 185 Square Miles. Altitude, 8,300 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	17	27	....	....	....	....	....	120	381	410	118	33
2....	19	26	....	....	....	....	....	93	415	358	116	32
3....	20	26	....	....	....	....	....	93	537	310	110	38
4....	25	26	....	....	....	....	....	88	531	278	105	61
5....	25	27	....	....	....	....	....	86	520	255	105	88
6....	26	29	....	....	....	....	....	90	503	232	120	107
7....	24	30	....	....	....	....	....	155	514	197	141	112
8....	22	34	....	....	....	....	....	344	492	172	122	128
9....	20	23	....	....	....	....	....	420	543	135	102	138
10....	20	24	....	....	....	....	....	471	597	105	88	130
11....	20	28	....	....	....	....	....	362	629	84	79	122
12....	19	26	....	....	....	....	....	232	597	73	70	115
13....	18	28	....	....	....	....	....	327	566	73	61	100
14....	20	....	....	....	....	....	....	455	526	110	55	93
15....	23	....	....	....	....	....	....	572	503	110	50	93
16....	26	....	....	....	....	....	....	591	498	107	47	93
17....	26	....	....	....	....	....	....	498	549	98	46	95
18....	29	....	....	....	....	....	....	405	532	98	55	88
19....	34	....	....	....	....	....	....	336	420	110	48	81
20....	33	....	....	....	....	....	....	323	410	105	44	79
21....	31	....	....	....	....	....	....	319	420	81	47	75
22....	34	....	....	....	....	....	178	323	514	79	50	75
23....	26	....	....	....	....	....	141	344	543	79	44	77
24....	24	....	....	....	....	....	133	386	543	86	42	84
25....	26	....	....	....	....	....	128	395	498	98	44	88
26....	31	....	....	....	....	....	125	430	455	88	44	84
27....	30	....	....	....	....	....	144	532	455	81	41	79
28....	29	....	....	....	....	....	172	526	471	73	37	79
29....	30	....	....	....	....	....	282	503	435	77	40	79
30....	30	....	....	....	....	....	180	405	435	86	38	79
31....	28	....	....	....	....	....	....	390	....	115	34	....
Total	785	....	....	....	....	....	....	10614	15038	4363	2143	2625
Mean.	25.3	....	....	....	....	....	....	342	501	141	69.1	87.5
Max..	34	....	....	....	....	....	....	591	629	410	141	138
Min...	17	....	....	....	....	....	....	86	381	73	34	32
Acre-ft.	1560	....	....	....	....	....	....	21000	29800	8670	4250	5210

Discharge of Michigan River Near Walden for Year Ending Sept. 30, 1930.
Drainage Area, 185 Square Miles. Altitude, 8,300 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	60	....	....	....	....	....	50	77	415	8	59	56
2....	60	....	....	....	....	....	50	70	346	7	63	50
3....	65	....	....	....	....	....	60	77	232	6	68	48
4....	70	....	....	....	....	....	70	77	165	5	70	47
5....	70	....	....	....	....	....	80	58	138	5	70	48
6....	63	....	....	....	....	....	90	49	120	4	60	50
7....	58	....	....	....	....	....	100	49	108	4	60	52
8....	59	....	....	....	....	....	300	48	105	3	56	55
9....	68	....	....	....	....	....	500	44	132	3	57	54
10....	65	....	....	....	....	....	500	37	162	5	54	53
11....	61	....	....	....	....	....	400	31	150	8	54	51
12....	61	....	....	....	....	....	300	28	144	10	60	46
13....	60	....	....	....	....	....	221	23	150	12	72	44
14....	59	....	....	....	....	....	197	20	135	15	181	40
15....	59	....	....	....	....	....	135	18	130	12	270	38
16....	58	....	....	....	....	....	111	18	110	8	260	38
17....	58	....	....	....	....	....	105	18	95	8	178	35
18....	57	....	....	....	....	....	117	18	85	8	150	34
19....	57	....	....	....	....	....	117	20	77	8	120	31
20....	52	....	....	....	....	....	129	21	72	10	96	29
21....	40	....	....	....	....	....	159	18	59	12	79	26
22....	24	....	....	....	....	....	162	24	88	14	70	25
23....	32	....	....	....	....	....	168	46	120	16	68	26
24....	36	....	....	....	....	....	178	58	59	16	68	29
25....	38	....	....	....	....	....	190	57	42	18	65	35
26....	38	....	....	....	....	....	159	24	35	20	65	58
27....	38	....	....	....	....	....	144	25	20	20	63	54
28....	40	....	....	....	....	....	126	36	14	28	61	52
29....	45	....	....	....	....	....	99	60	12	39	61	49
30....	48	....	....	....	....	....	88	114	10	65	61	45
31....	52	....	....	....	....	....	....	204	....	66	60	....
Total	1651	....	....	....	....	....	5105	1467	3530	463	2779	1298
Mean.	53.3	....	....	....	....	....	170	47.3	118	14.9	89.6	43.3
Max..	70	....	....	....	....	....	500	204	415	66	270	58
Min...	24	....	....	....	....	....	50	18	10	3	54	25
Acre-ft.	3280	....	....	....	....	....	10100	2910	7020	916	5510	2580

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Canadian River Near Cowdrey for Year Ending Sept. 30, 1929.
Drainage Area, 201 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	....	....	....	....	....	....	....	....	257	172	48	25
2....	....	....	....	....	....	....	....	....	257	172	49	25
3....	....	....	....	....	....	....	....	....	297	172	49	26
4....	....	....	....	....	....	....	....	....	327	190	53	27
5....	....	....	....	....	....	....	....	....	327	172	53	28
6....	....	....	....	....	....	....	....	....	327	130	52	44
7....	....	....	....	....	....	....	....	....	348	114	61	75
8....	....	....	....	....	....	....	....	....	348	85	51	92
9....	....	....	....	....	....	....	....	....	348	75	50	98
10....	....	....	....	....	....	....	....	....	390	72	48	72
11....	....	....	....	....	....	....	....	....	390	58	41	65
12....	....	....	....	....	....	....	....	....	434	50	36	63
13....	....	....	....	....	....	....	....	....	390	45	33	63
14....	....	....	....	....	....	....	....	....	369	43	29	63
15....	....	....	....	....	....	....	....	....	327	45	27	60
16....	....	....	....	....	....	....	....	....	348	50	26	60
17....	....	....	....	....	....	....	....	....	327	46	26	60
18....	....	....	....	....	....	....	....	....	327	46	28	53
19....	....	....	....	....	....	....	....	....	307	45	32	53
20....	....	....	....	....	....	....	....	....	277	44	35	53
21....	....	....	....	....	....	....	....	....	247	45	37	53
22....	....	....	....	....	....	....	....	....	247	47	33	52
23....	....	....	....	....	....	....	....	247	247	49	33	51
24....	....	....	....	....	....	....	....	287	218	49	32	51
25....	....	....	....	....	....	....	....	297	199	48	31	50
26....	....	....	....	....	....	....	....	307	190	44	28	49
27....	....	....	....	....	....	....	....	390	190	45	28	48
28....	....	....	....	....	....	....	....	390	172	44	28	46
29....	....	....	....	....	....	....	....	390	172	44	28	46
30....	....	....	....	....	....	....	....	348	181	44	28	46
31....	....	....	....	....	....	....	....	267	....	44	25	....
Total	....	....	....	....	....	....	....	....	8785	2329	1158	1597
Mean.	....	....	....	....	....	....	....	....	293	75.1	37.4	53.2
Max..	....	....	....	....	....	....	....	....	434	190	61	98
Min...	....	....	....	....	....	....	....	....	172	43	25	25
Acre-ft.	....	....	....	....	....	....	....	....	17400	4620	2300	3170

Discharge of Canadian River Near Cowdrey for Year Ending Sept. 30, 1930.
Drainage Area, 201 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	47	....	....	....	....	....	40	54	227	8	22	23
2....	33	....	....	....	....	....	40	40	212	7	20	22
3....	33	....	....	....	....	....	40	36	200	5	24	22
4....	46	....	....	....	....	....	50	39	172	3	27	24
5....	51	....	....	....	...	....	70	42	141	2	35	24
6....	45	....	....	....	....	....	100	47	114	2	33	25
7....	45	....	....	...	....	....	150	43	95	2	30	26
8....	43	....	....	....	....	....	250	47	86	1	28	25
9....	42	....	....	....	....	....	300	49	87	1	30	24
10....	41	....	....	....	....	....	300	55	90	1	29	22
11....	40	....	....	....	....	....	250	57	98	2	29	22
12....	40	....	....	....	....	....	200	51	87	7	30	22
13....	40	....	....	....	....	....	160	46	86	11	37	19
14....	37	....	....	....	....	....	143	42	86	12	61	17
15....	33	....	....	....	....	....	138	41	80	11	112	15
16....	29	....	....	....	....	....	112	38	70	11	106	15
17....	31	....	....	....	....	....	75	37	58	8	86	13
18....	32	....	....	....	....	....	72	37	54	9	62	11
19....	29	....	....	....	....	....	57	39	65	27	53	11
20....	29	....	....	....	....	....	61	38	59	24	42	15
21....	28	....	....	....	....	....	66	39	57	23	36	14
22....	28	....	....	....	....	....	65	47	57	22	34	16
23....	25	....	....	....	....	....	64	48	57	20	27	20
24....	25	....	....	....	....	....	68	47	57	20	25	23
25....	25	....	....	....	....	....	78	48	53	19	25	34
26....	30	....	....	....	....	....	75	51	45	17	24	42
27....	30	....	....	....	....	....	78	58	32	15	29	43
28....	30	....	....	....	....	....	81	70	22	15	33	36
29....	30	....	....	....	....	....	74	79	14	21	29	33
30....	30	....	....	....	....	....	65	84	8	23	27	29
31....	30	....	....	....	....	....	....	92	....	22	26	....
Total	1077	....	....	....	....	....	3322	1541	2569	371	1211	687
Mean.	34.7	....	....	....	....	....	111	49.7	85.6	12.0	39.1	22.9
Max..	51	....	....	....	....	....	300	92	227	27	112	43
Min...	25	....	....	....	....	....	40	36	8	1	20	11
Acre-ft.	2130	....	....	....	....	....	6600	3060	5090	738	2400	1360

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Laramie River Near Glendevey for Year Ending Sept. 30, 1929.
Drainage Area, 101 Square Miles. Altitude, 8,231 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	20	26	....	....	....	....	....	51	450	352	104	34
2....	20	25	....	....	....	....	....	42	560	293	93	34
3....	18	20	....	....	....	....	....	41	530	285	74	41
4....	18	20	....	....	....	....	....	41	600	258	65	54
5....	18	20	....	....	....	....	....	41	610	236	72	51
6....	18	22	....	....	....	....	....	47	615	214	114	61
7....	18	22	....	....	....	....	....	58	645	185	88	67
8....	16	22	....	....	....	....	....	77	684	178	67	58
9....	17	22	....	....	....	....	....	86	696	123	63	49
10....	16	24	....	....	....	....	....	82	720	126	61	56
11....	17	23	....	....	....	....	....	80	710	131	56	61
12....	18	23	....	....	....	....	....	77	650	131	49	58
13....	24	23	....	....	....	....	....	95	620	143	44	54
14....	28	24	....	....	....	....	....	107	590	129	42	47
15....	34	21	....	....	....	....	....	127	600	131	41	46
16....	39	21	....	....	....	....	....	146	500	126	40	44
17....	40	27	....	....	....	....	....	157	580	117	44	42
18....	42	25	....	....	....	....	....	173	460	104	51	42
19....	38	25	....	....	....	....	....	168	365	96	46	41
20....	37	25	....	....	....	....	....	173	401	104	41	41
21....	37	25	....	....	....	....	....	236	430	91	40	46
22....	32	25	....	....	....	....	....	285	465	98	38	44
23....	34	25	....	....	....	....	....	406	455	104	35	41
24....	34	25	....	....	....	....	....	455	415	98	38	41
25....	33	25	....	....	....	....	....	510	410	91	36	40
26....	35	25	....	....	....	....	....	480	445	86	30	38
27....	32	25	....	....	....	....	....	361	445	91	30	34
28....	34	25	....	....	....	....	40	323	430	79	32	35
29....	36	25	....	....	....	....	55	251	415	76	31	35
30....	30	25	....	....	....	....	60	239	365	104	32	31
31....	34	....	....	....	....	....	....	323	....	104	34	....
Total	867	710	....	....	....	....	....	5738	15861	4484	1631	1366
Mean.	28.0	23.7	....	....	....	....	....	185	529	145	52.6	45.5
Max..	42	27	....	....	....	....	....	510	720	352	114	67
Min...	16	20	....	....	....	....	....	41	365	76	30	31
Acre-ft.	1720	1410	....	....	....	....	....	11400	31500	8920	3230	2710

Discharge of Laramie River Near Glendevey for Year Ending Sept. 30, 1930.
Drainage Area, 101 Square Miles. Altitude, 8,231 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	34	43	....	....	....	....	25	123	357	56	36	37
2....	35	49	....	....	....	....	25	146	217	51	37	36
3....	42	51	....	....	....	....	24	165	159	49	40	36
4....	37	47	....	....	....	....	24	123	149	49	40	36
5....	35	49	....	....	....	....	26	114	143	49	39	36
6....	33	....	....	....	....	....	30	86	143	47	47	36
7....	32	....	....	....	....	....	39	88	172	45	54	36
8....	37	....	....	....	....	....	52	76	206	42	60	35
9....	40	....	....	....	....	....	65	70	232	45	56	35
10....	40	....	....	....	....	....	74	70	238	45	45	34
11....	37	....	....	....	....	....	76	65	211	47	45	33
12....	39	....	....	....	....	....	104	63	275	51	67	31
13....	34	....	....	....	....	....	106	72	275	91	74	32
14....	34	....	....	....	....	....	126	81	227	67	165	33
15....	36	....	....	....	....	....	117	104	162	47	134	32
16....	37	....	....	....	....	....	83	96	162	58	60	32
17....	39	....	....	....	....	....	51	101	169	39	47	32
18....	37	....	....	....	....	....	46	81	172	36	45	31
19....	39	....	....	....	....	....	47	98	128	40	41	30
20....	34	....	....	....	....	....	46	131	140	40	40	29
21....	31	....	....	....	....	....	47	217	169	37	36	26
22....	30	....	....	....	....	....	61	227	175	41	36	30
23....	30	....	....	....	....	....	101	156	162	39	40	34
24....	29	....	....	....	....	....	131	149	114	37	37	35
25....	31	....	....	....	....	....	159	172	93	37	36	40
26....	42	....	....	....	....	....	137	217	74	40	40	39
27....	47	....	....	....	....	....	143	264	67	43	43	43
28....	42	....	....	....	....	....	111	291	65	43	39	43
29....	41	....	....	....	....	....	111	330	65	41	41	43
30....	43	....	....	....	....	25	120	352	60	41	43	45
31....	42	....	....	....	....	25	....	408	....	37	39	....
Total	1139	....	....	....	....	....	2307	4736	4981	1430	1602	1050
Mean.	36.7	....	....	....	....	....	76.9	153	166	46.1	51.7	35.0
Max..	47	....	....	....	....	....	159	408	357	91	165	45
Min...	29	....	....	....	....	....	24	63	60	36	36	26
Acre-ft.	2260	....	....	....	....	....	4580	9410	9880	2830	3180	2080

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Laramie River Near Jelm, Wyo., for Year Ending Sept. 30, 1929.
Drainage Area, 297 Square Miles. Altitude, 7,730 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	45	51	....	....	....	....	....	144	995	892	242	52
2....	45	54	....	....	....	....	....	121	1280	723	216	52
3....	44	50	....	....	....	....	....	126	1270	639	176	57
4....	44	50	....	....	....	....	....	126	1320	591	163	87
5....	49	50	....	....	....	....	....	116	1390	546	173	92
6....	54	50	....	....	....	....	....	110	1480	504	213	144
7....	54	50	....	....	....	....	....	132	1480	404	227	157
8....	54	50	....	....	....	....	....	166	1620	388	163	157
9....	52	50	....	....	....	....	....	206	1720	350	141	132
10....	50	50	....	....	....	....	....	220	1780	310	132	129
11....	45	50	....	....	....	....	....	166	1760	294	126	135
12....	43	52	....	....	....	....	....	138	1590	294	110	124
13....	46	54	....	....	....	....	....	182	1450	298	92	148
14....	49	51	....	....	....	....	....	250	1410	289	84	135
15....	63	54	....	....	....	....	....	310	1500	306	75	121
16....	63	58	....	....	....	....	....	306	1270	319	70	107
17....	58	58	....	....	....	....	....	324	1450	277	82	102
18....	73	50	....	....	....	....	....	350	1170	306	90	90
19....	71	45	....	....	....	....	....	341	963	246	84	80
20....	75	40	....	....	....	....	....	364	995	250	73	77
21....	75	40	....	....	....	....	....	471	1020	227	68	77
22....	64	45	....	....	....	....	....	576	1130	202	68	77
23....	55	50	....	....	....	....	121	757	1180	220	64	84
24....	55	52	....	....	....	....	116	912	1010	261	59	107
25....	56	55	....	....	....	....	100	1100	974	206	70	77
26....	63	52	....	....	....	....	94	1140	963	186	62	70
27....	66	50	....	....	....	....	97	882	963	189	57	62
28....	63	50	....	....	....	....	110	933	953	186	66	59
29....	68	45	....	....	....	....	166	757	923	163	68	57
30....	63	35	....	....	....	....	186	639	852	199	62	64
31....	61	....	....	....	....	....	....	814	....	235	57	....
Total	1766	1491	....	....	....	....	....	13179	37861	10500	3433	2912
Mean.	57	49.7	....	....	....	....	....	425	1260	339	111	97.1
Max..	75	58	....	....	....	....	....	1140	1780	892	242	157
Min...	43	35	....	....	....	....	....	110	852	163	57	52
Acre-ft.	3500	2960	....	....	....	....	....	26100	75000	20800	6820	5780

Discharge of Laramie River Near Jelm, Wyo., for Year Ending Sept. 30, 1930.
Drainage Area, 297 Square Miles. Altitude, 7,730 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	59	77	....	....	....	....	45	356	1020	131	108	65
2....	57	107	....	....	....	....	45	440	696	128	100	59
3....	100	73	....	....	....	....	45	483	556	108	95	57
4....	107	92	....	....	....	....	45	378	522	98	201	57
5....	77	105	....	....	....	....	45	372	470	93	137	63
6....	64	97	....	....	....	....	60	299	464	93	117	69
7....	59	....	....	....	....	....	75	268	549	91	169	82
8....	100	....	....	....	....	....	100	235	612	84	176	80
9....	100	....	....	....	....	....	150	219	658	73	155	73
10....	87	....	....	....	....	....	172	216	612	77	143	61
11....	94	....	....	....	....	....	193	204	598	152	134	53
12....	80	....	....	....	....	....	216	186	658	190	172	48
13....	59	....	....	....	....	....	212	197	642	361	247	43
14....	55	....	....	....	....	....	231	197	549	216	361	40
15....	57	....	....	....	....	....	247	239	422	131	378	37
16....	55	....	....	....	....	....	227	243	372	98	201	38
17....	54	....	....	....	....	....	172	272	405	88	149	40
18....	55	....	....	....	....	....	159	239	399	128	120	40
19....	59	....	....	....	....	....	152	281	346	114	95	36
20....	57	....	....	....	....	....	131	337	327	117	80	37
21....	54	....	....	....	....	....	140	476	378	117	75	37
22....	55	....	....	....	....	....	169	628	405	108	75	42
23....	49	....	....	....	....	....	216	446	410	88	73	55
24....	40	....	....	....	....	....	290	416	268	88	73	62
25....	44	....	....	....	....	....	416	464	243	106	73	75
26....	64	....	....	....	....	....	388	522	235	95	73	90
27....	73	....	....	....	....	....	388	680	201	91	95	95
28....	66	....	....	....	....	....	356	752	169	86	95	103
29....	59	....	....	....	....	....	337	870	155	122	93	100
30....	52	....	....	....	....	....	346	950	140	134	84	100
31....	66	....	....	....	....	....	....	1040	....	117	69	....
Total	2057	....	....	....	....	....	5768	12905	13481	3723	4216	1837
Mean.	66.4	....	....	....	....	....	192	416	449	120	136	61.2
Max..	107	....	....	....	....	....	416	1040	1020	361	378	103
Min...	40	....	....	....	....	....	....	186	140	73	69	36
Acre-ft.	4080	....	....	....	....	....	11400	25600	26700	7380	8360	3640

Unless otherwise noted, all discharges are in cubic feet per second.

ARKANSAS RIVER DRAINAGE

ARKANSAS RIVER AT GRANITE

Location—At Granite in Sec. 31, T. 11 S., R. 79 W.

Records Available—May 1, 1897, to September 10, 1899; April 6, 1910, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

ARKANSAS RIVER AT SALIDA

Location—In the City Park at Salida.

Records Available—April 11, 1895, to October 31, 1903; November 3, 1909, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

ARKANSAS RIVER AT CANON CITY

Location—Opposite the Southern Colorado Power Plant at Canon City.

Records Available—May 1, 1888, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

ARKANSAS RIVER AT PUEBLO

Location—At South Side water-works intake.

Records Available—May 1, 1885, to September 30, 1886; September 19, 1894, to September 30, 1930. A station was maintained 9 miles above Pueblo from June 1 to September 30, 1887, and May 1 to August 31, 1889.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with the Arkansas Valley Ditch Association.

ARKANSAS RIVER NEAR NEPESTA

Location—At Oxford Farmers Canal Company's dam in Sec. 31, T. 21 S., R. 60 W. Records corrected for Oxford Farmers Canal waste water. Prior to 1918 records not corrected for waste water.

Records Available—September 8, 1897, to October 31, 1903; July 14, 1909, to November 30, 1912; January 1, 1914, to September 30, 1930. From 1918 to June 4, 1921, station maintained at Nepesta.

Gage—Automatic recording gage.

Accuracy—Results poor.

Co-operation—Station maintained in co-operation with Arkansas Valley Ditch Association.

ARKANSAS RIVER AT LA JUNTA

Location—At East Bridge in La Junta.

Records Available—May 20 to August 31, 1889; December 5, 1893, to December 31, 1895; 1899 to 1901; April 7 to October 31, 1903; August 27 to November 30, 1908; April 11, 1912, to September 30, 1930. This station has been maintained at different places during this time, but the records are comparable.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

Co-operation—Station maintained in co-operation with the Arkansas Valley Ditch Association.

ARKANSAS RIVER AT LAMAR

Location—At highway bridge one mile north of Lamar.

Records Available—May 11, 1913, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

Co-operation—Station maintained in co-operation with the Arkansas Valley Ditch Association.

ARKANSAS RIVER AT HOLLY

Location—At highway bridge half mile southeast of Holly in Sec. 14, T. 23 S., R. 23 W.

Records Available—October 15, 1907, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with the Arkansas Valley Ditch Association.

SOUTH FORK ARKANSAS RIVER NEAR SALIDA

Location—In Sec. 6, T. 49 N., R. 9 E.

Records Available—April 1, 1922, to December 31, 1924; June 9, 1929, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

GRAPE CREEK NEAR WESTCLIFFE

Location—In Sec. 36, T. 21 S., R. 73 W.

Records Available—December 1, 1924, to June 30, 1928; March 25, 1930, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

ST. CHARLES RIVER AT BURNT MILL CROSSING

Location—In Sec. 8, R. 66 W., T. 23 S., at highway bridge at Burnt Mill Crossing.

Records Available—March, 1923, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

Co-operation—Station maintained in co-operation with the Arkansas Valley Protective Association.

HUERFANO RIVER AT MANZANARES CROSSING

Location—In Sec. 5, T. 27 S., R. 71 W., at ford 4 miles above Redwing.

Records Available—July 14, 1923, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

Co-operation—Station maintained in co-operation with the Arkansas Valley Protective Association.

CUCHARES RIVER AT LA VETA

Location—In Sec. 5, T. 30 S., R. 68 W., six miles above La Veta.

Records Available—January 1, 1923, to September 30, 1930.

Gage—Vertical staff gage.

Accuracy—Records considered fair.

Co-operation—Station maintained in co-operation with Arkansas Valley Protective Association.

PURGATOIRE RIVER AT TRINIDAD

Location—150 feet below Main Street bridge in Trinidad.

Records Available—1897 to 1899, 1905 to 1912, April 1, 1916, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

PURGATOIRE RIVER AT NINE MILE DAM

Location—In Sec. 26, T. 32 S., R. 54 W., just above Nine Mile Dam and fifteen miles south of La Junta.

Records Available—October 1, 1924, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

PURGATOIRE RIVER NEAR MOUTH NEAR LAS ANIMAS

Location—In Sec. 23, T. 23 S., R. 52 W., on highway bridge two miles southeast of Las Animas.

Records Available—April 1, 1922, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

WILD HORSE CREEK AT MOUTH NEAR HOLLY

Location—In Sec. 15, T. 23 S., R. 42 W., one-fourth mile southeast of Holly. This is not included in Arkansas River record at Holly.

Records Available—October 1, 1922, to September 30, 1930.

Gage—Vertical staff gage.

Accuracy—Records considered fair.

HOLLY DRAIN NEAR COOLIDGE, KANSAS

Location—In Sec. 16, T. 23 S., R. 43 W., where Santa Fe R. R. crosses Cheyenne Creek.

Records Available—January 1, 1924, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Note: Some waste water and water from Cheyenne Creek included in this table.

Discharge of Arkansas River at Granite for Year Ending Sept. 30, 1929.
Drainage Area, 431 Square Miles. Altitude, 8,930 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	152	106	102	....	....	....	86	548	1110	906	734	326
2....	152	92	92	....	....	....	100	513	1240	882	700	353
3....	145	90	....	....	....	....	142	428	1200	806	640	348
4....	147	104	....	....	....	....	128	428	1360	756	462	376
5....	147	113	....	....	....	....	119	412	1390	734	428	386
6....	147	110	....	....	....	....	104	423	1440	714	590	490
7....	138	119	....	....	....	....	96	462	1450	634	590	496
8....	128	115	....	....	....	....	92	484	1510	628	484	423
9....	126	100	....	....	....	....	96	519	1590	566	412	326
10....	121	104	....	....	....	....	90	525	1600	560	381	284
11....	124	106	....	....	....	....	92	496	1530	490	344	272
12....	124	106	....	....	....	....	106	445	1450	473	322	248
13....	121	106	....	....	....	....	124	423	1340	519	288	226
14....	121	110	....	....	....	....	121	397	1340	584	268	212
15....	115	108	....	....	....	....	202	484	1300	693	252	212
16....	115	108	....	....	....	....	376	673	1190	784	244	206
17....	145	110	....	....	....	....	473	700	1210	714	248	202
18....	237	102	....	....	....	....	578	756	1140	734	305	199
19....	237	100	53	....	....	....	578	693	1110	666	402	202
20....	212	100	....	....	....	....	490	700	1120	640	330	216
21....	206	100	....	....	....	....	434	914	1080	660	339	330
22....	199	140	....	....	....	....	434	922	1120	666	322	335
23....	193	117	....	81	....	....	434	1040	1120	693	288	344
24....	186	115	....	....	....	....	462	1110	1100	821	284	322
25....	174	104	....	....	....	....	519	1270	1150	602	284	326
26....	100	102	....	....	76	68	542	1380	1090	680	317	326
27....	96	92	....	....	....	79	531	1180	1020	707	542	322
28....	104	98	....	....	....	79	542	1160	970	741	280	305
29....	108	98	....	....	....	104	590	1050	962	501	322	330
30....	106	102	....	....	....	110	590	1000	914	686	322	305
31....	108	....	....	....	....	96	....	1000	....	707	348	....
Total	4534	3177	....	....	....	....	9271	22535	37146	20947	12072	9248
Mean.	146	106	77	75	70	85	309	727	1240	676	389	308
Max..	237	140	....	....	....	....	590	1380	1600	906	734	496
Min...	96	90	....	....	....	....	86	397	914	473	244	199
Acre-ft.	8980	6310	4730	4610	3890	5230	18400	44700	73800	41600	23900	18300

Discharge of Arkansas River at Granite for Year Ending Sept. 30, 1930.
Drainage Area, 431 Square Miles. Altitude, 8,930 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	276	162	102	....	....	94	92	783	1140	941	721	241
2....	263	164	93	....	....	94	100	826	998	870	580	230
3....	279	166	93	....	....	97	106	837	928	802	509	241
4....	279	160	95	....	....	99	117	778	808	740	536	248
5....	266	162	92	....	....	102	140	752	684	696	758	277
6....	260	160	90	....	....	97	164	636	758	649	783	284
7....	254	154	90	....	....	95	191	522	934	483	752	266
8....	260	136	90	....	....	93	266	485	1090	483	696	280
9....	285	132	91	....	....	92	285	433	1120	462	667	212
10....	285	120	92	....	....	92	254	292	1160	472	661	241
11....	295	122	90	....	....	92	292	210	1200	514	597	226
12....	295	111	84	....	....	86	408	228	1310	546	568	219
13....	285	103	85	....	80	93	476	205	1420	684	727	212
14....	279	115	81	....	....	92	442	214	1430	721	591	192
15....	254	115	80	....	....	106	429	250	1300	643	457	178
16....	226	122	80	66	....	103	368	284	1250	614	389	166
17....	213	117	81	....	....	98	450	292	1260	557	432	157
18....	203	119	77	....	....	87	583	311	1250	580	472	157
19....	208	113	75	....	....	80	574	295	1210	655	462	154
20....	203	106	75	....	....	87	564	295	1140	765	452	151
21....	193	110	70	....	....	93	593	362	1120	752	375	151
22....	186	115	70	....	....	91	622	526	1110	721	324	154
23....	175	105	70	....	....	91	626	489	1040	626	316	163
24....	162	92	70	....	....	85	666	517	960	552	316	148
25....	162	103	70	....	....	87	686	585	864	498	324	163
26....	166	103	70	....	....	86	696	656	771	417	366	160
27....	166	106	72	....	....	88	726	832	746	384	362	169
28....	171	105	72	....	....	88	721	1030	678	447	270	142
29....	175	105	72	....	....	92	726	1190	833	557	205	160
30....	179	105	72	....	....	87	767	1300	980	626	277	166
31....	179	....	72	....	....	90	....	1400	....	591	270	....
Total	7082	3708	2516	....	....	2857	13130	17815	31492	19048	15215	5908
Mean.	228	124	81.2	70	82	92.2	438	575	1050	614	491	197
Max..	295	166	....	....	....	....	767	1400	1430	941	783	284
Min...	162	92	....	....	....	....	92	205	678	384	205	142
Acre-ft.	14000'	7380	4990	4300	4550	5670	26100	35400	62500	37800	30200	11700

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Arkansas River at Salida for Year Ending Sept. 30, 1929.
Drainage Area, 1,210 Square Miles. Altitude, 7,038 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	295	299	286	211	215	196	215	627	1690	1510	1580	911
2....	299	282	278	223	211	204	211	616	2060	1470	1490	876
3....	307	274	254	238	204	208	230	526	1980	1420	1750	911
4....	303	282	266	238	196	211	282	492	2180	1340	1300	917
5....	299	278	250	219	200	219	278	467	2290	1280	1170	865
6....	303	282	238	204	204	242	258	586	2380	1270	1310	992
7....	303	295	242	211	196	250	227	637	2420	1160	1590	1020
8....	286	295	246	211	196	234	204	684	2490	1110	1420	922
9....	278	286	238	223	196	238	204	764	2570	1050	1220	842
10....	282	278	223	208	189	230	200	814	2600	970	1220	764
11....	274	278	230	219	186	234	200	781	2390	940	1110	742
12....	286	274	238	230	193	223	200	658	2280	814	1000	730
13....	282	274	223	227	193	219	219	710	2110	775	911	715
14....	278	286	234	219	204	215	242	684	2150	831	831	726
15....	274	282	238	215	200	219	238	732	2280	1060	764	742
16....	278	286	211	223	200	211	405	1000	2020	1180	710	715
17....	286	270	204	223	196	196	546	1160	2100	1150	674	694
18....	346	262	211	219	196	196	658	1210	1950	1150	705	679
19....	415	246	208	219	196	254	737	1210	1890	1150	705	674
20....	401	262	200	230	196	410	653	1190	1930	1100	710	679
21....	355	278	196	230	204	415	516	1420	1940	1090	679	775
22....	355	286	204	230	193	439	482	1470	1950	1210	721	854
23....	355	282	208	211	200	369	468	1580	1980	1300	710	922
24....	346	270	219	200	196	250	492	1700	1900	1610	710	870
25....	324	278	223	196	193	196	526	1950	1870	1410	721	848
26....	286	282	238	204	193	193	622	2250	1750	1070	679	820
27....	246	282	254	196	196	200	611	1940	1680	1270	1130	775
28....	258	291	246	204	200	200	591	1750	1650	1730	1470	748
29....	278	282	250	208	....	204	627	1630	1630	1210	854	748
30....	282	270	238	211	....	234	668	1490	1540	1420	809	742
31....	295	....	208	211	....	238	....	1560	....	1600	969	....
Total	9455	8372	7202	6711	5542	7547	12010	34288	61650	37650	31622	24218
Mean.	305	279	232	216	198	243	400	1110	2060	1210	1020	807
Max..	415	299	286	238	215	439	737	2250	2600	1730	1750	1020
Min...	246	246	196	196	186	193	200	467	1540	775	674	674
Acre-ft.	18800	16600	14300	13300	11000	14900	23800	68200	123000	74400	62700	48000

Discharge of Arkansas River at Salida for Year Ending Sept. 30, 1930.
Drainage Area, 1,210 Square Miles. Altitude, 7,038 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	674	424	360	250	238	208	227	1020	2040	1220	1260	581
2....	642	434	316	250	246	208	208	1090	1300	1210	1180	551
3....	622	463	316	234	238	211	211	1210	1370	1120	1030	566
4....	637	415	320	227	238	215	219	1110	1160	1050	940	581
5....	611	429	329	242	242	219	230	1080	1090	1000	1090	576
6....	596	434	333	242	250	215	246	986	1100	928	1160	561
7....	586	453	333	242	250	211	274	770	1310	814	1190	571
8....	586	401	320	242	250	204	320	753	1660	710	1120	571
9....	622	387	329	223	246	200	410	663	1780	694	1040	487
10....	653	369	333	227	238	200	401	632	1790	642	1060	392
11....	653	373	329	219	230	200	373	444	1800	710	1030	415
12....	648	360	316	227	234	196	468	420	1920	781	975	373
13....	622	316	312	230	238	204	556	420	2120	940	1310	360
14....	601	324	316	219	238	204	596	364	2170	1310	1070	324
15....	571	355	307	219	234	204	571	405	2060	1090	859	333
16....	541	355	295	230	230	208	561	472	1940	969	748	329
17....	521	346	299	230	227	219	463	429	1910	870	705	320
18....	511	351	286	219	230	204	679	453	1890	820	899	312
19....	496	351	258	230	234	196	694	444	1880	803	859	303
20....	472	333	262	223	238	204	663	420	1800	1050	809	307
21....	463	320	246	211	238	215	700	492	1720	1270	759	299
22....	453	291	246	219	227	219	737	694	1730	1370	658	291
23....	439	316	250	219	230	219	781	737	1690	1180	653	312
24....	415	303	250	219	227	204	837	715	1520	1030	658	307
25....	420	312	258	234	223	208	888	742	1410	905	658	307
26....	429	324	278	254	219	223	882	814	1150	859	663	333
27....	420	338	266	242	219	215	893	1040	1090	786	648	316
28....	415	360	258	246	211	211	911	1400	1020	951	674	333
29....	429	369	266	234	....	219	905	1760	1020	1100	453	324
30....	429	360	266	250	....	227	998	2020	1370	1250	487	324
31....	434	....	266	242	....	227	....	2280	....	1250	546	....
Total	16611	10966	9119	7195	6563	6517	16902	26279	47810	30682	27191	11959
Mean.	536	366	294	232	234	210	563	848	1590	990	877	399
Max..	674	463	360	254	250	227	998	2280	2170	1370	1310	581
Min...	415	291	246	211	211	196	208	364	1020	642	453	291
Acre-ft.	33000	21800	18100	14300	13000	12900	33500	52100	94600	60900	53900	23700

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Arkansas River at Canon City for Year Ending Sept. 30, 1929. Drainage Area, 3,090 Square Miles. Altitude, 5,363 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	265	319	376	310	319	293	314	510	1600	1460	1680	1300
2....	265	301	380	305	324	342	272	480	1940	1470	1600	1240
3....	265	282	376	342	310	356	276	468	2090	1400	2010	1220
4....	265	272	380	356	293	324	289	417	2120	1320	2040	1260
5....	265	282	356	328	279	337	352	380	2340	1270	1800	1220
6....	265	289	337	293	286	352	342	371	2450	1250	1900	1340
7....	262	293	333	310	247	428	319	444	2520	1210	2710	1470
8....	262	301	342	328	244	428	276	486	2620	1130	2540	1470
9....	262	296	342	337	264	385	269	536	2720	1110	2040	1330
10....	262	289	342	328	255	371	269	601	2800	1060	1860	1190
11....	262	286	337	347	252	356	269	627	2640	1020	1890	1160
12....	262	293	356	356	260	333	265	648	2470	978	1680	1140
13....	265	289	342	333	260	289	265	555	2330	815	1500	1100
14....	259	305	337	333	276	276	269	581	2210	838	1390	1090
15....	265	293	352	310	270	279	265	549	2350	911	1310	1060
16....	262	310	324	319	270	279	265	654	2170	1070	1260	1060
17....	265	305	289	314	265	272	390	903	2110	1290	1170	1020
18....	265	301	289	310	265	276	486	895	2020	1110	1220	995
19....	337	324	310	310	265	276	601	970	1880	1670	1080	953
20....	371	356	289	314	265	366	581	928	1840	1320	1100	944
21....	342	356	293	328	280	422	510	1040	1860	1160	1060	928
22....	333	356	310	319	295	444	439	1230	1880	944	1070	1010
23....	328	356	324	305	310	444	422	1290	1890	1400	1200	1070
24....	333	342	337	289	328	376	417	1420	1820	1600	1000	1110
25....	328	333	356	265	301	279	439	1600	1760	1660	1030	1100
26....	314	328	366	269	286	279	468	2220	1700	1300	1280	1060
27....	286	324	356	305	269	279	504	2200	1610	1310	1040	1030
28....	276	324	356	333	310	279	468	1800	1560	1680	1740	978
29....	279	337	347	337	....	282	468	1690	1570	1520	1370	936
30....	289	342	347	333	....	305	510	1500	1510	1350	1380	846
31....	296	....	319	328	....	328	....	1520	....	1710	1270	....
Total	8855	9384	10500	9894	7848	10335	11279	29513	62380	39336	47220	33630
Mean.	286	313	339	319	280	333	376	952	2080	1270	1520	1120
Max..	371	356	380	356	328	444	601	2220	2800	1710	2710	1470
Min...	259	272	289	265	244	272	265	371	1510	815	1000	846
Acre-ft.	17600	18600	20800	19600	15600	20500	22400	58500	124000	78100	93500	66600

Discharge of Arkansas River at Canon City for Year Ending Sept. 30, 1930. Drainage Area, 3,090 Square Miles. Altitude, 5,363 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	763	445	451	361	400	313	291	985	2470	1320	1560	526
2....	726	439	451	361	410	327	283	1010	1600	1220	1500	884
3....	716	451	445	337	410	337	274	1100	1400	1120	1280	606
4....	726	456	445	318	420	337	266	1150	1280	1050	1290	614
5....	726	451	439	313	422	346	270	959	1120	974	1380	599
6....	716	474	439	342	445	361	274	996	1050	951	1400	606
7....	688	506	433	342	445	342	295	843	1150	864	1360	631
8....	680	526	433	337	427	313	318	688	1590	672	1310	591
9....	663	474	427	322	422	308	342	639	1860	631	1210	735
10....	655	456	427	259	388	308	405	569	1920	599	1290	506
11....	697	456	427	295	416	318	378	445	1930	599	1150	433
12....	707	456	433	337	394	327	372	351	2020	680	1120	405
13....	680	439	433	332	416	327	494	337	2240	823	1820	372
14....	639	422	427	342	416	322	532	313	2300	1250	1660	351
15....	554	451	427	342	383	318	500	300	2240	1210	1260	322
16....	547	468	427	340	372	318	526	322	2060	974	1050	332
17....	526	456	422	350	383	346	494	383	1960	874	929	313
18....	506	456	416	313	388	356	526	342	1960	782	951	308
19....	494	451	405	356	422	332	680	356	1990	792	962	308
20....	474	439	372	340	451	322	688	346	1930	940	874	304
21....	456	416	372	330	500	346	655	327	1870	1470	833	295
22....	427	405	367	356	481	327	688	456	1820	2240	754	291
23....	356	399	337	356	456	308	716	655	1840	1630	707	279
24....	351	416	351	356	487	283	773	606	1670	1330	707	287
25....	332	427	367	400	433	270	823	631	1530	1120	735	283
26....	342	445	372	440	372	287	864	672	1290	1100	707	279
27....	378	451	372	439	361	295	864	823	1070	1020	716	291
28....	383	451	361	388	327	283	884	1170	996	1630	1160	287
29....	388	451	361	399	....	291	884	1660	951	1830	584	287
30....	405	451	361	400	....	300	906	2060	1060	1690	519	279
31....	422	....	367	420	....	300	....	2440	....	1700	532	....
Total	17123	13474	12567	10923	11647	9868	16265	23934	50167	35085	33310	12604
Mean.	552	449	405	352	416	318	542	772	1670	1130	1070	420
Max..	763	526	451	....	....	361	906	2440	2470	2240	1820	884
Min...	332	399	337	....	....	270	266	300	951	599	519	279
Acre-ft.	33900	26700	24900	21600	23100	19600	32300	47500	99400	69500	65800	25000

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Arkansas River at Pueblo for Year Ending Sept. 30, 1929.
Drainage Area, 4,820 Square Miles. Altitude, 4,675 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	174	373	420	271	334	185	212	428	1450	1440	1990	1700
2....	180	366	397	321	334	207	174	405	1560	1220	1900	1610
3....	190	405	366	350	350	285	163	343	1960	1290	4730	1570
4....	196	358	397	358	350	278	180	336	1790	1240	3660	1530
5....	190	343	381	420	300	278	245	314	2000	1180	3190	1560
6....	196	238	381	373	321	285	245	321	2040	1130	4200	1730
7....	201	258	381	389	292	292	212	366	2050	1140	6520	2420
8....	196	258	350	343	212	292	180	405	2110	1030	6170	2250
9....	185	278	445	343	103	300	148	462	2160	988	4660	2050
10....	180	300	389	343	320	285	153	556	2460	933	3660	1760
11....	190	285	358	328	366	265	138	666	2390	826	3370	1610
12....	196	278	397	321	350	278	113	724	2160	784	2920	1500
13....	238	343	405	328	428	258	99	591	1980	714	2380	1360
14....	258	373	420	350	373	258	108	600	1790	656	2050	1350
15....	245	358	389	350	381	225	90	600	1870	764	1660	1180
16....	245	350	504	350	487	219	80	628	1940	847	1420	1290
17....	238	397	428	343	381	252	123	900	1800	1440	1260	1220
18....	225	412	350	300	389	285	265	922	1750	1260	1220	1030
19....	252	412	258	271	314	358	405	955	1750	1820	1240	1030
20....	343	343	366	307	445	336	478	1060	1690	1460	1050	1010
21....	405	373	307	343	397	428	405	1130	1700	1560	1060	988
22....	350	428	307	292	358	453	321	1400	1560	1790	1200	1030
23....	350	462	307	285	358	436	271	1370	1760	1560	1300	1020
24....	336	495	321	212	366	389	278	1480	1610	1830	1170	1180
25....	350	478	314	212	350	307	245	1730	1490	1980	1230	1030
26....	358	373	300	265	328	225	278	2170	1540	1560	1750	1100
27....	366	389	271	289	278	180	321	2340	1520	1710	1390	1110
28....	321	405	265	325	252	163	314	1870	1460	3960	1730	1080
29....	321	436	265	357	....	158	292	1680	1360	2250	3070	1040
30....	328	436	271	363	....	190	321	1500	1410	1720	1980	977
31....	343	....	271	358	....	219	....	1450	....	2140	1760	....
Total	8146	11003	10981	10060	9517	8569	6857	29702	54110	44222	76890	41315
Mean.	263	367	354	325	340	276	229	958	1800	1430	2480	1380
Max..	405	495	504	420	487	453	478	2340	2460	3960	6520	2420
Min...	174	238	258	212	103	158	80	314	1360	656	1050	977
Acre-ft.	16200	21800	21800	20000	18900	17000	13600	58900	107000	87900	152000	82100

Discharge of Arkansas River at Pueblo for Year Ending Sept. 30, 1930.
Drainage Area, 4,820 Square Miles. Altitude, 4,675 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	937	646	588	354	410	162	188	808	2180	1080	1560	636
2....	893	706	550	362	420	162	227	850	1740	1050	1480	627
3....	767	656	550	380	400	207	262	958	1070	937	1240	1400
4....	808	646	569	390	380	220	234	1040	1230	861	1200	947
5....	808	656	503	387	420	276	241	937	1000	808	1600	1170
6....	696	686	422	370	540	314	214	904	926	746	1950	1190
7....	726	767	447	370	500	330	234	829	915	686	1650	726
8....	746	777	456	370	480	338	234	686	1170	608	1570	636
9....	756	819	456	370	520	262	262	666	1540	503	1440	1440
10....	736	767	456	362	500	290	362	588	1530	475	1530	706
11....	736	808	456	350	730	269	362	522	1760	430	1400	484
12....	706	696	439	350	706	262	283	396	1640	465	1480	475
13....	696	666	475	350	627	269	330	314	1660	636	1580	422
14....	716	608	465	350	512	269	465	276	1840	937	3320	387
15....	706	646	447	350	465	262	413	234	1900	1190	2760	396
16....	666	798	404	340	413	262	456	262	1780	926	1780	346
17....	608	736	387	340	362	306	447	370	1650	808	1500	354
18....	560	726	422	360	330	330	346	387	1670	696	1290	298
19....	522	608	447	380	330	283	456	379	1840	676	1240	298
20....	503	569	439	370	322	283	512	370	1780	778	1260	207
21....	512	531	306	360	404	283	475	346	1640	1130	1130	227
22....	522	550	422	360	475	262	484	338	1650	1920	1150	269
23....	531	569	422	360	447	201	541	512	1670	1580	926	214
24....	512	686	456	360	370	194	608	588	1490	1210	850	201
25....	494	560	475	360	322	188	686	550	1310	1050	777	227
26....	465	588	475	380	283	207	726	550	1210	1130	893	255
27....	475	588	475	380	241	214	627	579	958	992	893	269
28....	484	579	439	380	201	207	666	798	882	926	3160	234
29....	588	617	456	400	....	194	676	1260	808	1680	1110	220
30....	550	646	456	400	....	201	696	1530	871	1710	706	234
31....	503	....	387	400	....	194	....	1880	....	1910	627	....
Total	19928	19901	14147	11395	12110	7701	12713	20707	43310	30534	45052	15495
Mean.	643	663	456	368	432	249	424	668	1440	985	1450	516
Max..	937	819	588	....	....	338	726	1880	2180	1920	3320	1440
Min...	465	531	306	....	201	162	188	234	808	430	627	201
Acre-ft.	39500	39500	28000	22600	24000	15300	25200	41100	85700	60600	89200	30700

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Arkansas River at Nepesta for Year Ending Sept. 30, 1929.
Drainage Area .... Square Miles. Altitude, 4,400 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	192	182	820	....	....	....	379	40	1590	605	1880	1550
2....	198	408	618	....	....	....	350	102	1440	408	1830	1690
3....	177	506	553	....	....	....	313	55	1570	369	5980	1550
4....	168	418	330	....	....	....	313	12	1390	506	4960	1570
5....	155	330	389	....	....	....	287	25	1590	579	2280	1550
6....	160	359	389	....	....	....	379	7	2200	745	3550	1900
7....	173	313	389	....	....	....	330	43	1880	854	7920	2460
8....	173	330	389	....	....	....	313	62	1690	905	4110	2170
9....	123	369	439	....	....	....	232	160	1710	905	4960	2150
10....	126	359	775	....	....	296	232	209	1930	922	3840	1550
11....	168	227	330	....	....	312	227	296	2570	790	3400	1150
12....	177	168	389	....	....	232	209	473	1520	730	3040	1460
13....	209	186	389	....	....	261	186	369	1350	730	2740	1590
14....	198	142	389	....	....	369	113	304	1570	579	2330	1590
15....	209	203	150	....	....	389	97	198	2020	566	2050	1950
16....	244	261	....	....	....	379	94	198	1810	1040	1610	1640
17....	262	278	....	....	....	....	87	540	1520	1330	1210	1570
18....	221	296	....	....	....	330	87	745	1500	1780	939	1520
19....	164	408	....	....	....	389	321	700	1640	1900	1350	1390
20....	129	418	....	....	....	428	553	745	1590	1930	1270	1250
21....	100	418	....	....	....	359	369	700	1640	1880	1150	1230
22....	177	495	....	....	....	244	209	745	1500	1690	1210	1250
23....	155	462	....	....	....	198	84	1030	1550	1370	1330	1480
24....	164	506	....	....	....	221	45	1100	1030	2330	1290	1480
25....	168	495	....	....	....	238	54	1170	854	3150	1030	1460
26....	164	439	....	....	....	278	56	1690	1440	1410	1480	1390
27....	168	462	....	....	....	330	60	1690	1480	1330	1290	1440
28....	182	408	....	....	....	244	37	1440	905	3150	1030	1210
29....	155	553	....	....	....	221	45	1520	389	1780	2680	1030
30....	182	760	....	....	....	340	23	1520	484	1480	1640	888
31....	186	....	....	....	....	369	....	1480	....	1590	1830	....
Total	5427	11159	....	....	....	....	6084	19368	45352	39333	77209	46108
Mean.	175	372	....	....	....	....	203	625	1510	1270	2490	1540
Max..	262	760	....	....	....	....	553	1690	2570	3150	7920	2460
Min...	100	142	....	....	....	....	23	7	389	369	939	888
Acre-ft.	10800	22100	....	....	....	....	12100	38400	89800	78100	153000	91600

Discharge of Arkansas River Near Nepesta for Year Ending Sept. 30, 1930.
Drainage Area .... Square Miles. Altitude, 4,400 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	792	666	....	....	....	41	173	469	2150	1440	1130	528
2....	874	761	....	....	....	56	224	481	1460	504	1520	481
3....	729	682	....	....	....	248	302	583	1040	516	1370	625
4....	698	698	....	....	....	271	318	890	1230	422	1190	481
5....	682	761	....	....	....	302	310	713	1440	457	2980	504
6....	481	569	....	....	....	392	287	528	1150	434	2200	1710
7....	434	713	....	....	....	410	240	336	729	422	1040	874
8....	434	682	....	....	....	410	279	318	874	569	1120	745
9....	504	597	....	....	....	392	355	469	1480	445	1150	2020
10....	481	493	....	....	....	287	345	469	1690	364	1230	808
11....	364	504	....	....	....	287	516	263	1690	336	1230	682
12....	295	469	....	....	....	202	504	213	1390	263	1230	597
13....	373	....	213	....	....	87	240	382	1150	310	1880	569
14....	382	....	....	....	....	94	346	318	1190	542	2930	542
15....	401	392	....	....	....	124	625	271	1120	940	6180	481
16....	373	....	....	....	....	148	638	279	1440	777	1550	481
17....	373	....	....	....	....	218	745	542	1370	542	1210	457
18....	310	....	....	....	....	213	542	808	1290	422	1550	434
19....	327	....	....	....	....	336	422	493	1350	410	1390	422
20....	310	....	....	....	....	279	235	516	2100	625	1330	401
21....	295	....	....	....	....	240	279	556	2150	698	1150	382
22....	271	....	....	....	....	279	287	327	2100	1310	1190	382
23....	279	....	....	....	....	229	279	364	2100	1060	1060	346
24....	263	....	....	....	....	191	302	792	1880	611	1120	161
25....	271	....	....	....	....	173	493	682	1250	666	824	92
26....	295	....	....	....	235	202	682	713	638	990	874	84
27....	327	....	....	....	94	224	569	745	422	1060	857	87
28....	310	....	....	....	45	213	504	777	410	1060	6320	97
29....	355	....	....	....	....	208	516	1210	583	1120	1860	97
30....	279	....	....	....	....	213	445	1570	745	1780	698	117
31....	422	....	....	....	....	186	....	1830	....	1520	556	....
Total	12984	....	....	....	....	7155	12002	18907	39611	22615	51919	15687
Mean.	419	....	....	....	....	231	400	610	1320	730	1670	523
Max..	874	....	....	....	....	410	745	1830	2150	1780	6320	2020
Min...	263	....	....	....	....	41	173	213	410	263	556	84
Acre-ft.	25800	....	....	....	....	14200	23800	37500	78600	44900	103000	31100

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Arkansas River at La Junta for Year Ending Sept. 30, 1929.
Drainage Area, 12,200 Square Miles. Altitude, 4,052 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	17	236	154	12	30	19	30	26	305	519	691	561
2....	17	196	116	21	18	16	17	23	323	376	760	342
3....	15	108	132	16	17	18	15	25	281	242	2720	433
4....	25	120	154	21	16	14	14	30	527	494	3040	390
5....	33	81	158	16	18	14	14	26	494	519	898	440
6....	46	52	196	14	16	15	13	28	774	553	553	479
7....	17	70	181	14	30	46	20	33	570	448	10500	653
8....	14	43	172	16	30	15	112	33	494	448	7400	181
9....	12	33	168	16	40	13	112	30	578	536	6360	128
10....	26	70	136	14	43	14	81	28	596	463	4320	128
11....	28	132	168	12	36	15	22	33	643	606	2520	96
12....	25	201	181	17	40	14	14	43	527	397	1330	89
13....	16	191	201	19	43	40	13	70	433	292	425	81
14....	145	172	181	16	56	26	28	18	311	298	258	70
15....	154	168	163	26	43	43	19	14	425	242	177	70
16....	120	168	59	52	40	46	26	73	732	298	81	46
17....	100	163	21	40	25	66	23	52	732	383	349	56
18....	100	177	43	33	128	140	28	19	456	349	578	59
19....	66	177	191	33	336	145	40	253	536	471	275	85
20....	62	186	100	28	168	128	52	311	606	702	305	70
21....	85	206	89	23	132	120	56	418	606	494	281	52
22....	77	206	81	40	124	89	12	336	570	536	286	116
23....	70	216	40	19	168	28	14	206	606	502	270	191
24....	128	221	25	23	43	43	20	390	502	578	258	196
25....	132	191	25	28	112	43	20	411	40	1310	247	247
26....	140	177	33	46	28	40	16	516	201	336	120	242
27....	145	177	26	49	19	14	19	615	418	527	418	258
28....	140	163	25	40	18	80	19	606	510	519	211	253
29....	181	168	23	36	....	18	17	578	323	418	258	242
30....	186	168	18	25	....	14	30	536	376	536	349	236
31....	172	....	14	19	....	14	....	487	....	578	479	....
Total	2494	4637	3274	784	1817	1350	916	6270	14495	14970	46717	6490
Mean.	80.4	155	106	25.3	64.9	43.6	30.5	202	483	483	1510	216
Max..	186	236	201	52	336	145	112	615	774	1310	10500	653
Min...	12	33	14	12	16	13	12	14	40	242	81	46
Acre-ft.	4940	9220	6520	1560	3600	2680	1810	12400	28700	29700	92800	12900

Discharge of Arkansas River at La Junta for Year Ending Sept. 30, 1930.
Drainage Area, 12,200 Square Miles. Altitude, 4,052 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	232	68	189	30	16	156	20	59	572	250	133	176
2....	218	54	126	9	19	112	15	68	259	347	133	314
3....	148	41	73	29	15	38	10	163	223	133	140	304
4....	59	73	284	66	29	16	47	274	358	73	246	299
5....	168	68	250	34	23	23	85	294	476	41	550	325
6....	205	45	122	27	24	34	63	304	456	41	289	347
7....	264	54	51	32	26	32	59	189	557	56	469	168
8....	352	54	36	15	22	23	40	172	502	79	509	274
9....	424	47	34	23	82	27	54	126	509	54	482	309
10....	523	54	24	23	184	51	76	102	543	66	436	119
11....	557	45	24	15	102	51	105	264	543	45	488	184
12....	469	45	19	13	26	76	122	227	450	20	352	214
13....	375	51	24	15	13	73	85	156	450	93	530	227
14....	274	40	19	24	10	79	61	112	456	96	336	214
15....	314	30	24	19	15	102	54	59	462	73	2040	193
16....	304	24	30	19	11	152	133	144	406	294	834	163
17....	279	34	24	19	23	105	255	129	495	330	255	152
18....	304	40	41	16	17	79	214	140	488	180	424	167
19....	284	24	54	24	10	193	180	129	495	93	387	167
20....	264	41	197	16	16	148	236	148	602	26	424	168
21....	241	54	66	15	11	129	43	241	456	232	375	184
22....	250	32	54	19	32	79	36	264	502	342	289	96
23....	250	40	49	19	59	54	36	264	482	236	369	68
24....	176	122	61	22	56	82	43	210	495	112	469	90
25....	136	358	71	20	51	19	122	227	530	259	294	43
26....	126	406	122	19	102	14	99	232	543	358	325	79
27....	112	255	102	24	156	36	112	168	536	476	443	112
28....	112	210	63	14	144	63	144	129	530	488	1440	82
29....	126	236	30	20	....	73	96	159	450	284	2110	82
30....	71	246	24	16	....	56	79	476	201	109	197	102
31....	41	....	13	16	....	56	....	616	....	255	176	....
Total	7658	2891	2300	672	1292	2231	2724	6245	14027	5541	15944	5422
Mean.	247	96.4	74.2	21.7	46.2	72.0	90 8	201	468	179	514	181
Max..	557	406	284	66	184	193	255	616	602	488	2110	347
Min...	41	24	13	9	10	14	10	59	201	20	133	43
Acre-ft.	15200	5740	4560	1330	2570	4430	5400	12400	27800	11000	31600	10800

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Arkansas River at Lamar for Year Ending Sept. 30, 1929.
Discharge Area, ... Square Miles. Altitude, 3,570 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	3	26	330	230	190	386	3	21	12	34	16	2
2....	4	78	276	265	190	168	3	13	9	513	38	6
3....	3	73	379	235	190	211	3	12	6	282	2630	2
4....	5	18	300	216	190	78	3	11	3	12	3240	2
5....	4	8	216	73	190	78	3	9	8	15	1770	2
6....	4	3	255	104	150	12	4	10	7	26	982	2
7....	4	3	129	126	150	8	12	8	90	32	4440	2
8....	7	4	294	235	150	11	8	7	24	38	24800	337
9....	4	4	245	294	150	2	3	8	19	43	6800	82
10....	5	3	250	265	150	1	6	7	24	45	5200	5
11....	6	3	288	300	150	3	5	5	16	34	3710	2
12....	6	2	300	189	150	3	3	6	25	32	3100	2
13....	7	15	300	211	150	2	4	5	24	29	1860	2
14....	34	29	306	225	150	2	4	7	24	28	880	2
15....	9	3	288	230	150	2	4	7	13	26	693	2
16....	6	3	330	185	150	2	3	6	13	26	768	2
17....	5	4	265	250	150	2	4	5	19	3	449	2
18....	6	3	113	306	150	3	4	4	15	4	288	4
19....	4	43	129	202	150	7	3	4	16	25	897	4
20....	3	122	107	225	150	9	4	4	18	11	598	6
21....	5	276	433	126	170	3	6	21	22	9	306	10
22....	4	132	255	168	170	3	10	5	21	10	149	7
23....	3	15	300	146	170	4	7	3	22	6	30	10
24....	3	9	245	150	170	2	5	18	24	4	24	7
25....	4	2	250	150	170	3	1	7	523	3	7	5
26....	5	3	211	150	190	6	7	3	62	14	3	6
27....	6	47	265	160	190	3	7	3	58	2	3	9
28....	10	15	312	160	190	5	10	29	38	3	24	6
29....	3	34	276	160	....	9	11	16	43	3	7	5
30....	4	312	265	160	....	4	12	14	157	67	5	8
31....	13	....	235	160	....	5	....	14	....	6	3	....
Total	189	1292	8147	6056	4620	1037	162	292	1355	1385	63720	543
Mean.	6.1	43.1	263	195	165	33.4	5.4	9.4	45.2	44.7	2060	18.1
Max..	34	312	433	306	....	386	12	29	523	513	24800	337
Min...	3	2	107	73	....	1	1	3	3	2	3	2
Acre-ft.	375	2560	16200	12000	9160	2050	321	578	2690	2750	127000	1080

Discharge of Arkansas River at Lamar for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, 3,570 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	5	24	467	143	282	193	5	5	166	4	11	388
2....	5	22	404	182	219	186	5	5	404	4	9	328
3....	8	6	404	93	219	204	5	5	189	4	123	186
4....	6	6	352	189	231	175	5	5	123	4	61	60
5....	6	10	555	193	223	169	5	5	86	4	12	61
6....	4	6	569	189	278	159	5	5	95	4	8	608
7....	6	5	415	137	342	175	5	5	137	4	8	455
8....	5	123	328	78	432	137	5	5	89	4	7	421
9....	5	204	252	80	264	102	5	5	82	3	6	694
10....	4	179	219	78	244	85	5	10	132	3	6	633
11....	7	143	91	134	269	39	5	18	152	3	8	599
12....	8	132	76	126	102	29	5	10	60	3	6	450
13....	36	120	58	120	123	18	5	8	37	67	143	474
14....	6	260	52	134	123	12	5	24	29	69	328	286
15....	8	129	52	129	115	8	5	12	18	31	1160	115
16....	7	120	53	159	118	8	5	25	13	12	1410	65
17....	6	149	47	140	115	8	9	134	10	3	383	6
18....	9	149	58	264	105	8	6	126	8	3	179	7
19....	6	146	55	295	120	7	5	149	7	3	208	6
20....	4	137	42	291	140	8	5	123	5	3	134	8
21....	6	169	98	286	129	6	5	46	5	16	115	6
22....	5	35	140	286	140	6	5	33	6	44	123	18
23....	5	87	156	286	143	4	5	17	7	18	123	15
24....	5	264	159	333	140	6	5	16	7	7	118	7
25....	5	347	200	333	149	6	5	12	5	10	134	5
26....	5	592	208	333	149	6	5	10	5	8	102	5
27....	5	770	215	352	152	5	5	8	5	6	102	5
28....	7	592	240	342	219	5	5	7	5	6	86	5
29....	6	555	240	347	....	6	5	7	5	6	1740	5
30....	6	480	248	342	....	5	5	7	5	7	1440	5
31....	65	....	240	295	....	5	....	8	....	60	540	....
Total	271	5961	6693	6689	5285	1790	155	855	1897	423	8833	5926
Mean.	8.74	199	216	216	189	57.7	5.17	27.6	63.2	13.6	285	198
Max..	65	770	569	352	432	204	9	149	404	69	1740	694
Min...	4	5	42	78	105	4	5	5	5	3	6	5
Acre-ft.	537	11800	13300	13300	10500	3550	308	1700	3760	836	17500	11800

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Arkansas River at Holly for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, 3,387 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	10	46	200	312	220	234	31	61	49	65	10	34
2....	6	37	319	312	220	290	27	70	42	11	10	26
3....	8	130	335	374	220	403	30	38	34	276	289	30
4....	10	124	312	384	220	358	28	34	34	121	2800	34
5....	10	98	229	234	220	384	32	25	53	45	2370	20
6....	10	101	210	101	180	312	21	26	61	20	733	22
7....	10	78	343	296	180	246	23	20	184	11	424	162
8....	11	104	265	234	180	170	24	25	256	12	22000	249
9....	11	76	186	296	180	166	25	25	218	11	11700	580
10....	10	70	265	296	180	162	20	30	168	11	6420	458
11....	12	61	374	335	180	117	22	23	121	11	3780	340
12....	12	68	327	296	180	106	18	23	88	11	2700	261
13....	13	72	319	335	180	130	22	22	131	11	1860	216
14....	20	66	335	277	180	101	22	19	131	11	1400	177
15....	61	78	304	253	180	109	22	18	45	11	1100	177
16....	42	82	312	224	180	76	22	15	53	11	930	152
17....	46	114	284	271	180	98	25	18	53	11	748	127
18....	39	84	265	319	180	101	26	16	38	74	678	147
19....	46	109	296	246	180	98	49	16	30	11	542	157
20....	54	124	253	210	179	86	49	19	19	12	618	127
21....	54	136	312	200	200	78	30	26	12	12	557	127
22....	54	174	443	200	200	48	25	30	12	11	359	80
23....	47	146	327	200	200	50	25	22	11	11	352	80
24....	47	109	351	190	200	37	26	22	11	11	321	80
25....	47	104	290	180	200	41	20	20	88	11	302	80
26....	51	104	246	190	220	38	34	16	296	11	261	60
27....	46	127	327	190	220	26	34	16	88	11	232	48
28....	31	127	343	190	220	33	26	42	34	11	221	60
29....	30	166	343	190	....	38	23	121	13	11	68	56
30....	30	186	343	190	....	56	25	70	10	11	30	56
31....	37	....	296	190	....	42	....	61	....	11	32	....
Total	915	3101	9354	7715	5459	4234	806	989	2385	879	63847	4223
Mean.	29.5	103	302	249	195	137	26.9	31.9	79.5	28.4	2060	141
Max..	61	186	443	384	....	403	49	121	296	276	22000	580
Min...	6	37	186	101	....	26	18	15	10	11	10	20
Acre-ft.	1810	6130	18600	15300	10800	8420	1600	1960	4730	1750	127000	8390

Discharge of Arkansas River at Holly for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, 3,387 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	61	137	537	350	160	288	47	23	165	12	44	470
2....	35	137	489	310	232	246	47	22	246	12	80	260
3....	44	137	342	174	274	209	47	23	239	10	67	180
4....	51	137	382	165	253	239	32	27	137	11	64	142
5....	56	137	382	165	350	232	30	17	121	10	35	121
6....	51	146	617	203	391	232	22	17	106	10	32	499
7....	51	146	586	137	499	197	19	19	114	9	19	528
8....	51	146	566	110	444	174	18	17	106	9	28	444
9....	54	197	489	59	461	169	18	18	86	8	20	400
10....	54	260	334	60	417	151	19	27	76	9	16	253
11....	56	318	334	59	374	128	23	232	76	8	16	533
12....	56	318	281	140	452	117	23	151	117	8	12	350
13....	86	318	281	130	408	114	23	114	86	99	92	203
14....	114	334	203	130	374	99	22	92	67	142	73	165
15....	110	288	160	130	281	96	23	83	56	67	295	128
16....	86	239	160	130	281	80	28	80	39	30	2070	114
17....	70	267	142	160	226	73	42	203	37	15	1780	106
18....	67	318	67	150	232	80	35	776	32	9	989	96
19....	73	302	366	220	232	73	28	400	27	6	576	92
20....	61	318	165	300	232	67	28	722	19	5	400	76
21....	61	295	165	320	239	67	30	382	22	6	274	80
22....	61	174	156	290	226	67	28	260	18	23	232	76
23....	61	169	160	290	226	56	28	203	19	44	209	73
24....	61	174	186	290	232	49	27	186	15	47	232	67
25....	61	391	209	310	253	54	32	169	13	39	246	67
26....	61	637	274	340	203	49	30	151	12	34	215	64
27....	61	832	260	340	220	51	30	151	11	28	186	59
28....	61	821	334	250	239	51	32	137	12	28	124	67
29....	86	679	358	350	....	49	28	114	12	18	282	76
30....	110	537	326	358	....	51	23	103	12	18	1960	73
31....	114	....	342	310	....	54	....	99	....	28	978	....
Total	2085	9309	9653	6830	8411	3662	862	5018	2098	802	11646	5862
Mean.	67.3	310	311	220	300	118	28.7	162	69.9	25.9	376	195
Max..	114	832	617	358	499	288	47	776	246	142	2070	533
Min...	35	137	67	59	160	49	18	17	11	5	12	59
Acre-ft.	4140	18400	19100	13500	16700	7260	1710	9960	4160	1590	23100	11600

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of South Arkansas River Near Salida for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, 7,038 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	....	....	....	....	....	....	....	....	....	17	60	184
2....	....	....	....	....	....	....	....	....	....	16	54	156
3....	....	....	....	....	....	....	....	....	....	15	112	160
4....	....	....	....	....	....	....	....	....	....	15	134	182
5....	....	....	....	....	....	....	....	....	....	16	120	158
6....	....	....	....	....	....	....	....	....	....	16	151	189
7....	....	....	....	....	....	....	....	....	....	14	307	192
8....	....	....	....	....	....	....	....	....	....	14	307	194
9....	....	....	....	....	....	....	....	....	225	13	262	172
10....	....	....	....	....	....	....	....	....	....	11	294	170
11....	....	....	....	....	....	....	....	....	....	11	274	174
12....	....	....	....	....	....	....	....	....	153	10	224	162
13....	....	....	....	....	....	....	....	....	128	8	202	153
14....	....	....	....	....	....	....	....	....	130	7	200	149
15....	....	....	....	....	....	....	....	....	110	8	200	145
16....	....	....	....	....	....	....	....	....	96	8	174	134
17....	....	....	....	....	....	....	....	....	77	7	156	130
18....	....	....	....	....	....	....	....	....	82	6	138	126
19....	....	....	....	....	....	....	....	....	61	8	115	116
20....	....	....	....	....	....	....	....	....	53	11	99	113
21....	....	....	....	....	....	....	....	....	48	12	85	124
22....	....	....	....	....	....	....	....	....	51	9	68	113
23....	....	....	....	....	....	....	....	....	38	24	60	118
24....	....	....	....	....	....	....	....	....	35	49	66	85
25....	....	....	....	....	....	....	....	....	32	40	68	71
26....	....	....	....	....	....	....	....	....	27	19	64	68
27....	....	....	....	....	....	....	....	....	28	13	51	60
28....	....	....	....	....	....	....	....	....	23	47	53	57
29....	....	....	....	....	....	....	....	....	21	38	63	59
30....	....	....	....	....	....	....	....	....	18	53	118	50
31....	....	....	....	....	....	....	....	....	....	64	151	....
Total	....	....	....	....	....	....	....	....	1436	599	4430	3964
Mean.	....	....	....	....	....	....	....	....	....	19.3	143	132
Max..	....	....	....	....	....	....	....	....	....	64	307	194
Min...	....	....	....	....	....	....	....	....	....	6	51	50
Acre-ft.	....	....	....	....	....	....	....	....	....	1190	8790	7860

Discharge of South Arkansas River Near Salida for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, 7,038 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	46	62	....	....	45	46	16	1	88	1	110	1
2....	43	67	....	....	47	99	15	1	52	1	79	1
3....	42	77	....	....	49	73	12	2	36	1	59	1
4....	44	72	....	....	51	46	7	1	24	1	45	1
5....	41	79	....	....	53	42	6	1	18	1	36	1
6....	37	80	....	....	55	45	6	1	24	1	36	1
7....	37	85	....	....	55	44	8	1	26	1	28	1
8....	38	93	....	....	55	49	8	1	23	1	20	1
9....	46	96	....	....	53	47	8	1	26	1	14	1
10....	42	93	....	....	51	44	9	1	30	1	8	1
11....	39	92	....	....	50	41	5	1	24	1	8	1
12....	34	89	....	....	48	43	3	1	20	1	14	1
13....	29	85	....	....	51	38	1	1	27	1	23	1
14....	28	96	....	....	50	36	1	1	10	8	41	1
15....	27	96	....	....	48	36	1	1	5	1	22	1
16....	26	91	....	....	48	37	1	1	3	1	16	1
17....	26	91	....	....	46	34	1	1	1	1	18	1
18....	23	88	....	....	47	29	1	1	1	1	13	1
19....	19	81	....	....	47	29	1	1	1	1	10	1
20....	19	85	....	....	47	28	1	1	1	2	6	1
21....	18	85	....	....	45	27	1	6	1	61	2	1
22....	19	85	....	....	42	25	1	11	1	141	1	1
23....	21	84	....	....	41	25	1	1	1	86	1	1
24....	24	81	....	....	38	23	2	1	1	41	1	1
25....	26	73	....	....	37	22	1	1	1	25	1	1
26....	27	75	....	....	41	21	1	2	1	16	1	1
27....	26	75	....	....	41	22	1	5	1	15	1	1
28....	22	80	....	....	43	22	1	13	1	38	1	1
29....	26	80	....	....	....	20	1	29	1	38	1	1
30....	38	80	....	....	....	20	1	71	1	52	1	1
31....	48	....	....	....	....	18	....	130	....	99	1	....
Total	981	2496	....	....	1324	1131	122	291	450	640	618	30
Mean.	31.6	83.2	....	....	47.3	36.5	4.07	9.39	15.0	20.6	19.9	1.00
Max..	48	96	....	....	....	99	16	130	88	141	110	1
Min...	18	62	....	....	....	18	1	1	1	1	1	1
Acre-ft.	1940	4950	....	....	2630	2240	242	577	893	1270	1220	60

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Grape Creek Near Westcliffe for Year Ending Sept. 30, 1930.
Drainage Area, 346 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	....	....	....	....	....	....	50	19	42	1	131	29
2....	....	....	....	....	....	....	46	14	20	1	93	18
3....	....	....	....	....	....	....	41	18	10	1	75	18
4....	....	....	....	....	....	....	39	25	6	1	60	21
5....	....	....	....	....	....	....	37	19	4	1	63	22
6....	....	....	....	....	....	....	33	16	4	1	83	23
7....	....	....	....	....	....	....	34	9	7	1	79	22
8....	....	....	....	....	....	....	37	7	12	1	80	19
9....	....	....	....	....	....	....	38	9	9	1	74	25
10....	....	....	....	....	....	....	41	10	39	1	78	31
11....	....	....	....	....	....	....	45	10	37	1	84	18
12....	....	....	....	....	....	....	38	9	19	2	88	15
13....	....	....	....	....	....	....	35	8	15	5	99	13
14....	....	....	....	....	....	40	37	8	15	11	138	10
15....	....	....	....	....	....	....	35	7	13	20	136	10
16....	....	....	....	....	....	....	38	4	11	15	122	8
17....	....	....	....	....	....	....	43	10	24	6	116	11
18....	....	....	....	....	....	....	43	14	21	4	96	8
19....	....	....	....	....	....	....	33	11	16	13	78	8
20....	....	....	....	....	....	....	26	7	12	22	66	10
21....	....	....	....	....	....	....	23	5	9	102	54	10
22....	....	....	....	....	....	....	22	4	6	579	47	10
23....	....	....	....	....	....	....	24	5	4	370	44	12
24....	....	....	....	....	....	....	25	7	2	241	39	13
25....	....	....	....	....	....	35	33	4	2	155	30	10
26....	....	....	....	....	....	43	30	4	3	119	25	9
27....	....	....	....	....	....	40	25	3	2	93	30	10
28....	....	....	....	....	....	43	24	5	2	122	54	10
29....	....	....	....	....	....	52	23	4	2	176	31	11
30....	....	....	....	....	....	67	22	19	1	144	32	11
31....	....	....	....	....	....	69	....	34	....	192	27	....
Total	....	....	....	....	....	....	1020	328	369	2402	2252	445
Mean.	....	....	....	....	....	....	34.0	10.6	12.3	77.5	72.6	14.8
Max..	....	....	....	....	....	....	50	34	42	579	138	31
Min...	....	....	....	....	....	....	22	3	1	1	25	8
Acre-ft.	....	....	....	....	....	....	2020	652	732	4770	4460	881

Discharge of St. Charles River at Burnt Mill for Year Ending Sept. 30, 1929.
Drainage Area, 166 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	4	11	....	....	....	....	17	13	21	16	80	29
2....	5	8	....	....	....	....	23	6	18	16	110	29
3....	4	6	....	....	....	....	32	10	22	10	160	26
4....	4	10	....	....	....	....	29	15	20	7	134	29
5....	4	9	....	....	....	....	68	16	23	8	128	40
6....	4	9	....	....	....	....	39	25	16	13	135	36
7....	4	8	....	....	....	....	25	37	20	10	270	39
8....	4	....	....	....	....	....	21	32	21	9	472	28
9....	4	....	....	....	....	....	18	32	20	8	276	25
10....	5	....	....	....	....	....	10	31	14	8	214	23
11....	5	....	....	....	....	....	9	29	7	8	197	24
12....	4	....	....	....	....	....	13	14	6	8	158	24
13....	6	....	....	....	....	....	12	12	9	7	129	20
14....	5	....	....	....	....	....	9	43	8	5	108	20
15....	7	....	....	....	....	....	11	34	6	5	94	15
16....	7	....	....	....	....	....	13	36	4	6	86	14
17....	6	....	....	....	....	....	15	28	4	10	68	15
18....	7	....	....	....	....	14	20	24	5	8	57	12
19....	7	....	....	....	....	21	19	30	7	4	54	12
20....	7	....	....	....	....	16	16	30	6	5	52	11
21....	6	....	....	....	....	23	12	31	8	4	47	10
22....	6	....	....	....	....	21	9	66	6	13	43	9
23....	7	....	....	....	....	19	8	57	6	12	34	9
24....	6	....	....	....	....	18	6	50	8	19	37	10
25....	7	....	....	....	....	19	6	50	6	22	52	9
26....	7	....	....	....	....	18	4	50	5	9	40	9
27....	8	....	....	....	....	17	4	47	2	12	30	12
28....	7	....	....	....	....	16	4	40	21	39	24	12
29....	7	....	....	....	....	19	6	37	28	11	33	11
30....	8	....	....	....	....	29	8	26	24	76	46	12
31....	8	....	....	....	....	31	....	24	....	110	33	....
Total	180	....	....	....	....	....	486	975	371	498	3401	574
Mean.	5.81	....	....	....	....	....	16.2	31.5	12.4	16.1	110	19.1
Max..	8	....	....	....	....	....	68	66	28	....	....	40
Min...	4	....	....	....	....	....	4	6	2	4	24	9
Acre-ft.	357	....	....	....	....	....	964	1940	738	990	6760	1140

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of St. Charles River at Burnt Mill for Year Ending Sept. 30, 1930.
Drainage Area, 166 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	10	12	....	....	....	12	9	13	14	5	16	13
2....	10	15	....	....	....	8	11	13	12	4	14	13
3....	10	18	....	....	....	13	11	18	9	4	12	12
4....	10	15	....	....	....	13	12	24	8	4	12	12
5....	9	20	....	....	....	8	13	19	6	6	18	10
6....	9	20	....	....	....	12	22	18	8	5	15	8
7....	8	25	....	....	....	10	31	18	8	5	18	7
8....	8	28	....	....	....	8	36	18	7	5	14	46
9....	8	30	....	....	....	8	43	18	8	5	12	29
10....	8	24	....	....	....	9	46	18	6	4	16	12
11....	7	14	....	....	....	10	44	18	11	4	19	11
12....	7	13	....	....	....	12	43	18	6	4	14	9
13....	7	16	....	....	....	14	43	18	6	4	8	9
14....	8	25	....	....	....	14	46	17	5	10	29	7
15....	7	21	....	....	....	14	44	17	5	6	82	6
16....	7	15	....	....	....	12	42	18	6	8	29	6
17....	6	15	....	....	....	12	26	19	7	11	24	5
18....	6	15	....	....	....	12	15	23	5	12	19	6
19....	6	14	....	....	15	10	14	19	8	12	14	6
20....	5	16	....	....	17	14	14	20	8	14	13	6
21....	6	16	....	....	18	14	27	16	7	52	18	6
22....	8	17	....	....	16	14	32	13	8	159	17	6
23....	8	20	....	....	15	14	30	14	7	36	23	6
24....	8	20	....	....	15	13	24	13	8	21	12	6
25....	11	18	....	....	14	9	42	12	9	16	12	4
26....	12	18	....	....	12	8	42	10	9	16	25	5
27....	12	18	....	....	13	8	36	8	9	13	35	5
28....	12	18	....	....	12	6	32	10	8	12	50	5
29....	10	18	....	....	....	10	29	10	8	12	16	5
30....	7	18	....	....	....	8	24	12	6	13	14	5
31....	12	....	....	....	....	15	....	16	....	22	14	....
Total	262	552	....	....	....	344	883	498	232	504	634	286
Mean.	8.45	18.4	....	....	....	11.1	29.4	16.1	7.73	16.3	20.5	9.53
Max..	12	30	....	....	....	15	46	24	14	15.9	82.0	46
Min...	5	12	....	....	....	6	9	8	5	4	8	4
Acre-ft.	520	1090	....	....	....	682	1750	990	460	1000	1260	567

Discharge of Huerfano River at Mansanarez for Year Ending Sept. 30, 1929.
Drainage Area, 76 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	16	21	....	....	....	....	14	31	159	74	50	65
2....	16	23	....	....	....	....	16	27	156	67	50	70
3....	16	25	....	....	....	....	22	30	149	64	83	80
4....	21	23	....	....	....	....	14	31	149	66	60	90
5....	26	21	....	....	....	....	14	37	149	64	58	100
6....	28	21	....	....	....	....	14	41	146	79	64	80
7....	26	21	....	....	....	....	14	46	142	66	138	76
8....	28	21	....	....	....	....	14	66	136	57	178	70
9....	24	21	....	....	....	....	14	79	125	54	138	64
10....	23	21	....	....	....	....	14	90	117	50	124	62
11....	21	21	....	....	....	....	16	90	109	62	163	60
12....	21	25	....	....	....	....	19	77	109	52	130	58
13....	21	17	....	....	....	....	22	66	97	50	127	58
14....	21	13	....	....	....	....	24	63	100	46	127	62
15....	21	14	....	....	....	....	25	72	104	70	101	58
16....	21	17	....	....	....	....	29	86	95	66	64	48
17....	21	23	....	....	....	....	29	83	79	59	64	36
18....	20	23	....	....	....	....	27	79	79	66	78	37
19....	22	21	....	....	....	....	27	75	79	56	62	37
20....	25	21	....	....	....	....	28	90	81	53	74	38
21....	28	25	....	....	....	....	28	90	83	50	90	44
22....	27	25	....	....	....	....	26	102	84	53	85	99
23....	19	25	....	....	....	....	28	83	81	55	64	211
24....	19	25	....	....	....	....	26	83	77	43	62	117
25....	19	25	....	....	....	....	25	111	79	33	62	94
26....	19	21	....	....	....	....	24	139	77	25	60	72
27....	19	21	....	....	....	....	26	131	77	25	60	64
28....	19	16	....	....	....	....	27	111	75	20	60	62
29....	21	16	....	....	....	....	30	100	77	16	58	56
30....	21	21	....	....	....	....	30	117	69	17	58	50
31....	21	....	....	....	....	....	....	172	....	55	60	....
Total	670	633	....	....	....	....	666	2498	3139	1613	2652	2118
Mean.	21.6	21.1	....	....	....	....	22.2	80.6	105	52.0	85.5	211
Max..	28	....	....	....	....	....	....	172	159	79	178	36
Min...	16	....	....	....	....	....	....	27	69	16	50	....
Acre-ft.	1330	1260	....	....	....	....	1320	4960	6250	3200	5260	4200

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Huerfano River at Mansanarez for Year Ending Sept. 30, 1930.
Drainage Area, 76 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	42	26	....	....	....	....	14	32	56	30	74	22
2....	39	26	....	....	....	....	14	30	54	30	64	24
3....	38	25	....	....	....	....	14	38	52	28	57	26
4....	37	25	....	....	....	....	16	42	55	28	55	26
5....	36	25	....	....	....	....	20	40	56	26	57	26
6....	34	26	....	....	....	....	19	34	60	25	72	27
7....	30	25	....	....	....	....	22	31	66	22	61	24
8....	31	26	....	....	....	....	24	31	73	20	62	23
9....	35	....	....	....	....	....	26	28	72	22	67	23
10....	31	....	....	....	....	....	27	29	70	41	72	19
11....	30	....	....	....	....	....	26	27	66	44	68	22
12....	29	....	....	....	....	....	27	25	72	39	75	19
13....	28	....	....	....	....	....	28	26	73	34	81	19
14....	27	....	....	....	....	....	26	26	72	39	89	18
15....	26	....	....	....	....	....	26	23	69	31	81	17
16....	26	....	....	....	....	....	27	25	69	28	75	17
17....	26	....	....	....	....	....	25	32	77	28	69	17
18....	26	....	....	....	....	....	24	32	70	28	61	17
19....	26	....	....	....	....	....	26	31	64	40	52	17
20....	24	....	....	....	....	....	26	30	60	55	50	16
21....	22	....	....	....	....	....	28	29	60	89	42	16
22....	25	....	....	....	....	....	28	38	56	192	40	18
23....	26	....	....	....	....	....	32	38	50	136	41	16
24....	25	....	....	....	....	....	32	38	46	84	42	15
25....	25	....	....	....	....	14	37	44	42	72	46	18
26....	25	....	....	....	....	....	37	49	41	66	38	17
27....	25	....	....	....	....	....	35	57	40	63	39	21
28....	23	....	....	....	....	....	32	52	37	64	35	22
29....	24	....	....	....	....	....	32	54	35	62	30	18
30....	29	....	....	....	....	....	31	51	31	73	29	19
31....	28	....	....	....	....	....	....	57	....	78	25	....
Total	898	....	....	....	....	....	781	1119	1744	1617	1749	599
Mean.	29.0	22	....	....	....	....	26.0	36.1	58.1	52.2	56.4	20.0
Max..	42	....	....	....	....	....	37	57	77	192	89	27
Min...	22	....	....	....	....	....	14	23	31	20	25	15
Acre-ft.	1780	1310	....	....	....	....	1550	2220	3460	3210	3470	1190

Discharge of Cucharas River at La Veta for Year Ending Sept. 30, 1929.
Drainage Area, 75 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	4	6	12	5	....	....	8	11	82	22	16	20
2....	4	4	12	5	....	....	9	11	74	19	15	21
3....	4	3	12	5	....	....	18	14	67	20	17	20
4....	4	3	12	5	....	....	7	13	55	18	17	20
5....	3	3	12	5	....	....	7	13	60	22	17	19
6....	3	3	12	5	....	....	7	13	60	15	17	17
7....	3	3	12	5	....	....	7	16	42	14	39	18
8....	3	3	12	5	....	....	7	21	52	14	37	19
9....	3	3	12	5	....	....	7	26	52	17	31	21
10....	3	3	12	5	....	....	7	31	42	17	30	20
11....	3	3	12	5	....	....	8	31	42	17	37	17
12....	3	3	12	....	....	....	11	37	39	16	35	17
13....	3	3	12	....	....	....	12	42	39	16	31	16
14....	3	3	12	....	....	....	14	40	35	16	30	14
15....	3	3	12	....	....	....	14	44	31	16	28	14
16....	3	8	12	....	....	....	14	44	31	16	27	15
17....	3	12	8	....	....	....	14	40	37	14	23	14
18....	3	12	8	....	....	....	14	45	29	15	22	14
19....	3	12	5	....	....	....	15	55	32	16	22	14
20....	3	12	5	....	....	....	16	63	32	16	20	14
21....	3	16	5	....	....	6	16	93	33	15	17	14
22....	3	16	5	....	....	....	13	84	33	15	19	13
23....	3	16	5	....	....	....	16	158	33	14	18	13
24....	3	16	5	....	....	....	11	150	33	14	17	12
25....	3	16	5	....	....	....	10	125	28	16	17	12
26....	3	12	12	....	....	....	10	128	25	14	15	12
27....	3	12	12	....	....	....	10	101	22	13	16	11
28....	3	8	8	....	....	....	11	94	22	25	16	10
29....	3	8	5	....	....	....	11	86	22	19	18	10
30....	3	12	5	....	....	....	11	82	21	20	18	10
31....	3	....	5	....	....	....	....	77	....	20	20	....
Total	97	237	290	....	....	....	335	1788	1205	521	702	461
Mean.	3.13	7.90	9.35	5.	5.	6.	11.2	57.7	40.2	16.8	22.6	15.4
Max..	4	16	12	....	....	....	18	158	82	25	39	21
Min...	3	3	5	....	....	....	7	11	21	13	15	10
Acre-ft.	192	470	575	307	278	369	666	3550	2390	1030	1390	916

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Cucharas River at La Veta for Year Ending Sept. 30, 1930.
Drainage Area, 75 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	7	12	....	....	....	....	4	32	39	11	105	28
2....	7	14	....	....	....	....	5	32	32	12	92	29
3....	7	10	....	....	....	....	8	39	32	14	82	29
4....	7	13	....	....	....	....	10	32	32	13	78	31
5....	6	11	....	....	....	....	14	30	35	14	81	30
6....	6	11	....	....	....	....	18	28	34	14	100	28
7....	5	10	....	....	....	....	17	25	39	15	100	26
8....	6	10	....	....	....	....	21	22	45	13	109	26
9....	6	16	....	....	....	....	23	20	43	13	98	19
10....	6	9	....	....	....	....	24	24	41	13	100	18
11....	6	....	....	....	....	....	24	26	36	14	113	16
12....	5	....	....	....	....	....	21	25	39	12	116	16
13....	5	....	....	....	....	....	21	23	38	18	116	14
14....	5	....	....	....	....	....	23	23	34	29	107	12
15....	5	....	....	....	....	....	23	24	34	18	97	10
16....	5	....	....	....	....	....	24	26	30	15	89	8
17....	6	....	....	....	....	....	17	32	29	14	79	8
18....	5	....	....	....	....	....	16	32	26	14	70	8
19....	5	....	....	....	....	....	16	30	26	15	64	7
20....	5	....	....	....	....	....	16	28	26	16	62	6
21....	5	....	....	....	....	....	20	27	23	29	65	6
22....	5	....	....	....	....	....	23	29	26	95	53	6
23....	5	....	....	....	....	....	26	31	23	65	47	7
24....	5	....	....	....	....	4	32	30	18	62	48	6
25....	6	....	....	....	....	5	40	31	15	61	50	8
26....	6	....	....	....	....	4	40	23	16	54	45	8
27....	6	....	....	....	....	7	39	19	14	53	47	10
28....	6	....	....	....	....	7	30	25	13	68	46	10
29....	8	....	....	....	....	6	35	30	15	95	46	10
30....	14	....	....	....	....	6	30	34	12	111	43	10
31....	12	....	....	....	....	4	....	38	....	116	35	....
Total	193	....	....	....	....	....	660	870	865	1106	2383	450
Mean.	6.23	....	....	....	....	....	22.0	28.1	28.8	35.7	76.9	15.0
Max..	14	....	....	....	....	....	40	39	45	116	116	31
Min...	5	....	....	....	....	....	4	19	12	11	35	6
Acre-ft.	383	....	....	....	....	....	1310	1730	1710	2200	4730	893

Discharge of Purgatoire River at Trinidad for Year Ending Sept. 30, 1929.
Drainage Area, 742 Square Miles. Altitude, 5,990 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	8	20	16	16	19	17	26	16	189	46	127	142
2....	6	19	28	16	25	19	23	20	189	38	92	112
3....	6	21	35	19	21	31	23	17	178	32	92	106
4....	9	21	26	22	15	16	27	15	183	24	135	123
5....	7	23	17	21	13	19	27	14	201	31	106	638
6....	6	20	18	25	10	62	27	15	189	31	837	83
7....	6	17	15	15	7	50	23	20	201	19	933	98
8....	4	16	25	18	6	44	20	21	178	22	374	98
9....	8	16	27	19	6	46	19	25	178	43	305	83
10....	9	17	22	26	10	39	14	32	166	70	340	79
11....	9	16	19	20	13	36	16	37	178	49	409	83
12....	9	16	23	26	13	32	19	66	161	43	360	76
13....	16	13	23	31	17	27	18	64	118	32	311	70
14....	79	13	14	26	22	23	19	64	142	23	278	65
15....	17	14	24	24	24	21	19	53	123	31	248	72
16....	14	22	9	18	31	18	15	55	123	44	238	65
17....	10	23	18	22	28	18	15	74	123	36	229	70
18....	6	12	15	19	26	21	15	72	103	46	220	63
19....	6	17	12	28	22	20	15	82	103	79	294	61
20....	8	21	27	20	23	22	15	94	89	86	175	61
21....	10	31	28	22	18	25	15	252	100	52	192	70
22....	14	34	34	17	20	30	15	118	95	59	146	52
23....	10	35	25	12	21	37	15	132	127	59	135	65
24....	10	36	24	5	19	27	14	178	243	472	163	76
25....	11	34	24	9	31	23	15	178	171	192	643	70
26....	11	27	26	19	16	17	16	178	72	98	201	72
27....	24	20	31	18	6	27	15	156	59	92	243	74
28....	20	42	40	21	6	26	15	147	56	89	284	70
29....	21	17	44	21	....	27	11	142	63	83	112	79
30....	20	13	34	19	....	26	10	1680	51	74	100	65
31....	20	....	26	11	....	24	....	411	....	123	150	....
Total	414	646	749	605	488	870	536	4428	4152	2218	8472	2941
Mean.	13.4	21.5	24.2	19.5	17.4	28.1	17.9	143	138	71.5	273	98.0
Max..	79	42	44	31	31	62	27	1680	243	472	933	638
Min...	4	12	9	5	6	16	10	14	51	19	92	52
Acre-ft.	824	1280	1490	1200	966	1730	1070	8790	8210	4400	16800	5830

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Purgatoire River at Trinidad for Year Ending Sept. 30, 1930.
Drainage Area, 742 Square Miles. Altitude, 5,990 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	59	56	46	26	20	10	36	86	210	46	982	139
2 ..	51	42	23	23	22	13	38	90	163	44	715	178
3....	46	44	15	10	20	10	33	158	173	24	540	112
4....	49	40	42	12	19	18	29	144	184	18	319	184
5....	56	49	54	17	31	29	35	116	184	15	280	426
6....	51	56	33	18	27	24	40	104	204	14	348	184
7....	54	56	33	11	35	27	49	79	215	22	204	79
8....	56	59	15	10	33	19	54	67	210	15	168	104
9....	59	49	44	12	18	22	56	62	238	22	226	139
10....	46	44	54	22	12	26	62	64	273	26	319	116
11....	42	59	38	15	15	20	67	59	232	46	424	90
12....	125	51	35	14	19	20	67	51	210	44	408	72
13....	35	29	36	20	20	20	62	46	238	130	760	67
14....	29	11	36	22	22	22	67	31	199	148	489	64
15....	33	38	35	18	23	20	67	35	184	93	424	59
16....	33	62	31	23	24	20	59	36	204	76	440	56
17....	36	42	29	20	24	23	59	232	210	33	293	59
18....	40	38	26	26	27	26	46	90	204	31	273	49
19....	44	29	8	15	27	18	59	67	194	26	267	51
20....	38	19	7	18	24	33	54	46	168	35	260	44
21....	36	29	7	23	22	27	29	46	163	153	254	44
22....	38	27	10	18	22	29	33	56	139	647	248	36
23....	42	33	23	14	19	29	59	67	158	602	267	38
24....	36	36	23	12	20	29	96	79	93	432	273	38
25....	42	72	27	13	20	26	116	72	76	472	221	38
26....	46	90	27	15	15	29	130	107	59	356	238	36
27....	40	72	27	17	19	33	86	100	46	286	226	31
28....	40	54	29	18	17	24	86	130	38	585	319	27
29....	72	54	36	18	....	31	82	163	51	744	260	23
30....	64	40	29	17	....	31	76	168	46	1624	173	27
31....	54	....	27	18	....	24	....	210	....	1390	144	....
Total	1492	1380	905	535	616	732	1832	2861	4966	8199	10762	2610
Mean.	48.1	46.0	29.2	17.2	22.0	23.6	61.1	92.3	166	264	347	87.0
Max..	125	90	54	26	35	33	130	232	273	1624	982	426
Min...	29	11	....	10	12	10	29	31	38	14	144	23
Acre-ft.	2960	2740	1800	1060	1220	1450	3640	5680	9880	16200	21300	5180

Discharge of Purgatoire River at Nine Mile Dam for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	6	33	....	59	41	53	71	34	407	57	26	57
2....	6	44	....	59	71	59	84	47	154	80	16	48
3....	6	45	....	100	82	57	62	32	143	71	1340	41
4....	6	41	....	66	95	55	71	31	124	53	417	34
5....	6	40	....	30	61	52	100	37	106	22	360	48
6....	6	40	....	31	97	52	100	40	221	17	150	44
7....	6	38	....	32	45	44	109	34	114	9	27000	332
8....	6	37	....	40	33	73	75	33	82	8	3220	248
9....	6	37	....	40	68	71	62	34	59	28	586	150
10....	6	37	....	40	71	71	53	24	40	12	429	117
11....	6	37	....	31	66	68	47	21	26	7	172	78
12....	11	37	....	35	71	68	45	23	15	6	194	48
13....	11	35	....	30	75	68	42	23	11	4	134	47
14....	18	35	10	37	80	68	38	24	6	1	89	41
15....	62	37	....	35	82	66	34	64	6	1	71	41
16....	124	37	....	32	73	64	32	89	15	1	66	34
17....	80	37	....	34	117	62	31	59	8	0	57	45
18....	53	38	....	41	59	66	28	45	3	0	41	35
19....	44	55	....	44	80	45	30	34	1	0	37	38
20....	41	68	....	53	82	47	30	34	0	0	194	37
21....	31	89	....	37	73	47	27	48	0	0	52	34
22....	31	73	....	45	64	52	22	176	0	0	34	29
23....	26	68	....	117	73	68	22	89	0	0	41	29
24....	22	64	....	59	68	82	18	50	0	18	34	30
25....	22	66	....	77	66	92	26	50	351	15	57	66
26....	22	87	....	73	78	111	23	50	181	23	34	40
27....	22	82	....	80	41	92	24	48	100	137	29	34
28....	22	82	....	130	80	89	24	45	55	80	117	34
29....	22	100	....	97	....	68	22	33	237	75	103	34
30....	25	100	....	62	....	53	20	28	59	33	66	34
31....	28	....	....	52	....	45	....	32	....	22	117	....
Total	783	1619	....	1698	1992	2008	1372	1411	2524	780	35283	1927
Mean.	25.3	54.0	35	54.8	71.1	64.8	45.7	45.5	84.1	25.2	1140	64.2
Max..	124	100	....	130	117	111	109	176	407	137	27000	332
Min...	6	33	....	30	33	44	18	21	0	0	16	29
Acre-ft.	1560	3210	2150	3370	3950	3980	2720	2800	5000	1550	70100	3820

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Purgatoire River at Nine Mile Dam for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	48	43	41	28	40	18	28	18	407	150	600	85
2....	54	45	76	....	48	15	30	16	300	55	340	78
3....	119	41	85	....	43	14	32	15	96	22	208	54
4....	62	36	61	....	50	14	30	16	128	12	147	50
5....	55	38	41	....	50	12	30	20	230	8	106	21
6....	50	32	37	....	90	17	35	30	76	5	85	94
7....	45	32	43	....	100	11	35	24	47	3	76	106
8....	45	44	33	....	94	16	30	20	38	2	78	112
9....	38	37	32	....	68	13	27	18	38	2	112	715
10....	61	42	34	....	61	15	26	18	62	2	179	114
11....	39	44	30	....	67	16	24	18	53	1	217	36
12....	35	34	28	....	60	20	23	14	32	0	208	36
13....	29	30	26	....	53	20	20	10	31	116	560	40
14....	30	27	24	....	64	22	19	11	25	141	1240	36
15....	51	48	26	....	54	21	20	26	24	166	1020	34
16....	40	30	26	....	54	26	18	92	24	76	200	27
17....	43	34	16	....	44	20	20	54	20	49	131	25
18....	30	37	30	....	44	24	20	96	46	27	106	24
19....	27	32	20	....	42	22	16	60	74	18	109	26
20....	26	34	12	....	31	44	13	43	60	13	85	22
21....	41	56	32	....	28	35	13	38	46	26	102	19
22....	38	44	32	....	28	30	12	28	24	90	78	17
23....	26	29	32	....	28	45	11	27	22	470	74	16
24....	23	18	40	....	24	28	11	24	16	230	195	14
25....	23	18	32	....	22	28	12	22	14	166	96	16
26....	26	40	32	....	20	43	12	19	13	89	81	14
27....	24	44	32	....	16	44	12	17	10	138	102	16
28....	22	34	30	....	18	32	20	16	16	96	246	18
29....	26	35	32	....	....	34	20	29	20	300	726	18
30....	34	38	28	....	....	35	19	70	11	380	183	14
31....	32	....	28	....	....	30	....	66	....	794	102	....
Total	1242	1096	1071	....	1341	764	639	975	2003	3647	7792	1897
Mean.	40.0	36.5	34.5	25	47.9	24.6	21.3	31.5	66.8	118	251	63.2
Max..	119	56	85	....	100	45	35	96	407	794	1240	715
Min...	22	18	12	....	16	11	11	10	10	0	74	14
Acre-ft.	2460	2170	2120	1540	2660	1510	1270	1940	3970	7260	15400	3760

Discharge of Purgatoire River Near Las Animas for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, 3,884 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	3	7	39	193	....	17	97	35	65	354	332	66
2....	3	13	16	120	....	16	174	25	320	770	370	66
3....	3	39	18	....	....	53	123	33	180	442	1290	48
4....	3	27	12	....	....	58	77	35	140	269	1450	43
5....	3	33	9	....	....	37	71	25	110	169	621	41
6....	4	31	15	....	....	51	120	25	220	157	401	71
7....	3	27	43	....	....	58	123	27	782	113	23000	260
8....	3	14	33	....	....	45	88	37	540	97	6200	420
9....	3	19	43	....	....	45	35	31	417	88	2000	120
10....	3	23	43	40	....	94	16	43	246	85	580	53
11....	2	23	43	....	....	97	11	45	153	80	420	50
12....	2	11	68	....	....	97	8	48	141	61	170	48
13....	7	14	56	....	....	104	6	58	138	53	180	45
14....	296	14	34	....	....	123	4	58	134	55	120	41
15....	362	15	32	....	....	100	3	55	120	53	90	37
16....	275	12	30	....	....	82	3	58	127	58	70	35
17....	74	16	28	....	....	77	2	117	130	39	70	35
18....	46	19	26	....	....	94	2	138	113	45	58	35
19....	31	21	23	....	....	88	3	113	110	68	40	31
20....	20	14	10	....	44	100	3	110	85	41	85	31
21....	11	12	18	....	....	77	2	120	48	50	94	29
22....	10	29	18	....	....	74	1	310	50	48	63	27
23....	6	35	33	....	....	80	1	378	960	157	60	27
24....	8	39	63	....	....	58	1	240	1450	179	58	21
25....	6	41	56	....	....	212	22	203	687	165	53	23
26....	6	58	63	....	....	401	11	179	193	174	58	20
27....	12	100	65	....	....	161	16	161	178	346	85	20
28....	11	71	123	....	....	88	15	161	165	325	80	21
29....	4	68	110	....	....	74	15	110	510	540	66	19
30....	4	63	97	....	....	48	16	82	433	459	60	18
31....	6	....	169	....	....	48	....	65	....	362	55	....
Total	1230	908	1436	....	....	2757	1069	3125	8945	5902	38249	1801
Mean.	39.7	30.3	46.3	60	45	88.9	35.6	101	298	190	1230	60.0
Max..	362	100	169	....	....	401	174	378	1450	770	23000	420
Min...	2	7	9	....	....	16	1	25	48	39	40	18
Acre-ft.	2440	1800	2850	3690	2500	5470	2120	6210	17700	11700	75600	3570

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Purgatoire River Near Las Animas for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, 3,884 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	11	10	....	47	48	23	12	3	938	6	854	707
2....	11	11	....	45	84	25	12	9	45	451	938	594
3....	22	10	....	43	106	25	15	7	10	134	580	400
4....	11	10	....	28	91	22	14	3	7	99	103	387
5....	10	11	....	20	84	28	15	3	4	80	49	210
6....	7	12	....	18	91	25	10	2	3	84	12	240
7....	8	11	....	18	43	20	10	2	3	76	8	274
8....	7	12	....	....	45	20	7	2	3	64	22	200
9....	6	15	....	....	23	20	9	2	3	42	23	503
10....	3	20	....	....	23	17	6	2	3	28	34	324
11....	18	15	....	....	20	20	7	2	6	24	36	134
12....	17	15	....	....	20	23	6	2	6	130	49	106
13....	9	12	....	....	18	18	4	2	11	640	114	114
14....	7	11	....	....	15	17	5	2	7	155	2090	99
15....	6	12	....	....	22	17	5	2	4	661	8060	95
16....	10	14	....	....	23	14	5	1240	4	324	1020	87
17....	11	12	32	....	22	15	5	537	4	130	640	76
18....	10	11	....	....	23	15	5	162	4	80	350	76
19....	11	14	....	....	22	15	5	106	4	40	219	65
20....	10	14	....	....	22	12	6	91	3	26	114	32
21....	8	14	....	....	25	20	4	84	2	36	76	34
22....	6	16	....	....	22	15	4	73	2	1210	76	36
23....	9	16	....	....	25	11	4	80	2	434	71	40
24....	7	12	7	....	25	10	4	65	2	84	73	40
25....	6	12	....	....	25	10	4	57	6	200	99	22
26....	7	12	....	....	20	9	3	54	6	84	84	22
27....	7	14	....	....	22	7	3	54	6	380	43	22
28....	11	14	....	....	26	8	4	54	6	362	45	22
29....	11	14	32	....	....	10	3	49	6	200	967	22
30....	11	14	....	....	....	10	3	49	6	680	1650	22
31....	10	....	49	....	....	10	....	49	....	503	1490	....
Total	298	390	....	....	1035	511	199	2849	1116	7447	19989	5005
Mean.	9.6	13.0	28	22	37.0	16.5	6.6	91.9	37.2	240	645	167
Max..	22	20	....	....	106	28	15	1240	938	1210	8060	707
Min...	3	10	....	....	15	7	3	2	2	6	8	22
Acre-ft.	590	774	1720	1350	2050	1010	393	5650	2210	14800	39700	9940

Discharge of Wild Horse Creek at Holly, Colo., for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, 3,387 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	0	28	88	3	0	0	0	14	8	0	0	14
2....	0	20	17	4	0	0	0	38	7	0	0	12
3....	0	28	13	4	0	0	0	27	10	0	0	9
4....	0	28	13	4	0	0	0	26	10	0	0	5
5....	0	16	13	4	0	0	0	32	9	0	9	16
6....	0	59	13	4	0	0	0	34	24	0	29	1
7....	0	42	13	4	0	0	0	18	23	0	7	29
8....	0	42	13	4	0	35	0	17	1	0	36	52
9....	0	16	10	4	0	26	0	9	5	0	12	73
10....	0	20	10	6	0	26	0	26	0	0	2	72
11....	0	32	10	7	0	22	0	26	0	0	48	88
12....	0	28	14	2	0	18	0	13	0	0	129	71
13....	0	59	13	0	0	18	0	2	0	0	81	31
14....	18	16	13	0	0	26	0	0	18	0	58	22
15....	35	16	8	0	0	7	0	0	0	0	76	11
16....	22	28	13	0	1	1	0	0	0	0	69	0
17....	7	42	12	0	2	1	0	0	0	0	16	0
18....	4	16	4	0	2	1	0	0	0	0	6	0
19....	2	8	4	0	2	0	0	0	0	0	2	3
20....	2	8	0	0	2	0	0	0	0	0	2	0
21....	2	0	0	0	4	0	0	0	0	0	0	0
22....	2	0	0	0	10	0	0	0	0	0	0	0
23....	2	0	13	0	22	2	0	0	0	0	0	0
24....	1	0	29	0	35	22	0	0	0	0	0	0
25....	1	0	10	0	0	0	1	0	0	0	0	0
26....	1	20	25	0	0	0	4	0	0	0	0	0
27....	1	20	29	0	0	0	3	0	0	0	0	0
28....	10	53	25	0	0	0	0	4	0	0	0	0
29....	18	59	25	0	....	10	1	13	0	1	0	0
30....	18	53	2	0	....	0	0	18	0	1	7	0
31....	72	....	2	0	....	0	....	1	0	1	3	....
Total	218	757	454	50	80	215	9	318	115	3	592	509
Mean.	7.0	25.2	14.6	1.6	2.9	7.0	.30	10.3	3.8	.10	19.1	17
Max..	35	59	88	7	35	35	4	38	24	1	129	88
Min...	0	0	0	0	0	0	0	0	0	0	0	0
Acre-ft.	430	1500	898	98	161	430	18	633	226	6	1170	1010

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Wild Horse Creek at Holly, Colo., for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, 3,387 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	3	72	23	0	0	0	0	0	0	0	0	6
2....	1	14	23	0	0	0	0	0	0	0	0	50
3....	0	5	2	0	0	0	0	0	0	0	0	28
4....	0	2	4	0	0	0	0	0	0	0	0	0
5....	0	1	23	0	0	0	0	0	0	0	0	2
6....	0	1	28	0	0	0	0	0	0	0	0	2
7....	0	1	33	0	0	0	0	0	0	0	0	0
8....	0	22	23	0	0	0	0	0	17	0	0	4
9....	0	76	12	0	0	0	0	0	15	0	0	51
10....	0	15	13	0	0	0	0	0	15	0	0	28
11....	0	2	12	0	0	0	0	144	11	0	0	94
12....	0	19	12	0	0	0	0	15	4	0	0	74
13....	19	19	4	0	0	0	0	14	1	0	0	28
14....	65	1	1	0	0	0	0	3	0	0	0	19
15....	28	1	1	0	0	0	0	1	0	0	33	28
16....	6	1	1	0	0	0	0	0	0	0	0	19
17....	5	23	1	0	0	0	0	0	0	0	6	4
18....	1	26	1	0	0	0	0	195	0	0	1	0
19....	9	30	1	0	0	0	0	38	0	0	6	0
20....	5	10	1	0	0	0	0	59	0	0	7	0
21....	1	7	1	0	0	0	0	53	0	0	2	0
22....	2	8	0	0	0	0	0	53	0	5	2	0
23....	36	11	0	0	0	0	0	66	0	0	2	0
24....	90	23	0	0	0	0	0	44	0	0	2	0
25....	125	32	0	0	0	0	0	44	0	0	2	0
26....	130	37	0	0	0	0	0	12	0	0	5	1
27....	32	28	0	0	0	0	0	2	0	9	9	4
28....	28	25	0	0	0	0	0	1	0	0	8	0
29....	5	22	0	0	....	0	0	0	0	0	6	2
30....	8	22	0	0	....	0	0	0	0	0	0	0
31....	43	....	0	0	....	0	....	0	....	0	6	....
Total	642	556	220	0	0	0	0	743	63	14	97	444
Mean.	20.7	18.5	7.10	0	0	0	0	24.0	2.10	0.45	3.13	14.8
Max..	130	76	33	0	0	0	0	195	17	9	33	94
Min...	0	1	0	0	0	0	0	0	0	0	0	0
Acre-ft.	1270	1100	437	0	0	0	0	1480	125	27.7	192	881

Discharge of Holly Drain Near Coolidge, Kan., for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	29	67	31	28	25	85	47	44	50	26	32	47
2....	33	47	31	28	25	82	45	35	47	26	29	49
3....	34	42	31	28	25	52	45	33	48	28	35	39
4....	29	36	30	27	25	35	42	31	48	30	34	47
5....	29	32	29	25	24	31	44	33	38	30	42	52
6....	28	33	30	26	24	29	40	33	40	30	72	46
7....	29	34	30	26	24	28	35	32	86	30	81	56
8....	31	31	29	27	25	28	32	29	36	30	107	68
9....	36	31	30	27	24	26	39	31	36	31	66	50
10....	35	33	30	27	24	26	41	33	51	30	40	44
11....	36	35	31	29	24	26	46	31	44	30	98	52
12....	39	33	32	29	24	25	33	32	44	29	69	49
13....	44	34	33	29	24	25	27	33	59	27	52	40
14....	52	36	32	29	24	25	27	35	68	27	52	49
15....	37	40	31	28	24	25	43	34	53	28	50	44
16....	29	36	31	28	24	25	45	31	45	34	36	54
17....	29	37	31	29	24	26	33	29	38	35	32	49
18....	28	36	28	28	24	29	32	26	29	48	31	33
19....	28	45	28	28	24	26	31	27	33	36	31	37
20....	27	44	27	27	23	25	42	29	30	38	31	40
21....	27	35	27	28	24	26	47	33	28	34	30	40
22....	26	31	27	28	23	40	52	46	26	30	28	39
23....	26	31	27	26	25	26	65	40	25	28	29	40
24....	26	33	27	26	101	31	42	31	28	30	29	36
25....	26	42	28	25	113	51	45	35	27	33	29	33
26....	25	54	28	26	113	40	49	36	30	28	29	35
27....	26	75	28	26	101	37	54	35	34	27	29	44
28....	42	60	29	25	91	46	48	47	28	27	30	34
29....	46	41	29	25	....	53	47	101	27	30	30	35
30....	55	40	29	25	....	47	40	64	26	30	36	40
31....	51	....	28	25	....	44	....	57	....	40	40	....
Total	1038	1204	912	838	1075	1120	1258	1166	1202	960	1359	1321
Mean.	33.5	40.1	29.4	27.0	38.4	36.1	41.9	37.6	40.1	31.0	43.8	44.0
Max..	55	75	33	29	113	85	65	101	86	48	107	68
Min...	25	31	27	25	23	25	27	26	25	26	28	33
Acre-ft.	2060	2390	1810	1660	2130	2220	2490	2310	2390	1910	2690	2620

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Holly Drain Near Coolidge, Kansas, for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	44	76	36	28	32	35	28	32	39	27	26	145
2....	43	58	34	28	34	37	28	28	43	31	30	160
3....	39	68	34	27	31	56	39	30	31	30	38	98
4....	39	66	34	28	31	60	41	34	80	28	54	66
5....	41	79	34	28	31	58	36	29	70	29	54	58
6....	40	87	33	28	31	56	31	29	48	28	38	53
7....	38	116	33	28	31	51	29	31	52	27	34	49
8....	42	114	33	28	31	50	30	34	51	26	30	56
9....	42	87	33	28	31	50	32	31	57	28	31	87
10....	43	73	33	29	31	46	32	33	46	28	29	68
11....	46	51	33	30	31	46	33	61	41	28	28	80
12....	49	46	33	29	31	43	32	37	29	29	30	80
13....	68	44	32	29	31	40	33	34	25	30	40	74
14....	80	44	32	29	31	40	33	34	25	29	36	69
15....	98	43	40	30	31	40	31	32	24	27	84	61
16....	84	42	42	30	36	35	34	31	24	27	65	66
17....	89	45	31	30	116	33	42	31	25	33	68	66
18....	72	58	28	29	95	37	39	30	25	34	74	51
19....	60	51	28	29	75	34	34	29	27	36	65	51
20....	58	47	27	28	50	33	35	31	28	40	49	45
21....	54	48	27	28	43	34	31	32	29	42	61	43
22....	55	49	27	28	40	36	29	35	28	50	59	44
23....	54	47	26	28	38	38	28	32	27	29	40	42
24....	54	36	27	28	37	36	28	33	28	26	36	40
25....	60	35	28	29	40	33	31	33	29	38	54	38
26....	88	34	30	29	36	33	30	34	30	41	58	37
27....	64	34	30	30	36	32	32	31	31	48	103	37
28....	52	37	28	30	36	30	31	32	30	44	73	36
29....	54	37	27	31	....	31	30	34	29	38	65	38
30....	62	37	27	31	....	31	33	39	30	37	56	36
31....	59	....	28	32	....	28	....	32	....	41	62	....
Total	1771	1689	968	898	1147	1242	975	1028	1081	1029	1570	1874
Mean.	57.1	56.3	31.2	29.0	41.0	40.1	32.5	33.2	36.0	33.2	50.6	62.5
Max..	98	116	42	32	116	60	42	61	80	50	103	160
Min...	38	34	26	27	31	28	28	28	24	26	26	36
Acre-ft.	3510	3350	1920	1780	2280	2470	1930	2040	2140	2040	3110	3720

Unless otherwise noted, all discharges are in cubic feet per second.

RIO GRANDE RIVER DRAINAGE

RIO GRANDE RIVER AT THIRTY MILE BRIDGE

Location—In Sec. 13, T. 40 N., R. 4 W., about 30 miles southwest of Creede at Rio Grande reservoir.

Records Available—June 18, 1909, to September 30, 1923; May 16, 1925, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

Co-operation—Station maintained in co-operation with Farmers Union Reservoir Company.

RIO GRANDE RIVER AT WASON BELOW CREEDE

Location—In Sec. 8, T. 41 N., R. 1 E., three miles southeast of Creede.

Records Available—April 24, 1907, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

RIO GRANDE RIVER NEAR DEL NORTE

Location—In Sec. 30, T. 40 N., R. 5 E., six miles west of Del Norte. From October 11, 1889, to November 30, 1906, a station was maintained four miles below the present station.

Records Available—October 11, 1889, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

RIO GRANDE RIVER AT MONTE VISTA

Location—In Sec. 24, T. 39 N., R. 7 E., N. M. P. M., where Gunbarrel highway crosses river.

Records Available—May 1, 1926, to September 30, 1930.

Gage—Staff gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with the San Luis Valley Water Users.

RIO GRANDE RIVER AT ALAMOSA

Location—At concrete bridge in Alamosa.

Records Available—May 15, 1912, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

RIO GRANDE RIVER NEAR LOBATOS

Location—In Sec. 22, T. 33 N., R. 11 E., six miles north of the State line.

Records Available—June 28, 1899, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

NORTH CLEAR CREEK BELOW CONTINENTAL RESERVOIR

Location—In Sec. 22, T. 42 N., R. 3 W., just below Continental Reservoir.

Records Available—May 1, 1929, to September 30, 1930.

Gage—Automatic recording gage on a ten-foot Parshall flume.

Accuracy—Records good.

ALAMOSA RIVER BELOW TERRACE RESERVOIR

Location—One-fourth mile below Terrace dam in Sec. 23, T. 36 N., R. 6 E.

Records Available—April 18, 1909, to November 30, 1912; April 1, 1915, to October 31, 1915; February 1, 1917, to October 31, 1920; April 1, 1922, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with Terrace Irrigation Company.

LA JARA CREEK NEAR CAPULIN

Location—In Sec. 21, T. 34 N., R. 7 E., eleven miles above Capulin. Station prior to 1924 was located two miles south of this point.

Records Available—April, 1916, to November 30, 1917; April 1, 1919, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

LA JARA CREEK NEAR MOUTH

Location—In Sec. 17, T. 36 N., R. 11 E., eight miles southeast of Alamosa.

Records Available—October 1, 1924, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

TRINCHERA CREEK BELOW THE SMITH RESERVOIR

Location—In Sec. 5, Twp. 31 S., R. 73 W., 6 P. M.

Records Available—October 1, 1929, to September 30, 1930.

Accuracy—Fair.

Gage—Bristol automatic.

Co-operation—Maintained in conjunction with the Trinchera Irrigation Company.

TRINCHERA CREEK ABOVE TURNER'S RANCH NEAR FORT GARLAND

Location—In Sec. 2, T. 31 S., R. 71 W., just above Turner's ranch.

Records Available—April 1, 1923, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

TRINCHERA CREEK ABOVE MOUNTAIN HOME RESERVOIR NEAR FORT GARLAND

Location—In Sec. 31, T. 30 S., R. 71 W., just above Mountain Home reservoir.

Records Available—May 1, 1923, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

SANGRE DE CRISTO CREEK NEAR FORT GARLAND

Location—In Sec. 23, T. 30 S., R. 72 W., one and one-half miles east of Fort Garland.

Records Available—March 15 to October 9, 1916; May 1, 1923, to September 30, 1929.

Gage—Automatic recording gage.

Accuracy—Records considered good.

UTE CREEK NEAR FORT GARLAND

Location—In Sec. 2, T. 30 S., R. 72 W., about two and one-half miles northeast of Fort Garland.

Records Available—March 16 to October 8, 1916; May 1, 1923, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

CONEJOS RIVER NEAR MOGOTE

Location—In Sec. 34, T. 33 N., R. 7 E., five miles west of Mogote.

Records Available—September 1, 1899, to March 31, 1900, and April 17, 1903, to October 31, 1905, at a point one mile below present station. March 21, 1907, to October 5, 1911, three miles above present station. January 1, 1912, to September 30, 1930, at present station.

Gage—Automatic recording gage.

Accuracy—Records considered good.

CONEJOS RIVER AT MOUTH NEAR LA SAUSES

Location—In Sec. 2, T. 35 N., R. 11 E., about two miles above mouth.

Records Available—March 29, 1921, to September 30, 1930.

Gage—Two automatic recording gages.

Accuracy—Records considered good.

SAN ANTONIO RIVER AT ORTIZ

Location—In Sec. 24, T. 32 N., R. 8 E., N. M. P. M., just across the State line from Ortiz, Colorado.

Records Available—January 1 to October 31, 1915; May 1, 1919, to October 31, 1920; October 1, 1924, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

SAN ANTONIO RIVER AT MOUTH NEAR MANASSA

Location—In Sec. 21, T. 34 N., R. 10 E., two and one-half miles east of Manassa on highway bridge.

Records Available—April 1, 1923, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

LOS PINOS CREEK NEAR ORTIZ

Location—In Sec. 27, T. 32 N., R. 8 E., N. M. P. M., two and one-half miles above Ortiz.

Records Available—January 1, 1914, to November 30, 1920; October 1, 1924, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

CULEBRA RIVER NEAR SAN LUIS

Location—In Sec. 35, T. 3 N., R. 72 W., Beaubien and Miranda Grant Survey, one mile above concrete bridge in San Luis.

Records Available—May 1, 1909, to September 2, 1919; April 1, 1927, to September 30, 1930; April 21, 1924, to September 30, 1926, station was maintained near Chama in Sec. 2, T. 2 N., R. 71 W.

Gage—Automatic recording gage.

Accuracy—Records considered good.

LA GARITA CREEK NEAR LA GARITA

Location—In Sec. 10, T. 41 N., R. 6 E., five miles southwest of La Garita Post Office.

Records Available—April 1, 1919, to September 30, 1930.

Gage—Vertical staff.

Accuracy—Records considered good.

CARNERO CREEK NEAR LA GARITA

Location—In Sec. 26, T. 42 N., R. 6 E., three miles northwest of La Garita.

Records Available—April 1, 1919, to September 30, 1930.

Gage—Vertical staff.

Accuracy—Records considered good.

SAGUACHE CREEK NEAR SAGUACHE

Location—In Sec. 14, T. 45 N., R. 6 E., at Ward's ranch, ten miles west of Saguache.

Records Available—August 7, 1910, to September 23, 1912; June 1, 1914, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Discharge of Rio Grande River at Thirty Mile Bridge for Year Ending Sept. 30, 1929. Drainage Area, 163 Square Miles. Altitude, 9,380 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	44	44	....	....	....	....	34	364	36	850	800	183
2....	42	32	....	....	....	....	34	393	34	787	738	113
3....	43	72	....	....	....	....	34	376	35	781	433	83
4....	42	117	....	....	....	....	34	344	72	769	402	60
5....	39	48	....	....	....	....	34	340	990	793	429	31
6....	39	50	....	....	....	....	34	308	1540	935	489	32
7....	39	64	....	....	....	....	34	364	1510	775	344	34
8....	37	59	....	....	....	....	34	214	1400	769	136	32
9....	36	39	....	....	....	....	34	134	1400	738	33	130
10....	37	45	....	....	....	....	34	67	1400	690	34	298
11....	55	45	....	....	....	....	34	164	1270	661	78	344
12....	90	44	....	....	....	....	34	384	726	714	524	344
13....	113	48	....	....	....	....	34	465	104	769	524	344
14....	117	34	....	....	....	....	34	756	364	696	534	344
15....	78	34	....	....	....	....	34	217	644	632	534	344
16....	70	34	....	....	....	....	34	144	922	661	540	337
17....	66	34	....	....	....	....	34	220	1010	678	545	337
18....	81	34	....	....	....	....	34	364	818	621	524	344
19....	72	34	....	....	....	....	34	225	775	587	524	340
20....	72	34	....	....	....	....	34	104	1060	649	524	344
21....	72	34	....	....	....	....	72	106	1170	649	529	344
22....	55	34	....	....	....	....	178	57	1530	621	524	344
23....	54	34	....	....	....	....	204	34	744	644	504	344
24....	59	34	....	....	....	....	252	34	1000	720	384	344
25....	56	34	....	....	....	....	364	35	956	678	298	348
26....	54	34	....	....	....	....	352	70	942	672	291	451
27....	53	34	....	....	....	....	322	380	1030	720	261	509
28....	59	34	....	....	....	....	322	499	1040	756	248	514
29....	55	34	....	....	....	....	372	587	1040	831	245	514
30....	55	34	....	....	....	....	376	294	956	806	245	499
31....	51	....	....	....	....	....	....	34	....	762	209	....
Total	1890	1285	....	....	....	....	3494	8077	26518	22414	12477	8629
Mean.	61.0	42.8	34	34	34	34	116	261	884	723	402	288
Max..	117	117	....	....	....	....	376	587	1540	935	800	514
Min...	36	32	....	....	....	....	34	34	34	587	33	31
Acre-ft.	3750	2550	2090	2090	1890	2090	6900	16000	52600	44500	24700	17100

Discharge of Rio Grande River at Thirty-Mile Bridge for Year Ending Sept. 30, 1930. Drainage Area, 163 Square Miles. Altitude, 9,380 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	499	252	8	8	8	8	8	462	1130	656	18	96
2....	509	252	....	....	....	....	8	574	612	569	130	98
3....	504	252	....	....	....	....	8	612	548	574	251	96
4....	504	252	....	....	....	....	8	480	771	631	335	93
5....	504	252	....	....	....	....	8	384	780	619	365	92
6....	499	252	....	....	....	....	8	353	904	516	380	96
7....	484	160	....	....	....	....	8	342	1230	489	408	96
8....	484	8	....	....	....	....	8	368	1230	493	420	93
9....	489	8	....	....	....	....	8	368	1030	534	433	106
10....	484	8	....	....	....	....	8	372	894	534	458	103
11....	484	8	....	....	....	....	8	365	978	534	437	111
12....	397	8	....	....	....	....	8	353	1130	553	437	111
13....	356	8	....	....	....	....	8	361	854	543	450	113
14....	352	8	....	....	....	....	8	400	864	307	437	98
15....	356	8	....	....	....	....	52	493	692	213	424	11
16....	364	8	....	....	....	....	174	569	729	169	408	4
17....	356	8	....	....	....	....	166	600	806	199	368	4
18....	356	8	....	....	....	....	113	530	677	193	353	4
19....	122	8	....	....	....	....	81	502	692	257	365	4
20....	63	8	....	....	....	....	90	553	736	349	372	4
21....	63	8	....	....	....	....	187	754	729	307	365	4
22....	64	8	....	....	....	....	311	798	771	4	314	4
23....	171	8	....	....	....	....	372	553	834	4	304	62
24....	252	8	....	....	....	....	498	484	780	9	304	134
25....	252	8	....	....	....	....	558	706	662	9	311	132
26....	252	8	....	....	....	....	396	1030	619	69	147	128
27....	252	8	....	....	....	....	380	267	631	257	136	130
28....	252	8	....	....	8	....	420	450	650	166	134	128
29....	252	8	....	....	....	....	368	1430	669	64	122	128
30....	252	8	....	....	....	....	445	1160	662	25	98	128
31....	252	....	8	8	....	8	....	1290	....	18	98	....
Total	10480	1856	248	248	224	248	4723	17963	24294	9864	9582	2411
Mean.	338	61.9	8	8	8	8	157	579	810	318	309	80.4
Max..	509	252	....	....	....	....	558	1430	1230	656	458	134
Min...	63	8	....	....	....	....	8	342	548	4	18	4
Acre-ft.	20800	3680	492	492	444	492	9340	35600	48200	19600	19000	4780

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Rio Grande River at Wason for Year Ending Sept. 30, 1929.
Drainage Area, 700 Square Miles. Altitude, 8,591 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	206	276	....	....	....	100	320	918	1500	1780	1290	704
2....	206	267	....	....	....	100	330	855	1570	1650	1280	680
3....	206	263	....	....	....	100	327	891	1680	1560	1280	640
4....	199	272	....	....	....	100	297	927	1700	1500	1270	608
5....	165	267	....	....	....	100	171	974	2320	1480	1280	518
6....	123	254	....	....	....	110	152	983	3420	1520	1160	608
7....	123	230	....	....	....	110	136	1130	3290	1490	821	624
8....	116	226	....	....	....	110	148	1300	3150	1490	680	608
9....	140	234	....	....	....	110	152	1300	3030	1470	1150	656
10....	195	242	109	....	....	110	154	1270	3010	1450	1480	696
11....	234	206	....	....	....	110	359	1000	2920	1440	1550	721
12....	298	206	....	....	....	110	371	1070	2410	1520	1500	873
13....	322	214	....	....	....	110	371	1340	1470	1560	1470	864
14....	426	195	....	....	....	110	359	1870	1480	1440	1420	821
15....	276	176	....	....	....	110	348	2000	1880	1320	1300	778
16....	206	176	....	....	....	120	394	1360	2160	1300	1230	762
17....	203	147	....	....	....	120	488	1380	2310	1360	1180	696
18....	214	126	....	....	....	120	548	1490	2220	1350	1130	696
19....	234	113	....	....	....	120	481	1460	2160	1340	1040	712
20....	258	118	....	....	93	120	400	1460	2290	1420	1000	721
21....	238	120	....	100	....	138	473	1420	2380	1470	1050	737
22....	234	120	....	....	....	128	664	1360	2110	1390	1030	954
23....	276	120	....	....	....	128	586	1370	1630	1440	974	1590
24....	276	120	....	....	....	130	586	1490	1870	1540	873	1220
25....	276	120	....	....	....	144	664	1690	1840	1520	704	1100
26....	280	125	....	....	....	191	745	1740	1860	1470	680	1180
27....	294	125	....	....	....	171	704	1570	2000	1650	664	1210
28....	294	125	....	....	....	178	745	1520	2040	1820	616	1120
29....	294	120	....	....	....	220	918	1520	1980	1820	632	1080
30....	285	110	....	....	....	220	882	1450	1930	1950	632	1020
31....	250	....	....	....	....	220	....	1280	....	1700	656	....
Total	7347	5413	....	....	....	4068	13273	41388	65610	47210	33022	25197
Mean.	237	180	110	102	95	131	442	1340	2190	1520	1070	840
Max..	426	276	....	....	....	....	918	2000	3420	1950	1550	1590
Min...	116	....	....	....	....	....	136	855	1470	1300	616	518
Acre-ft.	14600	10700	6760	6270	5280	8060	26300	82400	130000	93500	65800	50000

Discharge of Rio Grande River at Wason for Year Ending Sept. 30, 1930.
Drainage Area, 700 Square Miles. Altitude, 8,591 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	956	396	....	....	....	....	157	911	2100	1260	438	377
2....	911	387	....	....	....	....	159	1190	1830	1260	422	372
3....	902	396	....	....	....	....	162	1340	1490	1220	609	358
4....	885	387	....	....	....	....	176	1040	1710	1270	704	318
5....	859	382	....	....	....	....	211	791	1810	1300	791	336
6....	816	382	128	....	....	....	284	673	1980	1180	712	349
7....	825	368	....	88	....	....	336	625	2280	1170	775	345
8....	842	164	....	....	....	....	460	616	2280	1180	850	332
9....	893	164	....	....	....	....	449	595	2190	1270	825	327
10....	842	157	....	....	....	....	377	568	1950	1330	893	323
11....	816	159	....	....	....	....	336	575	1950	1310	850	306
12....	842	174	....	....	....	....	332	588	2200	1380	808	306
13....	644	202	....	....	....	....	382	588	1970	1380	808	299
14....	616	192	....	....	107	....	417	711	1810	1250	893	291
15....	616	208	....	....	....	....	406	1020	1740	902	902	262
16....	644	208	....	....	....	....	542	1230	1560	816	850	195
17....	644	186	....	....	....	....	449	1200	1660	759	767	176
18....	623	164	....	....	....	....	396	1030	1650	825	711	179
19....	555	162	....	....	....	124	396	911	1530	868	688	176
20....	318	160	....	....	....	....	491	1040	1590	1040	688	174
21....	291	140	....	....	....	....	688	1650	1570	1180	658	169
22....	287	120	....	....	....	....	1050	1790	1560	920	623	176
23....	287	130	....	....	....	....	1010	1300	1600	529	623	234
24....	422	130	....	....	....	....	1160	1210	1560	460	637	306
25....	449	140	....	....	....	....	1290	1510	1370	411	644	327
26....	433	140	....	....	....	....	1070	2150	1260	542	609	314
27....	396	140	....	....	....	....	974	1900	1260	885	455	297
28....	401	140	....	....	....	....	1060	1560	1280	742	455	287
29....	401	140	....	....	....	....	859	2550	1320	595	455	287
30....	396	140	....	....	....	....	833	2440	1330	479	433	306
31....	396	....	....	....	....	154	....	2530	....	460	396	....
Total	19208	6358	....	....	....	....	16912	36832	51390	30173	20972	8504
Mean.	620	212	110	90	100	130	564	1190	1710	973	677	283
Max..	956	396	....	....	....	....	1290	2550	2280	1380	902	377
Min...	287	120	....	....	....	....	157	568	1260	411	396	169
Acre-ft.	38100	12600	6760	5530	5550	7990	33600	73200	102000	59800	41600	16800

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Rio Grande River Near Del Norte for Year Ending Sept. 30, 1929.
Drainage Area, 1,400 Square Miles. Altitude, 7,868 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	294	406	....	....	....	....	560	1380	3140	2580	2560	1060
2....	294	366	....	....	....	....	570	1320	3530	2320	2240	1060
3....	282	266	....	....	....	....	620	1720	3580	2130	2270	1130
4....	271	271	....	....	....	....	880	1940	3770	2050	1860	1150
5....	267	370	....	....	....	....	700	2180	4150	1960	2050	1060
6....	267	315	....	....	....	....	550	2450	5360	2020	1890	1220
7....	263	304	....	....	....	....	400	2640	5360	1930	1840	1340
8....	260	336	267	....	....	....	462	3340	5160	1910	1790	1240
9....	253	299	....	....	....	....	462	3450	5210	1820	1310	1230
10....	256	289	....	....	....	....	404	3770	5120	1760	1510	1240
11....	274	304	....	....	....	....	327	3040	4950	1730	3140	1390
12....	312	294	....	....	....	....	462	2700	4190	1830	2760	1430
13....	482	315	....	....	....	....	600	2880	3080	1910	2510	1330
14....	606	304	....	....	....	....	564	3810	2720	1780	2250	1250
15....	574	288	....	....	....	....	662	4420	3280	1660	2040	1180
16....	468	295	....	....	....	....	1040	3510	3490	1640	1880	1160
17....	435	295	....	....	....	....	1150	3300	3840	1680	1760	1110
18....	415	295	....	....	....	....	1380	3160	3680	1590	1710	1040
19....	408	295	....	....	....	....	1380	3140	3200	1590	1560	1020
20....	402	295	....	....	....	....	1130	3300	3410	1680	1430	1020
21....	408	290	....	....	....	253	990	3370	3680	1780	1410	1070
22....	402	290	....	....	....	....	1280	3300	3550	1690	1380	1300
23....	373	290	....	213	....	....	1200	3240	2820	1710	1300	2880
24....	362	290	....	....	....	....	1200	3550	2980	1760	1260	2320
25....	367	290	....	....	....	....	1100	3770	2920	1860	1100	1860
26....	345	280	....	....	....	....	1240	4030	2840	1610	1010	1820
27....	340	280	....	....	227	....	1150	3450	2940	1710	1010	1840
28....	320	280	....	....	....	....	1150	3180	2940	2080	960	1680
29....	364	280	....	....	....	....	1480	2880	2860	2240	950	1610
30....	370	280	....	....	....	....	1580	2920	2800	2290	960	1520
31....	406	....	....	....	....	....	....	2920	....	2530	1000	....
Total	11140	9022	....	....	....	....	25523	94060	110550	58830	52700	41560
Mean.	359	301	245	225	220	260	851	3030	3690	1900	1700	1380
Max..	606	....	....	....	....	....	1580	4420	5360	2580	3140	2880
Min...	253	....	....	....	....	....	327	1320	2720	1590	950	1020
Acre-ft.	22100	17900	15100	13800	12200	16000	50600	186000	220000	117000	104000	82700

Discharge of Rio Grande River at Del Norte for Year Ending Sept. 30, 1930.
Drainage Area, 1,400 Square Miles. Altitude, 7,868 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	1440	600	....	....	....	....	290	1390	3200	1430	893	535
2....	1410	600	....	....	....	....	300	1730	2830	1430	798	490
3....	1360	686	....	....	....	....	300	1990	2280	1320	848	490
4....	1320	616	....	....	....	....	305	1710	2490	1360	986	464
5....	1260	623	....	....	....	....	355	1270	2620	1400	1070	496
6....	1230	616	252	....	....	....	410	1100	2850	1320	1030	515
7....	1220	639	....	208	....	....	657	964	3160	1260	1080	515
8....	1190	600	....	....	....	....	814	893	3180	1260	1100	490
9....	1280	400	....	....	....	....	902	857	3120	1340	1140	477
10....	1240	350	....	....	....	....	814	814	2830	1430	1160	464
11....	1140	300	....	....	....	....	719	798	2750	1440	1140	446
12....	1080	295	....	....	....	....	657	822	3120	1540	1100	434
13....	960	287	....	....	....	....	758	822	3010	1580	1160	422
14....	931	272	....	....	237	....	839	964	2690	1620	1220	410
15....	922	300	....	....	....	....	839	1400	2490	1250	1220	388
16....	931	330	....	....	....	....	830	1750	2190	1080	1210	340
17....	960	360	....	....	....	....	758	1630	2280	902	1140	287
18....	940	360	....	....	....	....	680	1480	2280	964	1030	264
19....	904	350	....	....	....	259	719	1220	2070	986	953	260
20....	647	350	....	....	....	....	839	1340	2080	1130	911	251
21....	550	330	....	....	....	....	1190	2110	2020	1420	875	247
22....	528	330	....	....	....	....	1600	2540	1990	1530	848	247
23....	495	330	....	....	....	....	1640	1990	2020	1060	839	340
24....	564	300	....	....	....	....	1710	1820	1870	830	866	350
25....	662	300	....	....	....	....	1990	2160	1680	798	839	404
26....	662	300	....	....	....	....	1710	2850	1490	814	822	404
27....	655	250	....	....	....	....	1640	3120	1450	1250	711	377
28....	662	250	....	....	....	....	1600	2310	1440	1250	672	361
29....	655	250	....	....	....	....	1420	2930	1450	1150	657	366
30....	655	250	....	....	....	....	1270	3700	1430	942	642	382
31....	631	....	....	....	....	....	....	3670	....	920	577	....
Total	29084	11824	....	....	....	....	28555	54144	70360	38006	29537	11916
Mean.	938	394	230	200	220	250	952	1750	2350	1230	953	397
Max..	1440	686	....	....	....	....	1990	3700	3200	1620	1220	535
Min...	495	250	....	....	....	....	290	798	1430	798	577	247
Acre-ft.	57700	23400	14100	12300	12200	15400	56600	108000	140000	75600	58600	23600

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Rio Grande River Near Monte Vista for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	20	62	....	....	....	....	455	378	867	598	1120	324
2....	14	90	....	....	....	....	435	350	1120	708	1030	324
3....	14	90	....	....	....	....	436	498	1260	466	1080	466
4....	8	62	....	....	....	....	670	564	1300	406	867	634
5....	8	90	....	....	....	....	664	378	1350	564	826	598
6....	8	124	....	....	....	....	530	498	2180	634	786	634
7....	5	124	....	....	....	....	378	598	2680	708	867	950
8....	5	124	....	....	....	....	324	786	2510	670	1170	908
9....	14	164	....	....	....	....	248	867	2510	466	950	950
10....	20	144	....	....	....	....	298	1030	2450	378	670	950
11....	20	144	....	....	....	....	248	670	2400	436	1350	1120
12....	20	164	....	....	....	....	102	406	2010	436	2510	1260
13....	50	206	....	....	....	....	156	466	1040	436	2350	1170
14....	164	230	....	....	....	....	137	1080	436	498	2150	1030
15....	230	200	....	....	....	....	137	1650	564	378	1900	992
16....	144	200	....	....	....	....	248	1210	908	436	1650	950
17....	107	200	....	....	....	....	406	950	1210	378	1400	950
18....	76	200	....	....	....	....	498	867	1260	378	1170	908
19....	62	200	....	....	....	....	564	867	992	378	992	867
20....	50	200	....	....	....	....	350	992	908	378	826	826
21....	38	200	....	....	....	....	200	1120	1450	466	708	908
22....	20	200	....	....	....	....	224	1170	1400	466	670	992
23....	14	200	....	....	....	....	248	1080	826	466	598	2230
24....	8	200	....	....	....	....	137	1260	564	436	530	2290
25....	5	200	....	....	....	....	178	1500	670	406	436	1700
26....	5	200	....	....	....	....	273	1900	466	273	324	1550
27....	5	200	....	....	....	....	224	1450	406	273	298	1650
28....	5	200	....	....	....	....	224	1210	564	406	298	1500
29....	5	200	....	....	....	....	378	826	634	564	273	1400
30....	5	200	....	....	....	....	466	746	708	498	248	1350
31....	20	....	....	....	....	....	....	867	....	708	298	....
Total	1169	5018	....	....	....	....	9836	28254	37643	14692	30315	32381
Mean.	37.7	167	....	....	....	....	328	911	1250	474	978	1080
Max..	230	....	....	....	....	....	670	1900	2680	708	2510	2290
Min...	5	....	....	....	....	....	102	350	406	273	248	324
Acre-ft.	2320	9940	....	....	....	....	19500	56000	74400	29100	60100	64300

Discharge of Rio Grande River Near Monte Vista for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	1260	436	....	....	....	....	197	402	962	70	245	24
2....	1170	498	....	....	....	....	151	518	678	86	151	16
3....	1080	564	....	....	....	....	128	645	430	86	70	16
4....	1080	530	....	....	....	....	86	488	712	86	174	32
5....	1040	564	....	....	....	....	86	374	781	86	402	32
6....	950	530	....	....	....	....	54	295	851	86	270	43
7....	908	564	....	....	....	....	220	220	816	54	295	54
8....	908	564	....	....	....	....	374	128	781	43	270	54
9....	992	406	....	....	....	....	402	128	816	70	320	32
10....	992	350	....	....	....	....	320	107	712	107	374	16
11....	908	350	....	....	....	....	197	86	816	128	430	16
12....	867	378	....	....	....	....	107	86	851	174	374	16
13....	746	350	....	....	....	....	54	86	746	245	374	16
14....	598	273	....	....	....	....	70	86	678	295	374	24
15....	564	273	....	....	....	....	70	197	816	220	374	24
16....	530	378	....	....	....	....	151	488	781	174	374	24
17....	466	378	....	....	....	....	220	518	712	151	402	24
18....	406	378	....	....	....	....	197	430	678	43	295	16
19....	378	378	....	....	....	....	220	320	580	151	220	16
20....	298	324	....	....	....	....	295	295	580	174	174	12
21....	137	340	....	....	....	....	430	488	612	430	128	12
22....	102	340	....	....	....	....	402	678	612	1080	54	7
23....	73	320	....	....	....	....	295	612	645	645	43	12
24....	60	280	....	....	....	....	295	678	548	374	32	32
25....	102	280	....	....	....	....	459	851	430	197	32	32
26....	118	260	....	....	....	....	488	1080	295	128	43	43
27....	137	260	....	....	....	....	518	1040	151	197	86	43
28....	137	250	....	....	....	....	548	548	107	459	70	32
29....	137	250	....	....	....	....	488	924	86	518	54	24
30....	200	250	....	....	....	....	347	1200	86	347	43	32
31....	324	....	....	....	....	....	....	924	....	374	32	....
Total	17668	11296	....	....	....	....	7869	14920	18349	7278	6579	776
Mean.	570	377	....	....	....	....	262	481	612	235	212	25.9
Max..	1260	564	....	....	....	....	548	1200	962	1080	430	54
Min...	60	250	....	....	....	....	54	86	86	43	32	7
Acre-ft.	35000	22400	....	....	....	....	15600	29600	36400	14400	13000	1540

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Rio Grande River at Alamosa for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, 7,536 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	18	44	....	....	....	210	520	60	290	40	476	260
2....	18	56	....	....	....	210	434	60	275	50	543	290
3....	18	63	....	....	....	210	414	60	498	40	566	375
4....	18	70	....	....	....	210	455	60	591	40	616	498
5....	18	78	....	....	....	210	668	71	616	40	498	566
6....	18	92	....	....	....	220	566	50	566	71	476	566
7....	18	108	....	....	....	223	520	40	1420	142	498	668
8....	18	100	....	....	....	220	414	30	1740	132	782	876
9....	18	108	....	186	....	220	322	71	1700	116	941	844
10....	18	124	....	....	....	220	260	104	1800	82	696	908
11....	18	142	186	....	....	230	260	190	1800	50	782	941
12....	18	170	....	....	190	230	232	126	1660	40	1880	1110
13....	18	210	....	....	....	230	163	82	1110	40	2330	1220
14....	18	230	....	....	....	230	138	71	476	40	2330	1140
15....	18	230	....	....	....	230	126	246	275	50	2060	1010
16....	18	230	....	....	....	240	104	696	232	50	1880	908
17....	18	230	....	....	....	240	104	434	260	50	1540	908
18....	18	230	....	....	....	240	232	339	375	50	1300	844
19....	18	230	....	....	....	240	306	232	356	50	1040	813
20....	18	230	....	....	....	260	306	232	246	50	782	753
21....	18	220	....	....	....	290	204	246	246	50	543	724
22....	23	220	....	....	....	306	126	306	455	40	476	782
23....	33	220	....	....	....	290	104	394	394	40	455	1040
24....	33	220	....	....	....	306	93	455	218	40	375	2050
25....	33	220	....	....	....	290	82	696	150	40	260	2100
26....	33	210	....	....	....	290	71	908	115	40	260	1700
27....	33	210	....	....	....	322	71	1040	71	40	204	1580
28....	33	210	....	....	....	356	60	591	50	40	150	1580
29....	33	190	....	....	....	294	60	591	50	40	138	1460
30....	33	190	....	....	....	434	60	394	40	232	138	1420
31....	33	....	....	....	....	476	....	306	....	138	232	....
Total	698	5085	....	....	....	8277	7475	9181	18075	1963	25247	29934
Mean.	22.5	170	190	188	200	267	249	296	602	63.3	814	998
Max..	33	....	....	....	....	476	668	1040	1800	232	2330	2100
Min...	18	....	....	....	....	210	60	30	40	40	138	260
Acre-ft.	1380	10100	11700	11600	11100	16400	14800	18200	35800	3890	50100	59400

Discharge of Rio Grande River at Alamosa for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, 7,536 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	1340	394	375	....	....	280	200	28	234	40	253	23
2....	1220	476	375	....	....	265	195	23	216	40	168	23
3....	1110	543	375	....	....	260	190	23	62	40	90	23
4....	1040	668	375	....	....	253	175	23	47	40	70	23
5....	1010	668	375	....	....	253	180	23	34	40	62	18
6....	941	668	375	....	....	253	205	23	40	40	70	18
7....	908	696	375	....	....	253	220	23	62	40	62	18
8....	844	696	356	....	....	253	240	23	40	40	54	18
9....	876	668	356	....	....	272	272	23	34	40	54	18
10....	974	543	356	....	....	272	250	23	34	40	47	28
11....	974	520	356	....	....	253	210	23	28	40	40	23
12....	908	498	356	....	....	292	190	23	47	40	62	18
13....	876	455	356	....	....	312	160	23	70	40	47	18
14....	782	394	356	....	....	272	140	23	54	40	40	14
15....	668	339	356	....	....	253	127	23	40	40	40	14
16....	616	434	356	....	....	253	114	23	40	40	40	14
17....	616	476	339	....	....	253	102	23	54	40	40	14
18....	591	455	339	....	....	234	80	28	47	40	80	14
19....	543	455	339	....	....	198	80	34	47	40	47	14
20....	520	460	300	....	....	216	62	34	40	34	40	14
21....	455	490	280	....	....	216	54	34	40	34	34	10
22....	356	490	280	....	....	198	47	34	40	80	28	14
23....	290	465	265	195	....	216	47	34	40	586	28	14
24....	246	425	265	....	....	168	40	34	47	586	34	14
25....	218	425	250	....	....	168	40	114	40	292	28	14
26....	218	400	250	....	....	150	34	610	40	183	34	14
27....	232	400	250	....	....	190	34	378	34	127	34	14
28....	260	375	250	....	....	250	40	253	34	154	34	14
29....	260	375	250	....	....	216	40	80	40	334	28	14
30....	260	375	250	....	....	210	34	216	40	378	28	14
31....	306	....	250	....	....	210	....	356	....	272	23	....
Total	20458	14726	9986	....	....	7342	3802	2635	1665	3820	1739	503
Mean.	660	491	322	210	320	237	127	85.0	55.5	123	56.1	16.8
Max..	1340	696	375	....	....	312	272	610	234	586	253	28
Min...	218	339	250	....	....	150	34	23	28	34	23	10
Acre-ft.	40600	29200	19800	12900	17800	14600	7560	5230	3300	7560	3450	1000

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Rio Grande River at Lobatos for Year Ending Sept. 30, 1929.
Drainage Area, 7,700 Square Miles. Altitude, 7,440 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	62	118	346	278	251	298	601	601	1960	354	126	459
2....	60	121	360	278	258	346	682	619	2070	390	346	549
3....	60	131	368	291	264	346	610	532	2140	390	692	610
4....	57	142	368	332	291	298	558	541	2350	318	758	654
5....	57	156	368	238	307	354	673	729	2450	284	892	797
6....	57	167	404	238	305	375	856	1060	2450	251	826	938
7....	57	175	420	264	305	390	797	1350	2380	226	907	1050
8....	60	199	397	278	298	442	710	1460	2800	213	919	1260
9....	60	216	420	278	227	443	601	1710	2870	200	1190	1380
10....	65	216	404	264	227	482	474	1990	2980	182	1370	1370
11....	67	225	390	284	232	532	390	2140	2940	182	1330	1390
12....	67	262	368	284	238	558	382	2030	2780	158	2170	1410
13....	70	292	404	284	245	524	354	1720	2500	140	3090	1550
14....	76	314	404	291	264	507	245	1410	1920	135	3040	1570
15....	70	326	368	291	298	451	213	1580	1340	152	2910	1460
16....	70	362	318	312	264	451	194	2140	1090	164	2680	1340
17....	82	369	298	312	298	499	188	2740	989	213	2480	1240
18....	90	403	298	305	332	474	206	2380	958	182	2090	1200
19....	93	390	318	305	332	499	382	2090	968	135	1810	1160
20....	85	344	298	264	298	490	575	1950	866	111	1510	1070
21....	79	350	312	264	298	474	566	2420	729	106	1160	1030
22....	76	410	325	251	298	532	435	2780	682	88	907	1040
23....	76	410	332	251	305	541	420	2740	836	92	797	1170
24....	76	436	332	245	305	566	397	2720	817	85	739	1970
25....	87	446	346	245	318	524	346	2860	645	81	673	2570
26....	90	436	361	264	305	459	332	3160	524	78	628	2520
27....	90	424	368	251	298	427	332	3490	435	62	558	2200
28....	90	410	375	245	298	420	325	3040	361	51	466	2060
29....	93	380	382	251	....	435	375	2540	332	44	397	1990
30....	99	360	375	251	....	459	507	2060	332	44	443	1840
31....	105	....	302	264	....	499	....	1810	....	60	420	....
Total	2326	8990	11129	8453	7959	14095	13726	60392	46494	5171	38324	40847
Mean.	75.0	300	359	273	283	455	458	1950	1550	167	1240	1360
Max..	105	446	420	332	332	566	856	3490	2980	390	3090	2570
Min...	57	118	298	238	227	298	188	532	332	44	126	459
Acre-ft.	4610	17900	22100	16800	15700	28000	27300	120000	92200	10300	76200	80900

Discharge of Rio Grande River at Lobatos for Year Ending Sept. 30, 1930.
Drainage Area, 7,700 Square Miles. Altitude, 7,440 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	1730	474	692	369	310	676	459	761	1530	66	536	105
2....	1620	566	692	338	310	668	446	769	1380	66	536	99
3....	1490	673	692	282	310	612	420	830	1110	62	466	99
4....	1430	768	652	310	310	604	400	852	796	62	388	96
5....	1350	887	652	310	310	582	375	752	718	62	332	94
6....	1290	907	652	282	310	597	381	668	684	62	299	102
7....	1240	924	652	282	310	604	446	612	676	60	293	102
8....	1180	958	735	310	310	582	480	551	769	58	288	108
9....	1170	999	735	310	338	551	636	480	815	58	277	105
10....	1190	1030	652	310	338	544	879	420	787	58	277	102
11....	1230	807	574	310	369	536	1100	446	709	52	272	99
12....	1170	701	574	310	369	522	1200	357	668	41	369	105
13....	1090	652	536	310	369	522	1050	321	718	58	310	96
14....	1060	612	536	310	369	529	1100	288	761	66	272	91
15....	989	574	536	310	369	529	1080	293	709	70	262	88
16....	897	652	501	310	400	522	879	369	636	60	272	88
17....	836	692	501	310	369	515	744	494	574	91	272	91
18....	807	692	466	310	400	522	644	308	494	60	272	88
19....	768	692	433	310	400	529	566	459	420	54	299	88
20....	710	692	400	282	369	508	501	426	332	50	272	86
21....	682	692	282	257	466	501	522	440	272	52	223	84
22....	610	652	282	282	612	494	652	501	223	70	195	86
23....	482	612	310	282	744	494	778	612	191	134	178	86
24....	420	612	369	310	761	480	909	597	150	701	158	84
25....	361	652	433	257	726	487	842	574	113	735	150	81
26....	339	692	433	282	701	487	1020	628	94	559	131	81
27....	339	692	433	310	668	375	1010	806	91	473	134	77
28....	390	692	400	310	644	440	1040	1010	84	446	154	77
29....	427	692	400	310	....	529	988	1120	79	501	113	79
30....	412	692	400	310	....	466	842	1010	70	529	113	91
31....	427	....	369	310	....	459	....	1210	....	589	110	....
Total	28136	21632	15974	9395	12261	16466	22389	19164	16653	6005	8223	2758
Mean.	908	721	515	303	438	531	746	618	555	194	265	91.9
Max..	1730	1030	735	369	761	676	1200	1210	1530	735	536	108
Min...	339	474	282	257	310	375	375	288	70	41	110	77
Acre-ft.	55800	42900	31700	18600	24300	32600	44400	38000	33000	11900	16300	5470

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of North Clear Creek Below Continental Reservoir for Year Ending Sept. 30, 1929.
Drainage Area, 49 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	....	....	....	....	....	....	....	57	49	90	73	40
2....	....	....	....	....	....	....	....	127	39	90	57	40
3....	....	....	....	....	....	....	....	149	34	85	61	40
4....	....	....	....	....	....	....	....	157	25	79	47	40
5....	....	....	....	....	....	....	....	157	25	77	34	32
6....	....	....	....	....	....	....	....	226	25	87	36	30
7....	....	....	....	....	....	....	....	218	25	107	37	49
8....	....	....	....	....	....	....	....	226	61	110	35	45
9....	....	....	....	....	....	....	....	186	65	114	58	28
10....	....	....	....	....	....	....	....	146	81	123	79	37
11....	....	....	....	....	....	....	....	154	90	128	78	46
12....	....	....	....	....	....	....	....	103	97	133	97	41
13....	....	....	....	....	....	....	....	113	101	117	112	30
14....	....	....	....	....	....	....	....	185	112	90	111	28
15....	....	....	....	....	....	....	....	139	125	75	90	31
16....	....	....	....	....	....	....	....	115	118	83	67	31
17....	....	....	....	....	....	....	....	141	111	103	63	27
18....	....	....	....	....	....	....	....	141	101	103	63	27
19....	....	....	....	....	....	....	....	141	83	117	63	28
20....	....	....	....	....	....	....	....	139	75	127	63	27
21....	....	....	....	....	....	....	....	110	85	129	58	29
22....	....	....	....	....	....	....	....	94	88	101	52	32
23....	....	....	....	....	....	....	....	93	89	82	47	41
24....	....	....	....	....	....	....	....	93	79	77	47	48
25....	....	....	....	....	....	....	....	91	64	86	45	41
26....	....	....	....	....	....	....	....	88	89	102	42	43
27....	....	....	....	....	....	....	....	90	101	131	40	48
28....	....	....	....	....	....	....	....	92	100	129	40	45
29....	....	....	....	....	....	....	....	86	101	128	40	34
30....	....	....	....	....	....	....	....	80	95	140	40	30
31....	....	....	....	....	....	....	....	61	....	123	40	....
Total	....	....	....	....	....	....	....	3998	2333	3266	1815	1088
Mean.	....	....	....	....	....	....	....	129	77.8	105	58.5	36.3
Max..	....	....	....	....	....	....	....	226	125	140	112	49
Min...	....	....	....	....	....	....	....	57	25	75	34	27
Acre-ft.	....	....	....	....	....	....	....	7930	4630	6460	3600	2160

Discharge of North Clear Creek Below Continental Reservoir for Year Ending Sept. 30, 1930.
Drainage Area, 49 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	26	22	16	11	10	10	10	63	103	43	52	27
2....	26	24	16	11	....	....	10	112	109	45	54	27
3....	26	24	16	11	....	....	10	121	112	40	41	20
4....	26	21	15	11	....	....	10	75	100	37	34	13
5....	26	20	13	11	....	....	10	70	81	40	37	18
6....	26	20	13	11	....	....	10	63	75	42	42	28
7....	26	19	13	11	....	....	10	52	94	76	45	33
8....	27	19	13	11	....	....	10	46	106	88	45	33
9....	28	21	13	11	....	....	14	41	100	83	41	24
10....	28	21	13	10	....	....	14	41	84	69	49	22
11....	28	20	13	10	....	....	19	41	79	67	46	23
12....	28	21	13	10	....	....	19	47	89	67	44	22
13....	28	21	13	10	....	....	19	61	79	65	56	22
14....	30	20	13	10	....	....	21	82	68	63	66	20
15....	32	18	13	10	....	....	50	108	62	49	51	19
16....	34	21	13	10	....	....	59	135	60	41	49	18
17....	33	21	13	10	....	....	37	107	60	41	36	18
18....	33	20	13	10	....	....	36	71	58	66	35	18
19....	34	20	13	10	....	....	40	60	56	88	35	18
20....	34	20	13	10	....	....	46	102	55	80	41	18
21....	34	20	13	10	....	....	64	174	56	63	36	18
22....	34	20	13	10	....	....	115	149	52	42	37	19
23....	34	20	13	10	....	....	143	69	48	28	38	21
24....	33	20	13	10	....	....	171	84	49	32	39	24
25....	31	20	13	10	....	....	141	125	52	36	34	23
26....	31	20	13	10	....	....	97	185	49	47	34	19
27....	28	18	11	10	....	....	146	171	47	52	35	18
28....	23	16	11	10	10	....	170	155	48	58	33	18
29....	24	16	11	10	....	....	84	135	48	61	30	18
30....	24	16	11	10	....	....	64	110	43	43	30	18
31....	23	....	11	10	....	10	....	104	....	82	28	....
Total	898	599	405	319	280	310	1649	2959	2122	1734	1273	637
Mean.	29.0	20.0	13.1	10.3	10.0	10.0	55.0	95.5	70.7	56.0	41.1	21.2
Max..	34	24	16	11	10	10	171	185	112	88	66	33
Min...	23	16	11	10	10	10	10	41	43	28	28	13
Acre-ft.	1780	1190	806	633	555	615	3270	5870	4210	3440	2530	1260

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Alamosa River Below Terrace Reservoir for Year Ending Sept. 30, 1929. Drainage Area, 120 Square Miles. Altitude, 8,400 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	19	17	....	....	....	7	35	246	460	330	128	128
2....	19	17	....	....	....	7	35	246	426	330	246	170
3....	19	17	....	....	....	7	35	246	478	330	246	170
4....	19	17	....	....	....	7	35	246	515	220	148	170
5....	19	17	....	....	....	7	35	354	553	286	283	170
6....	19	17	....	....	....	7	35	354	592	194	283	148
7....	19	17	....	....	....	7	35	426	654	194	220	148
8....	19	17	....	....	....	7	35	426	675	286	220	124
9....	19	17	....	....	....	7	35	426	696	241	220	124
10....	19	17	....	....	....	7	35	426	696	236	220	82
11....	19	17	....	....	....	7	35	426	654	215	148	82
12....	19	17	....	....	....	7	35	426	612	241	148	82
13....	19	17	....	....	....	7	35	426	572	241	108	82
14....	19	17	....	....	....	7	35	426	534	148	108	82
15....	19	17	....	....	....	7	35	433	460	220	108	82
16....	18	17	....	....	....	7	138	433	406	220	148	118
17....	18	17	....	....	....	7	148	440	474	246	148	118
18....	18	17	....	....	....	7	170	440	474	262	128	118
19....	18	17	....	....	....	7	182	440	515	262	170	118
20....	18	17	....	....	....	7	194	366	515	262	170	118
21....	18	17	....	....	....	7	220	366	474	161	220	118
22....	18	17	....	....	....	7	246	366	474	289	220	118
23....	18	17	....	....	....	7	246	348	406	262	220	118
24....	18	17	....	....	....	7	246	348	460	262	220	118
25....	18	17	....	....	....	7	246	399	460	262	128	118
26....	18	17	....	....	....	7	246	496	440	220	170	118
27....	18	17	....	....	....	7	246	496	440	220	170	118
28....	18	7	....	....	....	35	246	496	406	128	170	118
29....	18	7	....	....	....	35	246	496	406	262	170	118
30....	18	7	....	....	....	35	246	460	286	262	170	118
31....	18	....	....	....	....	35	....	460	....	262	170	....
Total	573	480	....	....	....	329	3791	12383	15213	7554	5343	3614
Mean.	18.5	16.0	7.2	7.2	7.2	10.6	126	399	507	244	172	120
Max..	19	17	....	....	....	35	246	496	696	330	283	170
Min...	18	7	....	....	....	7	35	246	286	128	108	82
Acre-ft.	1140	952	437	437	400	652	7500	24500	30200	15000	10600	7140

Discharge of Alamosa River Below Terrace Reservoir for Year Ending Sept. 30, 1930. Drainage Area, 120 Square Miles. Altitude, 8,400 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	110	....	....	....	....	....	28	279	430	121	84	101
2....	110	....	....	....	....	....	28	279	394	121	92	101
3....	110	....	....	....	....	....	28	279	360	121	92	84
4....	110	....	....	....	....	....	28	279	412	101	92	84
5....	110	....	....	....	....	....	28	294	430	101	132	84
6....	110	....	....	....	....	....	28	279	430	101	156	68
7....	110	....	....	....	....	....	28	264	430	101	206	38
8....	110	....	....	....	....	....	33	220	430	101	193	38
9....	110	....	....	....	....	....	43	206	448	68	180	38
10....	101	....	....	....	....	....	68	121	430	92	180	38
11....	84	....	....	....	....	....	110	60	360	110	180	38
12....	84	....	....	....	....	....	110	144	310	101	193	38
13....	84	....	....	....	....	....	110	144	394	92	193	38
14....	68	....	....	....	....	....	110	156	412	76	193	38
15....	60	....	....	....	....	....	121	220	412	76	193	38
16....	60	....	....	....	....	....	156	264	412	92	193	38
17....	60	....	....	....	....	....	156	264	343	92	193	38
18....	60	....	....	....	....	....	156	206	343	92	193	38
19....	60	....	....	....	....	....	156	206	326	92	193	38
20....	60	....	....	....	....	....	156	206	294	92	193	38
21....	60	....	....	....	....	....	156	249	294	92	156	38
22....	60	....	....	....	....	....	168	310	234	76	156	38
23....	60	....	....	....	....	....	220	343	206	60	110	38
24....	60	....	....	....	....	....	234	360	206	76	60	38
25....	60	....	....	....	....	....	264	360	193	76	92	38
26....	60	....	....	....	....	....	294	394	156	76	110	38
27....	60	....	....	....	....	....	264	466	121	76	110	38
28....	60	....	....	....	....	....	279	502	121	76	110	38
29....	60	....	....	....	....	....	279	502	121	84	121	38
30....	60	....	....	....	....	....	279	502	121	84	121	38
31....	60	....	....	....	....	....	....	484	....	84	121	....
Total	2431	....	....	....	....	....	4118	8842	9573	2803	4591	1396
Mean.	78.4	56	48	46	32	28	137	285	319	90.4	148	46.5
Max..	110	....	....	....	....	....	294	502	448	121	206	101
Min...	60	....	....	....	....	....	28	60	121	60	60	38
Acre-ft.	4820	3330	2950	2830	1780	1720	8150	17590	19000	5560	9100	2770

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of La Jara Creek Near Capulin for Year Ending Sept. 30, 1929.
Drainage Area, 73 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	....	....	....	....	....	....	25	123	26	14	60	10
2....	....	....	....	....	....	....	20	114	26	23	50	10
3....	....	....	....	....	....	....	20	114	26	52	40	10
4....	....	....	....	....	....	....	24	123	26	52	20	10
5....	....	....	....	....	....	....	38	123	26	35	15	8
6....	....	....	....	....	....	....	32	132	20	20	15	8
7....	....	....	....	....	....	....	26	132	20	14	15	10
8....	....	....	....	....	....	....	26	132	20	17	12	10
9....	....	....	....	....	....	....	32	123	17	23	12	10
10....	....	....	....	....	....	....	28	105	17	23	12	59
11....	....	....	....	....	....	....	25	73	17	26	23	150
12....	....	....	....	....	....	....	25	66	17	26	23	14
13....	....	....	....	....	....	....	30	66	14	26	14	14
14....	....	....	....	....	....	....	38	66	14	26	12	12
15....	....	....	....	....	....	....	50	80	14	26	10	12
16....	....	....	....	....	....	....	59	66	14	26	10	14
17....	....	....	....	....	....	....	105	66	14	26	8	14
18....	....	....	....	....	....	....	123	66	14	30	8	14
19....	....	....	....	....	....	....	123	66	12	26	8	14
20....	....	....	....	....	....	....	141	66	12	35	8	14
21....	....	....	....	....	....	....	141	35	12	17	10	14
22....	....	....	....	....	....	....	132	59	12	23	10	12
23....	....	....	....	....	....	....	105	59	12	23	10	12
24....	....	....	....	....	....	....	88	66	12	30	10	12
25....	....	....	....	....	....	....	88	52	12	35	10	10
26....	....	....	....	....	....	....	96	46	12	46	12	10
27....	....	....	....	....	....	....	88	46	12	52	10	8
28....	....	....	....	....	....	....	88	46	12	52	10	12
29....	....	....	....	....	....	....	123	40	12	52	10	17
30....	....	....	....	....	....	....	132	26	12	52	8	20
31....	....	....	....	....	....	....	....	26	....	60	10	....
Total	....	....	....	....	....	....	2021	2403	486	988	485	544
Mean.	8	7	....	....	....	....	69.0	77.5	16.2	31.9	15.6	18.1
Max..	....	....	....	....	....	....	141	132	26	52	60	150
Min...	....	....	....	....	....	....	....	26	12	14	8	8
Acre-ft.	492	417	....	....	....	....	4110	4770	964	1960	959	1080

Discharge of La Jara Creek Near Capulin for Year Ending Sept. 30, 1930.
Drainage Area, 73 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	20	....	....	....	....	....	....	....	....	28	20	10
2....	16	....	....	....	....	....	....	....	....	28	20	12
3....	12	....	....	....	....	....	....	....	....	32	17	20
4....	10	....	....	....	....	....	....	....	....	38	17	24
5....	10	....	....	....	....	....	....	....	....	32	17	32
6....	10	....	....	....	....	....	....	....	....	38	17	32
7....	10	....	....	....	....	....	....	....	....	38	17	14
8....	10	....	....	....	....	....	....	....	....	24	17	10
9....	10	....	....	....	....	....	....	....	....	20	14	10
10....	10	....	....	....	....	....	....	....	....	20	10	10
11....	10	....	....	....	....	....	....	....	....	20	12	10
12....	10	....	....	....	....	....	....	....	....	24	12	8
13....	10	....	....	....	....	....	....	....	....	32	12	8
14....	10	....	....	....	....	....	....	....	....	32	14	8
15....	12	....	....	....	....	....	....	....	....	32	17	8
16....	12	....	....	....	....	....	....	....	....	38	14	10
17....	10	....	....	....	....	....	....	....	....	38	57	10
18....	10	....	....	....	....	....	....	....	....	43	32	10
19....	10	....	....	....	....	....	....	....	....	43	20	8
20....	8	....	....	....	....	....	....	....	....	38	17	8
21....	6	....	....	....	....	....	....	....	....	38	14	8
22....	6	....	....	....	....	....	....	....	....	38	17	8
23....	6	....	....	....	....	....	....	....	....	32	17	8
24....	6	....	....	....	....	....	....	....	....	20	17	8
25....	10	....	....	....	....	....	....	....	....	17	17	8
26....	12	....	....	....	....	....	....	....	....	14	14	8
27....	12	....	....	....	....	....	....	....	....	14	12	8
28....	12	....	....	....	....	....	....	....	....	12	28	8
29....	10	....	....	....	....	....	....	....	....	17	32	8
30....	12	....	....	....	....	....	....	....	....	20	14	8
31....	12	....	....	....	....	....	....	....	....	20	12	....
Total	324	....	....	....	....	....	....	....	....	880	567	342
Mean.	10.5	....	....	....	....	....	....	....	....	28.4	18.3	11.4
Max..	20	....	....	....	....	....	....	....	....	43	57	32
Min...	6	....	....	....	....	....	....	....	....	12	10	8
Acre-ft.	646	....	....	....	....	....	....	....	....	1750	1130	678

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of La Jara Creek Near Mouth for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	7	5	....	....	....	....	75	44	47	21	35	101
2....	7	5	....	....	....	....	78	44	52	21	37	101
3....	7	5	....	....	....	....	78	40	80	25	40	101
4....	7	5	....	....	....	....	70	37	62	31	45	101
5....	7	5	....	....	....	....	60	37	42	35	55	101
6....	7	5	....	....	....	....	55	55	37	33	57	101
7....	5	5	....	....	....	....	50	57	37	31	57	104
8....	5	5	....	....	....	....	55	47	37	31	62	107
9....	5	5	....	....	....	....	55	35	37	31	86	110
10....	5	5	....	....	....	....	55	31	37	31	95	119
11....	5	10	27	....	....	....	57	27	33	33	101	122
12....	5	10	....	....	....	....	68	29	33	40	104	125
13....	5	10	....	....	....	....	64	42	33	50	116	110
14....	4	10	....	....	....	....	52	50	33	52	116	95
15....	4	10	....	....	....	....	42	42	29	60	89	75
16....	12	30	....	....	....	....	37	44	29	70	72	62
17....	10	30	....	25	....	....	31	50	29	67	67	62
18....	5	30	....	....	....	71	42	47	29	57	65	62
19....	4	30	....	....	....	....	44	55	29	40	67	60
20....	5	30	....	....	....	....	42	92	27	29	65	62
21....	5	30	....	....	....	....	42	101	20	25	62	62
22....	5	30	....	....	....	....	60	113	20	25	60	62
23....	5	30	....	....	....	....	57	125	20	23	57	65
24....	5	30	....	....	....	....	42	128	20	23	77	67
25....	5	30	....	....	....	....	42	119	21	21	86	70
26....	5	30	....	....	25	....	42	113	25	20	89	67
27....	5	30	....	....	....	....	42	119	25	18	95	62
28....	5	30	....	....	....	....	42	122	25	16	101	62
29....	5	30	....	....	....	....	42	110	25	21	101	65
30....	5	30	....	....	....	....	40	86	20	31	101	67
31....	5	....	....	....	....	....	....	64	....	35	101	....
Total	176	550	....	....	....	....	1561	2105	993	1046	2361	2530
Mean.	5.68	18.3	28	26	24	60	52.0	67.9	33.1	33.7	76.2	84.3
Max..	12	....	....	....	....	....	....	128	80	70	116	125
Min...	4	....	....	....	....	....	....	27	20	16	35	60
Acre-ft.	349	1090	1720	1600	1330	3690	3090	4180	1970	2070	4690	5020

Discharge of La Jara Creek Near Mouth for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	....	....	....	....	....	50	17	29	4	1	38	4
2....	....	....	....	....	....	50	17	29	4	2	36	2
3....	....	....	....	....	....	40	17	29	4	7	38	2
4....	....	....	....	....	....	40	15	25	4	4	40	7
5....	....	....	....	....	....	45	15	27	4	1	42	7
6....	....	....	....	....	....	55	25	33	4	1	44	7
7....	42	....	84	....	....	70	29	38	4	2	46	7
8....	42	....	....	....	....	65	15	31	7	6	52	7
9....	42	....	....	....	....	60	27	31	10	1	46	7
10....	44	....	....	....	....	90	42	29	8	1	44	7
11....	44	....	....	....	....	90	69	25	7	1	44	7
12....	42	....	....	....	....	85	96	25	7	2	44	7
13....	38	....	....	....	....	85	110	23	7	2	44	7
14....	....	....	....	....	....	80	104	17	7	2	44	8
15....	....	....	....	....	....	80	102	12	7	2	44	10
16....	....	....	....	....	....	78	82	8	7	2	44	12
17....	....	....	....	....	....	76	63	7	6	2	44	15
18....	....	....	....	....	....	74	63	7	6	2	46	15
19....	....	....	....	....	....	71	48	7	4	2	46	15
20....	....	....	....	....	....	68	38	7	4	2	31	13
21....	....	....	....	....	....	68	33	6	4	2	13	13
22....	....	....	....	....	....	70	27	6	4	4	10	13
23....	....	....	....	....	....	67	29	6	4	33	10	13
24....	....	....	....	35	....	64	31	6	4	50	7	13
25....	....	....	....	....	....	64	40	6	2	42	7	13
26....	....	....	....	....	....	47	40	6	2	38	7	13
27....	....	....	....	....	....	26	38	6	2	38	7	13
28....	....	....	....	....	....	41	26	6	1	38	7	13
29....	....	....	....	....	....	41	33	6	1	38	8	13
30....	....	....	....	....	....	33	31	6	1	38	4	13
31....	....	....	....	....	....	25	....	4	....	38	2	....
Total	....	....	....	....	....	1898	1332	503	140	404	939	296
Mean.	40	70	65	40	60	61.2	44.4	16.2	4.67	13.0	30.3	9.87
Max..	....	....	....	....	....	....	110	38	10	50	52	15
Min...	....	....	....	....	....	....	15	4	1	1	2	2
Acre-ft.	2460	4160	4000	2460	3330	3760	2640	996	278	799	1860	587

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Trinchera Creek Below Smith Reservoir for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	2	2	....	....	....	....	10	6	46	4	10	4
2....	2	2	....	....	....	....	10	4	46	4	10	2
3....	2	2	....	....	....	....	10	4	46	4	11	3
4....	2	2	....	....	....	....	10	3	41	2	10	3
5....	2	2	....	....	....	....	10	3	37	6	10	2
6....	2	2	....	....	....	....	12	3	25	9	10	2
7....	2	2	....	....	....	....	12	2	20	9	11	3
8....	2	2	....	....	....	....	12	3	13	9	11	2
9....	2	2	....	....	....	....	12	2	10	12	11	2
10....	2	2	....	....	....	....	12	5	8	12	11	2
11....	2	2	....	....	....	....	15	7	6	11	8	3
12....	2	2	....	....	....	....	15	8	5	11	6	3
13....	2	2	....	....	....	....	15	17	4	11	6	3
14....	2	2	....	....	....	....	18	23	4	11	6	3
15....	2	2	....	....	....	....	18	27	4	11	6	3
16....	2	2	....	....	....	....	18	17	4	11	6	2
17....	2	2	....	....	....	....	18	19	4	12	6	2
18....	2	2	....	....	....	....	19	19	4	11	6	2
19....	2	2	....	....	....	....	22	20	4	11	6	2
20....	2	2	....	....	....	....	26	31	4	11	6	2
21....	2	2	....	....	....	....	27	43	4	11	6	2
22....	2	2	....	....	....	....	25	57	4	10	6	2
23....	2	2	....	....	....	....	21	58	4	11	6	2
24....	2	2	....	....	....	....	20	53	4	11	6	4
25....	2	2	....	....	....	....	17	55	4	10	6	2
26....	2	2	....	....	....	....	14	56	4	10	6	2
27....	2	2	....	....	....	....	13	69	4	9	6	2
28....	2	2	....	....	....	....	12	60	4	9	5	2
29....	2	2	....	....	....	....	10	57	4	10	2	2
30....	2	2	....	....	....	....	8	50	4	11	2	2
31....	2	....	....	....	....	....	....	44	....	11	3	....
Total	....	....	....	....	....	....	461	825	375	287	221	72
Mean.	2.0	2.0	....	....	....	....	15.4	26.6	12.5	9.26	7.13	2.4
Max..	....	....	....	....	....	....	27	69	46	12	11	4
Min...	....	....	....	....	....	....	8	2	4	2	2	2
Acre-ft.	123	119	....	....	....	....	916	1640	744	569	438	143

Discharge of Trinchera Creek Below Smith Reservoir for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	1	....	....	....	....	....	1	6	13	11	15	1
2....	1	....	....	....	....	....	1	4	12	11	16	1
3....	1	....	....	....	....	....	1	3	12	12	15	1
4....	1	....	....	....	....	....	1	3	13	15	14	1
5....	1	....	....	....	....	....	10	3	12	17	15	1
6....	1	....	....	....	....	....	20	3	11	19	16	1
7....	1	....	....	....	....	....	40	3	11	18	15	1
8....	1	....	....	....	....	....	50	1	11	18	5	1
9....	1	....	....	....	....	....	60	1	11	19	2	1
10....	1	....	....	....	....	....	66	2	11	18	1	1
11....	1	....	....	....	....	....	72	1	11	13	1	1
12....	1	....	....	....	....	....	74	1	11	8	1	1
13....	1	....	....	....	....	....	68	1	11	7	2	1
14....	1	....	....	....	....	....	64	1	11	6	1	1
15....	1	....	....	....	....	....	64	1	11	6	1	1
16....	1	....	....	....	....	....	64	1	11	6	2	1
17....	1	....	....	....	....	....	56	2	11	5	1	1
18....	1	....	....	....	....	....	43	2	11	6	1	1
19....	1	....	....	....	....	....	32	1	11	6	1	1
20....	1	....	....	....	....	....	25	1	11	6	1	1
21....	1	....	....	....	....	....	20	1	11	7	1	1
22....	1	....	....	....	....	....	17	5	11	7	1	1
23....	1	....	....	....	....	....	15	8	11	6	1	1
24....	1	....	....	....	....	....	12	8	11	6	1	1
25....	1	....	....	....	....	....	13	8	11	6	1	1
26....	1	....	....	....	....	....	16	7	11	6	1	1
27....	1	....	....	....	....	....	17	7	11	7	1	1
28....	1	....	....	....	....	....	19	6	11	9	1	1
29....	1	....	....	....	....	....	15	6	11	12	1	1
30....	1	....	....	....	....	....	10	9	11	13	1	1
31....	1	....	....	....	....	....	....	13	....	15	1	....
Total	31	....	....	....	....	....	966	119	337	321	138	30
Mean.	1.0	....	....	....	....	....	32.2	3.84	11.2	10.4	4.45	1.00
Max..	1	....	....	....	....	....	74	13	13	19	16	1
Min...	1	....	....	....	....	....	1	1	11	5	1	1
Acre-ft.	61	....	....	....	....	....	1920	236	666	640	274	60

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Trinchera Creek Above Turner Ranch for Year Ending Sept. 30, 1929.
Drainage Area, 45 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	14	14	....	....	....	....	10	23	78	28	16	23
2....	14	14	....	....	....	....	10	23	78	28	16	23
3....	14	14	....	....	....	....	10	20	78	23	23	23
4....	14	14	....	....	....	....	10	20	71	23	20	16
5....	14	14	....	....	....	....	10	20	64	23	20	16
6....	14	14	....	....	....	....	10	23	64	23	23	20
7....	14	14	....	....	....	....	10	28	64	20	32	20
8....	14	14	....	....	....	....	10	32	64	20	37	20
9....	14	14	....	....	....	....	10	37	58	20	32	20
10....	14	12	....	....	....	....	10	42	58	20	37	20
11....	14	12	....	....	....	....	10	42	64	20	47	20
12....	14	12	....	....	....	....	10	42	64	16	47	16
13....	14	12	....	....	....	....	13	42	58	16	47	16
14....	14	10	....	....	....	....	10	42	52	20	42	16
15....	14	10	....	....	....	....	13	42	52	20	37	16
16....	14	10	....	....	....	....	16	47	52	16	37	16
17....	14	10	....	....	....	....	23	47	47	16	32	16
18....	14	10	....	....	....	....	23	47	42	16	32	16
19....	14	10	....	....	....	....	20	47	42	16	32	16
20....	14	10	....	....	....	....	16	52	42	16	32	16
21....	14	10	....	....	....	....	16	58	37	16	28	16
22....	14	10	....	....	....	....	20	71	37	16	23	16
23....	14	10	....	....	....	....	20	78	37	16	23	20
24....	14	10	....	....	....	....	23	87	37	16	23	16
25....	14	10	....	....	....	....	20	96	37	16	23	16
26....	14	10	....	....	....	....	20	96	32	13	23	16
27....	14	10	....	....	....	....	16	96	32	13	23	16
28....	14	10	....	....	....	....	16	87	28	16	23	16
29....	14	10	....	....	....	....	20	78	28	16	23	16
30....	14	10	....	....	....	....	20	78	28	20	23	16
31....	14	....	....	....	....	....	....	78	....	20	23	....
Total	434	344	....	....	....	....	445	1621	1525	555	899	529
Mean.	14	11.5	....	....	....	....	14.8	52.3	50.8	17.9	29.0	17.7
Max..	14	....	....	....	....	....	....	96	78	28	47	23
Min...	14	....	....	....	....	....	....	20	28	13	16	16
Acre-ft.	861	684	....	....	....	....	881	3220	3020	1100	1780	1050

Discharge of Trinchera Creek Above Turner Ranch for Year Ending Sept. 30, 1930.
Drainage Area, 45 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	16	16	....	....	....	....	6	44	85	26	39	30
2....	16	28	....	....	....	....	6	50	85	26	34	28
3....	16	20	....	....	....	....	6	50	85	26	39	28
4....	16	20	....	....	....	....	8	50	78	26	34	26
5....	16	16	....	....	....	....	10	44	78	26	44	26
6....	16	10	....	....	....	....	16	44	78	26	44	24
7....	16	10	....	....	....	....	19	44	78	26	44	22
8....	16	10	....	....	....	....	22	44	78	22	44	22
9....	16	10	....	....	....	....	26	39	78	22	50	22
10....	16	10	....	....	....	....	26	39	70	22	56	22
11....	16	10	....	....	....	....	26	34	70	19	56	22
12....	16	10	....	....	....	....	26	34	70	19	56	22
13....	16	10	....	....	....	....	26	34	70	22	63	22
14....	16	10	....	....	....	....	30	34	70	30	56	19
15....	16	10	....	....	....	....	34	34	63	22	56	19
16....	16	8	....	....	....	....	34	44	63	22	56	19
17....	16	8	....	....	....	....	30	44	56	19	50	19
18....	16	8	....	....	....	....	26	44	56	19	50	19
19....	13	8	....	....	....	....	26	44	56	19	44	19
20....	13	8	....	....	....	....	26	44	44	19	44	19
21....	13	7	....	....	....	....	34	50	44	22	44	16
22....	13	7	....	....	....	....	39	63	44	44	44	16
23....	13	7	....	....	....	....	44	70	44	34	39	19
24....	13	8	....	....	....	....	44	70	44	34	39	19
25....	16	8	....	....	....	....	44	70	39	34	39	19
26....	16	8	....	....	....	....	44	70	34	34	39	19
27....	13	8	....	....	....	....	44	70	34	34	34	19
28....	13	8	....	....	....	....	50	70	34	30	34	16
29....	10	8	....	....	....	....	44	70	30	30	34	16
30....	13	8	....	....	....	....	44	70	26	30	30	16
31....	10	....	....	....	....	....	....	78	....	34	30	....
Total	457	317	....	....	....	....	860	1589	1784	818	1365	624
Mean.	14.7	10.6	....	....	....	....	28.7	51.3	59.5	26.4	44.0	20.8
Max..	16	28	....	....	....	....	50	78	85	44	63	30
Min...	10	7	....	....	....	....	6	34	26	19	30	16
Acre-ft.	904	631	....	....	....	....	1710	3150	3540	1620	2710	1240

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Trinchera Creek Above Mountain Home Reservoir for Year Ending Sept. 30, 1929.
Drainage Area, 61 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	3	4	....	....	....	....	7	12	63	25	18	20
2....	4	4	....	....	....	....	7	12	58	25	18	20
3....	4	5	....	....	....	....	7	12	55	25	21	20
4....	4	4	....	....	....	....	7	12	55	25	18	21
5....	3	2	....	....	....	....	7	11	54	23	13	20
6....	3	2	....	....	....	....	7	12	54	19	17	22
7....	3	2	....	....	....	....	7	13	50	18	26	25
8....	2	3	....	....	....	....	6	21	47	15	26	22
9....	2	3	....	....	....	....	4	31	40	17	23	18
10....	2	3	....	....	....	....	5	30	44	18	27	20
11....	2	3	....	....	....	....	5	39	48	17	39	22
12....	3	3	....	....	....	....	7	36	53	17	32	20
13....	4	3	....	....	....	....	7	32	51	17	39	18
14....	4	4	....	....	....	....	5	30	47	14	27	19
15....	3	4	....	....	....	....	4	33	45	15	27	18
16....	4	4	....	....	....	....	4	34	42	15	27	16
17....	3	4	....	....	....	....	8	34	40	15	27	16
18....	3	3	....	....	....	....	10	37	42	13	25	16
19....	3	2	....	....	....	....	9	38	38	13	21	15
20....	3	2	....	....	....	....	7	38	36	18	21	16
21....	3	2	....	....	....	....	7	45	36	15	23	18
22....	2	2	....	....	....	....	7	49	35	15	21	17
23....	2	3	....	....	....	....	7	53	32	18	18	19
24....	3	4	....	....	....	....	10	63	31	21	20	21
25....	2	4	....	....	....	....	7	69	29	19	19	20
26....	3	3	....	....	....	....	4	71	29	19	21	20
27....	3	3	....	....	....	....	5	69	27	19	19	18
28....	3	3	....	....	....	....	4	68	26	13	18	17
29....	2	3	....	....	....	....	5	65	26	13	21	18
30....	3	3	....	....	....	....	7	60	25	15	23	18
31....	4	....	....	....	....	....	....	64	....	23	21	....
Total	92	94	....	....	....	....	193	1193	1258	554	716	570
Mean.	2.97	3.13	....	....	....	....	6.43	38.5	41.9	17.9	23.1	19.0
Max..	4	5	....	....	....	....	10	71	63	25	39	25
Min...	2	2	....	....	....	....	4	11	25	13	13	15
Acre-ft.	183	186	....	....	....	....	383	2380	2490	1100	1420	1130

Discharge of Trinchera Creek Above Mountain Home Reservoir for Year Ending Sept. 30, 1930.
Drainage Area, 61 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	15	13	....	....	....	....	6	22	54	29	57	27
2....	16	13	....	....	....	....	6	21	50	27	56	27
3....	15	16	....	....	....	....	6	30	48	27	54	27
4....	15	15	....	....	....	....	6	26	52	27	51	27
5....	17	15	....	....	....	....	8	23	51	25	56	27
6....	16	16	....	....	....	....	12	22	50	22	72	27
7....	16	13	....	....	....	....	15	22	53	21	63	27
8....	16	13	....	....	....	....	18	19	53	19	66	27
9....	19	13	....	....	....	....	17	18	49	21	67	27
10....	18	13	....	....	....	....	12	20	50	24	78	27
11....	17	13	....	....	....	....	12	23	47	22	77	26
12....	18	12	....	....	....	....	11	21	45	22	79	24
13....	18	11	....	....	....	....	8	17	45	25	87	23
14....	13	6	....	....	....	....	10	16	42	30	87	22
15....	15	6	....	....	....	....	11	16	42	25	69	20
16....	16	11	....	....	....	....	12	24	42	23	73	21
17....	13	12	....	....	....	....	11	31	40	21	64	21
18....	13	12	....	....	....	....	11	30	42	21	56	19
19....	14	10	....	....	....	....	11	30	41	21	47	19
20....	13	10	....	....	....	....	10	30	40	21	40	19
21....	14	8	....	....	....	....	9	32	38	22	38	19
22....	14	8	....	....	....	....	10	42	37	57	35	18
23....	14	10	....	....	....	....	13	43	33	50	36	17
24....	12	10	....	....	....	....	16	47	30	45	33	17
25....	12	10	....	....	....	....	18	47	29	43	30	18
26....	15	10	....	....	....	....	24	49	29	45	29	18
27....	14	10	....	....	....	....	25	48	28	50	28	19
28....	14	10	....	....	....	....	24	48	30	50	26	19
29....	13	10	....	....	....	....	23	43	33	49	25	18
30....	12	10	....	....	....	....	23	44	32	49	27	21
31....	13	....	....	....	....	....	....	53	....	53	27	....
Total	459	339	....	....	....	....	398	957	1255	986	1633	668
Mean.	14.8	11.3	....	....	....	....	13.3	30.9	41.8	31.8	52.7	22.3
Max..	19	16	....	....	....	....	25	53	54	57	87	27
Min...	12	6	....	....	....	....	6	16	28	19	25	17
Acre-ft.	910	672	....	....	....	....	791	1900	2490	1960	3240	1330

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Sangre De Cristo Creek Near Fort Garland for Year Ending Sept. 30, 1929.
Drainage Area, 187 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	1	10	....	....	....	....	26	49	68	9	8	10
2....	1	10	....	....	....	....	24	48	61	9	7	8
3....	2	12	....	....	....	....	24	49	55	10	10	8
4....	2	10	....	....	....	....	32	51	49	8	13	8
5....	2	10	....	....	....	....	36	55	41	10	10	8
6....	3	10	....	....	....	....	24	59	40	10	10	8
7....	3	10	....	....	....	....	24	63	38	8	18	9
8....	3	10	....	....	....	....	24	65	32	8	20	9
9....	3	9	....	....	....	....	24	65	30	9	15	8
10....	3	9	....	....	....	....	38	75	28	10	13	8
11....	3	9	....	....	....	....	32	75	25	9	18	8
12....	4	9	....	....	....	....	32	130	27	9	19	8
13....	10	9	....	....	....	....	40	100	28	8	15	8
14....	8	10	....	....	....	....	40	90	26	7	11	8
15....	7	14	....	....	....	....	42	80	25	7	9	7
16....	9	9	....	....	....	....	45	84	23	8	9	7
17....	10	10	....	....	....	....	53	85	21	7	9	7
18....	9	9	....	....	....	....	57	85	20	8	8	7
19....	9	7	....	....	....	....	58	86	20	14	8	7
20....	10	8	....	....	....	....	55	82	15	11	8	7
21....	10	8	....	....	....	....	51	98	15	13	8	8
22....	8	8	....	....	....	....	50	103	14	10	8	8
23....	8	8	....	....	....	....	42	108	13	10	8	8
24....	8	8	....	....	....	....	43	104	12	10	8	8
25....	8	8	....	....	....	....	42	95	13	8	8	8
26....	8	9	....	....	....	....	38	90	12	8	8	8
27....	8	9	....	....	....	....	37	84	11	7	8	8
28....	8	9	....	....	....	....	35	81	10	7	9	7
29....	6	8	....	....	....	....	37	76	10	6	9	8
30....	7	8	....	....	....	....	40	70	10	7	10	7
31....	9	....	....	....	....	....	....	74	....	8	10	....
Total	190	277	....	....	....	....	1145	2459	792	273	332	236
Mean.	6.13	9.23	....	....	....	....	38.2	79.3	26.4	8.87	10.7	7.87
Max..	10	....	....	....	....	....	58	130	68	14	20	10
Min...	1	....	....	....	....	....	24	48	10	6	7	7
Acre-ft.	377	549	....	....	....	....	2270	4880	1570	545	658	468

Discharge of Ute Creek Near Fort Garland for Year Ending Sept. 30, 1929.
Drainage Area, 32 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	5	8	....	....	....	....	15	36	95	40	35	54
2....	5	12	....	....	....	....	15	32	90	38	29	44
3....	5	11	....	....	....	....	15	31	96	35	38	36
4....	5	12	....	....	....	....	15	34	100	33	38	38
5....	6	12	....	....	....	....	15	38	90	33	43	35
6....	6	9	....	....	....	....	17	34	89	33	44	35
7....	6	10	....	....	....	....	17	32	90	30	90	45
8....	6	10	....	....	....	....	15	38	85	26	148	43
9....	6	10	....	....	....	....	15	39	89	30	80	39
10....	7	8	....	....	....	....	15	50	80	32	76	36
11....	7	8	....	....	....	....	15	50	80	38	116	38
12....	9	9	....	....	....	....	15	78	77	33	76	33
13....	11	9	....	....	....	....	15	65	69	30	64	30
14....	10	9	....	....	....	....	15	61	67	26	59	31
15....	9	9	....	....	....	....	16	75	70	40	52	30
16....	9	10	....	....	....	....	20	85	60	35	46	30
17....	9	11	....	....	....	....	26	78	55	30	44	28
18....	8	7	....	....	....	....	32	65	53	38	40	27
19....	8	7	....	....	....	....	34	65	54	139	36	25
20....	8	10	....	....	....	....	32	75	54	104	38	25
21....	8	11	....	....	....	....	28	85	54	96	41	31
22....	6	9	....	....	....	....	29	113	53	82	43	80
23....	7	10	....	....	....	....	27	89	49	96	54	222
24....	7	9	....	....	....	....	29	85	48	55	48	93
25....	8	9	....	....	....	....	27	83	45	55	50	59
26....	8	9	....	....	....	....	26	99	44	34	45	49
27....	7	9	....	....	....	....	24	82	41	40	52	42
28....	9	9	....	....	....	....	24	71	48	38	52	38
29....	9	8	....	....	....	....	27	70	40	35	56	32
30....	8	8	....	....	....	....	33	75	38	38	54	24
31....	8	....	....	....	....	....	....	104	....	72	53	....
Total	230	282	....	....	....	....	648	2017	2003	1484	1740	1330
Mean.	7.42	9.40	....	....	....	....	21.6	65.1	66.8	47.9	56.1	44.3
Max..	11	12	....	....	....	....	34	113	100	139	148	222
Min...	5	7	....	....	....	....	15	31	38	26	29	24
Acre-ft.	456	559	....	....	....	....	1290	4000	3970	2950	3450	2640

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Ute Creek Near Fort Garland for Year Ending Sept. 30, 1930.
Drainage Area, 32 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	29	20	....	....	....	....	24	17	53	17	35	8
2....	31	19	....	....	....	....	27	34	46	16	28	8
3....	29	23	....	....	....	....	30	46	46	9	27	8
4....	29	20	....	....	....	....	34	39	54	7	32	8
5....	28	21	....	....	....	....	40	33	52	13	36	8
6....	28	22	....	....	....	....	40	30	53	9	41	9
7....	26	19	....	....	....	....	38	29	63	8	33	7
8....	27	16	....	....	....	....	38	27	70	5	35	6
9....	29	18	....	....	....	....	40	27	70	4	81	5
10....	27	19	....	....	....	....	41	27	63	2	75	7
11....	26	18	....	....	....	....	40	25	54	8	67	5
12....	27	15	....	....	....	....	40	24	59	4	59	4
13....	27	16	....	....	....	....	40	21	54	4	54	5
14....	24	14	....	....	....	....	40	21	55	23	50	5
15....	24	13	....	....	....	....	40	26	44	18	48	5
16....	25	14	....	....	....	....	42	24	48	12	44	6
17....	23	15	....	....	....	....	36	40	52	7	38	6
18....	23	15	....	....	....	....	33	40	46	7	32	5
19....	24	15	....	....	....	....	33	34	41	8	28	5
20....	23	15	....	....	....	....	33	32	38	5	22	5
21....	22	12	....	....	....	....	36	35	38	31	16	5
22....	22	12	....	....	....	....	43	37	38	262	16	5
23....	21	12	....	....	....	....	50	34	32	279	16	5
24....	17	14	....	....	....	....	54	34	23	120	14	5
25....	20	14	....	....	....	....	47	35	22	60	14	5
26....	22	14	....	....	....	....	39	37	21	45	14	5
27....	21	14	....	....	....	....	46	46	20	45	15	5
28....	20	14	....	....	....	....	35	50	19	41	15	5
29....	20	14	....	....	....	....	32	50	18	39	16	5
30....	19	14	....	....	....	....	21	49	18	37	16	15
31....	18	....	....	....	....	....	....	53	....	46	12	....
Total	751	481	....	....	....	....	1132	1056	1310	1191	1029	185
Mean.	24.2	16.0	....	....	....	....	37.7	34.1	43.7	38.4	33.2	6.17
Max..	31	23	....	....	....	....	54	53	70	279	81	15
Min...	17	12	....	....	....	....	21	17	18	2	12	4
Acre-ft.	1490	952	....	....	....	....	2240	2100	2600	2360	2040	367

Discharge of Conejos River Near Mogote for Year Ending Sept. 30, 1929.
Drainage Area, 282 Square Miles. Altitude, 8,300 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	57	....	....	....	....	....	170	781	1920	705	995	353
2....	54	....	....	....	....	....	150	678	2030	729	670	380
3....	50	....	....	....	....	....	145	882	2200	695	602	414
4....	48	....	....	....	....	....	160	995	2420	640	624	448
5....	48	....	....	....	44	....	236	1150	2460	624	704	391
6....	45	....	....	....	....	....	199	1580	2400	566	518	473
7....	44	....	....	....	....	....	174	1970	2380	538	511	566
8....	48	51	....	....	....	62	174	2420	2310	492	602	524
9....	48	....	....	....	....	....	199	2420	2380	511	448	479
10....	48	....	....	....	....	....	181	2130	2330	511	486	425
11....	50	....	....	....	....	....	167	1750	2130	479	1220	431
12....	54	....	....	....	....	....	167	1360	1860	594	1440	473
13....	75	....	....	....	....	....	192	1110	1600	511	844	386
14....	85	....	....	....	....	....	240	1410	1610	443	670	348
15....	80	....	....	....	....	....	325	2130	1670	518	566	314
16....	73	....	....	....	....	....	466	2310	1350	511	511	296
17....	68	....	....	....	....	....	573	1890	1350	498	473	269
18....	61	....	....	....	....	....	687	1620	1310	397	425	248
19....	59	....	....	....	....	....	655	1410	1310	454	353	240
20....	66	....	....	....	....	....	552	1830	1310	455	319	260
21....	66	....	....	....	....	....	538	1910	1300	430	314	291
22....	66	....	....	....	....	....	617	1750	1230	430	329	444
23....	61	....	....	....	....	....	580	1670	1180	440	329	1400
24....	57	....	....	....	....	....	511	1860	1150	402	334	873
25....	59	....	....	....	....	....	579	2060	1090	431	305	647
26....	54	....	....	....	....	....	524	2310	1030	348	329	587
27....	50	....	....	....	....	....	505	1680	973	300	310	524
28....	50	....	....	....	....	....	524	1380	902	425	310	442
29....	50	....	....	....	....	....	737	1180	873	370	310	391
30....	50	....	....	....	....	....	835	1330	763	324	324	359
31....	50	....	....	....	....	....	....	1840	....	647	353	....
Total	1774	....	....	....	....	....	11762	50796	48821	15418	16528	13676
Mean.	57.2	50	48	46	48	90	392	1640	1630	497	533	456
Max..	85	....	....	....	....	....	835	2420	2460	729	1440	1400
Min...	44	....	....	....	....	....	145	678	763	300	305	240
Acre-ft.	3520	2980	3010	2830	2670	5530	23300	101000	97000	30600	32800	27100

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Conejos River Near Mogote for Year Ending Sept. 30, 1930.
Drainage Area, 282 Square Miles. Altitude, 8,300 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	315	102	....	....	....	....	72	808	1480	375	337	90
2....	285	90	....	....	....	....	75	964	1240	381	321	78
3....	265	102	....	....	....	....	87	1020	1160	457	290	75
4....	265	99	....	....	....	....	128	773	1310	342	265	90
5....	242	99	39	....	....	....	180	672	1420	305	256	102
6....	216	102	....	....	....	....	270	594	1480	285	315	111
7....	196	108	....	....	....	....	375	550	1580	275	290	78
8....	200	105	....	....	....	....	476	496	1530	260	256	67
9....	212	102	....	....	....	....	572	439	1490	265	260	61
10....	196	84	....	....	....	....	648	409	1360	251	315	53
11....	180	102	....	....	....	....	617	381	1260	242	300	48
12....	173	102	....	....	....	....	624	370	1470	242	310	41
13....	159	81	....	....	....	....	624	392	1520	238	305	39
14....	152	84	....	....	....	....	672	489	1390	398	305	35
15....	145	76	....	....	....	....	602	632	1270	409	310	32
16....	142	72	....	....	....	....	580	756	1180	338	305	39
17....	139	68	....	....	....	....	432	664	1140	280	270	35
18....	132	64	....	....	....	....	392	580	1090	315	234	32
19....	122	60	....	....	....	....	609	557	984	348	196	30
20....	118	55	....	....	72	....	609	648	873	270	166	28
21....	115	50	....	33	....	49	747	933	808	300	145	28
22....	115	48	....	....	....	....	773	1100	756	509	132	32
23....	111	48	....	....	....	....	923	964	721	275	128	64
24....	115	48	....	....	....	....	845	1060	648	432	128	58
25....	111	52	....	....	....	....	892	1210	550	409	135	56
26....	115	55	....	....	....	....	845	1390	470	398	159	61
27....	115	52	....	....	....	....	864	1470	451	359	145	61
28....	115	50	....	....	....	....	827	1640	482	332	135	56
29....	105	50	....	....	....	....	721	1610	463	353	135	50
30....	102	50	....	....	....	72	730	1830	426	342	122	67
31....	102	....	....	....	....	78	....	1860	....	359	102	....
Total	5075	2260	....	....	....	....	16811	27261	32002	10344	7072	1697
Mean.	164	75.3	40	35	50	55	560	879	1070	334	228	56.6
Max..	315	108	....	....	....	....	923	1860	1580	509	337	111
Min...	102	48	....	....	....	....	72	370	426	238	102	28
Acre-ft.	10100	4480	2460	2150	2780	3380	33300	54000	63700	20500	14000	3370

Discharge of Conejos River at Mouth Near La Sauses for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	18	21	52	64	56	94	69	453	1500	27	26	66
2....	18	21	52	64	56	98	69	434	1580	22	44	87
3....	18	21	52	64	59	102	59	362	1580	19	144	157
4....	18	21	52	64	59	93	52	472	1600	18	178	184
5....	18	21	52	56	69	93	59	739	1660	16	260	265
6....	18	29	49	56	77	93	59	1070	1640	16	275	294
7....	18	36	49	56	85	93	61	1280	1640	16	336	316
8....	18	36	49	49	85	93	58	1440	1520	17	368	320
9....	18	36	43	49	89	93	54	1960	1420	13	394	286
10....	18	36	43	49	98	93	49	2030	1390	13	328	255
11....	18	36	49	49	83	85	43	1830	1230	13	446	272
12....	18	36	49	49	83	85	43	1500	1050	16	933	292
13....	18	54	49	49	83	81	43	1310	739	16	1090	272
14....	14	54	56	49	75	81	36	1310	632	23	1000	258
15....	16	54	49	49	83	81	43	1570	580	33	775	244
16....	17	54	55	49	85	81	56	1910	503	66	534	230
17....	17	54	55	49	85	85	72	2090	429	67	458	230
18....	17	54	55	49	77	89	118	1780	342	42	381	225
19....	17	46	55	49	83	85	194	1610	320	23	315	222
20....	17	52	63	49	85	93	223	1610	282	21	208	230
21....	17	52	63	56	85	93	140	2150	262	16	172	245
22....	17	52	63	56	89	89	134	2240	228	18	112	285
23....	17	52	63	48	85	81	159	2150	196	19	110	380
24....	21	52	63	46	89	89	144	2030	184	21	100	640
25....	21	52	63	46	89	77	148	2180	170	19	100	631
26....	21	52	63	46	94	73	148	2360	133	18	84	564
27....	21	52	63	69	89	73	175	2270	103	16	74	536
28....	21	54	64	61	85	61	216	1820	71	16	64	461
29....	21	54	64	69	....	54	281	1440	46	14	44	389
30....	21	54	64	72	....	54	417	1140	36	14	49	342
31....	21	....	64	56	....	52	....	1140	....	14	46	....
Total	568	1298	1725	1686	2260	2587	3422	47680	23066	682	9448	9178
Mean.	18.3	43.3	55.6	54.4	80.7	83.5	114	1540	769	22.0	305	306
Max..	21	54	64	72	98	102	417	2360	1660	67	1090	640
Min...	14	21	43	46	56	52	36	362	36	13	26	66
Acre-ft.	1130	2580	3420	3340	4480	5130	6780	94700	45700	1350	18800	18200

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Conejos River at Mouth Near La Sauses for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	300	75	111	62	68	74	68	595	1390	6	182	12
2....	234	75	93	57	66	74	71	648	1040	6	168	13
3....	198	82	86	55	74	84	81	695	715	6	139	13
4....	195	82	111	60	66	91	109	639	658	6	111	11
5....	183	89	95	60	68	97	205	491	658	6	85	11
6....	171	89	88	60	74	101	404	418	674	6	81	20
7....	158	103	81	60	74	101	644	352	709	6	81	20
8....	158	117	81	60	74	94	680	289	732	6	94	22
9....	158	98	81	55	77	84	644	260	764	6	91	20
10....	146	89	81	55	74	91	720	230	709	6	85	20
11....	133	89	88	55	88	91	810	208	640	6	78	20
12....	114	97	88	55	95	81	925	182	629	6	78	18
13....	114	90	81	55	98	84	990	166	688	6	72	18
14....	114	95	81	55	84	84	773	166	696	6	72	17
15....	114	106	81	55	84	84	654	226	619	6	74	19
16....	114	106	81	60	84	84	555	314	523	6	73	19
17....	105	123	88	60	84	84	428	386	448	6	67	19
18....	89	126	81	60	91	84	306	322	374	7	60	19
19....	87	144	62	60	91	84	270	263	290	6	56	19
20....	87	126	74	60	112	84	284	258	219	3	54	21
21....	87	144	74	60	104	84	391	326	168	6	51	21
22....	80	129	68	81	104	84	550	453	108	8	54	22
23....	80	111	74	81	123	77	703	502	77	59	35	22
24....	80	111	68	68	107	71	764	435	65	176	28	22
25....	73	111	62	68	90	77	779	447	37	160	28	21
26....	72	95	62	74	77	66	874	581	25	170	27	21
27....	65	95	62	74	87	57	884	707	13	146	22	24
28....	65	95	62	68	68	63	868	745	9	138	17	23
29....	66	111	62	68	....	72	749	871	6	150	14	22
30....	73	111	68	68	....	81	609	981	6	170	15	22
31....	73	....	68	66	....	81	....	1200	....	180	14	....
Total	3786	3114	2443	1935	2386	2548	16792	14351	13687	1481	2106	571
Mean.	122	104	78.8	62.4	85.2	82.2	560	463	456	47.8	67.9	19.0
Max..	300	144	111	81	123	101	990	1200	1390	180	182	24
Min...	65	75	62	55	66	57	68	166	6	3	14	11
Acre-ft.	2500	6190	4850	3840	4730	5050	33300	28500	27100	2940	4180	1130

Discharge of San Antonio River at Ortiz for Year Ending Sept. 30, 1929.
Drainage Area, 110 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	0	9	....	....	....	....	90	196	62	3	9	3
2....	0	8	....	....	....	....	90	214	47	5	12	2
3....	0	6	....	....	....	....	100	296	48	4	45	2
4....	0	7	....	....	....	....	100	386	47	3	24	2
5....	0	7	....	....	....	....	99	394	22	1	12	1
6....	0	7	....	....	....	....	100	358	22	0	12	1
7....	0	6	....	....	....	....	100	351	20	0	12	1
8....	0	....	....	....	....	....	100	328	18	0	12	1
9....	0	....	....	....	....	....	100	299	17	3	12	1
10....	0	....	....	....	....	....	110	226	15	3	11	0
11....	0	....	....	....	....	....	100	205	15	3	40	0
12....	0	....	....	....	....	....	120	176	18	3	44	0
13....	0	....	....	....	....	....	140	185	15	3	22	0
14....	0	....	....	....	....	....	160	171	12	3	14	0
15....	0	....	....	....	....	....	180	152	8	3	8	0
16....	0	....	....	....	....	....	240	154	7	3	14	0
17....	0	....	....	....	....	....	280	157	7	3	10	0
18....	0	....	....	....	....	....	275	154	5	5	5	0
19....	0	....	....	....	....	....	245	226	3	5	3	0
20....	2	....	....	....	....	....	208	242	3	11	2	0
21....	4	....	....	....	....	....	229	190	3	46	1	1
22....	7	....	....	....	....	....	239	171	2	36	2	1
23....	6	....	....	....	....	....	205	176	1	22	2	5
24....	6	....	....	....	....	....	188	176	0	18	2	11
25....	5	....	....	....	....	....	193	188	0	45	3	3
26....	5	....	....	....	....	....	185	182	0	28	2	1
27....	4	....	....	....	....	....	193	110	0	11	1	1
28....	5	....	....	....	....	....	155	39	0	8	1	1
29....	7	....	....	....	....	....	275	63	0	12	2	0
30....	7	....	....	....	....	....	226	60	0	12	1	0
31....	9	....	....	....	....	....	....	61	....	9	2	....
Total	67	....	....	....	....	....	5025	6285	417	311	342	38
Mean.	2.16	4	....	....	....	....	168	203	13.9	10.0	11.0	1.27
Max..	9	....	....	....	....	....	....	394	62	46	45	11
Min...	0	....	....	....	....	....	....	39	0	0	1	0
Acre-ft.	133	238	....	....	....	....	10000	12500	827	615	676	76

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of San Antonio River at Ortiz for Year Ending Sept. 30, 1930.
Drainage Area, 110 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	14	....	....	....	....	....	....	255	40	4	20	2
2....	12	....	....	....	....	....	....	255	30	3	20	2
3....	12	....	....	....	....	....	....	260	24	3	15	2
4....	12	....	....	....	....	....	....	171	21	3	5	1
5....	8	....	....	....	....	....	....	142	20	3	5	1
6....	8	....	....	....	....	....	....	125	17	3	10	0
7....	6	....	....	....	....	....	....	100	17	3	10	0
8....	8	....	....	....	....	....	....	110	15	3	5	1
9....	14	....	....	....	....	....	....	150	14	3	5	3
10....	10	....	....	....	....	....	....	150	10	3	15	2
11....	8	....	....	....	....	....	....	100	9	3	15	0
12....	5	....	....	....	....	....	....	75	8	3	15	1
13....	5	....	....	....	....	....	....	52	6	3	15	1
14....	5	....	....	....	....	....	....	72	6	3	15	0
15....	5	....	....	....	....	....	....	105	5	3	15	0
16....	4	....	....	....	....	....	....	124	5	3	10	0
17....	4	....	....	....	....	....	....	112	4	3	6	0
18....	4	....	....	....	....	....	....	88	4	34	4	0
19....	4	....	....	....	....	....	....	84	4	24	3	0
20....	3	....	....	....	....	....	....	93	4	9	2	1
21....	3	....	....	....	....	....	312	118	4	11	2	1
22....	4	....	....	....	....	....	380	112	4	6	2	1
23....	4	....	....	....	....	....	348	60	4	7	2	1
24....	4	....	....	....	....	....	333	57	4	32	2	1
25....	3	....	....	....	....	....	464	68	4	30	2	1
26....	4	....	....	....	....	....	430	72	4	30	8	1
27....	4	....	....	....	....	....	386	52	4	25	6	1
28....	4	....	....	....	....	....	328	44	4	20	6	2
29....	4	....	....	....	....	....	220	38	4	25	4	2
30....	6	....	....	....	....	....	338	35	4	22	3	2
31....	6	....	....	....	....	....	....	35	....	25	2	....
Total	197	....	....	....	....	....	....	3314	303	352	249	30
Mean.	6.35	....	....	....	....	....	....	107	10.1	11.4	8.03	1.0
Max..	14	....	....	....	....	....	....	260	40	34	20	3
Min...	3	....	....	....	....	....	....	35	4	3	2	0
Acre-ft.	390	....	....	....	....	....	....	6580	601	701	494	60

Discharge of San Antonio River at Mouth for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	0	....	....	....	....	5	12	571	464	15	12	42
2....	0	....	....	....	....	5	12	461	440	29	16	43
3....	0	....	....	....	....	5	12	482	420	25	21	47
4....	0	....	....	....	....	5	12	650	389	22	49	62
5....	0	....	1	....	....	5	12	794	383	23	55	61
6....	0	....	....	....	....	5	12	906	355	24	48	48
7....	0	....	....	....	....	5	12	938	328	23	80	72
8....	0	....	....	....	....	5	12	1010	297	21	92	59
9....	0	....	....	....	....	5	12	1100	273	18	81	51
10....	0	....	....	....	....	5	12	1140	251	28	76	49
11....	0	....	....	....	....	5	12	1020	225	34	130	48
12....	0	....	....	....	....	5	12	878	213	47	169	48
13....	0	....	....	....	....	5	16	691	194	61	174	42
14....	0	....	....	....	....	5	22	720	174	51	156	36
15....	0	....	....	0.5	....	5	32	802	150	65	126	30
16....	0	....	....	....	....	5	50	855	134	116	108	28
17....	0	....	....	....	....	5	76	832	130	69	83	27
18....	0	....	....	....	5	5	134	742	118	40	62	27
19....	0	....	....	....	....	5	178	709	98	30	55	20
20....	0	....	....	....	....	12	176	727	89	24	37	20
21....	0	....	....	....	....	12	163	942	73	19	30	20
22....	0	....	....	....	....	12	216	858	61	21	27	60
23....	0	....	....	....	....	12	239	824	44	20	27	165
24....	4	....	....	....	....	12	216	790	40	18	42	138
25....	4	....	....	....	....	12	216	783	34	18	51	96
26....	4	....	....	....	....	12	273	813	32	15	36	83
27....	4	....	....	....	....	12	275	643	27	12	37	98
28....	4	....	....	....	....	12	302	542	20	11	40	72
29....	4	....	....	....	....	12	446	449	16	12	42	59
30....	4	....	....	....	....	12	558	403	16	14	43	49
31....	4	....	....	....	....	12	....	422	....	13	42	....
Total	28	....	....	....	....	239	3732	23900	5488	938	2047	1700
Mean.	0.90	2	1	0.5	3	7.71	124	771	183	30.3	66.0	56.7
Max..	4	....	....	....	....	....	558	1140	464	116	174	165
Min...	0	....	....	....	....	....	12	403	16	11	12	20
Acre-ft.	55	119	61	31	167	474	7380	47400	10900	1860	4060	3370

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of San Antonio River at Mouth for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	49	27	....	....	....	....	24	664	442	5	58	2
2....	44	31	....	....	....	....	24	704	367	5	46	2
3....	41	30	....	....	....	....	28	715	310	4	34	3
4....	38	26	....	....	....	....	30	572	287	4	32	1
5....	38	26	20	....	....	....	62	467	282	4	26	1
6....	35	28	....	....	....	....	98	393	268	4	26	1
7....	32	30	....	....	....	....	168	330	256	3	40	1
8....	32	31	....	....	....	....	213	275	256	3	35	1
9....	34	30	....	....	....	....	280	233	265	5	37	1
10....	36	30	....	....	....	....	372	198	253	5	37	1
11....	34	30	....	....	....	....	518	171	237	5	42	1
12....	31	30	....	....	....	....	417	153	209	5	34	1
13....	30	30	....	....	....	....	461	150	213	5	38	1
14....	27	30	....	....	....	23	474	192	204	5	34	1
15....	28	30	....	....	....	....	451	292	184	5	31	1
16....	28	28	....	....	....	....	414	399	164	5	31	1
17....	28	28	....	....	....	....	294	390	142	5	29	1
18....	28	26	....	....	....	....	242	304	132	5	25	1
19....	28	24	....	....	....	....	248	258	117	8	22	1
20....	27	20	....	....	66	....	299	294	96	6	20	1
21....	26	16	....	6	....	....	448	426	82	6	17	1
22....	26	16	....	....	....	....	548	525	66	16	12	1
23....	27	16	....	....	....	....	690	454	45	82	12	1
24....	27	18	....	....	....	....	657	396	28	72	10	1
25....	25	18	....	....	....	....	805	381	20	62	8	1
26....	26	20	....	....	....	....	856	393	19	62	5	1
27....	26	20	....	....	....	....	859	368	16	58	6	1
28....	26	20	....	....	....	....	812	356	15	51	5	2
29....	26	20	....	....	....	....	686	346	12	64	4	2
30....	28	20	....	....	....	....	625	359	5	61	4	5
31....	26	....	....	....	....	....	....	399	....	55	3	....
Total	957	749	....	....	....	....	12103	11557	4992	685	763	40
Mean.	30.9	25.0	16	9	35	22	403	373	166	22.1	24.6	13.3
Max..	49	31	....	....	....	....	859	715	442	82	58	5
Min...	25	16	....	....	....	....	24	150	5	3	3	1
Acre-ft.	1900	1490	984	553	1940	1350	24000	22900	9880	1360	1510	79

Discharge of Los Pinos Creek Near Ortiz for Year Ending Sept. 30, 1929.
Drainage Area, 167 Square Miles. Altitude, 8,100 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	16	16	....	....	....	....	90	626	519	104	113	156
2....	16	16	....	....	....	....	90	604	498	104	86	207
3....	16	16	....	....	....	....	90	785	458	95	220	104
4....	13	16	....	....	....	....	90	880	458	95	156	70
5....	13	16	....	....	....	....	90	952	438	95	104	40
6....	13	16	....	....	....	....	90	952	438	70	86	62
7....	13	20	....	....	....	....	90	952	418	62	95	78
8....	13	20	....	....	....	....	90	952	362	54	113	62
9....	13	....	....	....	....	....	90	952	327	95	86	54
10....	13	....	....	....	....	....	161	952	310	70	54	70
11....	13	....	....	....	....	....	73	904	310	86	234	70
12....	13	....	....	....	....	....	73	716	310	78	310	62
13....	13	....	....	....	....	....	81	716	294	70	181	54
14....	13	....	....	....	....	....	117	880	278	62	144	54
15....	13	....	....	....	....	....	181	976	278	62	122	47
16....	13	....	....	....	....	....	234	832	263	62	104	47
17....	13	....	....	....	....	....	278	832	248	54	104	40
18....	13	....	....	....	....	....	362	762	248	54	86	40
19....	13	....	....	....	....	....	418	762	234	70	70	40
20....	13	....	....	....	....	....	399	808	220	70	70	40
21....	13	....	....	....	....	....	418	880	220	62	78	54
22....	13	....	....	....	....	....	458	856	207	62	70	122
23....	13	....	....	....	....	....	438	832	207	70	78	263
24....	16	....	....	....	....	....	399	832	194	62	70	144
25....	16	....	....	....	....	....	399	604	181	86	70	113
26....	16	....	....	....	....	....	399	561	156	54	78	122
27....	16	....	....	....	....	....	418	604	144	47	113	122
28....	16	....	....	....	....	....	540	670	122	78	122	95
29....	16	....	....	....	....	....	670	648	122	70	95	86
30....	16	....	....	....	....	....	693	582	122	113	78	86
31....	16	....	....	....	....	....	....	519	....	156	70	....
Total	436	....	....	....	....	....	8019	24383	8584	2372	3460	2604
Mean.	14.1	16	....	....	....	....	267	787	286	76.5	112	86.8
Max..	16	....	....	....	....	....	693	976	519	156	310	263
Min...	13	....	....	....	....	....	73	519	122	47	54	40
Acre-ft.	867	952	....	....	....	....	15900	48400	17000	4700	6890	5160

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Los Pinos Creek Near Ortiz for Year Ending Sept. 30, 1930.
Drainage Area, 167 Square Miles. Altitude, 8,100 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	78	47	....	....	....	10	28	785	498	70	....	....
2....	70	70	....	....	....	10	28	808	478	62	....	....
3....	70	54	....	....	....	10	34	716	478	62	....	....
4....	70	54	....	....	....	10	40	540	498	54	....	....
5....	62	47	....	....	....	10	54	478	440	....	70	....
6....	62	47	....	....	....	10	78	399	380	....	....	....
7....	54	113	....	....	....	10	95	327	418	....	....	....
8....	62	181	....	....	....	20	240	362	418	....	....	....
9....	78	144	....	....	....	20	480	498	380	....	....	....
10....	66	104	....	....	....	20	560	498	362	....	....	....
11....	62	86	....	....	....	20	520	626	327	....	....	....
12....	58	40	....	....	....	20	530	762	362	....	....	....
13....	53	8	....	....	....	20	530	561	362	....	....	....
14....	51	12	....	....	....	20	580	540	327	....	....	....
15....	48	15	....	....	....	20	519	582	310	....	....	....
16....	47	12	....	....	....	20	438	716	278	....	....	....
17....	46	8	....	....	....	20	327	670	263	....	....	....
18....	44	8	....	....	....	20	294	626	263	....	....	....
19....	40	8	....	....	....	20	362	693	234	....	40	....
20....	39	8	....	....	....	20	408	880	207	62	....	....
21....	38	8	....	....	....	23	693	808	181	....	....	....
22....	38	8	....	....	....	23	762	1020	168	....	....	....
23....	37	8	....	....	....	28	762	785	144	....	....	22
24....	38	8	....	....	....	34	762	604	122	....	....	....
25....	34	8	....	....	....	47	880	626	113	....	....	....
26....	34	8	....	....	....	86	856	561	104	....	....	....
27....	40	8	....	....	....	418	880	582	95	....	....	....
28....	40	8	....	....	....	78	808	561	86	....	....	....
29....	47	8	....	....	....	47	716	604	86	....	....	....
30....	62	8	....	....	....	54	739	648	70	....	....	....
31....	62	....	....	....	....	28	....	582	....	....	....	....
Total	1630	1146	....	....	....	1196	14093	19448	8452	....	....	....
Mean.	52.6	38.2	....	....	....	38.6	470	627	282	50	48	20
Max..	78	181	....	....	....	418	880	1020	498	....	....	....
Min...	34	8	....	....	....	10	28	327	70	....	....	....
Acre-ft.	3230	2270	....	....	....	2370	28000	38600	16800	3070	2950	1190

Discharge of Culebra River Near San Luis for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	25	19	....	....	....	....	15	22	42	208	90	44
2....	25	19	....	....	....	....	21	31	48	178	59	30
3....	25	22	....	....	....	....	23	33	60	151	41	13
4....	25	....	....	....	....	....	12	33	103	60	42	13
5....	25	....	....	....	....	....	12	35	124	92	41	32
6....	25	....	....	....	....	....	9	54	148	144	39	42
7....	25	....	....	....	....	....	10	54	154	138	36	31
8....	25	....	....	....	....	....	10	54	193	167	34	23
9....	30	....	....	....	....	....	8	54	221	148	34	26
10....	32	....	....	....	....	....	10	27	242	84	34	31
11....	25	....	....	....	....	....	9	13	264	67	70	28
12....	19	....	....	....	....	....	8	12	284	63	16	30
13....	19	....	....	....	....	....	8	24	288	70	46	23
14....	19	....	....	....	....	....	7	37	308	70	50	26
15....	22	....	....	....	....	....	11	35	314	70	56	31
16....	22	....	....	....	....	....	7	41	260	70	79	25
17....	22	....	....	....	....	....	7	41	260	70	79	24
18....	19	....	....	....	....	....	16	42	250	70	79	29
19....	22	....	....	....	....	....	10	39	250	70	16	23
20....	25	....	....	....	....	....	8	35	250	74	50	24
21....	25	....	....	....	....	....	11	42	229	70	75	26
22....	25	....	....	....	....	24	11	40	208	45	75	17
23....	22	....	....	....	....	21	11	25	154	56	75	26
24....	22	....	....	....	....	8	16	21	170	69	75	25
25....	19	....	....	....	....	16	14	20	200	75	75	24
26....	19	....	....	....	....	24	13	10	208	57	16	23
27....	14	....	....	....	....	23	13	28	221	59	50	25
28....	16	....	....	....	....	23	8	30	216	39	75	29
29....	16	....	....	....	....	23	13	39	237	59	74	13
30....	19	....	....	....	....	22	12	48	208	88	63	21
31....	19	....	....	....	....	9	....	51	....	116	46	....
Total	692	....	....	....	....	....	343	1070	6114	2797	1690	781
Mean.	22.3	22	20	18	20	20	11.4	34.5	204	90.2	54.5	26.0
Max..	32	....	....	....	....	....	23	51	314	208	90	44
Min...	14	....	....	....	....	....	7	10	42	39	16	13
Acre-ft.	1370	1310	1230	1110	1110	1230	678	2120	12100	5550	3350	1550

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Culebra River Near San Luis for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	24	33	29	....	....	21	21	29	148	196	36	83
2....	30	34	30	....	....	14	24	37	153	185	41	86
3....	25	20	31	....	....	24	23	66	169	182	56	75
4....	27	31	32	....	....	25	22	66	194	126	78	61
5....	26	39	25	....	....	24	20	60	177	29	97	61
6....	15	42	28	....	....	21	12	54	177	25	126	53
7....	25	44	31	....	....	20	20	60	194	196	112	50
8....	29	43	....	....	....	14	20	70	174	217	93	52
9....	30	34	....	....	....	13	16	72	177	240	72	47
10....	29	42	....	....	....	21	19	79	188	245	80	48
11....	30	43	....	....	....	24	14	70	194	225	40	44
12....	28	41	....	....	....	25	22	81	199	205	55	38
13....	18	25	....	....	....	24	12	103	211	165	70	39
14....	30	23	....	....	....	22	23	124	202	50	75	40
15....	35	40	....	....	22	20	21	157	188	12	75	37
16....	36	37	....	....	12	13	21	160	220	30	92	36
17....	38	34	....	....	20	23	21	157	232	42	72	38
18....	38	33	....	....	19	23	24	103	220	38	72	39
19....	33	32	....	....	21	24	34	118	226	53	100	34
20....	16	34	....	....	20	23	12	174	208	51	130	39
21....	26	36	25	....	20	23	18	180	205	112	160	38
22....	24	45	25	....	18	21	19	195	194	51	176	36
23....	27	45	25	....	13	13	18	208	188	38	140	36
24....	32	43	25	....	20	24	21	208	196	41	106	36
25....	39	39	25	....	21	22	25	208	194	40	116	36
26....	41	36	25	....	25	23	25	235	196	26	96	36
27....	37	34	25	....	24	24	13	258	182	43	86	36
28....	36	27	....	....	27	24	25	232	177	53	86	36
29....	34	28	....	....	....	21	23	232	146	36	77	36
30....	32	30	....	....	....	14	23	232	180	36	83	50
31....	34	....	....	....	....	20	....	223	....	36	80	....
Total	924	1067	....	....	....	647	611	4251	5709	3024	2778	1376
Mean.	29.8	35.6	25	20	20	20.9	20.4	137	190	97.5	89.6	45.9
Max..	41	45	....	....	....	25	34	258	232	245	176	86
Min...	15	20	....	....	....	13	12	29	146	12	36	34
Acre-ft.	1830	2120	1540	1230	1110	1290	1210	8420	11300	5990	5510	2730

Discharge of La Garita Creek Near La Garita for Year Ending Sept. 30, 1929.
Drainage Area, 61 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	7	7	....	....	....	....	....	25	41	10	29	36
2....	7	7	....	....	....	....	....	20	41	10	100	36
3....	6	7	....	....	....	....	....	31	37	10	40	36
4....	6	9	....	....	....	....	....	35	43	10	30	34
5....	7	9	....	....	....	....	....	31	43	11	29	30
6....	7	7	....	....	....	....	....	34	37	11	41	21
7....	6	10	....	....	....	....	....	49	35	9	100	31
8....	6	9	....	....	....	....	....	46	34	8	68	31
9....	7	9	....	....	....	....	....	46	29	9	54	30
10....	9	9	....	....	....	....	....	36	27	13	87	33
11....	9	9	....	....	....	....	....	38	23	11	175	35
12....	9	9	....	....	....	....	....	31	23	15	137	30
13....	11	9	....	....	....	....	....	30	23	15	128	33
14....	11	12	....	....	....	....	....	41	21	13	104	31
15....	9	10	....	....	....	....	....	41	21	10	65	28
16....	10	9	....	....	....	....	....	38	20	9	58	28
17....	9	11	....	....	....	....	....	36	19	9	54	29
18....	9	11	....	....	....	....	....	38	18	10	43	25
19....	9	10	....	....	....	....	....	35	18	11	38	23
20....	9	8	....	....	....	....	....	38	15	14	35	24
21....	9	7	....	....	....	....	....	46	14	14	35	20
22....	9	7	....	....	....	....	20	49	14	12	31	20
23....	9	7	....	....	....	....	17	49	13	12	29	15
24....	9	7	....	....	....	....	15	41	13	12	33	16
25....	7	7	....	....	....	....	12	51	13	17	35	17
26....	7	7	....	....	....	....	11	54	12	11	36	16
27....	9	7	....	....	....	....	13	41	10	12	36	15
28....	10	7	....	....	....	....	18	41	10	23	36	15
29....	8	7	....	....	....	....	14	41	10	14	36	14
30....	7	7	....	....	....	....	25	38	10	14	36	12
31....	9	....	....	....	....	....	....	43	....	20	36	....
Total	256	251	....	....	....	....	....	1213	687	379	1794	764
Mean.	8.26	8.37	....	....	....	....	....	39.1	22.9	12.2	57.9	25.5
Max..	11	....	....	....	....	....	....	54	43	23	175	36
Min...	6	....	....	....	....	....	....	20	10	8	29	12
Acre-ft.	508	498	....	....	....	....	....	2400	1360	750	3560	1520

Unless otherwise noted. all discharges are in cubic feet per second.

Discharge of La Garita Creek Near La Garita for Year Ending Sept. 30, 1930.
Drainage Area, 61 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	....	....	....	....	....	....	12	13	17	6	59	16
2....	....	....	....	....	....	....	12	15	17	7	55	16
3....	....	....	....	....	....	....	12	15	15	6	45	16
4....	....	....	....	....	....	....	12	14	15	7	41	16
5....	....	....	....	....	....	....	14	12	16	7	45	16
6....	....	....	....	....	....	....	14	12	15	7	47	16
7....	....	....	....	....	....	....	14	13	14	6	42	28
8....	....	....	....	....	....	....	15	12	15	6	44	28
9....	....	....	....	....	....	....	15	12	14	7	45	20
10....	....	....	....	....	....	....	15	11	14	7	45	16
11....	....	....	....	....	....	....	15	11	15	14	47	13
12....	....	....	....	....	....	....	18	10	13	13	62	12
13....	....	....	....	....	....	....	13	11	12	16	62	12
14....	....	....	....	....	....	....	14	12	12	17	55	12
15....	....	....	....	....	....	....	21	14	12	12	48	10
16....	....	....	....	....	....	....	21	15	11	10	49	10
17....	....	....	....	....	....	....	13	14	12	8	56	10
18....	....	....	....	....	....	....	12	13	12	12	44	10
19....	....	....	....	....	....	....	15	12	12	13	44	9
20....	....	....	....	....	....	....	23	13	11	15	47	10
21....	....	....	....	....	....	....	29	20	11	21	44	9
22....	....	....	....	....	....	....	28	19	10	27	36	9
23....	....	....	....	....	....	....	23	14	10	21	36	12
24....	....	....	....	....	....	....	21	14	8	19	28	11
25....	....	....	....	....	....	....	18	16	8	19	28	10
26....	....	....	....	....	....	....	18	17	8	21	28	9
27....	....	....	....	....	....	....	21	17	8	24	24	10
28....	....	....	....	....	....	....	14	17	8	19	18	10
29....	....	....	....	....	....	....	13	17	8	22	18	9
30....	....	....	....	....	....	....	14	17	8	58	18	10
31....	....	....	....	....	....	....	....	18	6	56	16	....
Total	....	....	....	....	....	....	499	440	359	503	1276	395
Mean.	....	....	....	....	....	....	16.6	14.2	12.0	16.2	41.2	13.2
Max..	....	....	....	....	....	....	29	20	17	58	62	28
Min...	....	....	....	....	....	....	12	10	6	6	16	9
Acre-ft.	....	....	....	....	....	....	988	873	714	996	2530	786

Discharge of Carnero Creek Near La Garita for Year Ending Sept. 30, 1929.
Drainage Area, 117 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	7	....	....	....	....	....	....	8	25	8	36	27
2....	7	....	....	....	....	....	....	8	20	10	36	39
3....	7	....	....	....	....	....	....	10	20	10	43	39
4....	7	....	....	....	....	....	....	10	20	8	84	39
5....	7	....	....	....	....	....	....	10	16	6	134	39
6....	7	....	....	....	....	....	....	13	16	5	152	46
7....	7	....	....	....	....	....	....	13	16	5	168	40
8....	7	....	....	....	....	....	....	16	16	6	120	35
9....	7	....	....	....	....	....	....	16	16	6	62	32
10....	7	....	....	....	....	....	....	16	13	6	88	32
11....	7	....	....	....	....	....	....	16	13	6	158	34
12....	7	....	....	....	....	....	....	16	13	10	158	30
13....	7	....	....	....	....	....	....	16	13	8	138	30
14....	7	....	....	....	....	....	....	16	13	8	118	30
15....	7	....	....	....	....	....	....	16	10	10	98	30
16....	7	....	....	....	....	....	....	16	10	8	88	30
17....	7	....	....	....	....	....	....	16	10	10	70	28
18....	7	....	....	....	....	....	....	20	10	5	53	28
19....	7	....	....	....	....	....	....	20	10	5	62	26
20....	7	....	....	....	....	....	....	20	10	6	39	25
21....	7	....	....	....	....	....	13	25	8	6	53	20
22....	7	....	....	....	....	....	20	25	8	6	53	18
23....	7	....	....	....	....	....	20	30	6	13	53	18
24....	7	....	....	....	....	....	25	30	6	20	62	18
25....	7	....	....	....	....	....	20	30	6	16	70	18
26....	7	....	....	....	....	....	20	30	6	10	70	18
27....	7	....	....	....	....	....	10	30	6	10	70	17
28....	7	....	....	....	....	....	8	25	6	25	70	17
29....	7	....	....	....	....	....	8	25	6	16	62	17
30....	7	....	....	....	....	....	8	25	8	13	46	17
31....	7	....	....	....	....	....	....	25	....	16	39	....
Total	217	....	....	....	....	....	....	592	356	297	2553	837
Mean.	7.00	....	....	....	....	....	....	19.1	11.9	9.58	82.4	27.9
Max..	....	....	....	....	....	....	....	30	25	25	168	....
Min...	....	....	....	....	....	....	....	8	6	5	36	....
Acre-ft.	430	....	....	....	....	....	....	1170	708	589	5070	1660

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Carnero Creek Near La Garita for Year Ending Sept. 30, 1930.
Drainage Area, 117 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	17	....	....	....	....	....	14	8	14	3	46	22
2....	17	....	....	....	....	....	14	8	14	3	53	22
3....	17	....	....	....	....	....	14	8	14	3	46	22
4....	17	....	....	....	....	....	14	8	10	3	46	22
5....	17	....	....	....	....	....	14	8	10	3	39	22
6....	17	....	....	....	....	....	17	8	8	3	39	22
7....	17	....	....	....	....	....	17	8	8	3	39	33
8....	17	....	....	....	....	....	17	8	10	3	53	33
9....	17	....	....	....	....	....	17	8	8	3	46	22
10....	17	....	....	....	....	....	17	8	8	3	46	17
11....	17	....	....	....	....	....	17	8	8	3	46	17
12....	17	....	....	....	....	....	17	8	8	4	53	17
13....	17	....	....	....	....	....	17	10	8	8	53	14
14....	17	....	....	....	....	....	17	10	8	17	46	14
15....	17	....	....	....	....	....	17	10	8	10	46	14
16....	17	....	....	....	....	....	17	10	6	8	53	14
17....	17	....	....	....	....	....	14	10	6	27	79	14
18....	17	....	....	....	....	....	10	10	6	22	70	10
19....	14	....	....	....	....	....	14	10	6	22	70	10
20....	14	....	....	....	....	....	14	10	6	22	53	10
21....	14	....	....	....	....	....	14	10	5	22	53	10
22....	14	....	....	....	....	....	14	10	5	22	46	10
23....	14	....	....	....	....	....	14	10	5	17	46	10
24....	14	....	....	....	....	....	10	10	5	17	39	10
25....	10	....	....	....	....	....	10	10	5	22	39	10
26....	10	....	....	....	....	....	10	10	5	17	39	10
27....	10	....	....	....	....	....	10	14	5	17	33	10
28....	10	....	....	....	....	....	10	14	5	17	22	10
29....	10	....	....	....	....	....	10	14	4	17	22	10
30....	10	....	....	....	....	....	8	10	3	27	22	10
31....	10	....	....	....	....	....	....	14	....	27	22	....
Total	460	....	....	....	....	....	419	302	221	395	1405	471
Mean.	14.8	....	....	....	....	....	14.0	9.74	7.37	12.7	45.3	15.7
Max..	17	....	....	....	....	....	17	14	14	27	79	33
Min...	10	....	....	....	....	....	8	8	3	3	22	10
Acre-ft.	910	....	....	....	....	....	833	599	439	781	2790	934

Discharge of Saguache Creek Near Saguache for Year Ending Sept. 30, 1929.
Drainage Area, 595 Square Miles. Altitude, 7,800 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	42	50	....	....	....	....	45	56	274	117	174	252
2....	42	45	....	....	....	....	45	49	289	116	171	295
3....	42	46	....	....	....	....	45	51	279	100	174	410
4....	42	48	....	....	....	....	45	65	268	90	190	281
5....	42	48	....	....	....	....	54	75	268	93	183	241
6....	42	46	....	....	....	....	73	81	261	95	169	231
7....	42	46	....	....	....	....	83	100	244	87	192	254
8....	42	46	....	....	....	....	113	139	243	90	235	246
9....	41	42	....	....	....	....	154	157	243	86	232	237
10....	41	44	....	....	....	....	169	174	234	81	198	218
11....	43	46	....	....	....	....	155	169	224	79	267	211
12....	44	48	....	....	....	....	120	162	206	82	315	216
13....	46	49	....	....	....	....	82	139	196	93	302	200
14....	48	46	....	....	....	....	82	147	186	75	250	190
15....	44	46	....	....	....	....	79	176	184	78	228	184
16....	44	50	....	....	....	....	66	206	182	92	174	182
17....	41	48	....	....	....	....	60	205	169	91	208	168
18....	42	38	....	....	....	....	55	190	158	86	198	157
19....	41	40	....	....	....	....	53	186	148	76	194	154
20....	41	44	....	....	....	....	50	201	148	88	176	150
21....	42	44	....	....	....	....	50	252	149	82	174	152
22....	43	44	....	....	....	....	50	236	152	114	188	149
23....	42	44	....	....	....	....	50	222	148	155	168	184
24....	45	44	....	....	....	....	50	223	136	160	168	154
25....	48	44	....	....	....	....	50	241	133	146	165	130
26....	48	46	....	....	....	....	50	271	123	116	150	126
27....	48	46	....	....	....	....	50	252	113	99	165	126
28....	48	46	....	....	....	....	49	222	107	144	171	113
29....	48	40	....	....	....	....	69	208	109	199	176	106
30....	46	40	....	....	....	....	67	194	114	157	191	103
31....	48	....	....	....	....	....	....	230	....	146	182	....
Total	1358	1354	....	....	....	....	2163	5279	5688	3313	6128	5820
Mean.	43.8	45.1	....	....	....	....	72.1	170	190	107	198	194
Max..	48	50	....	....	....	....	169	271	289	199	315	410
Min...	41	38	....	....	....	....	45	49	107	75	150	103
Acre-ft.	2690	2680	....	....	....	....	4290	10500	11300	6580	12200	11500

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Saguache Creek Near Saguache for Year Ending Sept. 30, 1930.
Drainage Area, 595 Square Miles. Altitude, 7,800 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	102	66	....	....	....	....	....	59	138	46	137	67
2....	100	80	....	....	....	....	....	66	111	45	124	60
3....	100	76	....	....	....	....	....	89	98	45	142	57
4....	98	68	....	....	....	....	....	85	96	42	122	62
5....	98	75	....	....	....	....	....	72	89	40	152	67
6....	96	74	....	....	....	....	....	64	102	41	148	67
7....	98	82	....	....	....	....	....	64	107	42	137	70
8....	110	75	....	....	....	....	....	62	107	41	124	66
9....	105	69	....	....	....	....	....	57	104	39	131	64
10....	98	77	....	....	....	....	....	57	97	39	137	51
11....	92	....	....	....	....	....	....	58	90	45	143	47
12....	86	....	....	....	....	....	....	58	87	46	160	45
13....	85	....	....	....	....	....	....	57	86	89	170	45
14....	85	....	....	....	....	....	....	58	84	93	170	44
15....	83	....	....	....	....	....	....	68	76	56	151	45
16....	83	....	....	....	....	....	....	77	75	46	146	51
17....	83	....	....	....	....	....	....	92	74	45	174	51
18....	81	....	....	....	....	....	....	102	75	47	157	48
19....	81	....	....	....	....	....	....	92	78	54	131	48
20....	80	....	....	....	....	....	....	83	78	64	119	47
21....	74	....	....	....	....	....	....	93	78	87	110	47
22....	73	....	....	....	....	....	....	120	78	187	110	48
23....	70	....	....	....	....	....	....	103	78	138	116	80
24....	62	....	....	....	....	....	....	85	78	93	113	64
25....	66	....	....	....	....	....	....	99	61	78	107	58
26....	72	....	....	....	....	....	....	105	54	66	109	54
27....	66	....	....	....	....	....	....	116	52	83	95	54
28....	71	....	....	....	....	....	76	122	48	122	87	54
29....	73	....	....	....	....	....	65	124	48	130	83	54
30....	68	....	....	....	....	....	57	139	47	140	80	54
31....	72	....	....	....	....	....	....	143	....	107	73	....
Total	2611	....	....	....	....	....	....	2669	2474	2236	3958	1669
Mean.	84.2	60	....	....	....	....	....	86.1	82.5	72.1	128	55.6
Max..	110	....	....	....	....	....	....	143	138	187	174	80
Min...	62	....	....	....	....	....	....	57	47	39	73	44
Acre-ft.	5180	3570	....	....	....	....	....	5290	4910	4430	7870	3310

Unless otherwise noted, all discharges are in cubic feet per second.

COLORADO RIVER DRAINAGE

COLORADO RIVER AT HOT SULPHUR SPRINGS

Location—At highway bridge near depot in Hot Sulphur Springs, Sec. 2, T. 1 N., R. 78 W.

Records Available—July 22, 1904, to September 30, 1909; September 23, 1910, to September 30, 1924; October 1, 1925, to September 19, 1930.

Note—Station moved to new location, approximately one mile above town, on September 19, 1930.

Gage—Chain gage.

Accuracy—Records considered good.

COLORADO RIVER NEAR HOT SULPHUR SPRINGS

Location—At Thompson's ranch one mile above the town of Hot Sulphur Springs, Sec. 1, T. 1 N., R. 78 W.

Records Available—September 19, 1930, to September 30, 1930.

Note—Station moved to new location, approximately one mile above the town of Hot Sulphur Springs, September 19, 1930.

Gage—Chain gage at bridge used in winter.

Staff gage at automatic recorder used in summer.

Stevens Automatic Recorder installed September 19, 1930.

Accuracy—Records considered good.

COLORADO RIVER AT GLENWOOD SPRINGS

Location—In Glenwood Springs opposite D. & R. G. W. R. R. Depot.

Records Available—May 12, 1899, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Records furnished by the United States Geological Survey.

COLORADO RIVER NEAR PALISADE

Location—At highway bridge in Sec. 2, T. 11 S., R. 98 W., two miles above Palisade.

Records Available—April 9, 1902, to September 30, 1930.

Gage—Chain gage.

Accuracy—Records considered good.

Co-operation—Records furnished by the United States Reclamation Service.

COLORADO RIVER NEAR CISCO, UTAH

Location—Between Secs. 8 and 17, T. 23 S., R. 24 E., Salt Lake Meridian, fifteen miles south of Cisco. Dolores River enters one mile above station.

Records Available—November 10, 1914, to September 30, 1917; October 1, 1922, to September 30, 1930. From October 1, 1913, to November 10, 1914, a station was maintained at Moab, 31 miles below this station.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with the United States Geological Survey and State of Utah.

COLORADO RIVER AT LEES FERRY, ARIZONA

Location—At Lees Ferry, Arizona, about one-half mile below ferry and one-half mile above mouth of Paria River.

Records Available—June 13, 1921, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Records furnished by the United States Geological Survey.

FRASER RIVER NEAR WEST PORTAL (Arrow)

Location—In Sec. 4, T. 2 S., R. 75 W., one-quarter mile from Irwin Siding.

Records Available—September 23, 1910, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

BLUE RIVER AT DILLON

Location—At Cemetery bridge in Sec. 18, T. 5 S., R. 77 W., a short distance above the mouth of Snake River.

Records Available—October 15, 1910, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with the City of Denver and United States Geological Survey.

SNAKE RIVER AT DILLON

Location—At highway bridge 200 yards above mouth in Sec. 18, T. 5 S., R. 77 W.

Records Available—October 15, 1910, to September 30, 1919; December, 1929, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with the United States Geological Survey, and the City of Denver.

TEN MILE CREEK AT DILLON

Location—At highway bridge in Dillon in Sec. 18, T. 5 S., R. 77 W.

Records Available—October 15, 1910, to September 30, 1919; April 13, 1930, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with the United States Geological Survey and the City of Denver.

ROARING FORK AT GLENWOOD SPRINGS

Location—In Sec. 9, T. 6 S., R. 89 W., one-half mile above mouth.

Records Available—April 6, 1906, to September 30, 1909; September 21, 1910, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with United States Geological Survey.

PLATEAU CREEK NEAR COLLBRAN

Location—In Sec. 23, T. 9 S., R. 94 W., on private bridge about seven miles east of Collbran.

Records Available—August 20, 1921, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

BUZZARD CREEK NEAR COLLBRAN

Location—In Sec. 14, T. 9 S., R. 94 W., on highway bridge seven miles east of Collbran.

Records Available—August 18, 1921, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

TAYLOR RIVER AT TAYLOR PARK

Location—In Sec. 7, T. 14 S., R. 82 W., at Bright's Ranch.
Records Available—June 1, 1929, to September 30, 1930.
Gage—Automatic recording gage.
Accuracy—Records considered good.

TAYLOR RIVER AT ALMONT

Location—At highway bridge at Almont in Sec. 22, T. 51 N., R. 1 E., N. M. P. M. and 800 feet above junction with East River.
Records Available—July 27, 1910, to September 30, 1930.
Gage—Automatic recording gage.
Accuracy—Records considered good.
Co-operation—Station maintained by the United States Geological Survey and Bureau of Reclamation in co-operation.

TEXAS CREEK AT TAYLOR PARK

Location—In Sec. 8, T. 14 S., R. 82 W., at highway bridge on Dorchester Road.
Records Available—June 1, 1929, to September 30, 1930.
Gage—Automatic recording gage.
Accuracy—Records considered good.

WILLOW CREEK AT TAYLOR PARK

Location—At Ranger Station in Sec. 22, T. 14 S., R. 82 W.
Records Available—June 1, 1929, to September 30, 1930.
Gage—Automatic recording gage.
Accuracy—Records considered good.

GUNNISON RIVER NEAR GRAND JUNCTION

Location—In NW¼ Sec. 35, T. 1 S., R. 1 W., two miles above mouth. This record includes the flow of Redlands Irrigation and Power Company's canal.
Records Available—October 19, 1894, to December 21, 1895; May 2, 1897, to November 30, 1899; April 1, 1917, to September 30, 1930.
Gages—Vertical staff and slope gages.
Accuracy—Records considered good.
Co-operation—Station maintained in co-operation with Redlands Irrigation and Power Company.

NORTH FORK OF GUNNISON RIVER NEAR PAONIA

Location—In Sec. 28, T. 13 S., R. 91 W., on highway bridge two miles northeast of Paonia.
Records Available—January 1, 1922, to September 30, 1930.
Gage—Automatic recording gage.
Accuracy—Records considered good.

SURFACE CREEK AT CEDAREDGE

Location—In Sec. 29, T. 13 S., R. 94 W., at Cedaredge.

Records Available—May 16, 1917, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

UNCOMPAHGRE RIVER BELOW OURAY

Location—In Sec. 30, T. 44 N., R. 7 W., one-third mile below railroad station at Ouray.

Records Available—May 12, 1913, to July 31, 1929.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with United States Geological Survey.

UNCOMPAHGRE RIVER NEAR COLONA

Location—In Sec. 5, T. 46 N., R. 8 W., at highway bridge four miles south of Colona.

Records Available—April 6, 1917, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Records furnished by the United States Bureau of Reclamation.

UNCOMPAHGRE RIVER NEAR DELTA

Location—At railroad bridge in Sec. 13, T. 15 S., R. 96 W., one mile northwest of Delta.

Records Available—April 29, 1903, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

Co-operation—Station maintained in co-operation with United States Reclamation Service and United States Geological Survey.

KANNAH CREEK NEAR WHITEWATER

Location—In Sec. 34, T. 12 S., R. 97 W., below intake for water supply of Grand Junction.

Records Available—October 15, 1917, to September 30, 1921; August 17, 1922, to September 30, 1930. Flow of pipe line included in estimate.

Gage—Staff gage.

Accuracy—Records considered good.

Co-operation—City of Grand Junction.

DOLORES RIVER AT DOLORES

Location—At highway bridge in Sec. 9, T. 37 S., R. 15 W., in the town of Dolores.

Records Available—June 24, 1895, to October 31, 1903; November 1, 1910, to November 30, 1912; April 11, 1922, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

SAN MIGUEL RIVER AT NATURITA

Location—On highway bridge in Naturita.

Records Available—April 26, 1918, to September 30, 1929.

Gage—Automatic recording gage.

Accuracy—Records considered good.

SAN MIGUEL RIVER NEAR PLACERVILLE

Location—In Sec. 34, T. 44 N., R. 11 W.

Records Available—September 13, 1910, to November 30, 1912; April 23 to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

PARIA RIVER AT LEES FERRY

Location—One mile above the mouth.

Records Available—November 22, 1924, to September 30, 1930.

Gage—Staff gage.

Accuracy—Records considered fair.

Co-operation—Records furnished by the United States Geological Survey.

Discharge of Colorado River at Hot Sulphur Springs for Year Ending Sept. 30, 1929.
Drainage Area, 785 Square Miles. Altitude, 7,665 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	213	210	....	....	....	....	....	....	4420	2580	1240	405
2....	213	204	....	....	....	....	....	....	3320	2360	1060	386
3....	210	201	....	....	....	....	....	....	2930	2220	1010	476
4....	213	198	....	....	....	....	....	....	3030	2140	1010	507
5....	204	210	....	....	....	....	....	....	3030	1980	987	518
6....	198	172	....	....	....	....	....	....	3560	1860	1360	656
7....	195	232	....	....	....	....	....	....	3610	1640	1240	980
8....	183	242	....	....	....	....	....	....	3980	1550	1100	908
9....	189	175	....	....	....	....	....	....	3930	1380	967	820
10....	177	123	....	....	....	....	....	....	3910	1240	870	740
11....	177	152	....	....	....	....	....	....	3710	1150	758	638
12....	189	130	....	....	....	....	....	....	3350	1080	674	632
13....	175	147	88	....	....	....	....	....	2980	1180	585	585
14....	186	170	....	....	91	....	....	....	2840	1780	557	557
15....	201	140	....	....	....	112	....	....	3260	1740	512	638
16....	220	170	....	....	....	....	....	....	3100	1480	476	644
17....	204	152	....	95	....	....	....	....	3350	1350	465	568
18....	216	140	....	....	....	....	....	....	2980	1130	551	551
19....	220	135	....	....	....	....	....	....	2620	1100	491	546
20....	216	140	....	....	....	....	....	....	2440	1060	391	534
21....	213	155	....	....	....	....	....	....	2960	1080	460	562
22....	201	150	....	....	....	....	....	....	3140	1060	529	551
23....	192	150	....	....	....	....	....	....	3120	1060	450	540
24....	204	145	....	....	....	....	....	3250	2980	1210	415	507
25....	204	145	....	....	....	....	....	....	2880	987	430	455
26....	195	140	....	....	....	....	305	....	2740	947	430	430
27....	195	140	....	....	....	....	....	....	2980	947	405	420
28....	201	140	....	....	....	....	....	....	2880	1360	410	400
29....	223	140	....	....	....	....	....	....	2800	1060	410	367
30....	216	140	....	....	....	....	....	....	2580	1960	465	367
31....	223	....	....	....	....	....	....	....	....	1700	440	....
Total	6266	4888	....	....	....	....	....	....	95410	45371	21148	16888
Mean.	202	163	105	95	92	115	410	2200	3180	1460	682	563
Max..	223	242	....	....	....	....	....	....	....	2580	1360	980
Min...	175	123	....	....	....	....	....	....	2440	947	391	367
Acre-ft.	12400	9700	6460	5840	5110	7070	24400	135000	189000	89800	41900	33500

Discharge of Colorado River at Hot Sulphur Springs for Year Ending Sept. 30, 1930.
Drainage Area, 785 Square Miles. Altitude, 7,665 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	358	....	....	....	....	....	130	1480	3280	1010	827	415
2....	340	....	....	....	....	....	150	1620	2560	987	765	386
3....	396	....	....	....	....	....	170	1940	2080	921	710	372
4....	430	....	....	....	....	....	190	1800	1860	851	704	396
5....	372	....	....	....	....	....	210	1580	1740	808	752	455
6....	349	....	....	....	....	....	330	1380	1760	783	728	470
7....	302	....	....	....	....	....	450	1320	2200	765	789	450
8....	344	....	....	....	....	....	710	1100	2580	710	698	445
9....	450	....	....	....	....	....	930	967	2780	680	644	430
10....	512	....	....	....	....	....	1240	864	2740	644	698	386
11....	540	....	....	....	....	....	1260	845	2800	656	722	362
12....	512	....	....	....	....	....	1260	796	3170	650	758	336
13....	400	....	....	....	....	....	1270	746	3370	1010	876	314
14....	376	....	....	103	....	....	1350	746	3190	934	1550	298
15....	372	....	....	....	....	....	1320	783	2800	752	2220	302
16....	349	....	....	....	....	....	1240	820	2600	620	1430	282
17....	349	....	....	....	....	....	845	839	2580	580	1270	278
18....	318	....	163	....	....	....	777	876	2440	650	1060	271
19....	322	....	....	....	....	....	758	883	2260	614	902	256
20....	314	....	....	....	120	....	650	889	2220	895	796	253
21....	286	128	....	....	....	....	902	1010	2320	680	716	236
22....	286	....	....	....	....	....	1130	1700	2620	777	632	246
23....	242	....	....	....	....	....	1290	1560	2380	620	614	274
24....	223	....	....	....	....	125	1460	1410	2000	609	580	274
25....	229	....	....	....	....	....	1700	1460	1720	638	551	314
26....	264	....	....	....	....	....	1640	1580	1490	557	529	331
27....	267	....	....	....	....	....	1600	2020	1430	551	546	322
28....	260	....	....	....	....	....	1490	2460	1340	523	518	314
29....	256	....	....	....	....	....	1460	2800	1280	839	523	302
30....	226	....	....	....	....	....	1420	3240	1280	1140	476	302
31....	246	....	....	....	....	....	....	3570	....	960	430	....
Total	10490	....	....	....	....	....	29332	45084	68870	23414	25014	10072
Mean.	338	160	150	110	115	125	978	1450	2300	755	807	336
Max..	540	....	....	....	....	....	1700	3570	3370	1140	2220	470
Min...	223	....	....	....	....	....	....	746	1280	523	430	236
Acre-ft.	20800	9520	9220	6760	6390	7690	58200	89200	137000	46400	49600	20000

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Colorado River at Glenwood Springs for Year Ending Sept. 30, 1929.
Drainage Area, 4,560 Square Miles. Altitude, 5,747 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	1360	1360	947	774	801	626	1820	3290	13600	10200	6100	2360
2....	1330	1360	850	785	726	718	1540	3000	16100	9910	6100	2300
3....	1310	1270	821	784	820	716	1540	3000	17400	9230	5390	2360
4....	1300	1180	815	869	802	668	2420	3100	18200	8900	4840	2420
5....	1290	1220	754	766	830	810	3290	3300	18700	8570	4700	2540
6....	1300	1180	713	766	796	766	2610	3600	19100	7770	5250	2750
7....	1300	1180	636	766	785	884	1600	3900	19100	7460	6100	3090
8....	1290	1220	577	766	733	1100	1490	4440	19500	6990	5810	3840
9....	1280	1350	550	792	683	1060	1490	5960	20400	6690	4840	3950
10....	1260	1260	594	739	633	1100	1490	7610	20800	6250	4190	3500
11....	1240	1200	602	732	598	1190	1410	7460	20400	6100	3840	3090
12....	1160	1130	712	745	598	1220	1330	5960	18700	6000	3500	3000
13....	1170	1150	718	730	780	1150	1360	5810	16100	5950	3190	3000
14....	1160	1210	776	755	775	716	1820	7460	14800	6120	2910	2910
15....	1180	1250	834	756	833	782	2060	9570	15200	6600	2830	2910
16....	1220	1260	680	744	791	790	2180	11700	14800	6400	2610	2910
17....	1230	1180	642	792	706	841	2910	11700	15200	5800	2480	2830
18....	1260	1180	601	732	751	875	3720	11700	14800	5500	2540	2750
19....	1270	921	562	779	804	960	4070	11300	12800	5150	2610	2610
20....	1280	859	542	692	773	973	3950	11300	12000	4840	2480	2540
21....	1260	888	527	747	755	1020	3000	12000	12400	4700	2420	2480
22....	1310	946	633	742	749	934	2540	12800	13200	4440	2360	2480
23....	1310	976	574	773	790	900	2360	13600	13600	4440	2480	2610
24....	1280	965	595	702	695	892	2420	15700	13000	4570	2420	2540
25....	1280	994	603	673	758	824	2540	17000	12500	4500	2180	2420
26....	1140	1010	594	786	745	769	2060	18700	12000	4150	2180	2360
27....	1250	964	708	794	710	796	2000	17800	11700	4190	2120	2240
28....	1240	1100	773	801	619	800	2000	16100	11700	6690	2120	2180
29....	1240	978	910	821	....	1070	2300	14000	11300	7140	2200	2060
30....	1290	960	819	886	....	1600	3190	12400	11000	5960	2250	2060
31....	1320	....	767	825	....	1940	....	11300	....	5530	2300	....
Total	39111	33701	21429	23814	20839	29490	68510	296560	460100	196740	107340	81090
Mean.	1260	1120	691	768	744	951	2280	9570	15300	6350	3460	2700
Max..	1360	1360	947	886	833	1940	4070	18700	20800	10200	6100	3950
Min...	1140	859	527	673	598	626	1330	3000	11000	4150	2120	2060
Acre-ft.	77500	66600	42500	47200	41300	58500	136000	588000	910000	390000	213000	161000

Discharge of Colorado River at Glenwood Springs for Year Ending Sept. 30, 1930.
Drainage Area, 4,560 Square Miles. Altitude, 5,747 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	2000	1440	1010	801	820	806	903	6130	15200	4320	4080	1900
2....	1940	1310	1070	924	785	730	1050	6670	13200	4080	3870	1770
3....	1880	1350	1050	971	876	890	1200	7700	10200	3870	3570	1700
4....	1940	1420	879	773	847	883	1160	8300	8460	3770	3280	1640
5....	2060	1440	880	794	826	923	1340	7100	7700	3670	3190	1700
6....	1940	1440	933	884	828	923	1900	6260	7700	3470	3280	2030
7....	1820	1540	993	867	829	915	2600	5360	8760	3100	3280	2100
8....	1820	1650	969	850	833	856	3280	4880	10200	3020	3280	2030
9....	1820	1600	1050	840	956	848	4760	4300	11300	2930	2930	1960
10....	2060	1540	1070	830	848	760	5240	3870	11300	2760	2930	1960
11....	2240	1540	1080	820	852	744	5490	3670	11700	2760	3020	1840
12....	2240	1490	1060	622	888	746	5680	3470	12400	2760	3190	1700
13....	2180	1330	1020	1030	850	781	5870	3190	14000	3020	3470	1640
14....	2000	1070	1070	843	830	896	5740	3100	14000	3980	4300	1640
15....	1940	1100	1030	860	800	959	5870	3280	12400	4300	6000	1580
16....	1880	1110	929	957	780	1010	5740	3770	11000	3380	6400	1500
17....	1820	1290	1000	866	865	905	4640	4300	10600	2930	5000	1380
18....	1790	1370	876	881	842	1150	3570	4420	10200	2760	4190	1390
19....	1760	1410	715	774	832	962	3380	4420	9910	3020	3770	1390
20....	1760	1440	697	898	896	926	3380	4190	9240	3100	3280	1340
21....	1700	1180	681	729	832	912	3470	4420	9080	3100	3020	1280
22....	1650	936	587	734	969	996	4530	5870	9240	3100	2680	1290
23....	1540	838	702	748	708	1020	5360	6960	9240	3190	2600	1290
24....	1490	958	712	748	950	1030	6000	6260	8150	2930	2450	1370
25....	1430	835	768	817	883	1010	6810	6000	6960	2760	2310	1580
26....	1420	1060	797	867	868	995	7250	6670	6260	2680	2240	1580
27....	1440	1030	871	969	813	895	7100	8000	5740	2520	2170	1640
28....	1490	1270	822	843	843	823	6960	9570	5240	2380	2170	1580
29....	1540	1150	680	776	....	826	6530	11700	5120	2520	2170	1500
30....	1490	1260	820	814	....	783	6000	13200	4760	3380	2030	1480
31....	1490	....	800	826	....	840	....	14800	....	4300	2030	....
Total	55570	38397	27621	25956	23749	27743	132803	191830	289260	99860	102180	48780
Mean.	1790	1280	891	837	848	895	4430	6190	9640	3220	3300	1630
Max..	2240	1650	1080	1030	969	1150	7250	14800	15200	4320	6400	2100
Min...	1420	835	587	622	708	730	903	3100	4760	2380	2030	1280
A-ft.	110000	76200	54800	51500	47100	55000	264000	381000	574000	198000	203000	97000

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Colorado River Near Palisade for Year Ending Sept. 30, 1929.
Drainage Area, 8,790 Square Miles. Altitude, 4,729 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	1860	1920	2040	1500	1400	1370	3030	6210	21400	18800	9420	2710
2....	1760	1980	1700	1500	1400	1370	2860	5480	27400	17600	9580	2780
3....	1760	1980	1700	1500	1400	1370	2860	5140	30400	16000	8940	3080
4....	1760	1980	1640	1500	1400	1370	3210	5360	32500	14800	8030	4920
5....	1760	1980	1540	1500	1400	1370	5030	5960	33700	14100	8940	5250
6....	1760	1860	1440	1500	1400	2060	5250	6210	34600	13100	8940	5140
7....	1760	1860	1440	1500	1400	2060	3980	7590	35200	12000	9900	4700
8....	1640	1810	1440	1500	1400	2060	3580	9260	34900	11000	9420	8790
9....	1640	2040	1440	1500	1400	2060	2860	12700	37000	10400	7880	7880
10....	1640	2100	1440	1500	1400	2060	2860	15200	38200	9740	7020	7440
11....	1540	2220	1480	1460	1440	2160	2390	15600	36700	8790	6080	6340
12....	1760	2160	1480	1460	1440	2160	2120	13100	33400	8480	5360	5960
13....	2100	2290	1480	1460	1440	2160	2250	11700	28200	8180	4810	5960
14....	5250	2640	1480	1460	1440	2160	2250	14100	31900	7880	4390	5720
15....	2540	2430	1480	1460	1440	2160	2860	18000	30400	7880	3980	5840
16....	2120	2290	1300	1460	1440	2040	3780	22800	30400	9420	3580	5600
17....	1860	2290	1300	1460	1440	2250	4390	24300	29300	8790	3080	5600
18....	1980	2290	1300	1460	1440	2540	6470	24300	27400	8790	3160	5360
19....	1860	2160	1300	1460	1440	2120	8180	22600	24000	8180	3230	5140
20....	1980	2220	1300	1460	1440	2780	8180	22600	22100	8180	3160	5250
21....	1860	2220	1200	1420	1330	2540	6740	23800	22200	7590	2930	5140
22....	1860	2220	1200	1420	1380	2320	5250	24800	23500	6880	2780	5960
23....	1860	2100	1200	1420	1380	2620	4810	26300	23800	6740	2710	6880
24....	1860	2040	1200	1420	1380	2540	4810	30100	23800	7160	2710	6470
25....	1860	1980	1200	1420	1380	2780	4600	32200	22100	7160	2640	5720
26....	1860	1920	1580	1420	1380	2780	4180	35800	21900	6600	2570	5140
27....	1860	1920	1580	1420	1380	2540	3780	34000	20300	6740	2500	4920
28....	1810	2040	1580	1420	1380	2780	3680	29000	20300	8790	2570	4600
29....	1860	1980	1580	1420	....	3210	4390	25500	20500	9580	2570	4280
30....	1920	2160	1580	1420	....	2390	5250	21400	19700	10300	2640	4080
31....	2500	....	1580	1420	....	3210	....	19700	....	9580	2640	....
Total	61440	63080	45200	45220	39440	63390	125880	570810	837200	309230	158160	162650
Mean.	1980	2100	1460	1460	1410	2240	4200	18400	27900	9980	5100	5420
Max..	5250	2640	2040	1500	1440	3210	8180	35800	38200	18800	9900	8790
Min...	1540	1810	1200	1420	1380	1370	2120	5140	19700	6740	2500	2710
A-ft.	122000	125000	89800	89800	78300	138000	250000	1130000	1660000	614000	314000	323000

Discharge of Colorado River Near Palisade for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	3780	2220	2220	1750	1630	1320	1880	9260	26800	6740	6080	1760
2....	3780	2710	2160	1750	1630	1280	2100	9900	22100	6600	5600	1880
3....	3680	2860	2160	1750	1630	1230	2100	11500	17600	6080	5720	1640
4....	3780	2710	2100	1750	1630	1230	2220	12600	14500	5720	4920	1640
5....	3480	2640	2100	1750	1630	1320	2570	11700	13200	5360	4600	1760
6....	3480	2780	1980	1750	1630	1370	2860	10100	13400	5030	4280	1760
7....	3390	2710	1980	1750	1630	1420	3080	8480	14700	4920	4500	2250
8....	3230	2360	2040	1750	1630	1530	4080	7300	17000	4490	4500	2180
9....	3480	2710	2100	1750	1630	1530	7740	6600	19700	4280	5600	2060
10....	3980	2640	2160	1750	1630	1530	7880	5360	19700	3880	4920	2060
11....	4180	2640	2220	1720	1700	1580	8180	5250	19900	3780	4500	2000
12....	3980	2430	2220	1720	1700	1580	8180	4810	20300	3980	4500	1880
13....	3780	2360	2220	1720	1700	1700	8790	4390	23000	6340	5360	1820
14....	3680	2360	2100	1720	1700	1760	9100	4180	23300	5480	5480	1760
15....	3480	2360	2100	1720	1700	2060	9100	4500	22300	6210	7160	1700
16....	3390	2360	1950	1720	1850	2250	8790	5140	20300	5250	9100	1640
17....	3230	2290	1950	1720	1850	2180	7020	6470	18600	4390	7880	1580
18....	3160	2430	1950	1720	1850	2120	5960	7590	18800	3980	6210	1530
19....	3080	2500	1950	1720	1850	2120	5030	7300	18800	3980	5140	1530
20....	3080	2290	1950	1720	1850	2060	4600	7160	17600	4810	4600	1370
21....	3000	2040	1600	1640	2160	2000	4600	7160	17000	4700	3980	1480
22....	2930	1980	1600	1640	1980	2000	6470	9580	17000	4280	3390	1530
23....	2710	1920	1600	1640	1920	2000	7740	11500	17600	4280	3030	1580
24....	2570	1920	1600	1640	1860	1940	9420	10900	15200	4180	2860	1580
25....	2430	1980	1600	1640	1700	1880	10600	10400	12700	4080	2620	2320
26....	2290	1980	1700	1640	1490	1880	11400	11400	10700	3680	2390	2180
27....	2220	2040	1700	1640	1490	1820	11000	14100	10100	3310	2390	2120
28....	2290	2220	1700	1640	1440	1760	11400	17000	9260	3080	2320	2120
29....	2430	2220	1700	1640	....	1580	10600	20100	8940	3160	2250	2000
30....	2500	2220	1700	1640	....	1640	9580	23000	8030	3680	2180	2000
31....	2500	....	1700	1640	....	1880	....	26300	....	5140	2120	....
Total	98970	70880	59810	52740	48090	53550	204070	311030	508130	144870	140180	54710
Mean.	3190	2360	1930	1700	1720	1730	6800	10000	16900	4670	4520	1820
Max..	4180	2860	2220	....	....	2250	11400	26300	26800	6740	9100	2320
Min...	2220	1920	1600	....	....	1230	1880	4180	8030	3080	2120	1370
A-ft.	196000	140000	119000	105000	95500	106000	405000	615000	1010000	287000	278000	108000

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Colorado River Near Cisco, Utah, for Year Ending Sept. 30, 1929.
Drainage Area, 24,100 Square Miles. Altitude, 4,088 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	3060	5670	3500	2300	2500	3000	6750	12900	34400	25800	18400	4960
2....	3050	4750	3300	2300	2500	3000	6810	13200	39300	24100	18100	6040
3....	2920	4320	3080	2300	2500	3000	7040	12300	46400	22600	16800	9250
4....	2860	4090	3100	2300	2500	3000	8040	13600	48700	20800	16700	11000
5....	2830	3770	3000	2300	2500	3000	11500	14700	50100	19200	18100	8780
6....	2810	3670	2800	2000	2200	5000	15600	17900	51500	17800	18600	12400
7....	2830	3630	2800	2000	2200	5000	10800	21800	52000	16500	18300	16400
8....	2810	3500	2800	2000	2200	5000	8410	25200	51500	15800	17400	18300
9....	2740	3500	2380	2000	2200	5000	6810	29400	51000	14800	15700	17800
10....	2660	3500	2330	2000	2200	5000	6360	34000	52400	13700	13700	14900
11....	2790	3500	2250	2300	2000	6000	6090	38100	52900	12100	12900	13400
12....	3290	3630	2520	2300	2000	6000	5700	34400	48700	11000	12200	12400
13....	2920	3900	2400	2300	2000	6000	6360	29600	43200	10500	11200	12000
14....	13200	3900	2400	2300	2000	6000	5800	29400	38000	10700	9920	11400
15....	11000	3900	2400	2300	2000	3750	9520	34000	37200	10100	8690	11000
16....	5780	3800	1800	2500	2200	3330	12000	35000	38900	10700	7920	11000
17....	4980	3800	1800	2500	2200	3330	15500	36000	36800	11300	7180	10900
18....	4520	3800	1800	2500	2200	3410	18700	37000	38900	10900	6610	10700
19....	4300	3800	1800	2500	2200	3710	21500	38000	36800	10900	6390	10100
20....	4090	3800	1800	2500	2200	3790	21700	39300	34000	10700	5960	9890
21....	3920	3550	1700	2400	2500	3880	20500	42400	33200	10300	5600	11200
22....	3770	3550	1700	2400	2500	4000	17000	45500	34000	9660	4980	10300
23....	3650	3550	1700	2400	2500	4890	18800	46400	34800	9200	4980	12900
24....	3690	3550	1940	2400	2500	5910	13500	47700	34800	9690	4860	13600
25....	3610	3550	2300	2400	2500	4590	11800	51500	33600	10100	4700	11900
26....	3490	3510	2300	2200	2600	3960	9860	53800	32100	10800	4430	10700
27....	3470	3450	2300	2200	2600	3550	9520	58600	31000	12600	4430	9890
28....	3430	3670	2300	2200	2600	3530	9010	53400	30100	17000	4570	9460
29....	3470	3470	2300	2200	....	3880	9170	45500	29400	18400	4280	9010
30....	3690	3450	2300	2200	....	4750	10800	38500	27800	19300	5060	8350
31....	5520	....	2300	2200	....	6530	....	34800	....	17800	5100	....
Total	127130	113530	73200	70700	64800	134790	340950	1063900	1203500	444850	313760	339930
Mean.	4100	3780	2360	2280	2310	4350	11400	34300	40100	14400	10100	11300
Max..	13200	5670	3500	....	....	6530	21700	58600	52900	25800	18600	18300
Min...	2660	3450	1700	....	....	3330	5700	12300	27800	9200	4930	4960
A-ft.	252000	225000	145000	140000	128000	267000	678000	2110000	2390000	885000	621000	672000

Discharge of Colorado River Near Cisco, Utah, for Year Ending Sept. 30, 1930.
Drainage Area, 24,100 Square Miles. Altitude, 4,088 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	7890	5270	4210	2650	2950	3300	3100	16100	40200	10600	8910	3180
2....	7740	5130	4240	2650	2950	3300	3260	16300	38100	9260	9920	2900
3....	7710	4860	4350	2650	2950	3300	3490	19100	35600	8600	10100	2660
4....	7500	4840	3920	2650	2950	3300	3570	21900	27000	7830	11300	2520
5....	7360	5130	3790	2650	3070	3300	3940	20500	21900	7470	8410	2610
6....	7210	5010	3750	2800	3800	3140	4790	17400	20100	7270	7860	4110
7....	7040	5010	3790	2860	3800	3330	7120	15000	22400	6720	7380	3900
8....	6560	5200	3710	2860	3800	3260	10800	13200	26000	6250	9620	4480
9....	6780	5180	3790	2790	3800	3080	14200	12600	29100	5730	11700	4320
10....	7270	5270	3670	2650	3800	2950	18900	11600	30700	5540	12400	4110
11....	8010	5300	3770	2360	3800	2900	21700	10800	30400	5620	11500	4000
12....	8130	4980	3900	2440	3800	2920	20800	9920	30700	5500	10300	3830
13....	7830	4860	3770	2790	3800	2930	20200	9430	32500	7120	13800	3570
14....	7500	4460	3670	2790	3800	3080	20700	8910	34400	7410	12600	3310
15....	7060	4210	3590	2880	3800	3220	21200	8320	34000	8290	12300	3180
16....	6890	4190	3590	2790	3800	3390	21100	9140	31400	8350	12600	3100
17....	7270	4300	3410	2000	3800	3490	18700	11400	29100	6920	13000	3010
18....	6810	4500	3390	2000	3800	3790	15500	13200	27900	5860	11200	2810
19....	6560	4660	3370	2000	3800	3630	13400	13500	27400	6120	9460	2720
20....	6390	4630	3270	2000	3800	3590	13200	13500	27400	7120	8220	2650
21....	5620	4590	2700	2000	4600	3270	13900	13400	25500	8600	7360	2560
22....	5910	4480	2700	1500	3950	3310	15900	14800	25500	7980	6040	2970
23....	5570	4240	2700	1500	3950	3490	18600	19800	24400	7890	5440	3180
24....	5370	4000	2700	1500	3950	3490	21400	19400	22900	7500	5080	2830
25....	5080	3940	2700	2200	3950	3590	24100	17400	19800	6950	4770	3050
26....	4960	3730	2700	2200	3950	3390	25400	17600	16400	6560	4410	3630
27....	4860	3860	2300	2200	3950	3510	23300	21000	14300	5910	4170	3610
28....	5010	4110	2400	2200	3950	3470	22100	25500	12800	5520	4040	3650
29....	5080	4090	2400	2200	....	3350	20900	29400	11900	5570	3790	3670
30....	5130	4170	2400	2200	....	2990	18200	32800	11200	6220	3490	5370
31....	5200	....	2400	2200	....	2990	....	37200	....	7040	3370	....
Total	203300	138200	103050	73160	104120	102050	463470	520420	781000	219320	264540	101490
Mean.	6560	4610	3320	2360	3720	3290	15400	16800	26000	7070	8530	3380
Max..	8130	5300	....	....	....	3790	25400	37200	40200	10600	13800	5370
Min...	4860	3730	....	....	....	2900	3100	8320	11200	5500	3370	2520
A-ft.	403000	274000	204000	145000	207000	202000	916000	1030000	1550000	435000	524000	201000

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Colorado River at Lees Ferry, Ariz., for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	5810	13500	8690	5670	5190	6740	13500	25400	86600	54800	45000	16200
2....	8340	17800	8610	5900	5440	6580	15500	25100	76000	52400	47300	14900
3....	6710	16200	8300	6000	6200	6480	18000	27600	73400	50000	59400	17100
4....	5750	12600	8040	5930	7460	6420	21800	29600	79600	47400	49400	18800
5....	5700	10600	7970	5600	8230	6510	22200	31100	81800	45900	46000	26600
6....	5700	9770	7970	5300	7820	6360	22500	34100	86600	42900	47700	32300
7....	5380	9080	7780	4900	7820	6670	37000	34900	92800	40400	65500	29700
8....	5110	8610	7500	5000	7860	9320	35900	37800	94900	38400	52200	30800
9....	5000	8300	7320	4800	7820	14300	30600	42400	94600	36700	43600	40200
10....	4950	8150	6940	4500	7080	18600	29800	45400	96100	37100	43700	41100
11....	5080	8230	6230	4500	6360	22100	27500	55000	97000	33800	35400	35400
12....	8790	8490	5580	4500	5610	21200	25100	60600	98200	30600	39400	32700
13....	15800	8420	5350	4400	5220	30900	21200	64100	96200	27900	61000	29200
14....	14700	8730	5270	4600	4790	34700	18300	61000	91400	26500	41700	25700
15....	16100	9040	5220	4800	4620	31700	16600	56100	84000	25100	29300	24600
16....	22800	9080	5240	5300	4640	25000	17700	59000	82700	24000	24400	23300
17....	22300	8840	5190	5300	4720	19500	19300	65600	82500	22800	21500	22100
18....	15200	9480	5100	5220	4970	16300	22000	73500	83200	22000	19500	21000
19....	12300	9560	4900	5580	5350	14000	29000	80600	80200	22900	17800	20400
20....	12200	9240	4500	5870	5520	12600	35000	83300	80800	22700	16200	20500
21....	10900	8800	4000	6140	5640	11800	40100	85500	76400	22100	15200	22800
22....	10200	8530	3600	6230	5640	11900	41900	85200	72900	21600	14400	29500
23....	10100	8270	3000	6170	5870	12800	43200	88700	72700	21700	14400	30500
24....	9440	8000	2700	6360	6230	13700	41800	92600	71800	22100	13600	39900
25....	9120	7750	2800	6050	6300	14300	40700	92300	71500	21600	12800	40900
26....	8880	7570	2900	5520	6640	15400	37300	96900	70100	21000	12600	35900
27....	8840	7460	3300	5470	6840	16100	33800	101000	67400	25400	12400	29300
28....	8530	8420	3700	5330	6940	14800	30700	110000	63600	27400	12600	27400
29....	8300	8420	4300	5080	....	13200	28800	111000	59600	36200	13600	24500
30....	8150	8880	4700	4900	....	11800	27100	103000	58000	43500	12800	22900
31....	8960	....	5440	4720	....	11800	....	93500	....	44100	12800	....
Total	305140	285820	172140	165640	172820	463580	843900	2051900	2422600	1011000	953200	826200
Mean.	9840	9530	5550	5340	6170	15000	28100	66200	80800	32600	30700	27500
Max..	22800	17800	8690	6360	8230	34700	43200	111000	98200	54800	65500	41100
Min..	4950	7460	2700	4400	4620	6420	13500	25100	58000	21000	12400	14900
A-ft.	605000	567000	341000	329000	343000	919000	1670000	4070000	4810000	2010000	1890000	1640000

Discharge of Colorado River at Lees Ferry, Arizona, for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	22100	10200	6920	4700	5150	12600	9820	43900	58900	24900	15700	10000
2....	20600	10400	7300	4600	6160	11300	9150	41100	69600	23900	15700	9580
3....	19200	10400	7540	4500	6960	10300	8810	38900	71400	22000	16100	9340
4....	18100	10300	7790	4600	7230	9540	8810	36900	65600	19600	18800	9900
5....	16900	10200	8150	5000	6520	9150	8960	38500	57900	17600	21500	9780
6....	16000	9860	8620	5680	6190	9000	8960	41200	53000	17000	26600	9740
7....	15600	9740	8660	5900	6030	8920	9150	40000	47900	15500	22800	10600
8....	15300	10300	8040	6000	6160	8580	10100	36800	45200	14600	19700	13800
9....	15000	10700	7930	6100	6450	8360	11500	34000	46000	14000	18000	13200
10....	14500	10400	7720	6400	6720	8330	16400	32000	52600	13700	30300	13700
11....	14500	10600	7720	6130	6790	8470	26200	29900	55300	13200	39600	11800
12....	14800	10500	7790	5700	6920	8290	34600	28100	57900	13000	45000	10100
13....	15600	10400	7860	5400	7190	7970	40000	26000	58000	16000	41600	9150
14....	16700	10400	7790	5200	7610	7900	39600	24600	54700	18100	36000	8580
15....	16400	10100	7900	5100	8080	7790	38500	23600	60200	14500	33400	8220
16....	15900	10000	8260	5220	8810	7930	40300	21500	62600	15000	30800	7930
17....	15900	9740	8470	5420	9150	7930	41200	20500	60100	14100	27600	7610
18....	15300	9110	8290	5540	8960	8110	39900	20200	58900	15000	28200	7260
19....	16300	8660	8080	5330	8810	8400	39000	22400	54700	17600	32400	7060
20....	15300	8730	7820	5000	8700	9110	35600	25000	52800	19600	32100	6890
21....	14600	8960	7640	4400	8920	9500	32400	25200	49800	19300	28300	6580
22....	14000	9230	7330	3800	9660	9310	29700	24600	48500	19300	23900	6260
23....	13400	9110	6960	3500	10100	9230	29300	24100	48300	19300	20800	6160
24....	12900	8920	6190	2900	11100	9740	33000	28000	43200	20300	18400	6030
25....	12500	8730	5750	2900	14700	9980	37600	34700	41700	19800	17200	6060
26....	12100	7900	5250	2900	16200	10100	42300	35200	42300	18400	15000	6680
27....	11700	7330	4700	4100	13700	10100	44500	32600	38400	17000	13600	6580
28....	11100	7020	4200	4220	13700	10300	45200	34300	32800	15900	12800	6290
29....	11200	6890	4100	4050	....	10200	44700	38200	30900	14900	12500	8400
30....	10700	6820	4300	4020	....	10300	44300	43300	27300	16000	11800	9040
31....	10400	....	4600	4390	....	10100	....	51100	....	15600	10600	....
Total	464600	281650	219670	148620	242670	286840	859560	996400	1546500	534700	736800	262320
Mean.	15000	9390	7090	4790	8670	9250	28700	32100	51600	17200	23800	8740
Max..	22100	10700	8660	6400	16200	12600	45200	51100	71400	24900	45000	13800
Min...	10400	6820	4100	2900	5150	7790	8810	20200	27300	13000	10600	6030
A-ft.	922000	559000	436000	295000	481000	569000	1700000	1980000	3070000	1060000	1460000	520000

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Fraser River Near West Portal for Year Ending Sept. 30, 1929.
Drainage Area, 27.6 Square Miles. Altitude, 9,500 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	14	11	14	12	8	8.2	20	15	172	151	109	49
2....	14	11	12	12	7.8	8.2	7.8	16	194	139	106	49
3....	14	10	12	12	7.4	8.2	7	17	201	121	102	52
4....	13	11	11	12	7.4	8.2	7.8	17	213	121	100	51
5....	13	12	12	12	8.2	8.2	8.6	15	226	116	106	49
6....	14	12	13	13	7.4	8	7	19	236	102	118	48
7....	14	12	13	13	8.2	8	7	37	241	90	114	47
8....	14	12	12	12	7.4	8	7.4	42	268	88	97	47
9....	14	10	11	12	7.4	7.8	6.2	61	258	84	88	46
10....	15	11	11	11	7.4	7.8	5.4	37	256	80	80	44
11....	15	11	11	11	7.4	7.8	7.8	30	251	77	74	42
12....	15	10	12	11	7.2	7.8	4.7	38	220	76	70	41
13....	15	11	13	13	7.2	7.8	4.7	58	196	74	66	38
14....	14	13	12	13	7.2	7.8	5.8	81	192	78	64	36
15....	14	13	11	12	7.2	7.8	5	96	183	95	61	37
16....	14	13	11	11	7	7.8	4.7	85	181	88	58	37
17....	15	13	11	11	7	7	9.8	94	199	84	61	37
18....	14	13	11	11	6.6	7	9.4	81	177	83	66	37
19....	14	12	11	9.4	6.6	7.8	10	98	172	84	62	37
20....	13	12	11	9.4	6.6	7	9.4	118	181	84	56	38
21....	13	12	11	9.4	6.6	7	8.6	122	201	82	56	38
22....	13	13	11	8.6	6.2	7	8.6	146	220	94	54	36
23....	13	13	11	9.4	6.2	7	8.2	156	210	112	47	34
24....	13	12	11	9.4	6.2	7	8.2	166	201	116	46	34
25....	11	13	12	9	6.2	7	8.2	231	190	100	44	32
26....	10	12	12	9	7	7	8.2	286	190	88	44	32
27....	10	11	11	8.6	7	7	8.2	248	187	149	48	30
28....	11	12	12	8.6	7.8	7.4	11	164	181	121	55	28
29....	11	13	13	8.2	....	7.4	14	111	168	106	74	28
30....	10	13	13	8.2	....	7.4	15	114	153	109	59	26
31....	11	....	12	8.2	....	9.4	....	134	....	109	54	....
Total	408	357	364	329.2	199.8	236.8	253.7	2933	6118	3101	2239	1180
Mean.	13.2	11.9	11.7	10.6	7.14	7.64	8.46	94.6	204	100	72.2	39.3
Max..	15	13	13	13	8.2	9.4	20	286	268	151	118	52
Min...	10	10	11	8.2	6.2	7	4.7	15	153	74	44	26
Acre-ft.	812	708	719	652	397	470	503	5820	12100	6150	4440	2340

Discharge of Fraser River Near West Portal for Year Ending Sept. 30, 1930.
Drainage Area, 27.6 Square Miles. Altitude, 9,500 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	24	16	12	10	7	6	6	92	212	110	64	35
2....	23	14	13	10	6	7	6	92	177	106	61	34
3....	25	12	12	10	7	6	6	77	168	102	56	32
4....	24	14	12	9	7	6	7	72	168	97	56	35
5....	24	14	11	9	7	6	9	67	166	88	54	35
6....	24	16	11	8	7	6	9	57	168	82	68	34
7....	24	17	11	8	7	6	14	54	185	78	62	32
8....	24	16	11	8	8	6	25	56	194	70	58	31
9....	24	16	11	7	7	6	20	49	203	68	56	30
10....	23	16	11	7	10	6	27	46	213	65	64	29
11....	23	16	11	7	6	6	23	41	246	64	62	28
12....	22	16	11	8	7	6	26	44	274	62	61	26
13....	22	16	10	8	7	6	24	46	271	44	68	25
14....	21	16	10	7	7	6	41	57	266	45	99	23
15....	21	15	10	7	7	6	34	64	243	66	86	23
16....	21	15	10	7	7	6	30	62	228	80	83	22
17....	20	15	11	7	8	6	26	54	228	75	74	22
18....	20	14	11	7	8	6	22	52	232	63	68	23
19....	20	15	11	7	7	6	25	60	235	62	64	23
20....	20	14	11	7	7	6	26	83	198	64	59	23
21....	20	14	11	7	7	6	28	118	195	65	55	23
22....	20	14	11	7	7	6	37	84	210	62	54	24
23....	20	13	11	7	7	6	40	83	155	59	51	24
24....	20	13	11	7	7	6	56	84	160	64	46	24
25....	20	13	11	7	7	6	44	90	164	62	43	24
26....	20	12	10	7	6	6	59	102	139	56	42	26
27....	20	12	11	7	6	6	65	132	120	54	42	26
28....	20	12	10	7	6	6	59	155	120	64	42	23
29....	20	12	10	7	....	6	60	199	118	70	40	22
30....	20	12	10	7	....	6	68	241	116	77	38	21
31....	20	....	10	7	....	6	....	256	....	68	36	....
Total	669	430	337	235	197	187	922	2769	5772	2192	1812	802
Mean.	21.6	14.3	10.9	7.58	7.04	6.03	30.7	89.3	192	70.7	58.5	26.7
Max..	25	17	13	10	10	7	68	256	274	110	99	35
Min...	20	12	10	7	6	6	6	41	116	44	36	21
Acre-ft.	1330	851	670	466	391	371	1830	5490	11400	4350	3600	1590

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Blue River at Dillon for Year Ending Sept. 30, 1929.
Drainage Area, 129 Square Miles. Altitude, 8,815 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	60	50	....	....	....	....	42	39	395	291	254	138
2....	59	49	....	....	....	....	42	38	511	274	254	136
3....	59	46	....	....	....	....	42	36	504	250	228	138
4....	59	40	....	....	....	....	42	34	498	240	237	140
5....	59	40	....	....	....	....	42	32	524	231	222	140
6....	56	41	....	....	....	....	40	37	546	216	231	138
7....	54	41	....	....	....	....	40	53	511	202	321	140
8....	54	41	....	....	....	....	40	66	524	200	329	144
9....	53	39	....	....	....	....	40	94	568	192	271	142
10....	53	34	....	....	....	....	40	116	576	173	243	135
11....	53	36	....	....	....	....	38	119	531	169	225	129
12....	53	36	....	....	....	....	38	114	584	166	202	127
13....	51	34	....	....	....	....	38	112	395	175	189	122
14....	49	36	....	....	....	....	38	135	375	197	182	118
15....	49	40	....	....	....	....	38	189	423	205	169	115
16....	49	40	....	....	....	....	36	240	380	207	162	114
17....	49	40	....	....	....	....	36	240	380	202	147	112
18....	48	40	....	....	....	....	36	247	360	194	160	109
19....	49	38	....	....	....	....	36	225	321	231	164	107
20....	50	38	....	....	....	....	36	243	325	240	149	105
21....	50	38	....	....	....	....	37	284	333	237	147	104
22....	49	38	....	....	....	....	33	294	342	210	149	99
23....	48	38	....	....	....	....	36	342	337	240	162	97
24....	48	36	....	....	....	....	34	375	325	281	151	94
25....	40	36	....	....	....	....	34	423	316	225	149	94
26....	40	36	....	....	....	....	31	539	305	194	140	94
27....	40	36	....	....	....	....	30	481	301	180	133	91
28....	46	38	....	....	....	....	34	395	301	210	129	90
29....	48	38	....	....	....	....	40	342	301	240	129	86
30....	48	38	....	....	....	....	40	288	288	237	138	83
31....	49	....	....	....	....	....	....	301	....	260	147	....
Total	1572	1171	....	....	....	....	1129	6473	12380	6769	5913	3481
Mean.	50.7	39.0	....	....	....	....	37.6	209	413	218	191	116
Max..	60	50	....	....	....	....	....	539	584	291	329	144
Min...	40	34	....	....	....	....	....	32	288	166	129	83
Acre-ft.	3120	2320	....	....	....	....	2240	12900	24600	13400	11700	6900

Discharge of Blue River at Dillon for Year Ending Sept. 30, 1930.
Drainage Area, 129 Square Miles. Altitude, 8,815 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	80	....	....	....	....	....	60	163	534	257	260	112
2....	79	....	....	....	....	....	60	186	406	254	254	107
3....	79	....	....	....	....	....	60	222	342	242	213	106
4....	79	....	....	....	....	....	60	208	310	222	208	104
5....	78	....	37	....	....	....	60	181	294	205	230	104
6....	75	....	....	....	....	....	80	163	298	194	224	107
7....	73	....	....	....	....	....	80	152	351	186	216	109
8....	72	....	....	....	....	....	80	148	402	172	194	112
9....	72	....	....	....	....	....	80	138	420	167	181	120
10....	75	....	....	....	....	....	80	127	411	167	172	109
11....	75	....	....	....	....	....	85	119	420	169	169	106
12....	75	....	....	....	19	23	90	115	471	167	172	101
13....	72	....	....	....	....	....	90	114	517	208	194	92
14....	69	....	....	....	....	....	95	114	499	306	280	90
15....	68	....	....	....	....	....	98	122	461	227	317	90
16....	66	....	....	....	....	....	107	140	435	179	277	89
17....	64	....	....	....	....	....	100	154	435	165	242	88
18....	64	....	....	....	....	....	86	156	416	184	216	85
19....	63	....	....	....	....	....	80	154	416	197	197	83
20....	60	....	....	....	....	....	73	150	392	181	181	82
21....	58	....	....	....	....	....	80	150	397	176	167	80
22....	57	....	....	....	....	....	106	176	402	199	161	79
23....	55	....	....	....	....	....	127	189	374	194	154	79
24....	51	....	....	....	....	....	150	179	338	181	148	80
25....	50	....	....	....	....	....	176	172	310	194	140	80
26....	48	....	....	....	....	....	172	186	287	181	138	79
27....	51	....	....	....	....	....	172	224	280	169	134	78
28....	54	....	....	....	....	....	169	287	267	169	129	78
29....	54	....	....	....	....	....	163	321	260	197	124	78
30....	52	....	....	....	....	....	161	397	257	224	124	76
31....	51	....	....	....	....	....	....	528	....	227	119	....
Total	2019	....	....	....	....	....	3080	5835	11402	6160	5935	2783
Mean.	65.1	50	35	15	20	25	103	188	380	199	191	92.8
Max..	80	....	....	....	....	....	176	528	534	306	317	120
Min...	48	....	....	....	....	....	60	114	257	165	119	76
Acre-ft.	4000	2980	2150	922	1110	1540	6130	11600	22600	12200	11700	5520

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Snake River at Dillon for Year Ending Sept. 30, 1930.
Drainage Area, 92 Square Miles. Altitude, 8,815 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	....	....	....	....	....	....	25	58	280	170	149	46
2....	....	....	....	....	....	....	25	78	220	156	128	44
3....	....	....	....	....	....	....	25	86	206	154	122	42
4....	....	....	....	....	....	....	25	65	206	144	128	49
5....	....	....	14	....	....	....	25	58	245	130	124	45
6....	....	....	....	....	....	....	40	49	305	116	116	50
7....	....	....	....	....	....	....	40	46	326	107	108	50
8....	....	....	....	....	....	....	40	42	395	103	116	71
9....	....	....	....	....	....	....	40	36	385	101	105	50
10....	....	....	....	....	....	....	40	32	390	103	108	45
11....	....	....	....	....	....	....	55	33	463	110	118	42
12....	....	....	....	...	15	14	60	32	546	105	124	40
13....	....	....	....	....	....	....	65	34	529	178	176	36
14....	....	....	....	....	....	....	67	40	480	156	203	33
15....	....	....	....	....	....	....	54	48	436	114	178	32
16....	....	....	....	....	....	....	38	49	420	103	156	31
17....	....	....	....	....	....	....	34	51	425	101	139	30
18....	....	....	....	....	....	....	30	50	458	124	126	29
19....	....	....	....	....	....	....	29	51	430	108	110	28
20....	....	....	....	....	....	....	30	51	400	108	96	28
21....	....	....	....	....	....	....	36	81	410	124	88	29
22....	....	....	....	....	....	....	46	96	400	124	84	30
23....	....	....	....	....	....	....	49	72	326	103	81	31
24....	....	....	....	....	....	....	52	77	276	98	74	28
25....	....	....	....	....	....	....	58	96	241	92	71	28
26....	....	....	....	....	....	....	52	130	227	81	75	27
27....	....	....	....	....	....	....	54	176	216	78	62	27
28....	....	....	....	....	....	....	47	238	213	124	57	27
29....	....	....	....	....	....	....	45	284	194	144	57	25
30....	....	....	....	....	....	....	48	362	184	151	54	25
31....	....	....	....	....	....	....	....	430	....	156	49	....
Total	....	....	....	....	....	....	1274	3031	13263	3766	3382	1098
Mean.	....	....	14	12	15	14	42.5	97.8	442	121	109	36.6
Max..	....	....	....	....	....	....	67	430	546	178	203	71
Min...	....	....	....	....	....	....	25	32	184	81	49	25
Acre-ft.	....	....	861	738	833	861	2530	6010	26300	7440	6700	2180

Discharge of Tenmile Creek at Dillon for Year Ending Sept. 30, 1930.
Drainage Area, 113 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	....	....	....	....	....	....	....	294	660	200	267	89
2....	....	....	....	....	....	....	....	393	472	191	202	86
3....	....	....	....	....	....	....	....	435	423	180	197	84
4....	....	....	....	....	....	....	....	258	393	172	200	89
5....	....	....	....	....	....	....	....	218	411	158	191	94
6....	....	....	....	....	....	....	....	194	565	144	202	98
7....	....	....	....	....	....	....	....	174	735	132	174	92
8....	....	....	....	....	....	....	....	161	742	123	153	98
9....	....	....	....	....	....	....	....	153	720	114	153	86
10....	....	....	....	....	....	....	....	141	668	114	158	80
11....	....	....	....	....	....	....	....	130	735	127	177	76
12....	....	....	....	....	....	....	....	127	830	139	177	74
13....	....	....	....	....	....	....	....	136	766	280	208	71
14....	....	....	....	....	....	....	185	172	682	232	272	70
15....	....	....	....	....	....	....	177	218	593	161	285	69
16....	....	....	....	....	....	....	153	246	572	139	214	67
17....	....	....	....	....	....	....	123	221	544	134	194	66
18....	....	....	....	....	....	....	108	185	504	197	174	64
19....	....	....	....	....	....	....	105	180	510	166	161	62
20....	....	....	....	....	....	....	101	191	472	156	146	61
21....	....	....	....	....	....	....	127	330	459	172	139	66
22....	....	....	....	....	....	....	161	364	429	191	132	70
23....	....	....	....	....	....	....	194	232	376	151	130	79
24....	....	....	....	....	....	....	249	249	320	180	121	74
25....	....	....	....	....	....	....	267	352	276	153	116	73
26....	....	....	....	....	....	....	232	510	254	134	112	71
27....	....	....	....	....	....	....	254	645	238	125	108	74
28....	....	....	....	....	....	....	232	750	235	161	101	74
29....	....	....	....	....	....	....	228	918	224	202	99	70
30....	....	....	....	....	....	....	254	1040	208	218	98	69
31....	....	....	....	....	....	....	....	990	....	174	92	....
Total	....	....	....	....	....	....	3150	10607	15016	5120	5153	2296
Mean.	....	....	....	....	....	....	185	342	500	165	166	76.5
Max..	....	....	....	....	....	....	267	1040	830	280	285	98
Min...	....	....	....	....	....	....	101	127	208	114	92	61
Acre-ft.	....	....	....	....	....	....	6240	21000	29800	10100	10200	4550

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Roaring Fork at Glenwood Springs for Year Ending Sept. 30, 1929.
Drainage Area, 1,460 Square Miles. Altitude, 5,747 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	661	610	525	427	419	366	485	924	5390	4810	2410	1050
2....	640	598	525	427	414	406	505	833	6680	4590	2290	1140
3....	634	564	515	456	419	398	592	916	6270	4280	2190	1240
4....	640	564	536	451	398	385	793	986	6820	4010	2250	1320
5....	654	564	480	432	419	385	809	1060	7410	3630	2190	1420
6....	654	564	456	430	414	398	622	1280	8020	3500	2740	1850
7....	634	569	475	430	419	406	547	1620	8020	3210	2680	1990
8....	622	598	495	440	381	410	505	2110	8340	3040	2270	2440
9....	616	574	490	440	342	419	530	2500	8990	2820	2030	2210
10....	604	542	490	450	342	432	510	2880	8660	2530	1900	1960
11....	604	547	515	450	374	465	465	2460	6960	2410	1740	1890
12....	610	547	558	450	393	427	505	2030	6540	2270	1600	1850
13....	604	552	525	465	419	414	558	2370	5270	2400	1480	1780
14....	610	564	542	465	441	393	622	3210	5880	2330	1260	1860
15....	661	542	547	446	437	402	661	4170	7110	2410	1170	2000
16....	640	547	465	475	423	389	809	4700	5760	2380	1130	1980
17....	640	525	437	461	423	398	977	4480	6960	2360	1120	1940
18....	647	525	414	451	465	414	1140	4700	5390	2220	1150	1950
19....	640	510	410	451	446	423	1220	4010	5270	2360	1120	1960
20....	640	500	410	451	402	419	1150	4810	6010	2190	1080	1960
21....	628	520	415	427	427	432	950	5160	6270	2020	1080	2160
22....	616	536	420	423	393	437	882	5640	6540	1900	1080	2470
23....	598	536	420	419	402	437	849	6140	6540	2120	995	2790
24....	592	520	430	406	410	437	849	7260	6140	2160	995	2310
25....	580	530	450	363	393	406	778	7260	6010	2030	1080	2070
26....	574	542	480	406	393	381	755	8340	5880	1950	1030	1950
27....	569	542	475	410	381	381	748	5640	5760	1910	995	1820
28....	586	547	490	432	393	402	755	4480	5760	3670	1020	1700
29....	610	547	465	427	....	485	841	3700	5510	2900	1120	1660
30....	592	520	446	419	....	586	1020	3390	4920	2700	1100	1610
31....	598	....	432	402	....	574	....	4010	....	2440	1060	....
Total	19198	16446	14733	13482	11382	13107	22432	113069	195080	85550	47355	56330
Mean.	619	548	475	435	406	423	748	3650	6500	2760	1530	1880
Max..	661	610	558	475	465	586	1220	8340	8990	4810	2740	2790
Min...	559	500	410	363	342	366	465	833	4920	1900	995	1050
Acre-ft.	38100	32600	29200	26700	22500	26000	44500	224000	387000	170000	94000	112000

Discharge of Roaring Fork at Glenwood Springs for Year Ending Sept. 30, 1930.
Drainage Area, 1,460 Square Miles. Altitude, 5,747 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	1490	915	600	512	405	349	420	1640	4800	2580	1960	807
2....	1450	897	610	496	405	328	458	1930	3470	2320	1740	771
3....	1460	982	580	428	398	322	488	2220	2940	2180	1760	753
4....	1540	1000	560	435	398	342	520	1870	2760	2100	1640	735
5....	1430	1020	560	528	398	342	602	1660	2800	2010	1520	807
6....	1370	1050	594	480	398	342	717	1450	3530	1930	1490	843
7....	1320	1070	594	465	412	342	888	1330	4560	1880	1600	825
8....	1330	1050	577	465	398	342	1070	1230	5310	1770	1620	816
9....	1460	1020	594	391	405	377	1270	1150	5720	1720	1540	798
10....	1490	960	568	356	384	398	1290	1090	4800	1660	1520	789
11....	1480	924	560	450	391	349	1200	1070	5580	1680	1540	762
12....	1410	897	552	504	412	384	1260	982	6700	1690	1530	744
13....	1350	825	552	488	405	398	1220	924	7290	2050	1750	735
14....	1300	780	552	472	412	405	1360	934	6700	2130	1950	708
15....	1280	861	536	480	405	405	1400	1120	5580	1740	1990	690
16....	1250	897	536	455	398	442	1220	1370	5440	1570	1700	663
17....	1240	920	552	442	398	465	1130	1450	5310	1520	1590	654
18....	1230	950	458	420	391	420	1040	1360	5180	1640	1470	654
19....	1210	920	398	412	398	391	1040	1290	5580	1850	1330	654
20....	1180	810	450	412	391	391	1010	1210	5050	2020	1230	663
21....	1130	740	405	417	405	405	1230	1790	5310	1790	1110	645
22....	1100	670	377	422	405	428	1480	2420	5050	1700	1040	654
23....	1060	660	420	428	412	428	1620	2470	4440	1550	1010	699
24....	1020	660	520	428	450	405	1820	1790	3490	1700	982	708
25....	1000	700	488	428	412	412	1970	1950	3000	1580	934	816
26....	1030	720	552	425	370	420	1810	2650	2740	1430	944	798
27....	1020	720	512	422	405	391	1880	3510	2600	1370	944	780
28....	1010	680	488	422	391	377	1790	4800	2690	1390	897	753
29....	1000	650	488	422	....	398	1620	5580	2910	1480	843	735
30....	982	620	496	422	....	405	1540	6700	2630	1670	843	735
31....	982	....	504	405	....	412	....	6990	....	1600	834	....
Total	38604	25568	16233	13732	11252	12015	36363	67930	133960	55300	42851	22194
Mean.	1240	852	524	443	402	388	1210	2190	4470	1780	1380	740
Max..	1540	1070	610	528	450	465	1970	6990	7290	2580	1990	843
Min...	982	620	377	356	370	322	420	924	2600	1370	834	645
Acre-ft.	76200	50700	32200	27200	22300	23900	72000	135000	266000	109000	84800	44000

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Plateau Creek Near Collbran for Year Ending Sept. 30, 1929.
Drainage Area, 88 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	50	75	....	....	....	....	20	180	746	310	95	31
2....	49	60	....	....	....	....	20	194	882	284	116	39
3....	50	73	....	....	....	....	27	242	882	248	95	86
4....	54	72	....	....	....	....	44	251	896	218	108	112
5....	55	66	....	....	....	....	64	297	917	192	230	127
6....	54	70	....	....	....	....	63	304	938	204	417	177
7....	49	76	....	....	....	....	97	351	986	174	201	204
8....	43	73	....	....	....	....	86	390	986	138	138	250
9....	43	78	....	....	....	....	60	458	986	138	112	162
10....	46	88	....	....	....	....	64	464	917	134	103	167
11....	62	81	....	....	....	....	60	428	882	112	89	174
12....	75	76	....	....	....	....	57	416	847	101	74	155
13....	83	70	....	....	....	....	63	489	847	99	63	127
14....	70	70	....	....	....	....	73	608	847	95	53	106
15....	51	75	....	....	....	....	93	662	882	95	47	87
16....	48	75	....	....	....	....	150	683	952	116	44	76
17....	46	70	....	....	....	....	189	683	986	95	52	71
18....	55	64	....	....	....	....	208	698	680	84	80	69
19....	59	59	....	....	....	....	213	740	584	123	45	69
20....	67	54	....	....	....	....	201	779	525	138	37	106
21....	67	73	....	....	....	....	169	785	525	125	44	125
22....	56	70	....	....	....	....	158	773	496	86	36	143
23....	60	67	....	....	....	....	150	773	469	91	29	303
24....	63	60	....	....	....	....	146	758	469	84	44	187
25....	67	56	....	....	....	....	136	803	469	76	34	143
26....	67	55	....	....	....	....	126	683	496	72	28	150
27....	63	55	....	....	....	....	124	683	417	82	26	127
28....	75	53	....	....	....	....	138	623	370	138	28	106
29....	70	53	....	....	....	....	180	525	348	138	31	99
30....	63	53	....	....	....	....	196	554	329	174	34	93
31....	83	....	....	....	....	....	....	680	....	127	24	....
Total	1843	2020	....	....	....	....	3375	16957	21556	4291	2557	3871
Mean.	59.5	67.3	....	....	....	....	112	547	719	138	82.5	129
Max..	83	88	....	....	....	....	213	803	986	310	417	303
Min...	43	53	....	....	....	....	20	180	329	72	24	31
Acre-ft.	3660	4000	....	....	....	....	6660	33600	42800	8480	5070	7680

Discharge of Plateau Creek Near Collbran for Year Ending Sept. 30, 1930.
Drainage Area, 88 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	85	....	....	....	....	....	32	363	552	61	119	11
2....	77	....	....	....	....	....	44	481	463	58	123	8
3....	104	....	....	....	....	....	66	494	454	57	76	8
4....	85	....	....	....	....	....	78	341	472	52	51	13
5....	74	....	....	....	....	....	74	276	572	48	39	26
6....	71	....	....	....	....	....	102	221	680	39	32	29
7....	63	....	....	....	....	....	130	192	685	34	32	34
8....	55	....	....	....	....	....	159	177	696	33	42	30
9....	101	....	....	....	....	....	164	157	603	32	45	30
10....	140	....	....	....	....	....	160	161	547	47	74	22
11....	96	....	....	....	....	....	158	148	534	95	116	18
12....	88	....	....	....	....	....	146	146	485	118	123	14
13....	62	....	....	....	....	....	162	157	416	174	163	14
14....	60	....	....	....	....	....	170	179	341	103	114	14
15....	58	....	....	....	....	....	148	256	291	66	112	13
16....	58	....	....	....	....	....	144	300	267	50	71	12
17....	71	....	....	....	....	....	144	276	232	76	66	13
18....	71	....	....	....	....	....	142	250	374	119	60	12
19....	61	....	....	....	....	....	146	253	256	108	37	9
20....	63	....	....	....	....	....	157	345	192	95	31	11
21....	57	....	....	....	....	....	197	542	197	64	23	11
22....	55	....	....	....	....	....	253	537	199	48	21	21
23....	36	....	....	....	....	....	307	363	161	38	22	42
24....	42	....	....	....	....	....	341	425	144	36	21	44
25....	47	....	....	....	....	....	324	582	131	33	21	52
26....	45	....	....	....	....	....	303	720	123	25	22	42
27....	42	....	....	....	....	....	370	843	116	22	32	54
28....	42	....	....	....	....	....	374	888	108	22	21	39
29....	40	....	....	....	....	....	317	888	95	20	19	29
30....	42	....	....	....	....	....	300	875	84	108	16	82
31....	45	....	....	....	....	....	....	805	....	74	13	....
Total	2036	....	....	....	....	....	5612	12641	10470	1955	1757	757
Mean.	65.7	....	....	....	....	....	187	408	349	63.1	56.7	25.2
Max..	140	....	....	....	....	....	374	888	696	174	163	54
Min...	36	....	....	....	....	....	32	146	84	20	13	8
Acre-ft.	4040	....	....	....	....	....	11100	25100	20800	3880	3490	1550

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Buzzard Creek Near Collbran for Year Ending Sept. 30, 1929.
Drainage Area, 139 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	4	20	....	....	....	....	34	196	429	76	40	9
2....	4	17	....	....	....	....	34	232	438	68	37	9
3....	4	14	....	....	....	....	38	304	411	60	32	16
4....	5	12	....	....	....	....	56	352	420	53	30	22
5....	5	11	....	....	....	....	85	474	429	47	40	33
6....	5	11	....	....	....	....	78	532	393	50	94	65
7....	5	10	....	....	....	....	57	588	360	42	76	56
8....	5	10	....	....	....	....	52	646	344	33	44	75
9....	6	12	....	....	....	....	49	686	344	31	30	72
10....	6	14	....	....	....	....	33	736	328	30	26	52
11....	6	14	....	....	....	....	30	503	296	30	22	40
12....	7	15	....	....	....	....	36	393	245	31	20	42
13....	8	15	....	....	....	....	47	522	221	36	16	31
14....	9	15	....	....	....	....	64	706	203	32	14	27
15....	11	15	....	....	....	....	120	766	206	32	13	22
16....	12	14	....	....	....	....	224	766	174	29	11	19
17....	9	15	....	....	....	....	337	706	245	58	10	17
18....	10	14	....	....	....	....	420	646	221	36	9	16
19....	11	14	....	....	....	....	411	570	160	30	10	15
20....	12	13	....	....	....	....	344	666	146	34	8	15
21....	13	14	....	....	....	....	210	617	136	29	8	16
22....	13	14	....	....	....	....	210	598	135	27	8	20
23....	12	11	....	....	....	....	189	579	133	30	8	36
24....	10	14	....	....	....	....	147	570	122	30	9	58
25....	9	14	....	....	....	....	116	512	116	25	13	29
26....	9	13	....	....	....	....	110	598	110	22	11	22
27....	10	12	....	....	....	....	104	465	104	21	9	24
28....	13	12	....	....	....	....	143	484	98	23	11	22
29....	15	11	....	....	....	....	256	429	87	38	11	20
30....	14	10	....	....	....	....	272	456	82	28	9	18
31....	17	....	....	....	....	....	....	494	....	31	9	....
Total	279	400	....	....	....	....	4306	16792	7136	1142	688	918
Mean.	9.00	13.3	....	....	....	....	144	542	238	36.8	22.2	30.6
Max..	17	20	....	....	....	....	420	766	438	76	94	75
Min...	4	10	....	....	....	....	30	196	82	21	8	9
Acre-ft.	553	791	....	....	....	....	8570	33300	14200	2260	1360	1820

Discharge of Buzzard Creek Near Collbran for Year Ending Sept. 30, 1930.
Drainage Area, 139 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	17	....	....	....	....	....	11	228	287	13	26	5
2....	17	....	....	....	....	....	17	264	228	12	27	6
3....	15	....	....	....	....	....	37	292	194	11	25	6
4....	19	....	....	....	....	....	65	225	190	9	23	6
5....	20	....	....	....	....	....	85	206	179	9	18	11
6....	17	....	....	....	....	....	116	180	200	8	16	20
7....	15	....	....	....	....	....	172	159	204	7	12	20
8....	18	....	....	....	....	....	228	155	204	7	17	17
9....	59	....	....	....	....	....	249	138	187	7	15	17
10....	75	....	....	....	....	....	238	129	153	7	19	15
11....	46	....	....	....	....	....	228	129	153	8	56	12
12....	30	....	....	....	....	....	210	134	139	18	41	10
13....	23	....	....	....	....	....	217	119	128	34	78	10
14....	21	....	....	....	....	....	225	123	115	42	77	10
15....	20	....	....	....	....	....	213	147	105	23	65	11
16....	20	....	....	....	....	....	159	168	90	15	42	10
17....	20	....	....	....	....	....	120	176	76	11	31	8
18....	22	....	....	....	....	....	120	192	80	9	25	8
19....	23	....	....	....	....	....	136	257	103	14	22	6
20....	20	....	....	....	....	....	163	295	78	17	15	6
21....	20	....	....	....	....	....	218	298	63	18	13	6
22....	18	....	....	....	....	....	257	312	66	16	11	7
23....	16	....	....	....	....	....	288	252	54	14	9	11
24....	14	....	....	....	....	....	302	248	42	12	8	17
25....	12	....	....	....	....	....	309	255	36	11	8	30
26....	16	....	....	....	....	....	275	292	30	12	7	24
27....	17	....	....	....	....	....	295	305	26	12	6	40
28....	18	....	....	....	....	....	288	323	22	11	6	22
29....	20	....	....	....	....	....	229	298	18	11	6	22
30....	20	....	....	....	....	....	204	312	15	27	6	22
31....	18	....	....	....	....	....	....	343	....	36	6	....
Total	706	....	....	....	....	....	5674	6954	3465	461	736	415
Mean.	22.8	....	....	....	....	....	189	224	116	14.9	23.7	13.8
Max..	75	....	....	....	....	....	309	343	287	42	78	40
Min...	15	....	....	....	....	....	11	119	15	7	6	5
Acre-ft.	1400	....	....	....	....	....	11200	13800	6900	916	1460	820

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Taylor River at Taylor Park for Year Ending Sept. 30, 1929.
Drainage Area, 121 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	....	....	....	....	....	....	....	....	380	244	244	119
2....	....	....	....	....	....	....	....	....	440	249	224	130
3....	....	....	....	....	....	....	....	....	410	253	258	127
4....	....	....	....	....	....	....	....	....	420	253	249	130
5....	....	....	....	....	....	....	....	....	430	236	272	141
6....	....	....	....	....	....	....	....	....	460	258	358	212
7....	....	....	....	....	....	....	....	....	470	224	290	267
8....	....	....	....	....	....	....	....	....	490	220	228	244
9....	....	....	....	....	....	....	....	....	515	182	204	175
10....	....	....	....	....	....	....	....	....	496	175	190	172
11....	....	....	....	....	....	....	....	....	477	160	168	197
12....	....	....	....	....	....	....	....	....	452	157	154	175
13....	....	....	....	....	....	....	....	....	426	168	147	168
14....	....	....	....	....	....	....	....	....	449	179	141	175
15....	....	....	....	....	....	....	....	....	483	204	135	190
16....	....	....	....	....	....	....	....	....	423	193	132	172
17....	....	....	....	....	....	....	....	....	458	186	141	168
18....	....	....	....	....	....	....	....	....	412	182	144	172
19....	....	....	....	....	....	....	....	....	423	179	119	157
20....	....	....	....	....	....	....	....	....	419	190	135	157
21....	....	....	....	....	....	....	....	....	412	160	141	175
22....	....	....	....	....	....	....	....	....	412	150	135	172
23....	....	....	....	....	....	....	....	....	400	204	116	157
24....	....	....	....	....	....	....	....	....	376	232	130	147
25....	....	....	....	....	....	....	....	....	349	168	141	144
26....	....	....	....	....	....	....	....	....	340	197	113	138
27....	....	....	....	....	....	....	....	....	330	285	130	127
28....	....	....	....	....	....	....	....	....	315	340	141	127
29....	....	....	....	....	....	....	....	....	310	300	119	135
30....	....	....	....	....	....	....	....	....	281	281	119	124
31....	....	....	....	....	....	....	....	....	....	267	122	....
Total	....	....	....	....	....	....	....	....	12458	6656	5340	4894
Mean.	....	....	....	....	....	....	....	....	415	215	172	163
Max..	....	....	....	....	....	....	....	....	515	340	358	267
Min...	....	....	....	....	....	....	....	....	281	150	113	119
Acre-ft.	....	....	....	....	....	....	....	....	24700	13200	10600	9700

Discharge of Taylor River at Taylor Park for Year Ending Sept. 30, 1930.
Drainage Area, 121 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	120	82	....	46	....	....	....	90	393	157	157	66
2....	120	....	....	....	....	....	....	100	300	154	128	66
3....	128	....	....	....	....	....	....	100	269	148	110	68
4....	128	....	....	....	....	....	79	110	274	163	93	82
5....	113	....	....	....	....	....	....	120	286	148	93	88
6....	110	....	....	....	55	52	....	105	384	133	126	84
7....	110	....	....	....	....	....	....	113	485	128	126	78
8....	113	....	....	....	....	....	....	103	505	128	103	70
9....	166	....	....	....	....	....	....	91	530	120	110	70
10....	148	....	....	....	....	....	....	91	500	120	115	68
11....	139	....	....	....	....	....	....	88	545	115	133	64
12....	128	....	....	....	....	....	....	93	555	123	113	61
13....	120	....	....	....	....	....	....	105	540	154	131	63
14....	113	....	....	....	....	....	....	128	505	157	166	63
15....	113	....	....	....	....	....	....	160	441	118	148	61
16....	113	....	....	....	....	....	....	188	436	105	133	64
17....	115	....	....	....	....	....	....	157	412	96	115	64
18....	108	....	....	....	....	....	....	136	393	105	103	58
19....	108	....	....	....	....	....	....	131	364	118	103	52
20....	105	....	....	....	....	....	....	173	360	180	98	55
21....	96	....	....	....	....	....	....	269	355	145	86	61
22....	93	....	....	....	....	....	....	265	369	163	84	63
23....	86	....	....	....	....	....	....	160	300	139	86	61
24....	86	....	....	....	....	....	....	180	253	131	82	70
25....	84	....	....	....	....	....	....	248	229	118	82	60
26....	88	....	....	....	....	....	....	317	202	118	93	58
27....	74	....	....	....	....	....	....	427	191	120	84	58
28....	78	....	....	....	....	....	....	456	191	120	78	61
29....	80	....	....	....	....	....	....	530	188	126	74	63
30....	91	....	....	....	....	....	....	510	163	145	80	66
31....	84	....	....	....	....	....	....	545	....	139	76	....
Total	3358	....	....	....	....	....	....	6289	10918	4134	3309	1966
Mean.	108	70	55	40	55	60	85	203	364	133	107	65.5
Max..	166	....	....	....	....	....	....	545	555	180	166	88
Min...	74	....	....	....	....	....	....	88	163	96	74	52
Acre-ft.	6640	4170	3380	2460	3050	3690	5060	12500	21700	8180	6580	3900

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Taylor River at Almont for Year Ending Sept. 30, 1929.
Drainage Area, 440 Square Miles. Altitude, 8,031 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	323	235	....	....	....	140	113	246	1590	750	750	366
2....	305	220	....	....	....	140	118	221	1840	660	902	400
3....	314	200	....	....	....	140	130	273	1670	615	955	485
4....	320	166	....	....	....	140	142	296	1760	608	800	533
5....	327	166	....	....	....	169	136	338	1760	630	1010	520
6....	300	166	....	....	....	204	139	446	1760	615	800	533
7....	300	176	....	....	....	212	139	622	1760	546	705	533
8....	300	204	....	....	....	200	139	800	1760	526	850	520
9....	300	225	....	....	....	191	139	955	1840	479	572	508
10....	300	208	....	....	....	162	139	955	1840	452	491	503
11....	280	180	....	....	....	145	130	705	1430	452	572	533
12....	280	183	....	....	....	142	145	559	1280	485	485	479
13....	280	180	....	....	....	142	148	705	1140	468	462	485
14....	280	172	....	....	....	148	155	1010	1280	485	426	533
15....	280	166	....	....	....	142	170	1200	1350	533	410	546
16....	300	152	....	....	....	139	190	1280	1200	491	400	514
17....	300	148	....	....	....	130	210	1200	1350	452	405	497
18....	300	148	....	....	....	121	230	1280	1070	491	415	503
19....	300	148	....	....	....	111	265	1070	1070	491	361	497
20....	300	148	....	....	....	108	240	1350	1070	497	376	485
21....	250	145	....	....	....	113	212	1430	1070	485	386	503
22....	250	152	....	....	....	127	217	1350	1070	497	356	491
23....	250	145	....	....	....	155	196	1510	1070	705	366	436
24....	250	166	....	....	....	158	200	1670	955	540	395	420
25....	250	183	....	....	....	145	183	1840	902	1010	356	395
26....	245	172	....	....	....	136	183	2100	850	800	335	405
27....	240	166	....	....	....	136	176	1510	800	850	357	410
28....	235	152	....	....	....	136	169	1200	800	850	398	420
29....	231	148	....	....	....	133	217	1010	800	750	373	410
30....	230	118	....	....	....	118	273	955	750	705	381	376
31....	235	....	....	....	....	108	....	1280	....	660	371	....
Total	8655	5138	....	....	....	4491	5243	31336	38887	18578	16221	14239
Mean.	279	171	130	120	115	145	175	1010	1300	599	523	475
Max..	....	235	....	....	....	212	273	2100	1840	1010	1010	546
Min...	....	118	....	....	....	108	113	221	750	442	335	366
Acre-ft.	17200	10200	7990	7380	6390	8920	10400	62100	77400	36800	32200	28300

Discharge of Taylor River at Almont for Year Ending Sept. 30, 1930.
Drainage Area, 440 Square Miles. Altitude, 8,031 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	382	260	168	140	158	125	110	634	1070	520	468	215
2....	403	260	172	140	158	122	140	736	960	498	382	215
3....	424	260	161	140	158	122	160	762	914	482	357	233
4....	389	260	168	140	158	161	200	576	950	512	333	251
5....	351	251	175	140	158	168	250	505	1160	460	310	282
6....	333	251	172	140	158	161	300	438	1410	431	351	282
7....	468	251	175	140	158	179	350	445	1560	424	375	266
8....	452	246	168	140	158	154	410	410	1600	403	315	260
9....	417	242	164	140	158	154	431	363	1700	375	315	242
10....	369	242	168	140	158	154	505	351	1360	369	389	215
11....	351	242	172	115	187	288	520	357	1480	363	445	203
12....	363	238	172	115	187	140	634	363	1640	417	396	187
13....	339	224	175	115	187	215	694	363	1610	445	417	191
14....	333	211	164	115	187	140	702	424	1480	617	498	172
15....	345	211	158	115	187	147	694	528	1320	417	482	168
16....	363	215	191	115	187	147	617	608	1290	369	410	168
17....	333	211	179	115	187	140	351	528	1240	315	357	168
18....	327	271	175	115	187	140	327	490	1180	327	315	161
19....	333	233	161	115	187	140	396	468	1090	351	310	154
20....	339	191	150	115	187	140	512	842	1010	482	310	158
21....	339	175	136	97	175	140	806	1030	1080	490	282	158
22....	315	161	136	97	175	140	869	694	1090	584	271	164
23....	315	164	136	97	164	122	915	702	1000	460	271	228
24....	238	175	136	97	154	122	923	860	824	396	260	207
25....	215	168	136	97	154	110	779	1020	728	403	288	211
26....	215	175	145	97	154	110	736	1290	685	363	310	207
27....	260	168	145	97	154	106	806	1340	651	403	271	220
28....	260	172	145	97	134	98	660	1640	626	431	246	215
29....	251	183	145	97	....	98	560	1760	617	475	242	203
30....	251	168	145	97	....	100	536	1800	568	452	251	211
31....	260	....	145	97	....	105	....	1330	....	438	233	....
Total	10333	6479	4938	3617	4714	4388	15893	23657	33893	13472	10460	6215
Mean.	333	216	159	117	168	142	530	763	1130	435	337	207
Max..	468	271	191	....	....	288	923	1800	1700	617	498	282
Min...	215	161	....	....	....	98	110	351	568	315	233	154
Acre-ft.	20500	12900	9780	7190	9330	8730	31500	46900	67200	26700	20700	12300

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Texas Creek at Mouth—Taylor Park for Year Ending Sept. 30, 1929.
Drainage Area, 36 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	....	....	....	....	....	....	....	....	150	118	91	52
2....	....	....	....	....	....	....	....	....	190	118	81	54
3....	....	....	....	....	....	....	....	....	160	112	116	51
4....	....	....	....	....	....	....	....	....	180	110	112	50
5....	....	....	....	....	....	....	....	....	190	106	98	49
6....	....	....	....	....	....	....	....	....	210	114	95	61
7....	....	....	....	....	....	....	....	....	220	97	95	70
8....	....	....	....	....	....	....	....	....	235	93	78	73
9....	....	....	....	....	....	....	....	....	270	82	63	70
10....	....	....	....	....	....	....	....	....	240	74	66	79
11....	....	....	....	....	....	....	....	....	216	68	57	66
12....	....	....	....	....	....	....	....	....	202	68	52	61
13....	....	....	....	....	....	....	....	....	189	68	50	66
14....	....	....	....	....	....	....	....	....	282	62	49	81
15....	....	....	....	....	....	....	....	....	353	66	44	86
16....	....	....	....	....	....	....	....	....	184	67	42	70
17....	....	....	....	....	....	....	....	....	295	76	44	70
18....	....	....	....	....	....	....	....	....	150	70	43	70
19....	....	....	....	....	....	....	....	....	181	84	38	64
20....	....	....	....	....	....	....	....	....	189	81	39	60
21....	....	....	....	....	....	....	....	....	189	76	41	63
22....	....	....	....	....	....	....	....	....	221	88	51	60
23....	....	....	....	....	....	....	....	....	198	78	45	58
24....	....	....	....	....	....	....	....	....	170	153	50	51
25....	....	....	....	....	....	....	....	....	157	86	51	48
26....	....	....	....	....	....	....	....	....	184	67	46	43
27....	....	....	....	....	....	....	....	....	177	73	46	40
28....	....	....	....	....	....	....	....	....	164	327	48	40
29....	....	....	....	....	....	....	....	....	162	112	56	40
30....	....	....	....	....	....	....	....	....	120	153	54	38
31....	....	....	....	....	....	....	....	....	....	112	53	....
Total	....	....	....	....	....	....	....	....	6026	3059	1894	1784
Mean.	....	....	....	....	....	....	....	....	201	98.7	61.1	59.5
Max..	....	....	....	....	....	....	....	....	353	327	116	86
Min...	....	....	....	....	....	....	....	....	120	62	38	38
Acre-ft.	....	....	....	....	....	....	....	....	12000	6070	3760	3540

Discharge of Texas Creek at Mouth—Taylor Park for Year Ending Sept. 30, 1930.
Drainage Area, 36 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	39	26	....	....	....	....	....	38	187	71	80	28
2....	38	27	....	....	....	....	....	40	131	68	64	29
3....	37	26	....	....	....	....	....	40	113	64	55	29
4....	35	....	....	....	....	....	....	49	106	61	50	31
5....	34	....	....	....	....	....	....	39	143	60	51	37
6....	35	....	....	....	....	....	....	40	170	57	56	35
7....	33	....	....	....	....	....	....	46	316	58	56	33
8....	41	....	....	....	....	....	....	36	299	55	54	34
9....	48	....	....	....	....	....	....	29	286	53	68	32
10....	45	....	....	....	....	....	....	24	266	49	119	32
11....	41	....	....	....	....	....	....	30	295	45	94	28
12....	41	....	....	....	....	....	....	28	333	70	76	26
13....	40	....	....	....	....	....	....	30	340	84	77	26
14....	39	....	....	....	....	....	....	33	312	154	94	25
15....	39	....	....	....	....	....	....	38	263	76	165	25
16....	40	....	....	....	....	....	....	42	266	62	76	26
17....	37	....	....	....	....	....	....	43	250	53	58	25
18....	38	....	....	....	....	....	....	43	228	50	51	24
19....	35	....	....	....	....	....	....	42	204	53	47	22
20....	30	....	....	....	....	....	....	50	210	68	45	23
21....	27	....	....	....	....	....	....	108	204	78	40	24
22....	29	....	....	....	....	....	....	106	198	100	38	27
23....	28	....	....	....	....	....	....	68	173	72	38	27
24....	31	....	....	....	....	....	....	74	129	60	37	29
25....	32	....	....	....	....	....	....	102	113	62	35	27
26....	30	....	....	....	....	....	....	151	98	65	36	25
27....	30	....	....	....	....	....	....	213	94	66	36	27
28....	27	....	....	....	....	....	....	250	94	66	32	27
29....	27	....	....	....	....	....	....	292	89	66	32	26
30....	28	....	....	....	....	....	....	319	77	72	32	27
31....	27	....	....	....	....	....	....	312	....	68	30	....
Total	1081	....	....	....	....	....	....	2755	5887	2086	1822	836
Mean.	34.9	18	12	4	6	10	25	88.9	196	67.3	58.8	27.9
Max..	48	....	....	....	....	....	....	319	340	154	165	37
Min...	27	....	....	....	....	....	....	24	77	45	30	22
Acre-ft.	2150	1070	738	246	333	615	1490	5470	11700	4140	3620	1660

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Willow Creek at Taylor Park for Year Ending Sept. 30, 1929.
Drainage Area, 47 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	....	....	....	....	....	....	....	....	75	59	61	50
2....	....	....	....	....	....	....	....	....	90	56	60	56
3....	....	....	....	....	....	....	....	....	80	53	72	49
4....	....	....	....	....	....	....	....	....	90	51	67	47
5....	....	....	....	....	....	....	....	....	90	49	60	56
6....	....	....	....	....	....	....	....	....	95	51	63	64
7....	....	....	....	....	....	....	....	....	95	50	63	66
8....	....	....	....	....	....	....	...	....	100	51	64	64
9....	....	....	....	....	....	....	....	....	110	46	63	73
10....	....	....	....	....	....	....	....	....	106	43	64	74
11....	....	....	....	....	....	....	....	....	104	41	62	67
12....	....	....	....	....	....	....	....	....	98	40	59	70
13....	....	....	....	....	....	....	....	....	94	37	56	73
14....	....	....	....	....	....	....	....	....	95	40	50	86
15....	....	....	....	....	....	....	....	....	102	41	48	77
16....	....	....	....	....	....	....	....	....	92	43	45	58
17....	....	....	....	....	....	....	....	....	95	42	45	59
18....	....	....	....	....	....	....	....	....	85	44	44	60
19....	....	....	....	....	....	....	....	....	85	43	41	56
20....	....	....	....	....	....	....	....	....	84	45	41	56
21....	....	....	....	....	....	....	....	....	83	42	47	62
22....	....	....	....	....	....	....	....	....	84	41	50	59
23....	....	....	....	....	....	....	....	....	82	48	46	55
24....	....	....	....	....	....	....	....	....	70	76	49	56
25....	....	....	....	....	....	....	....	....	69	54	46	57
26....	....	....	....	....	....	....	....	....	71	45	42	55
27....	....	....	....	....	....	....	....	....	68	81	49	50
28....	....	....	....	....	....	....	....	....	64	83	50	49
29....	....	....	....	....	....	....	....	....	64	63	49	45
30....	....	....	....	....	....	....	....	....	64	66	46	45
31....	....	....	....	....	....	....	....	....	....	64	48	....
Total	....	....	....	....	....	....	....	....	2584	1588	1650	1794
Mean.	....	....	....	....	....	....	....	....	86.1	51.2	53.2	59.8
Max..	....	....	....	....	....	....	....	....	110	83	72	86
Min...	....	....	....	....	....	....	....	....	64	37	41	45
Acre-ft.	....	....	....	....	....	....	....	....	5120	3150	3270	3560

Discharge of Willow Creek at Taylor Park for Year Ending Sept. 30, 1930.
Drainage Area, 47 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	44	20	....	....	....	....	....	26	91	44	46	28
2....	44	22	....	20	....	....	....	26	75	43	46	28
3....	44	21	....	....	....	....	....	28	72	41	43	30
4....	41	....	....	....	....	....	....	28	70	41	39	32
5....	41	....	....	....	....	....	16	27	78	40	40	34
6....	39	....	....	....	....	....	....	26	90	39	45	35
7....	38	....	....	....	20	21	....	28	103	38	40	34
8....	49	....	....	....	....	....	....	26	106	37	37	30
9....	51	....	....	....	....	....	....	23	109	37	41	29
10....	45	....	....	....	....	....	....	25	104	37	43	29
11....	42	....	....	....	....	....	....	24	104	37	41	27
12....	41	....	....	....	....	....	....	22	110	39	45	26
13....	39	....	....	....	....	....	....	27	103	42	53	25
14....	37	....	....	....	....	....	....	33	96	48	49	24
15....	37	....	....	....	....	....	....	37	87	39	46	24
16....	39	....	....	....	....	....	....	38	88	37	43	24
17....	37	....	....	....	....	....	....	32	84	34	41	25
18....	34	....	....	....	....	....	....	33	84	37	35	23
19....	34	....	....	....	....	....	....	36	79	41	35	22
20....	36	....	....	....	....	....	....	37	75	41	35	23
21....	32	....	....	....	....	....	....	56	74	55	33	21
22....	33	....	....	....	....	....	....	64	81	56	32	26
23....	34	....	....	....	....	....	....	41	69	49	34	30
24....	36	....	....	....	....	....	....	44	61	45	32	29
25....	37	....	....	....	....	....	....	57	57	40	31	29
26....	35	....	....	....	....	....	....	69	52	47	33	26
27....	27	....	....	....	....	....	....	82	48	45	33	27
28....	25	....	....	....	....	....	....	92	49	49	31	27
29....	27	....	....	....	....	....	....	103	48	56	31	24
30....	26	....	....	....	....	....	....	108	45	52	32	26
31....	22	....	....	....	....	....	....	125	....	54	31	....
Total	1146	....	....	....	....	....	....	1423	2392	1340	1196	817
Mean.	37.0	22	20	18	20	21	23	46.0	79.7	43.2	38.6	27.2
Max..	51	....	....	....	....	....	....	125	110	56	53	35
Min...	22	....	....	....	....	....	....	22	45	34	31	21
Acre-ft.	2280	1310	1230	1110	1110	1290	1370	2830	4740	2660	2370	1620

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Gunnison River & Redlands Power Canal Near Grand Junction for Year Ending Sept. 30, 1929.

Drainage Area, 8,020 Square Miles. Altitude, 4,573 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	905	1680	1360	935	640	1290	2020	4090	16100	6960	5910	2340
2....	835	1600	1360	935	640	1330	1970	4680	17800	6660	5960	3890
3....	835	1600	1360	820	640	1380	1830	5100	18400	5820	6020	4880
4....	795	1560	1360	820	640	1430	2490	5280	18200	5320	5920	4620
5....	775	1520	1290	800	640	1660	3080	5940	18800	4800	6420	4710
6....	755	1480	1210	760	680	2100	3150	7980	12200	4660	7460	5970
7....	755	1360	948	760	680	2310	2800	10060	17900	4800	7140	8280
8....	795	1360	1290	760	680	2400	2630	11700	17100	4880	6120	8370
9....	835	1330	1140	760	680	2400	2410	13500	16900	4210	5340	6910
10....	835	1290	1280	760	680	2540	2110	15900	17100	3610	5020	6650
11....	1320	1290	1060	740	740	2240	1760	14200	16000	3160	4800	6540
12....	1640	1330	820	740	740	2100	1770	10700	13500	2990	4710	6340
13....	1920	1360	782	740	740	1980	1870	11300	13300	2850	3800	5480
14....	2000	1440	675	740	740	1980	1810	14200	11200	3140	3270	4810
15....	1860	1440	610	740	740	1500	2210	18000	11900	3150	2880	4690
16....	1190	1440	642	720	820	1030	3190	20000	12300	3020	2110	4720
17....	1220	1440	580	720	820	1120	5820	18600	12000	2880	1960	4600
18....	1290	1360	710	720	820	1160	6940	18900	12000	3060	1900	4550
19....	1360	1330	782	720	820	1190	8020	16300	10200	3130	1860	4470
20....	1360	1290	782	720	820	1190	6600	16700	10100	3020	1920	4220
21....	1360	1290	820	700	975	1200	5740	18700	10400	2850	1960	4440
22....	1360	1290	820	700	1060	1510	4900	19300	10900	2580	1900	4860
23....	1400	1360	820	700	1100	1870	4510	19400	10900	2520	1720	5390
24....	1440	1360	820	700	1140	2020	3920	20000	10400	2670	1720	4940
25....	1440	1440	820	700	1140	1980	3110	21400	9660	3090	1680	4440
26....	1440	1440	820	660	1160	2140	2970	23100	10400	3310	1560	4350
27....	1440	1520	895	660	1180	2140	3110	22700	9040	8460	1420	3950
28....	1440	1480	895	660	1280	1970	3100	18400	8040	9210	1400	3520
29....	1480	1440	858	660	....	2090	3130	15600	7530	7520	1640	3040
30....	1520	1360	858	660	....	2020	3320	13200	7150	6570	2160	2790
31....	1560	....	895	660	....	2080	....	13500	....	6910	2160	....
Total	39160	42480	29362	22870	23435	55350	102290	448370	387420	137810	109840	148760
Mean.	1260	1420	947	738	837	1790	3410	14500	12900	4450	3540	4960
Max..	2000	1680	1360	....	1280	2540	8020	23100	18800	9210	7460	8370
Min...	755	1290	580	....	....	1030	1760	4090	7150	2520	1400	2340
Acre-ft.	77500	84500	58200	45400	46500	110000	203000	892000	768000	274000	218000	295000

Discharge of Gunnison River & Redlands Power Canal Near Grand Junction for Year Ending Sept. 30, 1930.

Drainage Area, 8,020 Square Miles. Altitude, 4,573 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	2560	2180	1710	850	835	1380	1220	7170	9660	2210	2680	776
2....	2660	2180	1660	850	895	1160	1480	8020	9600	2110	2820	746
3....	2500	2080	1620	850	895	1070	1570	8800	7840	1650	2720	545
4....	2440	2090	1600	850	959	1070	1720	9040	6860	1330	2860	545
5....	2620	1940	1640	850	975	991	1830	7910	6760	1500	2740	562
6....	2460	1870	1690	850	1060	970	2520	5880	6960	1390	2640	880
7....	2290	2140	1740	800	1060	1060	3280	4800	8240	1270	2610	1070
8....	2260	2200	1710	800	1070	1150	5410	4300	9280	1200	2990	1120
9....	2690	2180	1440	800	1120	1180	6960	4300	9710	1100	2820	1130
10....	3380	2140	1250	800	1190	1000	9280	3960	9540	1060	2800	1100
11....	3290	2200	1230	780	1310	1190	8690	3790	9280	1020	2320	965
12....	3140	2110	1210	780	1320	1160	8420	3760	9610	1880	3130	965
13....	2970	1940	1210	780	1310	1160	8280	3340	10200	1240	5300	940
14....	2760	1940	1200	780	1280	1170	8420	3730	9970	1610	5150	915
15....	2690	1910	1160	780	1420	1160	9540	4290	9210	1680	5060	850
16....	2660	1790	1120	750	1510	1170	7800	5140	8920	1760	5090	830
17....	2660	1790	1070	750	1530	1230	6560	5880	8350	1360	4080	780
18....	2560	1910	1070	750	1580	1220	4960	6060	7760	1120	3370	772
19....	2540	1960	1040	800	1580	1220	5410	5410	8240	1220	2970	772
20....	2440	1790	1010	800	1660	1220	6760	5500	7840	1900	2680	737
21....	2340	1810	960	800	1730	1190	7840	5680	7590	2780	2530	720
22....	2320	1790	865	800	1760	1190	8920	6060	7420	2640	1880	692
23....	2200	2040	895	800	1780	1220	9280	6860	7340	2680	1720	703
24....	2180	2040	880	800	1820	1210	9920	7040	6310	2680	1480	830
25....	1940	2010	857	800	1850	1210	10700	7590	5200	2360	1190	940
26....	1840	1660	895	850	1880	1220	9410	6760	4290	1860	1060	975
27....	2010	1530	895	850	1900	1220	8800	8350	3260	1620	1080	1070
28....	2010	1530	895	850	1730	1230	8020	10000	3290	1860	1060	1070
29....	1910	1530	895	850	....	1220	6760	10700	3110	1860	1020	1060
30....	1980	1570	880	850	....	1230	6400	11700	2590	1680	957	1190
31....	2080	....	835	850	....	1290	....	12400	....	2640	873	....
Total	76380	57850	37132	25150	39009	36361	196160	204220	224230	54270	81680	26250
Mean.	2460	1930	1200	811	1390	1170	6540	6590	7470	1750	2630	875
Max..	3380	2200	1710	....	1900	1380	10700	12400	10200	2780	5300	1190
Min...	1840	1530	835	....	835	970	1220	3340	2590	1020	873	545
A-ft.	150000	115000	73800	49900	77200	71900	389000	405000	444000	108000	162000	52100

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of North Fork Gunnison River Near Paonia for Year Ending Sept. 30, 1929.
Drainage Area, 702 Square Miles. Altitude, 5,684 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	....	....	....	....	....	....	243	1530	3970	1380	770	38
2....	....	....	....	....	....	....	243	1630	4060	1370	730	37
3....	....	....	....	....	....	....	330	1890	3990	1280	660	41
4....	....	....	....	....	....	....	413	2000	4020	1220	700	68
5....	....	....	....	....	....	....	528	2990	4000	1180	720	618
6....	....	....	....	....	....	....	359	3400	3990	1110	754	760
7....	....	....	....	....	....	....	253	4020	3910	1080	640	840
8....	....	....	....	....	....	....	232	4500	3860	1020	475	939
9....	....	....	....	....	....	....	238	5050	3860	960	400	640
10....	....	....	....	....	....	....	191	5180	3590	960	371	425
11....	....	....	....	....	....	....	166	4420	3320	820	248	388
12....	....	....	....	....	....	....	222	3750	3070	760	146	365
13....	....	....	....	....	....	....	347	4630	2830	740	104	302
14....	....	....	....	....	....	....	431	5600	2590	680	96	376
15....	....	....	....	....	....	....	715	6100	2360	620	76	438
16....	....	....	....	....	....	....	1220	5660	2150	582	60	419
17....	....	....	....	....	....	....	1650	5400	2180	510	48	394
18....	....	....	....	....	....	....	1920	5010	2220	420	36	371
19....	....	....	....	....	....	116	2210	5070	2210	480	36	330
20....	....	....	....	....	....	....	1840	5070	2260	514	36	313
21....	....	....	....	....	....	....	1360	5340	2320	420	37	413
22....	....	....	....	....	....	....	1210	5400	2340	360	37	413
23....	....	....	....	....	....	....	1150	5440	2360	388	38	388
24....	....	....	....	....	....	....	1150	5460	1970	346	39	359
25....	....	....	....	....	....	114	957	5260	1910	302	38	274
26....	....	....	....	....	....	91	921	5200	1910	560	37	243
27....	....	....	....	....	....	107	852	3930	1880	894	37	204
28....	....	....	....	....	....	135	939	3790	1850	840	36	170
29....	....	....	....	....	....	258	1330	3730	1700	810	36	170
30....	....	....	....	....	....	371	1650	3720	1510	930	36	138
31....	....	....	....	....	....	336	....	3840	.....	810	36	....
Total	....	....	....	....	....	....	25270	134010	84190	24346	7513	10874
Mean.	....	....	....	....	....	150	842	4320	2810	785	242	362
Max..	....	....	....	....	....	....	2210	6100	4060	1380	770	939
Min...	....	....	....	....	....	....	166	1530	1510	302	36	37
Acre-ft.	....	....	....	....	....	9220	50100	266000	167000	48300	14900	21500

Discharge of North Fork Gunnison River Near Paonia for Year Ending Sept. 30, 1930.
Drainage Area, 702 Square Miles. Altitude, 5,684 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	200	....	....	....	....	220	162	2210	2290	571	225	102
2....	200	....	....	....	....	220	206	2520	1850	545	230	99
3....	203	....	....	....	....	200	263	2620	1560	525	156	95
4....	212	....	....	....	....	200	335	2110	1470	512	120	91
5....	212	....	....	....	....	200	470	1820	1510	512	104	90
6....	212	....	....	....	....	200	668	1530	1700	512	104	90
7....	203	....	....	....	....	200	901	1400	1840	500	104	86
8....	224	....	....	....	....	200	1210	1290	1840	480	104	80
9....	280	....	....	....	....	180	1670	1130	1880	470	122	70
10....	290	....	....	....	....	180	1700	1140	1690	440	128	68
11....	304	....	....	....	....	160	1690	1140	1750	360	360	58
12....	276	....	....	....	....	140	1780	937	1880	340	480	58
13....	268	....	....	....	....	140	1930	901	1850	280	640	70
14....	272	....	....	....	....	142	2250	1000	1700	260	418	70
15....	264	....	....	....	....	146	2180	1180	1470	162	430	70
16....	264	....	....	....	....	186	1690	1530	1420	135	264	68
17....	264	....	....	....	....	186	1260	1490	1290	128	221	62
18....	257	....	....	....	....	159	1130	1510	1330	200	172	58
19....	240	....	....	....	....	135	1260	1580	1330	230	137	54
20....	230	....	....	....	....	142	1420	1800	1250	276	135	52
21....	215	....	....	....	....	156	2010	2210	1190	209	128	60
22....	206	....	....	....	....	178	2360	2380	1110	164	126	60
23....	206	....	....	....	....	167	2520	1880	982	151	126	60
24....	206	....	....	....	....	144	2830	1780	829	149	124	62
25....	209	....	....	....	....	142	2770	1980	692	128	120	62
26....	218	....	....	....	....	135	2590	2320	692	122	117	58
27....	215	....	....	....	....	128	2720	2590	676	120	115	58
28....	212	....	....	....	....	135	2470	2830	676	120	115	58
29....	210	....	....	....	....	124	2020	2910	622	104	113	58
30....	210	....	....	....	....	128	1940	2890	608	210	110	70
31....	210	....	....	....	....	164	....	2990	....	150	104	....
Total	7186	....	....	....	....	5137	48405	57598	40977	9011	5952	2097
Mean.	232	....	....	....	....	166	1610	1860	1370	291	192	69.9
Max..	304	....	....	....	....	220	2820	2990	2290	571	640	102
Min...	200	....	....	....	....	124	162	901	608	150	104	58
Acre-ft.	14300	....	....	....	....	10200	95800	114000	81500	17900	11800	4160

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Surface Creek at Cedaredge for Year Ending Sept. 30, 1929.
Drainage Area, 43 Square Miles. Altitude, 7,000 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	4	....	....	....	....	....	10	23	167	48	27	24
2....	5	....	....	....	....	....	10	32	174	47	24	26
3....	5	....	....	....	....	....	13	46	171	51	26	38
4....	5	....	....	....	....	....	12	64	226	46	21	32
5....	5	....	....	....	....	....	12	131	250	43	36	28
6....	5	....	....	....	....	....	9	195	226	47	35	29
7....	6	....	....	....	....	....	11	250	230	47	25	23
8....	6	....	....	....	....	....	10	274	306	47	17	29
9....	6	....	....	....	....	....	8	322	306	46	20	20
10....	6	....	....	....	....	....	10	195	264	46	18	20
11....	6	....	....	....	....	....	9	100	191	48	17	16
12....	8	....	....	....	....	....	7	94	147	54	16	14
13....	8	....	....	....	....	....	8	203	122	48	17	16
14....	8	....	....	....	....	....	9	338	105	51	16	18
15....	7	....	....	....	....	....	18	418	94	44	16	17
16....	7	....	....	....	....	....	41	322	82	38	17	16
17....	6	....	....	....	....	....	70	295	216	36	17	16
18....	6	....	....	....	....	....	94	274	143	33	27	14
19....	6	....	....	....	....	....	70	235	116	38	25	14
20....	6	....	....	....	....	....	32	259	78	36	48	20
21....	6	....	....	....	....	....	20	259	66	30	51	26
22....	5	....	....	....	....	....	17	226	66	25	48	30
23....	5	....	....	....	....	....	16	230	66	22	48	54
24....	6	....	....	....	....	....	13	221	54	24	46	41
25....	6	....	....	....	....	....	10	230	58	32	42	33
26....	5	....	....	....	....	....	9	174	46	29	48	34
27....	6	....	....	....	....	....	8	125	46	28	48	31
28....	10	....	....	....	....	....	9	89	47	36	38	26
29....	8	....	....	....	....	....	14	84	44	28	41	25
30....	6	....	....	....	....	....	23	137	48	29	33	24
31....	6	....	....	....	....	....	....	157	....	24	29	....
Total	190	....	....	....	....	....	602	6002	4155	1201	937	754
Mean.	6.13	....	....	....	....	....	20.1	194	138	38.7	30.2	25.1
Max..	10	....	....	....	....	....	94	418	306	54	51	54
Min...	4	....	....	....	....	....	7	23	44	22	16	14
Acre-ft.	377	....	....	....	....	....	1200	11900	8210	2380	1860	1490

Discharge of Surface Creek at Cedaredge for Year Ending Sept. 30, 1930.
Drainage Area, 43 Square Miles. Altitude, 7,000 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	23	....	....	....	....	....	12	134	31	48	20	28
2....	21	....	....	....	....	....	20	80	29	53	21	27
3....	18	....	....	....	....	....	36	64	24	61	19	29
4....	17	....	....	....	....	....	40	58	24	51	17	23
5....	16	....	....	....	....	....	48	54	31	46	19	19
6....	14	....	....	....	....	....	60	56	31	44	16	17
7....	15	....	....	....	....	....	80	61	59	51	13	16
8....	16	....	....	....	....	....	110	51	66	32	24	16
9....	18	....	....	....	....	....	140	44	54	33	26	16
10....	36	....	....	....	....	....	110	44	56	28	34	16
11....	24	....	....	....	....	....	108	35	42	31	41	15
12....	18	....	....	....	....	....	108	34	48	38	40	13
13....	16	....	....	....	....	....	110	41	50	43	32	7
14....	14	....	....	....	....	....	97	64	51	36	35	13
15....	14	....	....	....	....	....	78	80	46	33	33	17
16....	13	....	....	....	....	....	56	76	48	38	38	12
17....	14	....	....	....	....	....	38	76	46	34	38	12
18....	14	....	....	....	....	....	36	76	68	29	24	12
19....	14	....	....	....	....	....	51	92	68	31	20	12
20....	14	....	....	....	....	....	89	113	59	24	23	11
21....	14	....	....	....	....	....	154	102	48	20	22	11
22....	14	....	....	....	....	....	154	128	44	16	25	12
23....	12	....	....	....	....	....	128	102	40	16	30	13
24....	12	....	....	....	....	....	116	89	42	21	32	12
25....	12	....	....	....	....	....	89	87	38	26	32	14
26....	12	....	....	....	....	....	78	64	38	24	34	14
27....	12	....	....	....	....	....	78	72	41	24	27	12
28....	12	....	....	....	....	....	64	68	44	24	24	14
29....	12	....	....	....	....	....	61	59	42	26	24	14
30....	12	....	....	....	....	....	97	56	44	34	22	21
31....	12	....	....	....	....	....	....	47	....	20	21	....
Total	485	....	....	....	....	....	2446	2207	1352	1035	826	468
Mean.	15.6	....	....	....	....	....	81.5	71.2	45.1	33.4	26.6	15.6
Max..	....	....	....	....	....	....	154	134	68	61	41	29
Min...	....	....	....	....	....	....	12	34	24	16	13	7
Acre-ft.	959	....	....	....	....	....	4850	4380	2680	2050	1640	928

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Uncompahgre River Below Ouray for Year Ending Sept. 30, 1929.
Drainage Area, 76 Square Miles. Altitude, 7,710 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	70	80	66	48	29	27	42	94	563	550	....	....
2....	71	76	63	52	28	30	59	98	596	570	....	....
3....	73	72	62	50	26	31	64	96	659	540	....	....
4....	71	82	62	48	26	29	69	96	695	460	....	....
5....	71	81	54	45	26	35	56	132	644	410	....	....
6....	66	79	54	48	24	41	42	191	630	380	....	....
7....	63	76	57	48	19	37	38	254	622	370	....	....
8....	62	76	60	50	22	33	39	324	650	353	....	....
9....	71	72	62	48	26	32	40	385	683	295	....	....
10....	71	71	61	48	28	32	40	348	630	302	....	....
11....	71	72	64	47	28	32	41	267	577	311	....	....
12....	81	71	61	47	24	30	51	254	577	295	....	....
13....	107	68	59	48	24	30	62	350	616	276	....	....
14....	99	67	59	46	26	30	65	437	683	276	....	....
15....	76	70	59	43	25	29	90	463	686	287	....	....
16....	78	69	59	42	25	29	150	442	665	309	....	....
17....	100	62	54	41	26	31	191	445	630	334	....	....
18....	106	65	48	39	28	29	180	408	630	329	....	....
19....	99	66	40	41	28	29	162	393	659	313	....	....
20....	92	68	40	38	29	32	135	463	692	269	....	....
21....	95	76	40	37	29	33	132	450	680	265	....	....
22....	88	77	53	34	29	34	125	734	650	276	....	....
23....	83	74	54	34	29	29	110	498	636	291	....	....
24....	80	68	54	35	27	23	100	515	633	260	....	....
25....	79	68	53	34	27	30	92	526	599	480	....	....
26....	77	67	53	34	27	33	87	554	594	690	....	....
27....	74	64	52	32	27	32	84	455	596	530	....	....
28....	82	63	53	32	26	41	94	380	582	720	....	....
29....	80	63	52	31	....	58	99	355	549	530	....	....
30....	76	59	51	31	....	41	98	393	560	430	....	....
31....	88	....	48	29	....	43	....	487	....	470	....	....
Total	2500	2122	1707	1280	738	1025	2637	11287	18866	12171	....	....
Mean.	80.6	70.7	55.1	41.3	26.4	33.1	87.9	364	629	393	....	....
Max..	107	82	66	52	29	58	191	734	695	....	....	....
Min...	62	59	40	29	19	23	38	94	549	....	....	....
Acre-ft.	4960	4210	3390	2540	1470	2040	5230	22400	37400	24200	....	....

Discharge of Uncompahgre River Near Colona for Year Ending Sept. 30, 1929.
Drainage Area, 403 Square Miles. Altitude, 6,399 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	115	177	136	....	....	....	147	312	1440	1040	905	265
2....	115	165	136	....	....	....	190	290	1460	1080	780	300
3....	115	153	135	....	....	....	233	335	1550	1000	740	380
4....	118	155	135	....	....	....	275	336	1580	890	710	440
5....	122	152	....	....	....	....	275	387	1600	840	721	395
6....	118	158	....	....	....	....	202	525	1620	790	825	875
7....	117	155	....	....	....	....	158	660	1620	750	705	695
8....	115	158	....	....	....	....	155	800	1580	705	605	600
9....	115	145	....	....	....	....	155	950	1620	612	560	497
10....	114	143	....	....	....	....	136	845	1580	565	580	470
11....	117	143	....	....	....	....	125	700	1320	620	570	475
12....	118	143	....	....	....	....	150	565	1350	600	525	470
13....	127	143	....	....	....	....	172	695	1270	590	460	438
14....	187	143	....	....	....	....	190	950	1550	585	410	438
15....	169	148	....	....	....	....	268	1080	1610	585	385	438
16....	158	148	....	....	....	....	468	1040	1400	635	363	425
17....	162	117	....	....	....	....	602	935	1360	725	343	405
18....	195	127	....	....	....	....	615	935	1240	690	385	395
19....	190	128	....	....	....	....	558	760	1320	725	320	390
20....	187	136	....	....	....	....	445	890	1400	705	300	405
21....	182	136	....	....	....	....	423	1040	1480	645	305	465
22....	181	136	....	....	....	....	400	945	1490	675	305	470
23....	172	143	....	....	....	185	343	1150	1410	760	285	520
24....	168	148	....	....	....	141	315	1210	1340	665	290	430
25....	165	142	....	....	....	106	300	1280	1300	690	275	393
26....	158	143	....	....	....	111	280	1490	1210	1320	260	360
27....	150	143	....	....	....	112	290	1290	1170	1160	280	333
28....	162	143	....	....	....	148	290	1100	1160	1380	280	300
29....	168	136	....	....	....	235	343	915	1100	1060	270	267
30....	158	128	....	....	....	261	343	945	1080	900	238	256
31....	180	....	....	....	....	200	....	1120	....	1000	210	....
Total	4618	4335	....	....	....	....	8846	26475	42210	24987	14190	12990
Mean.	149	144	....	....	....	....	295	854	1410	806	458	433
Max..	195	177	....	....	....	....	615	1490	1620	1380	905	875
Min...	114	117	....	....	....	....	125	290	1080	565	210	256
Acre-ft.	9160	8570	....	....	....	....	17600	52500	83900	49600	28200	25800

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Uncompahgre River at Colona, Colo., for Year Ending Sept. 30, 1930.
Drainage Area, 403 Square Miles. Altitude, 6,399 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	233	150	....	....	....	....	103	505	825	495	420	115
2....	211	152	....	....	....	....	106	595	720	420	400	120
3....	232	178	....	....	....	....	111	620	690	330	430	107
4....	232	162	....	....	....	....	120	450	660	290	450	140
5....	210	170	....	....	....	....	143	420	815	275	423	200
6....	205	170	....	....	....	....	282	340	1100	280	392	205
7....	204	179	....	....	....	....	390	332	1290	275	412	235
8....	208	170	....	....	....	....	460	325	1240	300	490	210
9....	290	170	....	....	....	....	510	285	1260	365	640	190
10....	255	152	....	....	....	....	490	260	1300	425	720	180
11....	250	152	....	....	....	....	450	258	1340	455	666	170
12....	232	143	....	....	....	....	445	251	1400	540	735	165
13....	220	....	....	....	....	....	475	250	1530	545	770	160
14....	215	....	....	....	....	....	460	304	1340	500	770	143
15....	215	....	....	....	....	....	465	400	1300	410	620	184
16....	210	....	....	....	....	....	430	445	1240	365	590	130
17....	220	....	....	....	....	....	475	400	1240	355	515	176
18....	207	....	....	....	....	....	345	368	1220	350	440	115
19....	200	....	....	....	....	....	380	375	1200	740	383	117
20....	190	....	....	....	....	....	420	425	1120	580	355	100
21....	186	....	....	....	....	....	550	570	1100	570	330	98
22....	181	....	....	....	....	....	600	635	1110	455	308	104
23....	175	....	....	....	....	....	585	445	955	405	302	110
24....	157	....	....	....	....	....	590	450	810	405	263	104
25....	157	....	....	....	....	....	570	555	700	380	248	130
26....	161	....	....	....	....	....	520	735	635	340	231	130
27....	157	....	....	....	....	....	530	935	645	465	210	130
28....	161	....	....	....	....	....	502	1040	640	440	175	128
29....	159	....	....	....	....	100	440	1100	585	430	164	115
30....	170	....	....	....	....	100	445	1180	525	490	148	153
31....	165	....	....	....	....	105	....	1160	....	445	141	....
Total	6268	1948	....	....	....	....	12392	16413	30535	13120	13141	4364
Mean.	202	162	....	....	....	....	413	529	1020	423	424	145
Max..	290	179	....	....	....	....	600	1180	1530	740	770	235
Min...	157	143	....	....	....	....	103	250	525	275	141	98
Acre-ft.	12400	3860	....	....	....	....	24600	32500	60700	26000	26100	8630

Discharge of Uncompahgre River Near Delta for Year Ending Sept. 30, 1929.
Drainage Area, 1,110 Square Miles. Altitude, 4,970 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	367	695	259	....	....	....	88	301	1260	292	732	218
2....	367	475	249	....	....	....	59	186	1530	292	781	382
3....	370	471	252	....	....	....	91	208	1460	264	685	452
4....	367	455	257	....	....	....	184	189	1290	210	685	908
5....	384	447	246	....	....	....	242	301	1080	225	708	831
6....	380	408	200	....	....	....	218	616	882	304	1460	1830
7....	354	339	....	....	....	....	126	732	756	258	1230	1600
8....	345	380	....	....	....	....	90	908	662	148	856	1230
9....	345	451	....	....	....	....	68	856	756	146	616	1140
10....	358	415	....	....	....	....	59	882	685	156	490	908
11....	412	380	....	....	....	....	44	551	365	201	452	856
12....	419	374	....	....	....	....	47	365	295	201	399	856
13....	463	387	....	....	....	....	41	471	416	227	264	756
14....	625	401	....	....	....	....	101	806	551	240	283	732
15....	920	394	....	....	....	....	310	1020	732	245	280	708
16....	905	404	....	....	....	....	530	831	490	235	269	685
17....	820	398	....	....	....	....	781	616	510	280	245	685
18....	770	380	....	....	....	....	882	510	399	399	245	685
19....	745	339	....	....	....	156	831	490	530	490	225	639
20....	695	312	....	....	....	182	594	594	662	416	218	594
21....	695	268	....	....	....	184	434	1110	708	399	196	662
22....	695	270	....	....	....	196	382	831	708	399	173	708
23....	720	270	....	....	....	348	286	908	594	572	158	831
24....	720	268	....	....	....	250	213	1110	471	510	156	639
25....	695	262	....	....	....	160	166	935	434	452	152	471
26....	695	268	....	....	....	110	154	1320	510	962	142	434
27....	531	268	....	....	....	102	399	1640	382	1140	140	399
28....	467	290	....	....	....	114	382	1600	348	1020	158	365
29....	475	282	....	....	....	152	348	1260	272	990	196	338
30....	459	259	....	....	....	269	278	1080	304	708	186	313
31....	580	....	....	....	....	203	....	1110	....	685	186	....
Total	17143	11010	....	....	....	....	8428	24337	20042	13066	12966	21855
Mean.	553	367	....	....	....	....	281	785	668	421	418	728
Max..	920	695	....	....	....	....	882	1640	1530	1140	1460	1830
Min...	345	259	....	....	....	....	241	186	272	146	140	218
Acre-ft.	34000	21800	....	....	....	....	16700	48300	39700	25900	25700	43300

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Uncompahgre River Near Delta for Year Ending Sept. 30, 1930.
Drainage Area, 1,110 Square Miles. Altitude, 4,970 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	272	278	....	....	....	....	70	148	576	208	598	213
2....	266	261	....	....	....	....	70	158	301	198	581	213
3....	266	237	....	....	....	....	70	156	304	186	625	215
4....	255	227	....	....	....	....	70	159	313	177	699	215
5....	253	194	....	....	....	....	74	162	345	171	648	213
6....	248	180	....	....	....	....	104	171	486	162	590	272
7....	240	184	....	....	....	....	248	158	585	150	625	280
8....	266	237	....	....	....	....	322	182	612	146	718	375
9....	332	213	....	....	....	....	438	180	568	146	836	385
10....	368	210	....	....	....	....	452	177	572	162	1460	409
11....	389	210	....	....	....	....	348	194	526	208	1120	399
12....	372	203	....	....	....	....	269	173	494	206	1040	396
13....	355	196	....	....	....	....	310	166	538	310	1120	365
14....	348	177	....	....	....	....	245	175	621	313	1130	385
15....	351	227	....	....	....	....	250	177	547	222	996	345
16....	368	237	....	....	....	....	173	201	547	227	598	298
17....	368	....	....	....	....	....	124	232	530	225	486	307
18....	365	....	....	....	....	....	105	286	475	275	399	322
19....	351	....	....	....	....	....	97	278	708	413	295	329
20....	338	....	....	....	....	....	88	245	612	434	275	329
21....	332	....	....	....	....	....	131	298	653	648	258	307
22....	329	....	....	....	....	....	152	555	690	555	250	304
23....	338	....	....	....	....	....	148	653	551	463	242	329
24....	342	....	....	....	....	....	164	479	427	438	232	348
25....	345	....	....	....	....	....	186	498	416	409	222	375
26....	316	....	....	....	....	....	226	625	362	362	220	510
27....	298	....	....	....	....	....	215	653	345	420	222	526
28....	292	....	....	....	....	....	203	572	313	471	220	490
29....	295	....	....	....	....	....	148	538	307	639	218	396
30....	301	....	....	....	....	....	140	498	253	676	218	416
31....	298	....	....	....	....	....	....	630	....	653	213	....
Total	9857	....	....	....	....	....	5639	9777	14577	10273	17354	10266
Mean.	318	....	....	....	....	....	188	315	486	331	560	342
Max..	389	....	....	....	....	....	452	653	690	676	1460	526
Min...	240	....	....	....	....	....	70	148	253	146	213	213
Acre-ft.	19600	....	....	....	....	....	11200	19400	28900	20400	34400	20400

Discharge of Kannah Creek Near Whitewater for Year Ending Sept. 30, 1929.
Drainage Area, 38 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	15	15	18	12	12	11	22	30	482	73	63	56
2....	15	18	18	12	12	11	17	34	510	69	61	89
3....	15	19	18	12	12	11	21	44	565	66	53	113
4....	15	18	18	12	12	11	18	51	615	60	44	97
5....	15	18	18	12	11	11	20	70	531	60	83	116
6....	15	18	18	12	11	11	16	84	502	56	88	111
7....	15	17	17	12	11	11	15	91	438	52	68	113
8....	12	19	17	12	11	11	15	103	390	49	56	112
9....	15	18	17	12	11	11	15	123	362	46	49	93
10....	14	17	13	10	11	11	16	118	330	46	46	60
11....	14	18	14	12	11	11	15	107	323	48	45	61
12....	14	18	13	12	11	11	18	88	281	45	41	56
13....	25	20	13	12	11	11	18	118	276	46	37	49
14....	22	18	13	12	11	11	18	185	237	46	36	47
15....	19	17	13	12	11	11	30	209	227	44	39	47
16....	15	16	13	11	12	11	43	215	227	47	41	49
17....	16	18	13	11	12	11	52	281	327	46	48	49
18....	17	17	13	12	12	12	53	316	190	43	53	44
19....	17	18	13	11	12	12	47	315	172	56	45	39
20....	17	18	13	11	12	12	40	378	161	87	57	49
21....	17	17	13	12	12	12	42	402	144	84	47	53
22....	17	17	13	12	12	12	34	446	145	75	43	60
23....	17	17	13	12	12	12	29	474	133	86	35	53
24....	17	16	13	12	12	12	23	555	122	70	35	49
25....	18	18	15	11	12	18	22	758	107	63	56	46
26....	17	18	15	11	12	9	23	460	101	63	52	43
27....	17	18	15	12	12	12	24	336	99	74	49	40
28....	17	18	15	12	12	12	30	280	90	210	48	37
29....	17	18	14	12	....	12	39	261	84	67	47	37
30....	17	18	14	12	....	14	35	280	80	58	57	37
31....	18	....	13	12	....	14	....	327	....	60	57	....
Total	511	530	456	364	325	362	810	7539	8251	1995	1579	1905
Mean.	16.5	17.7	14.7	11.7	11.6	11.7	27.0	243	275	64.4	50.9	63.5
Max..	25	20	18	12	12	18	53	758	615	210	88	116
Min...	12	15	13	10	11	9	15	30	80	43	35	37
Acre-ft.	1010	1050	904	719	644	719	1610	14900	16400	3960	3130	3780

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Kannah Creek Near Whitewater for Year Ending Sept. 30, 1930.
Drainage Area, 38 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	37	45	19	9	12	12	15	131	237	32	30	43
2....	37	44	19	9	12	12	12	172	196	21	31	40
3....	37	43	19	9	12	12	13	160	181	27	28	42
4....	37	42	19	9	12	12	14	133	181	27	32	42
5....	37	42	19	9	12	12	11	118	216	26	30	42
6....	37	45	19	9	12	12	22	101	230	26	28	42
7....	57	44	18	9	12	12	30	93	223	26	33	39
8....	57	43	19	9	12	11	47	80	230	26	33	38
9....	55	41	19	9	12	11	56	73	196	27	54	30
10....	52	44	19	9	12	11	57	78	172	61	60	30
11....	52	45	17	8	12	12	45	78	138	72	54	28
12....	50	44	17	8	12	12	50	75	113	63	125	28
13....	47	43	17	8	12	12	52	75	95	82	153	37
14....	57	42	17	8	12	12	56	97	86	83	84	37
15....	63	41	16	8	12	12	56	138	69	46	66	37
16....	57	40	16	7	12	12	45	155	63	37	52	37
17....	53	32	16	7	12	12	40	130	57	52	47	32
18....	52	27	16	7	12	12	41	138	58	53	42	32
19....	51	27	15	8	12	12	45	158	59	55	43	32
20....	51	27	14	8	12	12	51	196	56	58	41	32
21....	51	20	12	8	12	12	67	237	60	57	41	26
22....	51	20	12	8	12	12	88	223	69	52	41	26
23....	49	19	12	8	12	12	120	184	47	47	38	26
24....	49	19	12	8	12	12	160	216	43	44	58	26
25....	49	19	12	8	12	12	152	266	41	41	61	26
26....	48	19	10	9	12	12	153	361	36	37	60	32
27....	47	19	10	9	12	12	153	441	35	26	60	32
28....	47	19	10	9	12	13	141	470	36	25	59	32
29....	45	19	10	10	....	13	123	422	35	28	53	32
30....	45	19	10	10	....	12	105	334	31	46	50	40
31....	45	....	10	10	....	13	....	273	....	30	46	....
Total	1502	993	470	264	336	372	2020	5806	3289	1333	1633	1018
Mean.	48.5	33.1	15.2	8.52	12.0	12.0	67.3	187	110	43.0	52.7	33.9
Max..	63	45	19	....	12.0	13	160	470	237	83	153	43
Min...	37	19	10	....	12.0	11	11	73	31	21	28	26
Acre-ft.	2980	1970	935	524	666	738	4000	11500	6550	2640	3240	2020

Discharge of Dolores River at Dolores for Year Ending Sept. 30, 1929.
Drainage Area, 524 Square Miles. Altitude, 6,954 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	57	120	....	....	....	....	265	715	2100	670	885	434
2....	52	88	....	....	51	....	310	1100	2470	635	853	567
3....	50	73	....	....	....	....	361	1300	2430	642	684	706
4....	50	72	....	....	....	....	692	1300	2600	560	869	813
5....	50	76	....	....	....	....	798	1600	2690	502	928	600
6....	50	70	....	....	....	....	458	2030	2530	452	964	775
7....	50	72	....	....	....	57	321	2280	2480	440	1020	894
8....	48	73	....	....	....	....	288	2570	2120	410	919	767
9....	50	80	....	....	....	....	336	3060	2200	378	706	713
10....	46	80	....	....	....	....	265	3080	1480	361	684	614
11....	50	73	....	....	....	....	244	2220	1690	383	828	574
12....	65	68	....	....	....	....	351	1650	1690	399	752	534
13....	80	78	....	....	....	....	528	1830	1540	356	628	470
14....	127	88	....	....	....	....	600	2540	1660	346	567	440
15....	127	79	....	....	....	....	844	2980	1720	321	574	405
16....	100	74	....	....	....	....	1210	2200	1630	331	446	372
17....	88	79	....	....	....	....	1600	1880	1630	311	446	351
18....	88	78	....	....	....	....	1970	2180	1450	291	434	331
19....	88	75	....	....	....	....	1940	1890	1390	321	367	306
20....	85	75	....	....	....	....	1460	2470	1390	378	336	331
21....	84	75	....	....	....	....	1210	2400	1370	356	341	541
22....	82	75	....	....	....	....	1330	2030	1370	331	331	508
23....	78	75	....	....	....	....	1260	2540	1300	405	297	735
24....	70	75	....	....	....	74	1000	2540	1230	346	331	528
25....	70	73	....	....	....	82	877	2540	1100	341	283	470
26....	73	73	....	....	....	82	836	2840	1000	388	260	534
27....	70	73	....	....	....	110	798	2030	937	388	351	470
28....	70	73	....	....	....	218	991	1630	885	458	388	405
29....	73	70	....	....	....	260	1290	1330	798	502	416	383
30....	78	70	....	....	....	218	1420	1280	752	752	388	351
31....	88	....	....	....	....	218	....	1520	....	728	388	....
Total	2237	2303	....	....	....	....	25853	63555	49632	13482	17664	15922
Mean.	72.2	76.7	62	52	52	85	862	2050	1650	435	570	531
Max..	127	120	....	....	....	260	1970	3080	2690	752	1020	894
Min...	46	70	....	....	....	....	244	715	752	291	260	306
Acre-ft.	4440	4560	3810	3200	2890	5230	51300	126000	98200	26700	35000	31600

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Dolores River at Dolores for Year Ending Sept. 30, 1930.
Drainage Area, 524 Square Miles. Altitude, 6,954 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	323	137	....	....	....	60	175	1210	1870	396	332	120
2....	309	134	....	....	....	62	190	1540	1600	371	356	115
3....	288	136	....	....	....	65	207	1620	1420	323	381	115
4....	288	135	....	....	....	68	207	1320	1340	280	407	106
5....	288	134	....	....	....	68	280	1160	1410	253	356	166
6....	272	124	....	....	....	70	435	990	1640	242	361	204
7....	260	122	....	....	....	70	660	940	1760	242	484	190
8....	260	120	....	....	....	70	940	852	1740	238	694	190
9....	272	113	....	....	39	70	1290	775	1840	224	668	157
10....	292	112	....	....	....	70	1270	686	1770	231	696	127
11....	276	96	....	....	....	70	1140	694	1680	256	862	110
12....	268	80	....	....	....	70	1040	738	1720	296	960	106
13....	256	82	....	....	....	80	1170	765	1700	381	1010	110
14....	253	92	31	....	....	80	1250	990	1530	337	891	110
15....	253	98	....	....	....	95	1290	1330	1360	272	784	110
16....	249	92	....	....	....	110	1170	1550	1280	242	652	110
17....	260	89	....	....	....	110	901	1270	1200	224	490	108
18....	242	84	....	....	....	88	852	1100	1140	272	430	99
19....	224	80	....	....	....	99	1040	1020	1130	309	366	92
20....	207	68	....	....	....	110	1280	1110	1020	441	318	88
21....	190	62	....	....	....	110	1600	1660	960	424	300	79
22....	190	64	....	....	....	110	1700	1920	920	371	284	79
23....	184	58	....	....	....	122	1600	1460	833	309	260	99
24....	163	58	....	....	....	160	1500	1610	677	309	260	95
25....	150	62	....	....	....	207	1530	1780	588	284	260	88
26....	150	64	....	....	....	175	1400	1840	523	284	246	88
27....	150	68	....	....	....	178	1420	1920	484	346	221	88
28....	150	66	....	....	....	193	1370	2040	484	351	184	88
29....	150	62	....	....	....	178	1220	2050	465	284	160	83
30....	144	62	....	....	....	160	1140	2110	430	356	134	88
31....	139	....	34	....	....	160	....	2760	....	337	122	....
Total	7100	2754	....	....	....	3338	31267	42802	36514	9485	13929	3408
Mean.	229	91.8	38	28	42	108	1040	1380	1220	306	449	114
Max..	323	137	....	....	....	207	1700	2760	1870	441	1010	204
Min...	139	58	....	....	....	60	175	686	430	224	122	83
Acre-ft.	14100	5460	2340	1720	2330	6640	61900	84800	72600	18800	27600	6780

Discharge of San Miguel River at Naturita for Year Ending Sept. 30, 1929.
Drainage Area, 1,080 Square Miles. Altitude, 5,426 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	98	273	....	....	....	....	80	757	1100	990	918	300
2....	98	224	....	....	....	....	100	695	1270	966	833	710
3....	96	210	....	....	....	....	140	884	1330	816	710	762
4....	96	199	....	....	....	....	180	889	1430	762	816	660
5....	100	196	....	....	....	....	160	1060	1480	660	990	539
6....	100	196	....	....	....	....	110	1280	1500	600	1110	1100
7....	93	186	....	....	....	....	80	1370	1500	610	900	816
8....	108	192	....	....	....	....	60	1460	1470	635	840	816
9....	93	196	....	....	....	....	50	1500	1460	562	680	660
10....	93	180	....	....	....	....	74	1580	1520	516	720	562
11....	106	180	....	....	....	....	320	1240	1290	525	580	516
12....	117	180	....	....	....	....	516	1060	1230	516	460	534
13....	186	191	....	....	....	....	872	1150	1160	503	460	494
14....	313	193	....	....	....	....	990	1380	1340	507	455	480
15....	242	142	....	....	....	....	1600	1700	1360	485	450	470
16....	224	137	....	....	....	....	1920	1720	1260	485	480	450
17....	207	117	....	....	....	....	2270	1440	1230	548	560	430
18....	204	146	....	....	....	....	2090	1460	1110	525	640	410
19....	202	158	....	....	....	....	1720	1320	1200	494	520	380
20....	221	151	....	....	....	....	1300	1280	1230	572	460	363
21....	213	153	....	....	....	....	1050	1240	1240	503	410	494
22....	199	170	....	....	....	....	1040	1170	1260	507	400	610
23....	196	173	....	....	....	....	827	1360	1230	990	390	762
24....	196	158	....	....	....	....	675	1370	1140	816	380	494
25....	196	170	....	....	....	....	600	1430	1150	990	380	451
26....	196	170	....	....	....	....	620	1600	1100	990	370	438
27....	193	170	....	....	....	....	610	1360	1230	1000	360	356
28....	202	160	....	....	....	....	650	1260	1210	930	350	334
29....	207	160	....	....	....	....	855	1110	1080	930	342	313
30....	202	170	....	....	....	....	972	1020	1150	816	320	286
31....	286	....	....	....	....	....	....	1000	....	942	293	....
Total	5283	5301	....	....	....	....	22531	39145	38260	21691	17577	15990
Mean.	170	177	....	....	....	....	751	1260	1280	700	567	533
Max..	313	273	....	....	....	....	2270	1720	1520	1000	1110	1100
Min...	93	117	....	....	....	....	50	695	1080	485	293	286
Acre-ft.	10500	10500	....	....	....	....	44700	77500	76200	43000	34900	31700

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of San Miguel River at Placerville for Year Ending Sept. 30, 1930.
Drainage Area, 304 Square Miles. Altitude, 7,300 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	....	....	....	....	....	....	....	326	768	434	333	174
2....	....	....	....	....	....	....	....	362	685	381	333	154
3....	....	....	....	....	....	....	....	400	646	348	370	136
4....	....	....	....	....	....	....	78	344	640	348	400	179
5....	....	....	....	....	....	....	....	317	787	333	326	179
6....	....	....	....	....	....	....	....	298	1070	326	299	179
7....	....	....	....	....	....	....	....	309	1160	292	385	192
8....	....	....	....	....	....	....	....	292	1120	292	512	194
9....	....	....	....	....	....	....	....	254	1060	323	536	186
10....	....	....	....	....	....	....	....	236	1180	313	618	161
11....	....	....	....	....	....	....	....	245	1200	313	517	147
12....	....	....	....	....	....	....	....	260	1480	404	561	141
13....	....	....	....	....	....	....	....	251	1520	370	493	130
14....	....	....	....	....	....	....	....	270	1480	295	546	132
15....	....	....	....	....	....	....	....	333	1180	233	488	143
16....	....	....	....	....	....	....	....	362	1180	210	451	132
17....	....	....	....	....	....	....	....	362	1100	224	465	130
18....	....	....	....	....	....	....	....	348	1070	230	348	124
19....	....	....	....	....	....	....	....	333	916	456	315	120
20....	....	....	....	....	....	....	....	348	950	392	295	116
21....	....	....	....	....	....	....	....	442	896	392	276	112
22....	....	....	....	....	....	....	....	488	882	309	263	116
23....	....	....	....	....	....	....	320	400	775	309	260	120
24....	....	....	....	....	....	....	....	442	696	309	245	114
25....	....	....	....	....	....	....	442	507	613	309	233	122
26....	....	....	....	....	....	....	561	586	661	309	230	114
27....	....	....	....	....	....	....	404	726	571	344	208	109
28....	....	....	....	....	....	....	333	793	586	333	202	106
29....	....	....	....	....	....	....	295	787	483	333	196	109
30....	....	....	....	....	....	....	292	1020	465	465	192	109
31....	....	....	....	....	....	....	....	1150	....	366	179	....
Total	....	....	....	....	....	....	....	13591	27820	10295	11075	4180
Mean.	....	....	....	....	....	....	....	438	927	332	357	139
Max..	....	....	....	....	....	....	....	1150	1520	465	618	194
Min...	....	....	....	....	....	....	....	236	465	210	179	106
Acre-ft.	....	....	....	....	....	....	....	26900	55200	20400	22000	8270

Discharge of Paria River at Lees Ferry for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	6	78	14	17	26	21	12	3	3	2	530	85
2....	6	28	15	14	28	16	11	3	3	2	2220	125
3....	6	21	21	14	55	31	10	3	3	2	211	938
4....	5	20	28	8	31	31	10	3	3	2	698	334
5....	5	21	24	10	49	82	10	3	3	2	116	344
6....	5	18	21	11	40	94	26	2	3	2	508	66
7....	5	16	19	11	38	39	20	3	3	2	163	46
8....	5	16	15	11	28	44	13	3	3	2	70	1340
9....	5	19	16	20	12	38	11	3	3	2	74	118
10....	6	16	18	12	8	38	11	2	3	2	41	36
11....	6	15	18	14	7	40	8	3	3	554	31	22
12....	7	14	16	17	7	36	8	2	3	70	27	20
13....	72	16	19	14	10	21	6	3	3	26	25	19
14....	26	16	21	11	23	15	6	3	3	17	21	18
15....	25	21	12	11	18	15	6	3	3	15	19	15
16....	22	22	9	12	7	16	6	3	3	32	19	14
17....	16	18	7	15	17	16	5	3	3	34	20	12
18....	15	15	8	23	22	16	5	3	3	18	26	11
19....	12	20	14	15	23	15	5	3	3	24	31	12
20....	13	10	12	20	27	15	5	3	2	21	27	217
21....	12	23	12	24	26	15	4	3	3	8	24	234
22....	11	27	10	20	23	14	4	5	2	5	44	50
23....	11	21	12	12	31	20	4	7	2	5	220	31
24....	11	20	12	10	31	21	4	5	2	12	46	23
25....	11	21	14	11	31	15	3	3	2	21	32	19
26....	11	21	11	8	21	12	3	4	2	20	24	17
27....	10	22	12	8	23	11	3	3	2	68	20	16
28....	11	21	15	12	17	12	3	3	2	968	30	15
29....	10	18	19	25	....	11	3	3	2	920	36	14
30....	11	14	24	19	....	12	3	3	2	283	19	13
31....	32	....	17	28	....	12	....	3	....	940	15	....
Total	409	628	485	457	679	794	228	99	80	4082	5387	4224
Mean.	13.2	20.9	15.6	14.7	24.2	25.6	7.6	3.2	2.7	132	174	141
Max..	72	78	28	28	55	94	26	7	3	968	2220	1340
Min...	5	10	7	8	7	11	3	2	2	2	15	11
Acre-ft.	811	1250	962	906	1350	1570	452	196	159	8100	10700	8380

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Paria River at Lees Ferry, Arizona, for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	12	12	13	13	13	13	8	3	2	3	110	3
2....	12	10	12	17	12	16	9	3	3	2	89	3
3....	12	10	13	13	18	17	11	3	3	2	58	4
4....	12	11	10	11	18	17	9	3	3	2	129	4
5....	13	11	10	21	17	16	7	5	3	2	31	4
6....	13	11	13	8	21	17	7	12	3	2	21	5
7....	12	10	12	17	32	21	7	16	2	2	17	40
8....	13	11	11	15	34	13	7	13	2	2	326	480
9....	16	10	13	8	36	16	6	14	2	1	111	65
10....	14	9	14	13	47	15	5	12	2	12	103	26
11....	11	11	15	13	42	12	6	9	2	11	1220	15
12....	11	12	14	10	51	14	6	9	2	10	567	10
13....	10	7	13	12	54	12	5	8	2	5	261	7
14....	10	8	14	3	48	12	5	6	2	83	143	6
15....	11	9	14	6	46	10	5	4	2	48	92	5
16....	10	16	15	5	41	10	4	3	3	28	28	5
17....	36	13	15	12	34	26	3	3	3	60	18	5
18....	22	14	20	26	26	26	3	3	3	59	12	5
19....	21	12	20	18	23	17	3	3	16	32	6	5
20....	16	12	18	18	22	15	3	16	53	320	3	5
21....	13	12	13	18	22	14	3	7	18	232	3	5
22....	10	12	11	16	22	12	2	4	12	30	2	5
23....	9	9	6	16	23	10	3	2	6	15	30	5
24....	9	11	6	26	28	9	3	2	5	15	67	5
25....	8	12	2	30	23	8	3	2	3	10	23	5
26....	8	11	10	14	16	8	3	2	2	10	15	5
27....	12	20	6	14	17	8	3	2	2	6	10	5
28....	14	17	8	17	16	7	3	3	2	6	17	5
29....	10	17	10	17	....	8	3	3	2	6	10	5
30....	10	14	8	15	....	7	3	3	3	325	5	459
31....	11	....	10	21	....	6	....	2	....	219	5	....
Total	401	354	369	463	802	412	148	180	167	1560	3532	1206
Mean.	12.9	11.8	11.9	14.9	28.6	13.3	4.9	5.8	5.6	50.3	114	40.2
Max..	36	20	20	30	54	26	11	16	53	325	1220	480
Min...	8	7	2	3	12	6	2	2	2	1	2	3
Acre-ft.	795	702	732	918	1590	817	294	357	331	3090	7010	2390

Unless otherwise noted, all discharges are in cubic feet per second.

SAN JUAN RIVER DRAINAGE

SAN JUAN RIVER AT ROSA, NEW MEXICO

Location—In Sec. 11, T. 32 N., R. 6 W., at highway bridge one-half mile north of Rosa, New Mexico.

Records Available—October 1, 1920, to September 30, 1930. From 1895 to 1899 and August 21, 1910, to September 30, 1920, a station was maintained at Arboles. The San Juan River at Arboles, plus the Piedra River at Arboles, gives the flow of the San Juan River at Rosa.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Records furnished by the State Engineer of New Mexico.

SAN JUAN RIVER AT SHIPROCK, NEW MEXICO

Location—In Section 9, T. 12 N., R. 2 W., Navajo Meridian, at highway bridge one-fourth mile south of Shiprock Indian Agency and three miles below the mouth of Chaco River.

Records Available—February 15, 1930, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

Co-operation—Records furnished by State Engineer of New Mexico.

SAN JUAN RIVER NEAR BLUFF, UTAH

Location—In Sec. 7, T. 42 S., R. 19 E., one-fourth mile below Gypsum Creek and twenty-five miles southwest of Bluff, Utah.

Records Available—October 30, 1914, to September 30, 1917 (See U. S. G. S. Water Supply papers); February 19, 1927, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Complete records furnished by the United States Geological Survey.

NAVAJO RIVER AT EDITH

Location—In Sec. 24, T. 32 N., R. 1 E., one-eighth mile east of Edith.

Records Available—September 21, 1912, to December 31, 1928.

Gage—Vertical staff.

Accuracy—Records considered good.

Co-operation—Records furnished by the State Engineer of New Mexico.

PINE RIVER NEAR BAYFIELD

Location—In Sec. 26, T. 36 N., R. 7 W., one-quarter mile below mouth of Red Creek.

Records Available—October 26, 1927, to September 30, 1930. From June 1, 1926, to June 24, 1927, a station was maintained three miles above this location.

Gage—Automatic recording gage.

Accuracy—Records considered good.

PINE RIVER NEAR IGNACIO

Location—In Sec. 8, T. 33 N., R. 7 W., at Southern Ute Indian Agency.

Records Available—April 22, 1899, to October 31, 1903; September 1, 1910, to November 30, 1912; March 10, 1913, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Records furnished by the State Engineer of New Mexico.

ANIMAS RIVER AT DURANGO

Location—At footbridge at the Western Colorado Power Company's power plant.

Records Available—June 20, 1895, to December 31, 1905; January 1, 1910, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

CASCADE CREEK NEAR TACOMA

Location—In Sec. 11, T. 39 N., R. 9 W., near where the Durango-Silverton highway crosses Cascade Creek.

Records Available—January 1, 1915, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Complete record furnished by the Western Colorado Power Company.

FLORIDA RIVER NEAR DURANGO

Location—In Sec. 4, T. 35 N., R. 8 W., about 11 miles from Durango.

Records Available—May 21, 1899, to July 31, 1899; April 1, 1901, to October 5, 1903; September 8, 1910, to September 30, 1924; April 1, 1927, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

LIGHTNER CREEK NEAR DURANGO

Location—In Sec. 26, T. 35 N., R. 10 W., three miles west of Durango at concrete highway bridge.
Records Available—July 1, 1927, to September 30, 1930.
Gage—Automatic recording gage.
Accuracy—Records considered good.

LA PLATA RIVER AT HESPERUS

Location—In Sec. 14, T. 35 N., R. 11 W., at Hesperus.
Records Available—June 15, 1904, to August 11, 1904; April 1, 1906, to August 11, 1906; August 24, 1910, to December 31, 1910; May 25, 1917, to September 30, 1930.
Gage—Automatic recording gage.
Accuracy—Records considered good.

LA PLATA RIVER AT COLORADO-NEW MEXICO LINE

Location—Three hundred feet south of the Colorado-New Mexico line, three miles north of Pendleton, New Mexico.
Records Available—February 19, 1920, to September 30, 1930.
Gage—Automatic recording gage.
Accuracy—Records considered good.

CHERRY CREEK NEAR RED MESA

Location—In Sec. 7, T. 33 N., R. 12 W., at mouth.
Records Available—March 21, 1928, to September 30, 1930.
Gage—Automatic recording gage.
Accuracy—Records considered good.

LONG HOLLOW NEAR RED MESA

Location—In Sec. 32, T. 33 N., R. 12 W., at mouth of Long Hollow.
Records Available—March 20, 1928, to July 31, 1929.
Gage—Automatic recording gage.
Accuracy—Records considered good.

MANCOS RIVER NEAR TOWAOC

Location—At Ute Indian Farm in Sec. 15, T. 32 S., R. 18 W.
Records Available—February 1, 1921, to September 30, 1930.
Gage—Automatic recording gage.
Accuracy—Records considered fair.

McELMO CREEK NEAR CORTEZ

Location—In Sec. 33, T. 36 N., R. 17 W., eight miles west of Cortez.
Records Available—May 1, 1926, to September 30, 1929.
Gage—Automatic recording gage.
Accuracy—Records considered fair.

Discharge of San Juan River Near Rosa, N. M., for Year Ending Sept. 30, 1929.
Drainage Area, 2,044 Square Miles. Altitude, 6,000 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	171	500	211	....	....	....	2550	2690	4120	1610	2450	1010
2....	171	350	256	....	....	....	2820	2590	4940	1510	1830	1280
3....	171	312	238	....	....	258	3710	3040	4760	1320	2010	1780
4....	171	264	195	....	....	....	8400	3440	4960	1230	3150	1980
5....	171	292	164	....	....	....	9430	3780	5000	1170	3070	1520
6....	171	312	145	....	....	....	4680	4180	4920	1100	2320	1810
7....	171	332	149	....	....	....	3290	4590	4740	991	2620	1880
8....	171	360	151	....	....	....	2720	5540	4570	925	3450	1570
9....	160	400	189	....	....	....	2590	5850	4740	864	2250	1480
10....	145	316	173	....	....	379	2280	6460	4640	906	4160	1290
11....	135	324	166	....	....	540	2040	4960	4400	919	9460	1340
12....	189	332	164	....	....	219	2000	4530	4070	1090	3000	1350
13....	340	350	168	....	....	166	2080	4470	3780	1020	1920	1120
14....	525	420	149	....	....	160	2460	4700	3540	846	2000	997
15....	490	400	156	....	....	164	2500	5720	3640	840	2140	912
16....	365	390	124	....	157	198	3020	5310	3540	965	2080	882
17....	324	365	116	....	....	230	3620	5120	3490	864	1740	852
18....	312	320	107	....	....	286	4140	4800	3170	765	1540	805
19....	308	276	106	....	....	420	4290	4380	3050	912	1210	852
20....	296	224	....	....	....	517	3690	4700	2990	943	1060	925
21....	292	224	173	....	....	645	3200	5200	2940	1170	1000	888
22....	280	240	....	....	....	776	3000	5000	2840	1100	965	2410
23....	238	280	....	....	....	932	2680	5270	2740	1200	894	10700
24....	224	300	....	....	....	794	2240	5560	2610	1040	900	3660
25....	218	334	....	....	....	397	1970	5440	2480	1120	846	2190
26....	214	332	....	....	....	341	1960	5560	....	900	870	1780
27....	208	340	....	....	....	467	1000	4490	....	823	950	1480
28....	202	276	....	....	....	900	991	3760	....	1140	912	1120
29....	205	241	....	....	....	1410	2690	3340	....	1720	900	965
30....	211	224	....	....	....	2490	2760	3660	1620	1470	1210	840
31....	340	....	....	....	....	3150	....	4090	....	4530	1390	....
Total	7589	9630	....	....	....	....	95001	142220	....	37003	64297	51668
Mean.	245	321	176	125	164	605	3170	4590	3510	1190	2070	1720
Max..	525	500	....	....	....	3150	....	6460	5000	4530	9460	10700
Min..	....	224	....	....	....	....	....	2590	....	765	846	....
Acre-ft.	15100	19100	10800	7690	9110	37200	189000	282000	209000	73200	127000	102000

Discharge of San Juan River Near Rosa, N. M., for Year Ending Sept. 30, 1930.
Drainage Area, 2,044 Square Miles. Altitude, 6,000 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	834	....	239	....	....	250	698	2200	3270	667	1640	328
2....	894	....	228	....	....	221	744	2440	2590	609	1443	392
3....	823	435	209	....	....	198	840	2640	2380	558	1106	285
4....	788	427	203	....	....	202	1021	2320	2510	516	1004	416
5....	770	412	208	....	....	210	1385	1990	2390	476	937	308
6....	760	412	214	....	....	237	2030	1780	2650	439	888	....
7....	738	408	188	....	....	233	2680	1590	2850	410	856	....
8....	743	412	170	....	....	229	2980	1453	2740	387	824	....
9....	800	393	168	....	....	233	2850	1347	2750	375	1376	....
10....	776	379	173	....	....	262	2740	1274	2380	331	1310	....
11....	722	361	160	....	....	262	2640	1229	2300	705	1462	....
12....	660	358	157	....	....	294	2360	1158	2560	572	1434	....
13....	612	330	142	....	....	349	2430	1106	2660	623	1376	....
14....	626	298	133	....	308	421	2660	1193	2440	760	1166	....
15....	589	295	133	....	331	457	2780	1540	2180	674	1098	....
16....	571	324	128	....	381	722	2420	1770	2090	682	1030	....
17....	575	327	120	....	457	752	2140	1600	2000	638	978	198
18....	589	318	118	....	496	602	2040	1510	1950	572	934	....
19....	562	308	94	....	579	476	1880	1424	1830	565	904	194
20....	522	302	86	....	667	416	2000	1385	1680	1520	840	184
21....	492	292	79	....	578	427	2470	1870	1600	1660	776	176
22....	475	279	81	....	503	646	2940	2360	1570	1990	698	170
23....	459	264	86	....	572	888	3000	2150	1405	1950	630	184
24....	443	273	....	....	760	848	3020	2210	1184	1630	551	198
25....	427	255	....	....	551	792	4010	2420	1060	1193	503	173
26....	455	250	....	....	421	926	3400	2680	880	1158	457	166
27....	....	255	....	....	313	706	3140	3070	784	1265	416	160
28....	....	253	....	....	285	630	2850	3280	1650	1620	381	150
29....	....	247	....	....	....	602	2480	3620	1570	1570	375	147
30....	....	244	....	....	....	587	2280	3780	722	1347	370	153
31....	....	....	....	....	....	667	....	3840	....	1610	338	....
Total	....	....	....	....	....	14739	70908	64229	60625	29072	28101	....
Mean.	610	333	135	*127	*358	475	2364	2072	2021	938	906	*232
Max..	....	....	239	....	760	920	4010	3840	3270	1990	1640	....
Min...	....	244	....	....	....	198	698	1106	722	331	338	153
Acre-ft.	37500	19800	8300	*7820	*19900	29200	141000	127000	120000	57700	55700	*13800

*Estimated.

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of San Juan River at Shiprock, N. M., for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apri	May	June	July	Aug.	Sept.
1....	....	....	....	....	....	604	920	3610	9050	1488	3760	300
2....	....	....	....	....	....	436	1101	3780	6840	1084	3140	230
3....	....	....	....	....	....	412	1298	4690	5700	952	2410	211
4....	....	....	....	....	....	536	1430	5000	5370	872	2560	270
5....	....	....	....	....	....	576	2013	3930	5370	717	2196	270
6....	....	....	....	....	....	646	2601	3380	6630	646	2104	280
7....	....	....	....	....	....	618	3500	3000	7090	549	2457	717
8....	....	....	....	....	....	660	4510	2625	7520	436	3600	856
9....	....	....	....	....	....	632	5130	2386	7490	376	5530	717
10....	....	....	....	....	....	674	5100	1947	7300	376	7730	688
11....	....	....	....	....	....	732	5160	2035	6940	364	6420	632
12....	....	....	....	....	....	732	4750	2265	6870	549	4160	562
13....	....	....	....	....	....	747	4690	1816	7710	590	3530	342
14....	....	....	....	....	....	936	5100	1903	7490	840	2800	388
15....	....	....	....	....	824	920	5600	1690	6460	936	2532	424
16....	....	....	....	....	872	660	5060	2410	5470	1335	1947	436
17....	....	....	....	....	888	1118	4420	3290	5030	1153	1860	400
18....	....	....	....	....	824	1528	3750	2700	4750	2035	2577	331
19....	....	....	....	....	872	1225	3530	2505	4450	4480	2242	353
20....	....	....	....	....	888	968	3750	2150	3980	4630	1838	320
21....	....	....	....	....	920	904	4300	2410	3720	5340	1450	300
22....	....	....	....	....	920	762	5130	4780	3640	6630	1316	353
23....	....	....	....	....	1101	1189	5370	5340	3930	5960	952	290
24....	....	....	....	....	1243	1508	5500	4240	3400	5220	904	400
25....	....	....	....	....	1280	1430	5900	4870	2601	4840	856	300
26....	....	....	....	....	968	1450	6260	5960	2150	4540	702	388
27....	....	....	....	....	632	1732	5060	6320	1816	4480	590	472
28....	....	....	....	....	717	1316	4930	7090	1608	5120	460	590
29....	....	....	....	....	....	920	4510	7520	1626	3560	436	472
30....	....	....	....	....	....	688	3980	8120	1608	4630	270	460
31....	....	....	....	....	....	792	....	8350	....	3430	260	....
Total	....	....	....	....	....	28051	124353	122112	153631	78158	73649	12752
Mean.	....	....	....	*500	*800	905	4145	3939	5121	2521	2376	425
Max..	....	....	....	....	1243	1732	6260	8350	9050	6630	7730	856
Min...	....	....	....	....	....	412	920	1690	1608	364	260	211
Acre-ft.	....	....	....	30800	44400	55600	247000	242000	305000	155000	146000	23300

Discharge of San Juan River Near Bluff, Utah, for Year Ending Sept. 30, 1929.
Drainage Area, 24,000 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	792	5360	1350	858	1030	768	5770	5330	6380	4340	13500	5040
2....	750	2380	1170	645	1320	774	4970	5580	8230	4150	20500	5600
3....	738	1770	1120	536	2390	732	5070	5210	9880	3820	11800	8070
4....	732	1310	1210	471	1670	726	5700	5360	11600	3750	12600	13100
5....	720	1090	1110	500	1300	792	6830	6150	11800	3520	15800	11100
6....	697	1030	1070	510	1050	1380	14000	6800	12600	3240	18800	8070
7....	674	998	1060	423	900	3700	9670	8410	12400	3040	13300	7010
8....	656	963	888	461	800	5800	5940	8970	12400	2540	11100	6220
9....	628	1010	816	432	600	5780	4430	9670	12000	2460	12200	5280
10....	617	1130	703	413	500	6230	3810	11600	11800	2420	8470	4800
11....	601	1210	714	428	395	5360	3660	12200	11800	2220	16700	4320
12....	1790	1170	703	475	451	4690	3380	11400	10300	2310	38300	4080
13....	590	1090	714	606	391	3350	3070	8870	8470	2620	19300	4190
14....	2280	1210	768	662	428	2000	3550	7200	7750	2560	9270	3720
15....	2630	1230	768	656	510	1380	4370	8270	7500	2430	7080	3310
16....	914	1290	726	691	679	1220	4480	10500	8290	2080	5780	3030
17....	1030	1420	697	816	674	1080	5440	10900	8670	2100	5120	2720
18....	977	1500	590	798	691	1130	7270	10900	8210	2000	4550	2480
19....	810	1280	437	798	720	1330	8530	10300	8150	1990	4320	2250
20....	756	1230	269	780	679	1540	8710	10300	6900	1680	3580	4180
21....	744	1080	200	846	708	1760	7840	9470	7140	1860	3380	13100
22....	750	991	188	1050	703	1900	6180	11800	7400	2140	3160	8870
23....	744	876	255	876	774	2220	5600	11800	7400	2990	2720	20000
24....	691	900	280	697	882	2670	5840	11800	7120	3030	2890	21500
25....	656	970	344	386	1050	2590	5210	12600	6690	3100	2660	14000
26....	674	1010	423	300	1230	2360	4660	12900	6170	3460	2530	9880
27....	691	1100	584	241	1090	1580	4210	14000	5650	5090	3440	7580
28....	628	1860	804	248	888	1310	3940	13100	5190	7690	3110	6830
29....	617	1630	1110	495	....	1670	3740	9670	4850	14600	2560	6040
30....	640	1440	1250	942	....	3210	3880	7600	4640	11100	4000	4990
31....	4130	....	1060	956	....	5220	....	6310	....	10300	6850	....
Total	30347	41522	23381	18996	24503	76252	169550	294970	257380	120630	289370	221360
Mean.	979	1380	754	613	875	2460	5650	9520	8580	3890	9330	7380
Max..	4130	5360	1350	1050	2390	6230	14000	14000	12600	14600	38300	21500
Min...	590	876	188	241	391	726	3070	5210	4640	1680	2530	2250
Acre-ft.	60200	82100	46400	37700	48600	151000	336000	585000	511000	239000	574000	439000

*Estimated.

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of San Juan River Near Bluff, Utah, For Year Ending Sept. 30, 1930.
Drainage Area, 24,000 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	4300	1310	930	485	743	1050	1270	4560	10400	1600	3990	421
2....	3810	1320	922	507	784	1060	1360	4270	10400	1320	4130	381
3....	3410	1260	922	485	601	907	1470	4270	7200	1150	4200	381
4....	3410	1230	907	452	645	798	1500	5330	5920	1050	3640	381
5....	2910	1200	848	524	723	757	1630	5580	5490	922	3920	431
6....	2680	1230	827	690	729	870	2030	4640	5580	855	2710	607
7....	2510	1250	798	834	798	930	2930	3920	6360	743	2490	812
8....	2350	1230	855	577	777	960	4340	3380	8080	716	3320	798
9....	2350	1250	855	524	834	975	5490	3130	8490	664	13900	651
10....	2200	1240	777	474	999	930	5920	2890	8380	710	11400	577
11....	2290	1220	743	479	1140	892	6000	2600	7980	952	15800	507
12....	2290	1220	791	518	1190	900	5740	2490	7380	4480	12400	501
13....	2120	1090	855	468	1410	877	5090	2380	7380	1600	8910	441
14....	2290	1120	812	426	1660	907	4640	2220	7480	2270	5490	426
15....	2020	1050	770	463	1960	960	4860	2100	7380	2270	4130	411
16....	2350	922	743	613	2010	1090	5330	2160	6540	1420	3520	377
17....	2240	884	777	518	1830	1260	5090	2950	5660	1410	3070	354
18....	2180	1010	784	474	1460	1630	4480	4130	5170	2380	2600	354
19....	2040	1090	791	349	1260	1980	3640	3780	4940	2490	2380	363
20....	1920	1090	696	536	1200	1590	3260	3380	5010	4710	2050	319
21....	1850	1030	670	426	1250	1300	3450	2950	4340	3850	1800	323
22....	1710	968	386	396	1320	1170	4100	2890	4130	5170	1420	319
23....	1580	930	264	319	1420	1150	5280	4940	3990	5660	1310	315
24....	1530	841	229	298	2180	1250	6310	5740	3710	5010	1050	298
25....	1520	791	264	268	1770	1800	6910	4780	3380	4130	900	287
26....	1460	827	268	243	1870	2020	6910	5090	2710	3320	827	290
27....	1420	863	287	240	1520	1910	7200	6270	2320	2890	777	401
28....	1370	819	490	315	1240	2130	6090	6820	2100	2770	729	463
29....	1360	863	553	458	....	1810	5660	7880	1900	5010	696	406
30....	1350	877	496	632	....	1500	5170	8280	1730	4060	607	447
31....	1400	....	530	777	....	1280	....	10600	....	4940	501	....
Total	68220	32025	20840	14768	35323	38643	133150	136400	171530	80522	124667	13042
Mean.	2200	1070	672	476	1260	1250	4440	4400	5720	2600	4020	435
Max..	4300	1320	930	834	2180	2130	7200	10600	10400	5660	15800	812
Min...	1350	791	229	240	601	757	1270	2100	1730	664	501	287
A-ft.	135000	63700	41300	29300	70000	76900	264000	271000	340000	160000	247000	25900

Discharge of Navajo River at Edith for Year Ending Sept. 30, 1929.
Drainage Area, 165 Square Miles. Altitude, 7,100 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	22	28	....	....	....	....	....	....	....	....	....	....
2....	22	28	....	....	....	....	....	....	....	....	....	....
3....	22	28	....	....	....	....	....	....	....	....	....	....
4....	22	28	....	....	....	....	....	....	....	....	....	....
5....	22	....	....	....	....	....	....	....	....	....	....	....
6....	22	....	....	....	....	....	....	....	....	....	....	....
7....	22	....	....	....	....	....	....	....	....	....	....	....
8....	22	....	....	....	....	....	....	....	....	....	....	....
9....	22	....	....	....	....	....	....	....	....	....	....	....
10....	22	....	....	....	....	....	....	....	....	....	....	....
11....	22	....	....	....	....	....	....	....	....	....	....	....
12....	22	....	....	....	....	....	....	....	....	....	....	....
13....	22	....	....	....	....	....	....	....	....	....	....	....
14....	22	....	....	....	....	....	....	....	....	....	....	....
15....	22	....	....	....	....	....	....	....	....	....	....	....
16....	22	....	....	....	....	....	....	....	....	....	....	....
17....	28	....	....	....	....	....	....	....	....	....	....	....
18....	28	....	....	....	....	....	....	....	....	....	....	....
19....	28	....	....	....	....	....	....	....	....	....	....	....
20....	28	....	....	....	....	....	....	....	....	....	....	....
21....	28	....	....	....	....	....	....	....	....	....	....	....
22....	28	....	....	....	....	....	....	....	....	....	....	....
23....	28	....	....	....	....	....	....	....	....	....	....	....
24....	28	....	....	....	....	....	....	....	....	....	....	....
25....	28	....	....	....	....	....	....	....	....	....	....	....
26....	28	....	....	....	....	....	....	....	....	....	....	....
27....	28	....	....	....	....	....	....	....	....	....	....	....
28....	28	....	....	....	....	....	....	....	....	....	....	....
29....	28	....	....	....	....	....	....	....	....	....	....	....
30....	28	....	....	....	....	....	....	....	....	....	....	....
31....	28	....	....	....	....	....	....	....	....	....	....	....
Total	772	....	....	....	....	....	....	....	....	....	....	....
Mean.	24.9	35	30	....	....	....	....	....	....	....	....	....
Max..	28	....	....	....	....	....	....	....	....	....	....	....
Min...	22	....	....	....	....	....	....	....	....	....	....	....
Acre-ft.	1530	2080	1840	....	....	....	....	....	....	....	....	....

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Pine River Near Bayfield for Year Ending Sept. 30, 1929.
Drainage Area, 284 Square Miles. Altitude, 7,500 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	98	166	....	....	....	....	240	566	1570	815	1780	482
2....	92	152	....	....	....	....	270	574	1860	750	1340	509
3....	88	143	....	....	....	....	307	701	2080	725	1370	570
4....	82	147	....	....	....	....	377	865	2220	640	2030	596
5....	95	140	....	....	....	....	391	1000	2130	622	1700	497
6....	92	143	....	....	....	....	319	1130	2010	580	1370	609
7....	88	145	....	....	....	....	273	1320	1990	540	1140	682
8....	91	150	....	....	....	....	252	1610	1950	497	1000	687
9....	88	142	....	....	....	....	249	1770	1920	475	892	613
10....	95	137	....	....	....	....	218	1900	1770	430	1000	553
11....	103	138	....	....	....	....	208	1390	1440	471	2040	549
12....	134	135	....	....	....	....	227	1140	1410	558	1420	537
13....	180	154	....	....	....	....	252	1380	1420	478	1070	475
14....	204	148	....	....	....	....	254	1820	1570	441	908	434
15....	174	155	....	....	....	....	284	2060	1570	412	785	405
16....	165	148	....	....	....	....	380	1950	1410	394	701	380
17....	148	147	....	....	....	....	501	1600	1420	380	631	347
18....	150	140	....	....	....	....	605	1750	1160	360	579	322
19....	148	116	....	....	....	....	591	1500	1240	529	501	304
20....	152	116	....	....	....	....	517	1730	1310	529	452	350
21....	150	116	....	....	....	....	494	1730	1330	537	475	549
22....	147	116	....	....	....	....	513	1710	1290	467	482	805
23....	142	116	....	....	....	....	478	1660	1230	687	430	2220
24....	140	120	....	....	....	....	437	1740	1140	609	416	1390
25....	138	120	....	....	....	....	419	2020	1060	663	412	1050
26....	135	120	....	....	....	....	401	2130	985	574	437	1140
27....	130	120	....	....	....	....	394	1470	930	505	430	1050
28....	129	120	95	....	....	....	445	1170	900	875	408	875
29....	130	120	....	....	....	....	553	985	870	835	405	775
30....	130	115	....	71	....	....	574	1020	840	1050	448	672
31....	180	....	....	....	....	....	....	1350	....	2080	448	....
Total	4018	4045	....	....	....	....	11423	44741	44025	19508	27500	20427
Mean.	130	135	100	80	70	102	381	1440	1470	629	887	681
Max..	204	166	....	....	....	....	605	2130	2220	2080	2040	2220
Min...	82	....	....	....	....	....	208	566	840	360	405	304
Acre-ft.	7990	8030	6150	4920	3890	6270	22700	88500	87500	38700	54500	40500

Discharge of Pine River Near Bayfield for Year Ending Sept. 30, 1930.
Drainage Area, 284 Square Miles. Altitude, 7,500 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	592	167	100	50	45	69	112	588	1130	299	662	171
2....	525	163	90	50	45	79	117	736	1010	296	554	163
3....	476	172	90	50	45	79	124	794	975	268	476	160
4....	438	167	90	46	45	73	140	640	1000	261	412	163
5....	401	165	96	43	45	76	171	550	1090	246	430	190
6....	370	163	86	43	50	75	218	476	1350	237	426	216
7....	340	163	86	43	50	73	293	445	1420	229	449	190
8....	340	158	84	43	55	70	360	398	1380	235	453	183
9....	394	156	84	43	55	70	419	353	1300	240	419	181
10....	377	149	77	43	60	70	438	323	1200	237	640	167
11....	346	149	79	43	66	72	405	311	1200	256	784	158
12....	320	133	73	40	66	72	374	302	1270	266	667	151
13....	308	117	73	40	66	75	401	296	1260	244	755	145
14....	296	120	70	40	68	76	453	360	1110	274	680	140
15....	288	138	70	40	68	76	472	525	992	266	592	136
16....	290	136	70	40	69	83	438	685	925	242	525	129
17....	320	129	69	40	66	86	387	558	860	256	468	124
18....	305	126	63	40	65	79	350	457	925	266	405	122
19....	279	122	56	40	69	79	377	449	866	521	350	116
20....	263	117	56	40	70	80	464	614	794	500	305	116
21....	251	106	57	40	72	86	636	964	750	745	276	111
22....	242	98	62	40	72	92	731	1020	745	760	256	109
23....	226	106	56	40	75	100	760	799	654	698	251	124
24....	222	96	56	40	75	103	750	914	558	592	258	117
25....	214	98	56	40	72	112	726	1040	484	584	249	117
26....	212	100	56	45	72	119	694	1180	430	529	249	119
27....	204	101	56	45	77	109	703	1350	394	829	229	114
28....	202	106	54	45	73	98	649	1500	384	712	226	111
29....	181	103	52	45	....	101	579	1660	360	618	216	106
30....	187	101	56	45	....	106	554	1540	320	571	190	122
31....	181	....	50	45	....	112	....	1640	....	689	180	....
Total	9590	3925	2173	1327	1756	2650	13295	23467	27136	12966	13032	4271
Mean.	309	131	70.0	42.8	62.7	85.5	443	757	904	418	420	142
Max..	592	172	100	....	....	119	760	1660	1420	829	784	216
Min...	181	96	50	....	....	69	112	296	320	229	180	106
Acre-ft.	19000	7800	4300	2630	3480	5260	26400	46500	53800	25700	25800	8450

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Pine River Near Ignacio for Year Ending Sept. 30, 1929.
Drainage Area, 450 Square Miles. Altitude, 6,480 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	24	156	....	....	....	....	433	655	1020	378	2130	306
2....	25	126	....	....	....	....	483	648	1380	362	1390	349
3....	23	120	....	....	....	....	535	716	1490	357	1350	403
4....	21	112	....	....	....	....	881	811	1760	312	2110	494
5....	21	114	....	....	....	....	1420	881	1760	296	1940	389
6....	25	110	....	....	....	....	648	1090	1720	235	1550	439
7....	26	112	....	....	....	....	518	1500	1740	191	1360	553
8....	24	129	....	....	....	....	518	1710	1760	152	1240	553
9....	18	120	....	....	....	....	512	1940	1770	137	1070	535
10....	18	110	....	....	....	....	403	2070	1700	129	1160	460
11....	19	107	....	....	....	....	380	1440	1210	131	2570	439
12....	24	105	....	....	....	195	393	1030	1120	171	1920	449
13....	36	123	....	....	....	178	439	1130	1140	181	1350	375
14....	61	141	....	....	....	175	449	1550	1290	178	1140	336
15....	93	147	....	....	....	175	477	1970	1390	126	968	312
16....	110	147	....	....	....	168	635	2050	1180	112	857	284
17....	102	147	....	....	55	165	773	1640	1220	75	716	243
18....	102	159	....	....	....	171	881	1720	920	56	655	246
19....	97	153	....	....	....	212	849	1380	952	129	565	250
20....	100	156	....	....	....	224	716	1520	1000	202	489	266
21....	97	132	....	....	....	250	628	1640	1040	239	460	428
22....	89	....	....	....	....	262	702	1610	1020	168	466	455
23....	83	....	....	....	....	284	655	1520	984	296	362	1310
24....	79	....	....	....	....	198	565	1570	904	280	340	1450
25....	81	....	....	....	....	168	535	1820	833	332	312	1180
26....	83	....	....	....	....	175	535	2200	....	277	316	1040
27....	83	....	....	....	....	224	506	1440	....	209	312	1050
28....	83	....	....	....	....	300	559	1020	....	413	284	873
29....	79	....	....	....	....	428	668	766	....	602	266	766
30....	83	....	....	....	....	512	681	648	....	803	300	655
31....	165	....	....	....	....	413	....	912	....	2050	320	....
Total	1891	....	....	....	....	....	18377	42597	....	9579	30268	16888
Mean.	61.0	128	97	55	70	242	613	1380	1170	309	976	563
Max..	165	....	....	....	....	....	....	2208	....	2050	2570	1450
Min...	18	....	....	....	....	....	....	648	....	56	266	243
Acre-ft.	3750	7640	5960	3380	3890	14900	36500	84800	69600	19000	60000	33500

Discharge of Pine River Near Ignacio for Year Ending Sept. 30, 1930.
Drainage Area, 450 Square Miles. Altitude, 6,480 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	571	209	93	....	....	97	157	628	900	22	500	15
2....	524	184	93	....	....	95	162	740	726	18	420	15
3....	483	181	73	....	....	99	170	811	640	17	350	15
4....	449	181	54	....	....	97	191	634	622	19	292	20
5....	444	175	41	....	....	103	240	550	622	15	280	29
6....	433	178	40	....	....	101	308	450	923	15	272	20
7....	423	171	36	....	....	93	400	381	1000	13	250	20
8....	418	171	36	....	....	90	500	288	984	14	250	20
9....	471	168	37	....	....	95	569	265	900	14	254	20
10....	477	168	33	....	....	93	615	276	826	13	368	21
11....	444	162	38	....	....	93	579	269	790	13	567	20
12....	477	152	36	....	....	95	579	233	840	10	556	17
13....	471	162	40	....	....	103	573	206	840	8	717	16
14....	393	159	53	....	....	110	591	216	747	8	585	16
15....	357	165	49	....	....	112	615	291	628	10	466	17
16....	324	168	48	....	....	132	573	435	516	12	390	15
17....	340	165	48	....	....	139	510	363	461	12	320	13
18....	336	152	48	....	....	120	466	272	472	49	265	13
19....	320	143	51	....	....	116	466	220	400	150	220	13
20....	296	143	....	....	....	120	521	269	345	191	182	13
21....	280	126	....	....	107	130	680	597	332	368	125	13
22....	273	117	....	....	....	142	818	797	308	597	95	13
23....	270	120	....	....	134	160	870	615	265	483	84	15
24....	262	117	....	....	144	160	900	647	197	377	82	15
25....	258	102	....	....	114	168	1000	782	137	372	75	15
26....	246	100	....	....	107	194	892	900	90	324	59	15
27....	239	102	....	....	118	173	855	1081	51	516	50	16
28....	231	100	....	....	107	144	782	1107	42	538	45	16
29....	224	100	....	....	....	147	693	1280	37	420	21	16
30....	220	97	....	....	....	152	634	1310	30	386	16	17
31....	227	....	....	....	....	160	....	1320	....	445	16	....
Total	11181	4438	....	....	*2636	3833	16909	18223	15671	5449	8172	499
Mean.	361	148	49	43	94	124	564	588	522	176	264	17
Max..	571	209	93	....	....	194	1000	1320	1000	597	717	29
Min...	220	97	....	....	....	90	157	206	30	8	16	13
Acre-ft.	22200	8810	3010	2600	5230	7600	33500	36100	31100	10800	16200	990

*Estimated.

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Animas River at Durango for Year Ending Sept. 30, 1929.
Drainage Area, 694 Square Miles. Altitude, 6,550 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	263	347	299	....	197	157	580	1160	2710	2110	2800	792
2....	267	326	303	....	197	194	630	1060	3510	2130	2340	942
3....	260	330	296	....	211	208	685	1200	3680	2090	2200	1100
4....	246	314	303	....	205	197	852	1040	4120	1850	3180	1590
5....	250	307	288	....	157	217	980	1560	4330	1760	3420	1280
6....	260	310	277	....	135	221	713	1960	4280	1530	2930	1340
7....	253	314	277	....	183	233	594	2170	4260	1580	2410	1600
8....	233	314	303	....	189	243	534	2590	4200	1450	2010	1570
9....	233	314	296	....	135	253	557	2930	4280	1340	1670	1470
10....	237	307	257	....	189	267	534	3260	4280	1200	1740	1310
11....	246	299	263	....	197	274	500	2510	3000	1260	2150	1220
12....	281	288	253	....	211	267	500	1890	2760	1310	2050	1150
13....	330	303	243	....	197	227	576	2080	2800	1200	1650	1020
14....	464	330	205	....	205	250	619	2930	3450	1170	1370	942
15....	410	326	260	....	205	243	720	3600	3860	1100	1240	920
16....	355	330	227	....	197	246	1080	3360	3390	1100	1100	882
17....	330	334	178	....	197	243	1460	2830	3480	1100	1070	792
18....	310	314	170	....	243	253	1750	3390	2790	1000	1090	748
19....	314	296	170	....	237	267	1520	2760	3010	1300	958	713
20....	307	296	170	....	197	267	1200	3010	3300	1300	830	727
21....	318	296	180	....	189	274	1010	3460	3510	1400	785	1240
22....	318	284	190	....	211	288	1070	3140	3460	1300	785	1260
23....	318	296	200	....	211	299	996	3630	3320	1840	755	3000
24....	303	307	210	....	217	257	905	3960	3140	1420	785	2210
25....	296	314	220	....	189	217	808	4120	2940	1340	755	1650
26....	296	314	220	....	191	246	748	4600	2650	1440	699	1930
27....	303	314	228	....	189	274	706	3960	2570	1430	741	1890
28....	303	322	230	....	194	292	778	2540	2650	1790	720	1570
29....	307	307	230	....	....	320	1010	1970	2440	1890	755	1400
30....	314	296	230	....	....	350	1150	1720	2350	1900	748	1200
31....	382	....	230	....	....	380	....	2130	....	2730	778	....
Total	9307	9349	7406	....	5475	7924	25765	82520	100520	47360	46514	39458
Mean.	300	312	239	220	196	256	859	2660	3350	1530	1500	1320
Max..	464	347	303	....	243	380	1750	4600	4330	2730	3420	3000
Min...	233	284	170	....	135	157	500	1040	2350	1000	699	713
Acre-ft.	18400	18600	14700	13500	10900	15700	51100	164000	199000	94100	92200	78600

Discharge of Animas River at Durango for Year Ending Sept. 30, 1930.
Drainage Area, 694 Square Miles. Altitude, 6,550 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	1040	384	257	180	183	237	313	1220	3040	878	971	324
2....	1040	384	244	180	183	212	313	1450	2430	806	912	316
3....	887	394	228	221	183	224	305	1620	2290	744	830	320
4....	854	375	228	212	221	240	309	1340	2160	678	806	320
5....	790	375	228	180	221	244	362	1180	2460	642	814	380
6....	729	371	224	183	221	250	522	1010	3240	609	767	511
7....	678	366	224	180	221	247	822	929	3620	609	806	467
8....	678	358	224	183	234	237	1120	846	3630	609	870	442
9....	760	353	228	178	234	237	1270	760	3620	596	997	422
10....	782	345	240	180	207	240	1180	685	3510	596	1200	398
11....	737	341	240	178	215	247	1150	678	3440	635	1360	375
12....	700	341	228	175	215	254	1060	656	3660	642	1300	353
13....	671	320	224	175	224	257	1160	642	3580	685	1440	349
14....	649	305	228	178	224	257	1210	775	3280	700	1320	341
15....	649	301	224	178	231	264	1320	1150	2890	642	1150	320
16....	622	309	221	180	231	272	1180	1570	2830	596	997	309
17....	609	301	231	180	234	290	980	1320	2750	664	937	301
18....	609	301	231	178	250	279	904	1080	2400	642	822	286
19....	576	301	215	178	257	275	963	963	2250	830	714	261
20....	540	301	204	178	264	268	1130	1110	2060	1030	660	254
21....	505	290	198	178	268	272	1500	1850	2090	1490	610	254
22....	494	272	192	178	279	290	1760	2390	2080	1580	555	250
23....	478	272	186	178	275	309	1770	1670	1910	1170	500	268
24....	457	268	186	178	279	309	1670	1760	1590	1010	489	268
25....	437	264	186	178	272	309	1700	2200	1360	912	462	257
26....	437	257	186	180	254	320	1560	2570	1200	806	452	261
27....	427	261	186	204	244	316	1560	3040	1140	946	412	261
28....	407	257	186	183	244	294	1500	3210	1140	971	380	250
29....	417	254	186	183	....	294	1320	3450	1080	963	366	244
30....	407	261	186	183	....	290	1200	3660	963	946	349	264
31....	398	....	186	183	....	305	....	3740	....	937	332	....
Total	19464	9482	6635	5661	6568	8339	33113	50524	73693	25564	24580	9626
Mean.	628	316	214	183	235	269	1100	1630	2460	825	793	321
Max..	1040	394	257	221	279	320	1770	3740	3630	1580	1440	511
Min...	398	254	186	175	183	212	305	642	963	596	332	244
Acre-ft.	38600	18800	13200	11300	13100	16500	65500	100000	146000	50700	48800	19100

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Cascade Creek Near Tacoma for Year Ending Sept. 30, 1929.
Drainage Area, 26.8 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	9.6	12	8.2	8.2	8.2	8.2	8.2	27	256	146	128	56
2....	9.0	13	8.2	8.2	8.2	8.2	8.2	29	263	151	171	66
3....	8.5	14	8.2	8.2	8.2	8.2	8.8	38	350	126	142	143
4....	9.0	15	8.2	8.2	8.2	8.2	9.3	46	436	99	204	100
5....	9.0	15	8.2	8.2	8.2	8.2	9.3	70	400	103	210	62
6....	9.0	16	8.2	8.2	8.2	8.2	9.3	93	366	90	174	102
7....	8.5	16	8.2	8.2	8.2	8.2	9.3	122	349	99	140	140
8....	7.9	18	8.2	8.2	8.2	8.2	9.3	140	405	84	90	114
9....	7.9	15	8.2	8.2	8.2	8.2	9.3	166	397	79	82	99
10....	7.3	15	8.2	8.2	8.2	8.2	9.3	145	205	89	75	70
11....	9.1	15	8.2	8.2	8.2	8.2	9.3	120	198	99	88	72
12....	15	15	8.2	8.2	8.2	8.2	9.3	106	300	69	93	66
13....	30	14	8.2	8.2	8.2	8.2	9.9	149	338	127	83	61
14....	26	12	8.2	8.2	8.2	8.2	10	199	412	72	61	56
15....	15	11	8.2	8.2	8.2	8.2	12	154	319	84	46	52
16....	14	11	8.2	8.2	8.2	8.2	19	154	273	106	72	44
17....	12	10	8.2	8.2	8.2	8.2	43	186	220	83	49	35
18....	14	10	8.2	8.2	8.2	8.2	56	159	251	82	46	32
19....	14	9.5	8.2	8.2	8.2	8.2	50	164	288	106	50	31
20....	14	9.3	8.2	8.2	8.2	8.2	42	174	347	115	50	104
21....	13	9.3	8.2	8.2	8.2	8.2	36	168	278	70	47	74
22....	13	9.3	8.2	8.2	8.2	8.2	34	189	274	73	42	81
23....	14	9.3	8.2	8.2	8.2	8.2	26	185	263	79	38	75
24....	14	9.3	8.2	8.2	8.2	8.2	24	287	263	85	36	48
25....	14	9.3	8.2	8.2	8.2	8.2	22	393	208	86	32	63
26....	12	9.3	8.2	8.2	8.2	8.2	19	339	229	80	30	77
27....	12	9.3	8.2	8.2	8.2	8.2	18	182	221	72	32	62
28....	12	9.3	8.2	8.2	8.2	8.2	20	154	170	72	32	39
29....	12	8.2	8.2	8.2	....	8.2	24	129	182	55	31	39
30....	11	8.2	8.2	8.2	....	8.2	28	141	137	33	38	41
31....	12	....	8.2	8.2	....	8.2	....	220	....	214	44	....
Total	387.8	356.6	254.2	254.2	229.6	254.2	601.8	4828	8598	2928	2456	2104
Mean.	12.5	11.9	8.2	8.2	8.2	8.2	20.1	156	287	94.5	79.2	70.1
Max..	30	18	8.2	8.2	8.2	8.2	56	393	436	214	210	143
Min...	7.3	8.2	8.2	8.2	8.2	8.2	8.2	27	137	33	30	31
Acre-ft.	769	708	504	504	455	504	1200	9590	17100	5810	4870	4170

Discharge of Cascade Creek Near Tacoma for Year Ending Sept. 30, 1930.
Drainage Area, 26.8 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	42	12	....	....	....	....	8.2	59.4	190	53.2	56.0	16.9
2....	36	12	....	....	....	....	8.2	89.4	180	50.0	61.1	16.9
3....	35	13	....	....	....	....	8.2	88.5	166	44.1	100	16.9
4....	31	10	....	....	....	....	8.2	65.7	168	39.9	76.0	16.9
5....	31	10	....	....	....	....	8.2	59.5	262	37.0	62.4	45.4
6....	26	11	....	....	....	....	8.2	53.5	277	36.0	71.2	30.1
7....	26	11	....	....	....	....	8.2	36.0	252	36.0	76.9	25.1
8....	31	9.3	....	....	....	....	10.6	31.5	311	36.0	92.3	21.5
9....	39	9.3	....	....	....	....	36.4	30.9	286	36.0	91.9	19.2
10....	33	9.3	....	....	....	....	38.9	29.3	282	39.0	116	18.4
11....	31	9.3	....	....	....	....	33.5	23.9	283	34.7	148	16.9
12....	28	9.3	....	....	....	....	30.9	24.0	281	52.8	110	16.2
13....	28	9.3	....	....	....	....	32.1	27.0	260	62.1	134	14.7
14....	26	9.3	....	....	....	....	34.7	53.6	228	49.3	108	14.0
15....	24	9.3	....	....	....	....	36.0	92.5	210	41.8	94.0	12.5
16....	25	9.3	....	....	....	....	30.9	92.8	216	39.3	76.0	13.3
17....	26	9.3	....	....	....	....	26.5	69.2	166	49.6	66.0	12.5
18....	22	9.3	....	....	....	....	36.4	53.0	170	59.1	56.0	11.9
19....	22	9.3	....	....	....	....	50.6	54.0	155	96.9	47.1	11.2
20....	20	9.3	....	....	....	....	64.3	89.1	157	102	39.9	11.2
21....	20	8.2	....	....	....	....	73.0	134	146	97.9	35.5	10.7
22....	18	8.2	....	....	....	....	83.3	137	138	78.6	31.8	12.6
23....	15	8.2	....	....	....	....	78.0	119	117	66.0	33.3	12.5
24....	16	8.2	....	....	....	....	64.2	154	94.3	61.7	27.3	12.5
25....	16	8.2	....	....	....	....	56.0	168	80.7	56.0	27.3	13.0
26....	16	8.2	....	....	....	....	53.2	188	73.6	51.8	27.5	11.6
27....	12	8.2	....	....	....	....	56.0	220	75.4	75.0	24.0	11.2
28....	14	8.2	....	....	....	....	54.6	232	68.2	66.8	22.0	10.7
29....	12	8.2	....	....	....	....	47.1	234	61.6	59.5	21.0	10.1
30....	14	8.2	....	....	....	....	50.7	302	56.3	66.0	19.2	18.5
31....	12	....	....	....	....	....	....	366	....	60.5	18.2	....
Total	746	281.9	....	....	....	....	1135.3	3376.8	5411.1	1734.6	1969.9	485.1
Mean.	24.1	9.40	8.2	8.2	8.2	8.2	37.8	109	180	56.0	63.5	16.2
Max..	42	13	....	....	....	....	83.3	366	311	102	148	45.4
Min...	12	8.2	....	....	....	....	8.2	239	56.3	34.7	18.2	10.1
Acre-ft.	1480	559	504	504	455	504	2250	6700	10700	3440	3900	964

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Florida River Near Durango for Year Ending Sept. 30, 1929.
Drainage Area, 96 Square Miles. Altitude, 7,300 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	13	24	....	....	....	....	120	186	586	148	526	323
2....	13	24	....	....	....	....	135	186	659	131	369	332
3....	13	25	....	....	....	....	153	220	672	121	393	220
4....	13	23	....	....	....	....	267	235	714	123	645	326
5....	14	21	....	....	....	....	240	273	672	100	501	255
6....	14	21	....	....	....	....	144	332	654	90	369	279
7....	14	21	....	....	....	....	103	393	631	83	345	294
8....	14	20	....	....	....	....	88	469	608	74	335	267
9....	16	18	....	....	....	....	84	518	604	71	307	226
10....	16	20	....	....	....	....	76	547	526	74	342	191
11....	19	20	....	....	....	....	67	430	411	73	622	194
12....	22	18	....	....	....	....	69	362	419	88	493	184
13....	28	20	....	....	....	....	83	419	430	76	352	157
14....	30	19	....	....	....	....	90	522	449	65	298	137
15....	30	18	....	....	....	....	116	608	434	61	285	121
16....	28	17	....	....	....	....	164	551	404	74	276	108
17....	27	17	....	....	....	....	201	477	386	62	229	101
18....	27	17	....	....	....	....	229	559	329	56	196	94
19....	26	17	....	....	....	....	212	465	342	75	162	87
20....	28	17	....	....	....	....	181	526	342	81	159	101
21....	28	17	....	....	....	....	173	530	329	73	165	166
22....	27	17	....	....	....	....	179	481	310	67	170	218
23....	28	17	....	....	....	....	169	501	288	98	155	473
24....	28	17	....	....	....	....	153	560	264	101	145	345
25....	25	17	....	....	....	....	140	622	223	155	138	276
26....	25	17	....	....	....	....	129	622	201	112	166	326
27....	25	17	....	....	....	....	127	457	184	112	142	307
28....	23	17	....	....	....	....	150	355	166	212	146	249
29....	23	17	12	....	....	....	184	297	153	194	179	209
30....	23	17	....	....	....	....	189	345	146	261	267	171
31....	32	....	....	....	....	....	....	505	....	865	304	....
Total	692	567	....	....	....	....	4415	13553	12536	3976	9181	6737
Mean.	22.3	18.9	13	11	10	15	147	437	418	128	296	225
Max..	30	25	....	....	....	....	267	622	714	865	645	473
Min...	13	17	....	....	....	....	67	186	146	61	138	87
Acre-ft.	1370	1120	799	676	555	922	8750	26900	24900	7870	18200	13400

Discharge of Florida River Near Durango for Year Ending Sept. 30, 1930.
Drainage Area, 96 Square Miles. Altitude, 7,300 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	153	44	....	....	....	....	28	143	399	64	178	23
2....	136	44	....	....	....	....	30	206	353	61	190	24
3....	118	46	....	....	....	....	31	254	363	57	148	24
4....	110	41	....	....	....	....	36	206	393	54	116	24
5....	102	42	....	....	....	....	52	172	455	56	114	38
6....	91	43	....	....	....	....	75	146	537	56	110	41
7....	86	39	....	....	....	....	110	138	530	54	112	36
8....	88	38	....	....	....	....	134	121	530	56	163	31
9....	94	40	....	....	....	....	138	106	523	53	160	27
10....	84	37	....	....	....	....	143	100	496	48	228	24
11....	74	36	....	....	....	....	136	96	503	50	304	21
12....	73	34	....	....	....	....	132	84	517	72	241	20
13....	73	32	....	....	....	....	141	83	483	63	290	19
14....	74	32	....	....	....	....	153	110	426	61	209	18
15....	78	31	....	....	....	....	163	175	373	69	184	16
16....	77	30	....	....	....	....	150	248	320	57	166	16
17....	80	29	....	....	....	....	118	206	284	60	127	16
18....	75	28	....	....	....	....	108	153	317	60	100	16
19....	73	28	....	....	....	....	123	141	290	150	81	16
20....	69	27	....	....	....	....	160	193	277	209	68	17
21....	63	26	....	....	....	....	219	333	244	363	57	16
22....	57	25	....	....	....	....	238	366	232	313	51	15
23....	54	25	....	....	....	....	232	313	187	290	49	16
24....	52	24	....	....	....	....	235	383	150	248	49	16
25....	50	23	....	....	....	....	241	416	127	203	44	17
26....	53	22	....	....	....	....	212	439	108	178	38	18
27....	48	21	....	....	....	....	209	483	92	254	34	20
28....	46	21	....	....	....	....	193	496	86	254	32	20
29....	41	20	....	....	....	....	153	534	78	196	28	20
30....	46	19	....	....	....	....	136	530	70	163	28	20
31....	42	....	....	....	....	....	....	554	....	166	25	....
Total	2360	947	....	....	....	....	4229	7928	9725	4040	3724	645
Mean.	76.1	31.6	10	6	9	18	141	256	324	130	120	21.5
Max..	153	46	....	....	....	....	241	554	537	363	304	41
Min...	41	....	....	....	....	....	28	83	70	48	25	15
Acre-ft.	4680	1880	615	369	500	1110	8390	15700	19300	7990	7380	1280

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Lightner Creek Near Durango for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	3	3	3	....	....	3	66	70	45	11	28	14
2....	3	3	....	....	....	3	76	68	45	11	19	14
3....	3	3	....	....	....	3	76	77	45	10	16	16
4....	3	3	....	....	....	3	358	88	45	10	33	16
5....	3	3	....	....	....	3	232	100	39	10	39	14
6....	3	3	....	....	....	6	135	114	39	10	28	16
7....	2	3	....	....	....	8	93	114	39	10	23	10
8....	2	3	....	....	....	12	70	114	39	10	23	10
9....	2	3	....	....	....	17	60	114	39	10	23	8
10....	2	3	....	....	....	21	60	114	33	10	16	8
11....	3	3	....	....	....	21	53	77	28	10	19	8
12....	2	3	....	....	....	14	52	68	28	10	16	8
13....	2	4	....	....	....	17	52	68	23	10	16	8
14....	2	4	4	....	....	12	59	68	23	10	14	6
15....	2	3	....	....	....	12	78	77	23	10	11	6
16....	2	3	....	....	....	12	98	68	23	10	10	6
17....	2	3	....	....	....	14	142	59	23	8	10	6
18....	2	3	....	....	....	17	142	59	19	8	11	5
19....	2	3	....	....	....	35	126	59	19	8	8	4
20....	2	3	....	....	....	56	95	68	19	8	8	5
21....	2	3	....	....	....	66	83	59	19	11	10	8
22....	2	3	....	....	....	66	83	59	16	11	8	14
23....	2	4	....	....	....	66	73	68	16	11	7	41
24....	2	4	....	....	....	48	62	68	16	10	7	21
25....	2	4	....	....	....	43	62	68	14	8	7	21
26....	2	4	....	....	....	43	54	77	14	11	8	41
27....	2	4	....	....	....	40	54	59	14	14	8	35
28....	2	3	....	....	....	76	60	52	14	10	7	30
29....	2	4	....	....	....	100	70	45	14	10	8	21
30....	3	3	....	....	....	100	70	45	11	11	14	14
31....	10	....	....	....	....	76	....	45	....	33	23	....
Total	78	98	....	....	....	1013	2794	2289	784	334	478	434
Mean.	2.52	3.27	3.0	2.0	2.0	32.7	93.1	73.8	26.1	10.8	15.4	14.5
Max..	10	4	....	....	....	100	358	114	45	33	39	41
Min...	2	3	....	....	....	3	52	45	11	8	7	4
Acre-ft.	155	195	184	123	111	2010	5540	4540	1550	664	947	863

Discharge of Lightner Creek Near Durango for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	12	5	....	....	....	3	38	60	31	4	7	2
2....	12	5	....	....	....	5	38	59	26	4	13	2
3....	9	5	....	....	....	5	43	59	22	4	13	2
4....	9	5	....	....	....	8	54	53	19	4	10	2
5....	8	5	....	....	....	8	66	53	19	5	10	3
6....	8	5	....	....	....	8	94	42	19	4	9	3
7....	8	5	....	....	....	8	117	41	22	4	11	2
8....	9	5	....	....	....	8	117	36	22	4	14	2
9....	8	4	....	....	....	12	110	31	19	4	31	2
10....	8	4	....	....	....	12	102	26	19	4	20	2
11....	6	4	....	....	....	14	94	26	16	4	17	2
12....	8	4	....	....	....	17	86	22	16	4	43	2
13....	9	6	....	....	....	20	86	22	16	4	21	2
14....	8	6	....	....	....	24	86	26	13	4	15	2
15....	8	6	....	....	....	28	86	36	13	4	10	2
16....	6	4	....	....	....	28	84	41	10	4	7	2
17....	12	5	....	....	....	24	77	36	10	4	5	2
18....	8	4	....	....	....	24	70	31	10	4	4	2
19....	6	4	....	....	....	24	77	26	10	4	4	2
20....	5	4	....	....	....	28	83	26	8	4	3	2
21....	5	5	....	....	....	33	83	41	8	13	3	2
22....	5	6	....	....	....	43	83	46	8	10	2	2
23....	5	5	....	....	....	43	76	36	7	8	2	2
24....	5	4	....	....	....	38	81	41	6	7	2	2
25....	5	3	....	....	....	48	88	36	6	7	2	2
26....	5	3	....	....	....	48	81	36	6	7	2	2
27....	5	3	....	....	....	33	74	36	5	6	2	2
28....	5	3	....	....	....	28	73	36	5	8	2	2
29....	5	3	....	....	....	28	66	31	5	8	2	1
30....	5	3	....	....	....	33	60	31	5	8	2	1
31....	5	....	....	....	....	38	....	31	....	7	2	....
Total	222	133	....	....	....	721	2373	1153	401	170	290	60
Mean.	7.16	4.43	2.0	2.0	3.0	23.3	79.1	37.2	13.4	5.48	9.35	2
Max..	12	6	....	....	....	48	117	60	31	13	31	3
Min...	5	3	....	....	....	3	38	22	5	4	2	1
Acre-ft.	441	264	123	123	167	1430	4710	2290	797	337	575	119

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of La Plata River at Hesperus for Year Ending Sept. 30, 1929.
Drainage Area, 37 Square Miles. Altitude, 8,100 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	4.5	13	....	....	....	....	36	112	182	36	91	96
2....	5.1	12	....	....	....	....	45	117	199	32	112	79
3....	5.1	12	....	....	6.4	....	45	144	199	36	82	89
4....	4.8	11	....	....	....	....	59	139	206	33	112	82
5....	5.1	8.5	....	....	....	6.4	83	146	192	38	109	75
6....	5.4	9.0	....	....	....	....	72	228	186	51	109	82
7....	5.7	8.5	....	....	....	8.2	66	265	172	51	102	82
8....	6.0	10	....	....	....	....	59	301	166	46	84	75
9....	6.0	8.5	....	....	....	....	56	281	163	41	77	71
10....	6.0	8.5	....	....	....	....	46	312	141	50	79	64
11....	9.0	8.0	....	....	....	....	52	242	96	50	86	56
12....	5.4	7.5	....	7.0	....	....	50	196	96	48	73	48
13....	7.0	9.5	....	....	....	....	62	235	107	35	67	40
14....	14	9.0	8.8	....	....	....	76	296	115	33	60	33
15....	16	8.0	....	....	....	....	86	312	116	26	53	30
16....	16	8.0	....	....	....	....	144	238	115	26	44	25
17....	15	8.0	....	....	....	....	181	224	104	29	40	23
18....	10	7.0	....	....	....	....	189	224	99	30	35	22
19....	8.5	7.0	....	....	....	....	160	217	109	36	35	19
20....	8.5	7.0	....	....	....	....	121	250	99	25	35	38
21....	8.0	7.0	....	....	....	....	100	235	99	25	33	57
22....	8.0	7.0	8.2	....	....	....	100	213	104	25	41	62
23....	8.0	7.6	....	....	....	....	94	213	102	24	48	86
24....	8.0	8.0	....	....	....	....	85	210	91	20	46	75
25....	8.0	8.0	....	....	....	....	72	246	79	22	43	73
26....	8.5	8.0	....	....	....	....	64	246	68	24	38	94
27....	6.5	8.0	....	....	....	....	62	153	60	25	48	82
28....	7.0	8.0	....	....	....	17	72	124	57	53	59	73
29....	7.5	8.0	....	....	....	17	106	94	50	73	73	66
30....	14	8.0	....	....	....	18	117	96	46	75	86	60
31....	18	....	....	....	....	32	....	160	....	94	99	....
Total	265	258	....	....	....	....	2560	6469	3620	1212	2099	1857
Mean.	8.54	8.59	8.5	6.5	6.4	13.0	85.3	209	121	39.1	67.7	61.9
Max..	18	13	....	....	....	....	189	312	206	94	112	96
Min...	4.5	7	....	....	....	....	36	94	46	20	33	19
Acre-ft.	525	511	523	400	355	799	5080	12800	7200	2400	4160	3680

Discharge of La Plata River at Hesperus for Year Ending Sept. 30, 1930.
Drainage Area, 37 Square Miles. Altitude, 8,100 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	48	....	....	....	....	....	17	110	91	24	24	14
2....	43	....	....	....	....	....	20	134	83	23	32	14
3....	39	....	....	....	....	....	22	121	83	17	35	12
4....	35	....	....	....	....	....	26	104	96	20	26	12
5....	30	....	....	....	....	....	35	91	110	17	24	12
6....	24	....	....	....	....	....	54	79	124	16	29	12
7....	23	....	....	....	....	....	113	67	127	19	35	12
8....	23	....	....	....	6	....	137	61	134	19	56	13
9....	23	....	....	....	....	....	124	50	115	16	67	12
10....	17	....	....	....	....	....	110	44	96	16	76	12
11....	16	....	....	....	....	....	107	43	96	16	134	10
12....	19	....	....	....	....	....	99	41	107	17	185	10
13....	19	....	5	....	....	....	96	41	101	16	126	8
14....	16	....	....	....	....	....	104	56	93	14	96	8
15....	17	....	....	....	....	....	107	104	91	14	76	8
16....	12	....	....	....	....	....	101	121	88	14	60	8
17....	10	....	....	....	....	....	88	93	91	14	57	8
18....	9	....	....	....	....	....	81	69	93	14	39	8
19....	10	....	....	....	....	....	99	69	86	14	34	10
20....	9	....	....	....	....	11	121	93	76	15	30	8
21....	8	....	....	....	....	14	153	147	65	30	28	8
22....	7	....	....	....	....	13	167	157	44	30	26	8
23....	8	....	....	....	....	13	153	127	26	24	24	8
24....	6	....	....	....	....	15	150	137	14	19	22	7
25....	6	....	....	....	....	15	140	137	14	22	20	7
26....	6	....	....	....	....	14	118	150	14	16	16	7
27....	6	....	....	....	....	13	115	160	13	15	14	7
28....	6	....	....	....	....	32	113	160	15	17	14	7
29....	6	....	....	....	....	26	104	175	17	16	14	7
30....	6	....	....	....	....	22	101	160	16	17	14	10
31....	5	....	5	....	....	17	....	150	....	20	14	....
Total	512	....	....	....	....	....	2975	3251	2219	561	1447	287
Mean.	16.5	5	5	4.5	6.5	15	99.2	105	74.0	18.1	46.7	9.57
Max..	48	....	....	....	....	....	167	175	134	30	185	14
Min...	5	....	....	....	....	....	17	41	13	14	14	7
Acre-ft.	1010	298	307	277	361	922	5900	6460	4400	561	2870	569

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of La Plata River at Colorado-New Mexico Line for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, 6,000 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	3.7	25	15	....	24	14	60	42	74	1	66	15
2....	4.0	16	19	....	24	20	72	45	70	1	54	241
3....	4.0	12	21	....	37	20	80	55	54	1	45	226
4....	2.5	11	21	....	32	276	111	50	56	1	72	51
5....	0.6	11	18	....	27	420	333	47	55	1	223	40
6....	0.5	10	22	....	32	394	162	75	58	6	284	24
7....	0.5	10	24	....	25	262	113	83	61	21	82	22
8....	0.5	11	22	....	14	210	96	113	44	27	143	28
9....	0.5	14	20	....	12	134	95	126	51	53	48	22
10....	0.5	15	20	....	12	83	72	147	18	39	53	20
11....	6.0	19	20	....	12	98	75	77	6	58	49	34
12....	5.0	19	20	....	12	90	77	49	2	48	35	22
13....	3.7	19	20	....	12	48	92	59	1	41	28	19
14....	4.0	20	20	....	12	53	86	95	1	34	21	14
15....	5.4	17	18	....	12	64	100	143	74	25	27	12
16....	5.4	16	18	....	12	58	147	61	95	28	23	12
17....	6.3	12	10	....	12	25	193	34	90	19	22	12
18....	6.3	13	10	....	12	32	231	61	72	18	18	12
19....	6.0	13	10	....	12	32	208	68	86	13	16	56
20....	6.0	14	10	....	20	41	164	100	79	8	16	37
21....	6.6	14	10	....	39	54	117	103	72	5	14	41
22....	7.8	14	12	....	28	64	100	71	69	4	15	71
23....	9.0	15	12	....	32	62	87	65	71	10	16	46
24....	8.7	15	20	....	32	47	76	75	58	20	15	26
25....	8.7	14	25	....	20	32	54	108	2	8	18	39
26....	9.3	14	25	....	16	33	44	126	1	5	20	51
27....	9.3	15	30	....	14	36	38	64	1	360	16	44
28....	9.0	18	30	....	11	48	36	48	1	41	33	39
29....	9.0	16	30	....	....	80	45	33	1	45	27	37
30....	12	14	25	....	....	101	50	22	1	475	22	27
31....	38	....	22	....	....	68	....	61	....	147	14	....
Total	198.8	446	599	....	559	2999	3214	2306	1324	1563	1535	1340
Mean.	6.41	14.9	19.4	20.0	20.0	96.7	107	74.4	44.1	50.4	49.5	44.7
Max..	38	25	....	....	39	420	333	147	95	475	284	241
Min...	0.5	10	....	....	11	14	36	22	1	1	14	12
Acre-ft.	394	887	1190	1230	1110	5950	6370	4570	2620	3100	3040	2660

Discharge of La Plata River at Colorado-New Mexico Line for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, 6,000 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	25	22	20	....	....	19	19	40	46	0	38	7
2....	24	20	20	....	....	19	19	84	11	0	22	7
3....	23	21	20	....	....	19	19	115	5	1	13	8
4....	22	22	22	....	....	19	22	86	2	3	10	9
5....	21	22	20	....	....	20	28	83	2	3	9	7
6....	20	22	20	....	....	20	32	76	1	3	15	8
7....	20	22	22	....	....	18	66	72	0	3	11	8
8....	21	22	18	....	....	18	126	69	0	4	23	8
9....	21	22	16	....	....	18	126	66	0	4	448	8
10....	21	22	16	....	....	20	100	60	0	3	110	8
11....	20	22	16	....	....	20	81	50	20	4	38	8
12....	20	23	17	....	....	22	73	29	68	3	56	8
13....	32	24	17	....	....	25	50	8	70	4	19	7
14....	35	22	17	....	....	31	43	3	60	2	18	7
15....	94	23	17	....	12	30	44	1	53	3	17	7
16....	54	20	18	....	....	36	43	1	48	6	16	7
17....	37	19	17	....	....	34	41	1	68	1	15	8
18....	30	19	17	....	....	25	36	1	68	17	12	8
19....	28	20	14	....	....	23	32	1	70	58	12	8
20....	29	20	14	....	....	23	30	1	63	46	12	8
21....	29	21	13	....	....	24	40	6	57	12	11	8
22....	26	23	13	....	....	27	46	8	24	24	10	9
23....	24	20	12	....	....	32	37	62	7	24	10	10
24....	25	24	12	....	....	29	40	80	5	16	10	10
25....	25	17	11	....	....	26	57	102	4	11	10	9
26....	24	22	11	....	....	30	46	110	1	10	9	10
27....	23	20	10	....	....	30	38	113	0	10	8	10
28....	23	20	10	8	....	24	32	107	0	11	8	9
29....	23	21	9	....	....	25	28	94	0	10	8	9
30....	22	21	9	....	....	25	25	74	0	10	7	22
31....	22	....	8	....	....	21	....	68	....	13	7	....
Total	863	638	476	....	....	752	1419	1671	753	319	1012	260
Mean.	27.8	21.3	15.4	8	20	24.2	47.3	53.9	25.1	10.3	32.6	8.67
Max..	94	24	22	....	....	36	126	115	70	58	448	22
Min...	20	17	8	....	....	18	19	1	0	0	7	7
Acre-ft.	1710	1270	947	492	1110	1490	2810	3310	1490	633	1012	516

Note—Flood peak at 6:00 P. M. Aug. 9th. G. H. 10.70, discharge, 4,460 S. F.
Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Cherry Creek Near Red Mesa for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, 6,490 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	1	9	....	....	....	....	8	36	2	1	30	8
2....	1	....	....	....	....	....	12	40	2	1	15	12
3....	1	....	....	....	....	....	11	46	3	2	16	12
4....	1	....	....	....	....	....	11	40	2	4	30	10
5....	1	....	....	....	....	....	229	45	2	5	18	8
6....	1	....	....	....	....	....	83	56	2	8	16	6
7....	1	....	....	....	....	....	50	59	3	6	20	6
8....	1	....	....	....	....	....	40	61	2	6	30	6
9....	1	....	....	....	....	....	38	60	2	6	29	6
10....	1	....	....	....	....	....	18	56	2	6	14	7
11....	2	....	....	....	....	....	23	40	3	6	13	12
12....	3	....	....	....	....	....	25	30	2	6	12	5
13....	2	....	....	....	....	....	26	19	2	6	9	4
14....	2	....	....	....	....	....	23	15	4	6	7	3
15....	2	....	....	....	....	....	27	18	6	6	8	3
16....	3	....	....	....	....	....	43	12	8	6	6	3
17....	2	....	....	....	....	....	55	6	8	3	5	3
18....	2	....	....	....	....	....	66	2	8	1	5	3
19....	2	....	....	....	....	....	61	2	8	15	4	3
20....	2	....	....	....	....	....	51	2	7	6	4	3
21....	1	....	....	....	....	....	41	3	7	5	3	19
22....	1	....	....	....	....	....	44	5	6	4	4	8
23....	1	....	....	....	....	....	39	6	6	5	3	14
24....	2	....	....	....	....	....	36	6	4	6	3	7
25....	2	....	....	....	....	....	33	6	1	4	3	6
26....	2	....	....	....	....	....	30	5	1	3	2	24
27....	1	....	....	....	....	....	27	3	1	3	3	11
28....	1	....	....	....	....	19	27	3	1	3	23	8
29....	2	....	....	....	....	35	36	2	1	9	18	7
30....	2	....	....	....	....	35	39	2	1	7	12	6
31....	6	....	....	....	....	7	....	2	....	15	10	....
Total	53	....	....	....	....	....	1252	688	107	170	375	233
Mean.	1.71	4	2	2	4	45	41.7	22.2	3.57	5.48	12.1	7.77
Max..	6	....	....	....	....	....	229	61	8	15	30	24
Min...	1	....	....	....	....	....	8	2	1	1	2	3
Acre-ft.	105	238	123	123	222	2770	2480	1360	212	337	744	462

Discharge of Cherry Creek at Mouth—Near Red Mesa for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, 6,490 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	5.5	4.0	....	....	....	3	6	28	12	1	1	1
2....	4.9	5.5	....	....	....	3	6	28	7	1	1	1
3....	4.0	5.5	....	....	....	3	8	27	3	1	2	1
4....	4.0	5.5	....	....	....	3	8	27	2	1	1	1
5....	4.0	5.8	....	....	....	3	15	25	2	1	1	1
6....	4.0	5.5	....	....	....	4	32	30	2	1	1	1
7....	4.0	4.0	....	....	....	4	40	27	2	1	2	1
8....	4.0	4.3	....	....	....	4	48	27	1	1	3	1
9....	4.6	4.3	....	....	....	4	46	26	1	1	50	1
10....	4.3	3.6	....	....	....	3	44	21	1	1	36	1
11....	3.8	4.3	....	....	....	3	43	18	1	1	26	1
12....	3.6	4.0	....	....	....	6	39	11	1	1	7	1
13....	4.6	6.4	....	....	....	9	38	4	1	1	6	1
14....	7.3	7.0	....	....	....	12	38	2	1	1	4	1
15....	5.8	3.8	....	....	....	10	40	2	1	1	3	1
16....	4.0	2.4	....	....	....	16	36	2	1	1	3	1
17....	7.6	3.0	....	....	....	10	41	2	1	1	2	1
18....	8.5	3.4	....	....	....	6	32	2	2	1	2	1
19....	7.9	3.0	....	....	....	6	31	2	2	1	2	1
20....	7.6	2.6	....	....	....	6	31	2	2	1	2	1
21....	7.6	2.2	....	....	....	6	42	2	2	1	2	1
22....	7.6	1.8	....	....	....	8	44	2	2	1	2	1
23....	7.6	2.2	....	....	....	10	42	6	1	1	2	1
24....	7.3	2.4	....	....	....	7	44	4	1	1	2	1
25....	7.3	2.4	....	....	....	7	69	7	1	1	2	1
26....	6.7	2.4	....	....	....	10	56	14	1	1	2	1
27....	6.1	2.8	....	....	....	8	46	10	1	1	2	1
28....	6.1	3.4	....	....	....	3	42	8	1	1	2	1
29....	6.1	2.8	....	....	....	5	32	4	1	1	2	1
30....	5.8	2.6	....	....	....	6	28	3	1	1	2	2
31....	5.5	....	....	....	....	6	....	2	....	1	1	....
Total	177.7	112.9	....	....	....	194	1067	375	58	31	176	31
Mean.	5.73	3.76	2.0	1.0	2.0	6.26	35.6	12.1	1.93	1.00	5.68	1.03
Max..	8.5	....	....	....	....	16	69	30	12	1	50	2
Min...	3.6	....	....	....	....	3	6	2	1	1	1	1
Acre-ft.	352	224	123	61	111	385	2120	744	115	61	349	61

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Long Hollow Near Red Mesa for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, 6,200 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	7.2	16	10	9	14	9	12	4	5	2	....	....
2....	7.2	12	13	9	17	10	13	4	4	2	....	....
3....	6.9	10	15	9	23	11	12	4	4	2	....	....
4....	6.9	9	15	9	12	42	35	5	4	2	....	....
5....	7.2	9	12	9	11	60	35	4	4	4	....	....
6....	7.2	9	14	9	11	98	15	5	4	7	....	....
7....	7.6	9	16	9	10	26	13	5	4	7	....	....
8....	6.3	9	12	9	10	26	12	5	4	7	....	....
9....	6.6	10	11	9	10	18	12	5	4	38	....	....
10....	7.2	12	11	9	10	19	9	5	4	10	....	....
11....	8.3	14	11	9	10	16	9	6	5	9	....	....
12....	8.0	14	11	9	11	14	8	5	4	8	....	....
13....	8.3	15	8.3	9	11	16	8	4	4	8	....	....
14....	10	15	9.1	9	11	16	8	4	5	7	....	....
15....	9.1	13	9.5	9	11	15	8	5	6	3	....	....
16....	8.7	12	8.3	9	11	15	8	5	8	2	....	....
17....	8.7	12	8	9	11	15	8	4	9	2	....	....
18....	8.3	11	8	9	11	14	7	4	8	2	....	....
19....	8.0	10	8	10	11	14	6	4	8	2	....	....
20....	8.3	9.1	8	10	11	20	6	4	7	2	....	....
21....	9.1	9.1	8	10	13	20	5	4	7	2	....	....
22....	9.1	9.1	8	10	14	19	5	5	7	3	....	....
23....	9.1	8.0	9	11	26	20	5	5	8	4	....	....
24....	9.5	9.1	9	10	14	14	6	5	8	5	....	....
25....	8.7	11	9	9	11	11	6	6	6	4	....	....
26....	8.3	9.1	9	9	11	11	5	5	5	4	....	....
27....	8.0	8.3	10	10	10	14	5	6	3	62	....	....
28....	8.0	10	13	10	9	21	5	5	2	13	....	....
29....	8.0	10	13	9	....	20	5	5	2	10	....	....
30....	10	10	12	9	....	21	5	5	2	90	....	....
31....	32	....	12	10	....	14	....	4	....	30	....	....
Total	275.8	323.8	318.2	289	355	659	296	146	155	353	....	....
Mean.	8.90	10.8	10.3	9.32	12.7	21.3	9.87	4.71	5.17	11.4	....	....
Max..	32	16	....	....	26	98	35	6	9	90	....	....
Min...	6.3	8.0	....	....	9	9	5	4	2	2	....	....
Acre-ft.	547	643	633	573	705	1310	587	290	308	701	....	....

Discharge of Mancos River Near Towaoc for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, 6,000 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	2	41	7	....	12	46	67	139	54	6	139	50
2....	2	18	....	....	17	52	67	128	60	3	108	52
3....	1	12	....	....	11	59	74	162	74	2	99	146
4....	1	12	....	....	9	66	74	162	67	1	175	183
5....	1	9	....	....	7	64	234	175	74	1	739	71
6....	1	9	....	....	7	135	139	267	74	1	162	79
7....	1	12	....	....	9	192	82	340	74	1	189	79
8....	1	15	....	....	8	172	67	400	67	1	175	64
9....	1	12	....	....	8	181	60	416	59	1	118	64
10....	1	15	....	....	8	694	60	437	66	26	139	63
11....	1	12	....	8	8	420	54	317	59	10	82	62
12....	1	12	....	....	8	139	48	200	53	4	74	60
13....	11	15	7	....	8	133	67	160	47	8	67	59
14....	28	12	....	....	8	127	82	200	43	6	54	53
15....	15	18	....	....	8	121	90	278	38	4	54	47
16....	15	18	....	....	11	115	162	197	38	139	48	47
17....	9	18	....	....	11	100	234	158	44	13	43	43
18....	5	15	....	....	11	97	302	158	39	8	38	43
19....	5	9	....	....	14	93	250	158	34	8	39	43
20....	3	9	....	....	15	90	175	146	31	8	44	150
21....	3	7	....	....	21	82	118	168	23	4	55	189
22....	2	9	....	....	21	79	139	155	20	3	39	118
23....	2	15	....	....	21	76	128	155	18	8	34	120
24....	2	12	....	....	25	74	108	155	15	16	44	76
25....	2	9	....	....	26	54	90	132	15	26	34	84
26....	2	9	....	....	26	43	82	143	15	19	50	141
27....	3	12	....	....	30	43	82	130	12	13	85	76
28....	2	12	....	....	34	43	90	101	10	247	35	120
29....	3	9	....	....	....	67	118	84	6	22	35	77
30....	4	9	....	....	....	108	150	61	6	143	132	70
31....	64	....	....	....	....	82	....	49	....	118	112	....
Total	194	396	....	....	402	3487	3493	5931	1235	870	3241	2529
Mean.	6.26	13.2	7	8	14.4	124	116	191	41.2	28.1	105	84.3
Max..	64	41	....	....	34	694	302	437	74	247	739	189
Min...	1	7	....	....	7	43	48	49	6	1	34	43
Acre-ft.	385	786	430	492	800	7620	6900	11700	2450	1730	6460	5020

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Mancos River Near Towaoc for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, 6,000 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	61	16	14	....	....	17	23	228	100	4	21	10
2....	54	16	14	....	....	12	23	252	64	2	13	54
3....	53	14	14	....	....	17	23	252	54	1	10	6
4....	50	16	9	....	....	32	23	204	54	0	8	6
5....	49	19	14	....	....	23	27	164	46	0	16	6
6....	54	16	10	....	....	23	36	147	46	0	16	6
7....	47	16	10	....	16	23	79	115	64	0	16	5
8....	46	16	7	....	....	23	146	100	64	0	100	5
9....	45	16	10	....	....	20	220	74	54	0	130	5
10....	44	19	10	....	....	23	325	74	54	0	252	4
11....	42	16	14	....	....	23	400	74	46	97	204	4
12....	41	16	10	....	....	23	340	74	46	7	100	3
13....	45	10	14	....	....	23	302	64	46	2	46	2
14....	39	14	10	....	....	23	267	54	32	2	46	2
15....	66	16	8	....	....	23	302	64	26	2	46	2
16....	32	16	8	....	36	23	302	74	21	2	64	2
17....	30	14	8	....	32	27	380	64	16	1	46	2
18....	29	19	8	....	27	27	203	54	13	38	46	2
19....	28	19	8	....	27	27	189	46	10	82	38	2
20....	23	16	8	....	32	27	302	46	9	196	21	2
21....	23	10	8	....	27	27	380	46	9	38	13	2
22....	23	14	8	....	27	27	420	64	8	7	10	1
23....	22	10	8	....	27	27	279	64	6	3	9	1
24....	21	14	9	....	20	27	279	64	6	2	8	1
25....	20	23	9	....	20	27	364	46	6	1	5	1
26....	19	14	9	....	....	27	364	46	6	1	5	1
27....	18	10	9	....	....	23	306	46	6	16	5	1
28....	17	14	9	....	....	23	306	38	5	16	7	1
29....	16	16	9	....	....	23	252	54	5	10	8	1
30....	16	14	9	....	....	23	228	54	5	8	9	1
31....	16	....	9	....	....	23	....	64	....	54	9	....
Total	1089	459	304	....	....	736	7090	2810	927	592	1327	141
Mean.	35.1	15.3	9.81	8.0	22.0	23.7	236	90.6	30.9	19.1	42.8	4.70
Max..	66	23	14	....	....	32	420	252	100	196	252	54
Min...	16	10	7	....	....	12	23	38	5	0	5	1
Acre-ft.	2160	910	603	492	1220	1460	14000	5570	1840	1170	2630	280

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of McElmo Creek Near Cortez for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	4	77	16	20	106	26	16	46	168	75	209	138
2....	4	35	14	16	100	35	14	46	184	75	210	138
3....	6	26	14	19	108	35	14	53	184	75	150	356
4....	7	26	14	19	132	77	14	53	152	67	103	184
5....	7	26	14	18	154	356	46	50	152	67	475	123
6....	10	26	14	22	184	492	26	46	140	74	292	240
7....	10	26	12	22	68	356	19	53	135	74	311	168
8....	10	26	14	21	46	356	16	53	120	65	361	85
9....	8	30	14	21	42	306	16	46	98	57	265	108
10....	7	30	14	29	38	220	16	40	77	50	206	149
11....	7	35	14	28	35	138	16	40	68	50	155	134
12....	7	30	14	24	46	60	16	60	68	60	113	120
13....	12	53	14	24	40	53	14	53	60	65	113	96
14....	68	53	16	24	46	35	14	53	68	74	126	85
15....	68	35	14	24	40	35	22	53	77	74	100	75
16....	53	30	12	24	38	35	26	46	77	83	100	85
17....	40	26	10	20	35	35	26	53	77	74	113	80
18....	22	26	10	24	40	35	30	60	80	57	140	75
19....	14	22	14	28	40	35	26	68	80	57	100	75
20....	17	30	16	28	40	35	26	60	85	57	100	200
21....	19	30	16	28	40	40	26	60	85	43	100	150
22....	16	28	18	28	53	53	26	123	90	367	100	274
23....	16	26	25	28	123	53	26	220	96	129	113	195
24....	14	26	25	24	138	46	19	220	85	174	140	118
25....	16	26	25	28	60	40	19	202	96	103	88	110
26....	16	26	20	28	53	35	16	184	96	316	260	132
27....	19	22	20	28	46	30	16	202	96	72	220	65
28....	14	22	20	28	35	26	14	184	96	72	138	65
29....	16	22	20	28	....	26	14	184	96	191	138	50
30....	19	16	23	28	....	30	30	184	96	856	168	57
31....	60	....	23	53	....	19	....	152	....	562	138	....
Total	606	912	509	784	1926	3153	619	2947	3082	4215	5345	3930
Mean.	19.5	30.4	16.4	25.3	68.8	102	20.6	95.1	103	136	172	131
Max..	68	77	25	53	184	492	46	220	184	856	475	356
Min...	4	16	10	16	35	19	14	40	60	43	88	50
Acre-ft.	1200	1810	1010	1560	3820	6270	1230	5850	6130	8360	10600	7790

Unless otherwise noted, all discharges are in cubic feet per second.

GREEN RIVER DRAINAGE

GREEN RIVER NEAR LINWOOD, UTAH

Location—In SW¼ Sec. 21, T. 3 N., R. 21 E., at Smith's Ferry, 5 miles southeast of Linwood.

Records Available—October 1, 1928, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Complete records furnished by the United States Geological Survey.

YAMPA RIVER AT STEAMBOAT SPRINGS

Location—On First Street bridge in Steamboat Springs.

Records Available—May 3, 1904, to October 31, 1906; March 1, 1910, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

YAMPA RIVER NEAR MAYBELL

Location—In Sec. 2, T. 6 N., R. 95 W., three miles east of Maybell.

Records Available—April 24, 1916, to September 30, 1930. From April 17, 1904, to October 31, 1905, and June 12, 1910, to November 30, 1912, a station was maintained nine miles below the present station.

Gage—Automatic recording gage.

Accuracy—Records considered good.

ELK RIVER AT CLARK

Location—In Sec. 28, T. 9 N., R. 85 W., at the Kinney Ranch.

Records Available—May 1, 1910, to September 30, 1922; April 23 to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

LITTLE SNAKE RIVER NEAR LILY

Location—In Sec. 20, T. 7 N., R. 98 W., sixteen miles west of Sunbeam and six miles above mouth.

Records Available—May 1, 1922, to September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

WHITE RIVER NEAR MEEKER

Location—In Sec. 30, T. 1 N., R. 93 W., three and one-half miles east of Meeker.

Records Available—May 7, 1910, to September 30, 1930. From April 12, 1904, to October 31, 1906, a station was maintained two and one-half miles below the present station.

Gage—Automatic recording gage.

Accuracy—Records considered good.

WHITE RIVER NEAR WATSON, UTAH

Location—In Sec. 1, T. 1. S., R. 105 W., at bridge on Vernal-Dragon highway.

Records Available—April 1 to October 31, 1906; April 1, 1923, to September 30, 1930; at Rangely, twenty miles above this station, April 15, 1904, to October 31, 1905, and May 20 to November 23, 1918.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

Discharge of Green River Near Linwood, Utah, for Year Ending Sept. 30, 1929.
Drainage Area, 14,300 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	630	798	....	....	....	450	3070	3350	5550	4690	1520	1690
2....	630	792	....	....	....	450	2930	3770	5100	4690	1480	1560
3....	630	817	....	....	....	450	2930	3910	4800	4850	1480	1680
4....	630	830	....	....	....	450	2930	3350	4800	4850	1440	1750
5....	630	844	....	....	....	450	3350	3350	4950	4690	1440	1610
6....	630	837	....	....	....	500	4350	3490	5100	4530	1440	1680
7....	620	798	....	....	....	600	5250	3770	5100	4370	1440	1810
8....	620	830	....	....	....	1000	4950	3770	5250	4060	1440	1910
9....	620	892	....	....	....	2000	4050	3490	5400	3910	1420	1960
10....	620	936	....	....	....	4000	3490	3490	5850	3630	1420	1900
11....	625	914	....	....	....	3500	2930	3490	6170	3350	1420	1750
12....	640	877	....	....	....	3300	2510	3630	6810	3070	1380	1610
13....	680	857	....	....	....	3000	2230	3490	7290	2790	1380	1500
14....	760	892	....	....	....	2900	2090	3770	7290	2540	1360	1400
15....	860	907	....	....	....	2800	2090	4200	6970	2420	1330	1300
16....	900	857	....	....	....	2600	2370	4800	6650	2180	1310	1220
17....	940	850	....	....	....	2400	2790	5100	6650	2070	1280	1190
18....	970	780	....	....	....	2200	3350	5100	7130	1970	1280	1170
19....	1010	695	....	....	....	2000	4350	5100	7770	1870	1360	1190
20....	1050	675	....	....	....	2200	5100	5100	8090	1870	1700	1220
21....	1080	627	....	....	....	2300	5400	5100	7770	1780	1950	1310
22....	1090	568	....	....	....	2650	5400	5100	6810	1780	1500	1560
23....	1080	552	....	....	....	2650	4950	5550	5850	1780	1340	2000
24....	1050	552	....	....	....	2650	4650	5700	5170	1780	1270	2460
25....	1000	560	....	....	....	2650	4350	5700	4850	1780	1230	2500
26....	944	560	....	....	....	2370	4200	6010	4850	1780	1220	2100
27....	907	560	....	....	....	1950	3910	6490	4850	1780	1310	1800
28....	864	560	....	....	....	1810	3770	6970	4690	1690	1600	1400
29....	844	560	....	....	....	1950	3350	7130	4690	1690	1880	1200
30....	830	560	....	....	....	2230	3210	6810	4690	1600	2180	1100
31....	823	....	....	....	....	2790	....	6170	....	1560	1970	....
Total	25207	22337	....	....	....	63250	110300	146250	176940	87400	45770	48530
Mean.	813	745	500	450	450	2040	3680	4720	5900	2820	1480	1620
Max..	1090	936	....	....	....	4000	5400	7130	8090	4850	2180	2500
Min...	620	552	....	....	....	450	2090	3350	4690	1560	1220	1100
Acre-ft.	50000	44300	30700	27700	25000	125000	219000	290000	351000	173000	91000	96400

Discharge of Green River Near Linwood, Utah, for Year Ending Sept. 30, 1930.
Drainage Area, 14,300 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	1260	1010	800	450	400	700	1230	3880	6120	4870	1670	2350
2....	1230	980	800	450	400	700	1240	3460	6540	4000	1660	2250
3....	1190	980	800	450	400	700	1260	3420	7040	3400	2150	2100
4....	1170	920	800	450	400	700	1280	3220	7200	3300	2640	2000
5....	1230	945	830	450	400	700	1550	3210	6970	3300	2640	1850
6....	1400	940	826	450	500	750	2750	3330	6510	3200	2260	1680
7....	1360	920	826	450	500	750	4520	3460	5860	3200	2320	1650
8....	1340	920	822	450	500	750	4600	3600	5350	3300	3980	1620
9....	1340	920	842	450	500	780	4680	3690	4890	3300	5820	1550
10....	1380	920	860	450	500	800	4600	3750	4630	3400	4870	1500
11....	1440	860	870	450	600	810	4110	3800	4660	3390	4680	1450
12....	1450	860	935	450	600	850	3930	3800	4960	3420	5530	1400
13....	1400	860	950	450	600	900	3940	3710	5570	3600	6600	1350
14....	1270	860	960	450	600	980	4060	3510	6490	3900	11200	1330
15....	1230	846	935	450	600	1120	4410	3080	7730	4200	12700	1280
16....	1180	838	940	400	750	1430	4570	2770	8540	4600	10200	1260
17....	1160	838	890	400	750	1500	4490	2750	8420	4800	7820	1200
18....	1140	830	842	400	750	1380	3960	4160	7850	4600	6800	1120
19....	1140	830	830	400	750	1450	3390	4310	7290	4000	6400	1050
20....	1120	830	650	400	750	1440	2890	4050	7060	3330	5600	1000
21....	1110	820	650	400	850	1490	2790	3920	7040	3270	4420	960
22....	1080	820	650	400	850	1550	2790	3620	7040	3230	3900	940
23....	1060	820	650	400	850	1400	2880	3320	7040	3120	3400	920
24....	1040	820	650	400	850	1380	3300	3130	6970	2960	3100	910
25....	1020	820	650	400	850	1610	3800	3100	6920	2840	2900	950
26....	1010	820	650	400	700	1760	4260	3030	6850	2630	2800	1000
27....	1000	820	650	400	700	1520	4460	2850	6690	2300	3800	1080
28....	990	820	650	400	700	1330	4540	2890	6340	2080	5000	1140
29....	985	820	650	400	....	1520	4440	3300	5820	2000	3200	1100
30....	1000	820	650	400	....	1420	4180	4260	5300	1860	2800	1000
31....	1010	....	650	400	....	1330	....	5550	....	1810	2500	....
Total	36735	26107	24158	13150	17600	35500	104900	109930	195690	103210	145360	40990
Mean.	1180	870	779	424	629	1150	3500	3550	6520	3330	4690	1370
Max..	1450	1010	960	....	....	1760	4680	5550	8540	4870	12700	2350
Min...	985	....	....	....	....	....	1230	2750	4630	1810	1660	910
Acre-ft.	72600	51800	47900	26100	34900	70700	208000	218000	388000	205000	288000	81500

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Yampa River at Steamboat Springs for Year Ending Sept. 30, 1929.
Drainage Area, 500 Square Miles. Altitude, 6,680 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	101	141	....	....	....	....	176	1220	2600	1580	318	130
2....	101	141	....	....	....	....	176	1260	3220	1400	298	141
3....	106	141	....	....	....	....	176	1220	3280	1310	280	148
4....	101	148	....	....	....	....	202	1180	3340	1130	256	152
5....	103	141	....	....	....	....	298	1310	3400	960	318	164
6....	99	134	....	....	....	....	430	1310	3580	802	456	202
7....	101	130	....	....	....	....	510	1580	3640	730	482	230
8....	101	130	....	....	....	....	630	1820	3840	730	456	262
9....	106	134	....	....	....	....	696	1970	4030	598	430	318
10....	110	126	....	....	....	....	598	2070	4030	538	382	298
11....	114	126	....	....	....	....	382	1720	3960	598	280	246
12....	118	130	....	....	....	....	406	1770	3580	538	202	224
13....	122	141	....	....	....	....	406	1720	3280	482	189	216
14....	110	141	....	....	....	....	538	2020	3520	430	176	197
15....	120	148	....	....	....	....	510	2320	3460	406	164	202
16....	118	141	....	....	....	....	538	2540	3160	406	162	189
17....	122	141	....	....	....	....	766	2440	3460	430	157	181
18....	120	141	....	....	....	....	960	2600	3280	360	152	189
19....	126	134	....	....	....	....	1310	2710	2930	338	148	171
20....	126	141	....	....	....	....	1360	2880	2600	330	152	189
21....	134	148	....	....	....	....	1400	2820	2540	338	141	197
22....	130	152	....	....	....	....	1440	3040	2600	318	141	189
23....	126	157	....	....	....	....	1400	3160	2710	322	141	171
24....	130	157	....	....	....	....	1220	3280	2490	306	148	164
25....	130	152	....	....	....	....	766	3520	2320	298	141	176
26....	130	157	....	....	....	....	630	3580	2380	280	141	181
27....	130	162	....	....	....	....	630	3040	2270	262	139	192
28....	130	157	....	....	....	....	960	2710	2170	280	137	197
29....	137	162	....	....	....	....	1490	2380	1970	262	134	202
30....	134	162	....	....	....	....	1720	2120	1770	246	130	189
31....	139	....	....	....	....	....	....	2270	....	230	130	....
Total	3675	4316	....	....	....	....	22724	69580	91410	17238	6981	5907
Mean.	119	144	....	....	....	....	757	2240	3050	556	225	197
Max..	139	162	....	....	....	....	1720	3580	4030	1580	482	318
Min...	99	126	....	....	....	....	176	1180	1770	230	130	130
Acre-ft.	7320	8570	....	....	....	....	45000	138000	181000	34200	13800	11700

Discharge of Yampa River at Steamboat Springs for Year Ending Sept. 30, 1930.
Drainage Area, 500 Square Miles. Altitude, 6,680 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	189	141	120	....	....	140	216	1580	2440	298	208	130
2....	194	141	120	....	....	140	262	1820	2170	287	243	132
3....	202	141	....	....	148	140	318	1920	1920	262	219	132
4....	208	141	....	....	....	140	382	1670	1670	246	216	134
5....	189	137	....	....	....	130	456	1540	2270	256	216	148
6....	176	139	....	....	....	130	730	1490	2710	230	197	202
7....	184	134	....	....	....	140	920	1360	2490	216	213	210
8....	186	134	....	....	....	140	1260	1000	2320	197	230	184
9....	189	132	....	....	....	140	1400	802	2270	186	208	164
10....	199	132	....	....	....	140	1490	730	2380	181	224	139
11....	208	130	....	....	....	140	1620	730	2440	176	298	141
12....	194	128	137	....	....	140	1820	802	2380	164	280	141
13....	189	130	....	....	....	141	1870	696	2270	157	291	141
14....	202	126	....	....	....	152	2070	730	1920	152	280	141
15....	197	126	....	....	....	164	1970	696	1670	152	262	141
16....	189	124	....	....	....	171	1360	841	1540	148	256	141
17....	189	126	....	....	....	181	1040	960	1400	145	236	141
18....	194	126	....	122	....	224	960	1000	1310	152	262	141
19....	189	124	....	....	....	216	1000	1000	1220	164	246	143
20....	181	124	....	....	....	202	1040	1000	1130	230	230	148
21....	162	122	....	....	....	186	1040	1180	1080	262	219	148
22....	157	126	....	....	....	208	1080	1620	1000	216	208	148
23....	157	122	....	....	....	222	1130	1540	960	176	176	157
24....	152	124	....	....	....	216	1260	1440	766	176	181	164
25....	145	122	....	....	....	186	1400	1580	630	181	189	171
26....	141	122	....	....	....	169	1400	1970	538	186	171	164
27....	141	120	....	....	....	202	1440	2320	482	192	157	164
28....	141	118	....	....	....	208	1490	2710	416	202	152	169
29....	141	120	....	....	....	202	1440	3050	369	208	152	171
30....	141	120	....	....	....	202	1440	3290	322	202	141	171
31....	141	....	....	....	....	208	....	2660	....	216	134	....
Total	5467	3852	....	....	....	5320	35304	45727	46483	6216	6695	4621
Mean.	176	128	130	120	145	172	1180	1480	1550	200	216	154
Max..	208	141	....	....	....	224	2070	3290	2710	298	298	210
Min...	141	118	....	....	....	130	216	696	322	145	134	130
Acre-ft.	10800	7620	7990	7380	8050	10600	70200	91000	92200	12300	13300	9160

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Yampa River Near Maybell for Year Ending Sept. 30, 1929.
Drainage Area, 3,670 Square Miles. Altitude, 5,900 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	344	523	456	....	....	....	3500	8000	8300	6060	1020	510
2....	344	510	406	....	....	....	3140	8100	9500	5770	1180	523
3....	340	497	398	....	....	....	3120	8600	10500	5300	1080	529
4....	352	484	393	....	....	....	5350	9300	10400	4930	1080	594
5....	360	467	402	....	....	....	6800	9400	10600	4570	1080	641
6....	360	451	....	....	....	....	6700	9300	10800	4210	1180	800
7....	360	440	....	....	....	....	5400	11000	10900	3950	1300	965
8....	360	478	....	....	....	....	4550	12500	10800	3520	1360	1420
9....	364	510	....	....	....	....	3950	12900	10900	3190	1240	1750
10....	368	529	....	....	....	....	3540	11600	11200	2790	1080	1620
11....	368	516	....	....	....	....	3360	12400	11300	2470	932	1360
12....	368	467	....	....	....	....	3610	12900	10900	2310	844	1180
13....	389	467	....	....	....	....	4300	14300	10100	2310	780	1130
14....	478	497	....	....	....	....	4660	14400	9100	2310	730	1080
15....	557	516	....	....	....	....	4570	14100	9000	2470	683	1130
16....	462	529	....	....	....	....	4660	13700	9300	2160	650	1130
17....	424	497	....	....	....	....	5020	13100	8800	2020	633	1080
18....	406	497	....	....	....	....	5110	12100	9400	1950	601	965
19....	415	467	....	....	....	....	5390	10200	8600	1880	594	910
20....	415	478	....	....	....	....	5480	9700	7100	1680	586	855
21....	435	435	....	....	....	....	5770	11000	7100	1620	579	822
22....	415	424	....	....	....	....	5860	11300	7200	1490	572	780
23....	406	478	....	....	....	....	5770	11600	7700	1420	557	910
24....	424	467	....	....	....	....	5390	12100	7800	1300	549	965
25....	415	451	....	....	....	....	5020	12800	7400	1300	549	1020
26....	415	435	....	....	....	....	4930	13300	6720	1240	542	1130
27....	424	435	....	....	....	....	4930	13300	6720	1180	523	965
28....	440	446	....	....	....	....	5110	11100	7200	1080	523	855
29....	478	451	....	....	....	....	6150	9300	6720	1020	516	760
30....	478	451	....	....	....	....	7100	8300	6530	1020	510	770
31....	523	....	....	....	....	....	....	7700	....	1020	510	....
Total	12687	14293	....	....	....	....	148240	349400	268590	79540	24563	29149
Mean.	409	476	....	....	....	....	4940	11300	8950	2570	792	972
Max..	557	529	....	....	....	....	7100	14400	11300	6060	1360	1750
Min...	340	424	....	....	....	....	3120	7700	6530	1020	510	510
Acre-ft.	25100	28300	....	....	....	....	294000	695000	533000	158000	48700	57800

Discharge of Yampa River Near Maybell for Year Ending Sept. 30, 1930.
Drainage Area, 3,670 Square Miles. Altitude, 5,900 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	690	530	....	....	....	600	700	5190	7800	1200	460	393
2....	690	524	....	....	....	550	730	5280	6660	1020	465	388
3....	690	517	....	....	....	550	763	5910	5280	912	438	380
4....	670	524	....	....	....	500	1020	6280	4380	818	544	380
5....	752	587	....	....	350	480	1400	5730	3930	752	524	374
6....	700	530	....	....	....	480	1740	5190	3670	690	570	374
7....	690	510	....	....	....	480	2490	4650	3930	630	544	374
8....	670	544	....	....	....	500	3160	4110	4560	587	465	371
9....	710	604	....	....	....	500	3670	3840	5100	530	476	371
10....	912	630	....	....	....	500	4740	3500	5460	503	476	368
11....	996	587	....	....	....	500	5100	3240	5280	476	840	368
12....	996	630	540	....	....	500	5100	2990	5190	496	587	368
13....	936	544	....	....	....	496	5460	2820	5640	490	530	371
14....	840	544	....	....	....	496	5910	2650	5550	517	1020	371
15....	818	587	....	322	....	650	6280	2650	4920	630	1144	368
16....	730	630	....	....	....	1330	6560	2900	4200	587	2030	368
17....	710	630	....	....	....	1530	4920	3160	3840	510	1330	365
18....	680	630	....	....	....	1460	3840	3240	3760	476	900	380
19....	670	630	....	....	....	1200	3500	3160	3760	465	730	397
20....	670	630	....	....	....	960	3760	3160	3500	476	613	414
21....	660	587	....	....	....	960	3930	3240	3420	530	510	433
22....	630	561	....	....	....	1260	4560	4200	3420	544	465	454
23....	604	540	....	....	....	1330	5460	5100	3240	503	433	476
24....	596	540	....	....	....	1200	6000	4650	3160	465	414	503
25....	561	540	....	....	....	924	6560	4020	2570	433	405	530
26....	544	560	....	....	....	818	7420	4110	2180	414	401	561
27....	530	560	....	....	....	807	7130	4740	1880	405	401	596
28....	561	560	....	....	....	763	6840	5640	1530	401	393	630
29....	570	560	....	....	....	690	6180	6370	1460	401	409	670
30....	578	560	....	....	....	650	5550	7040	1400	397	409	710
31....	544	....	....	....	....	660	....	7510	....	388	401	....
Total	21598	17110	....	....	....	24324	130473	136270	120670	17646	19323	13106
Mean.	697	570	480	340	380	785	4350	4400	4020	569	623	437
Max..	996	630	....	....	....	1530	7420	7510	7800	1200	2030	710
Min...	530	510	....	....	....	480	700	2650	1400	388	393	365
Acre-ft.	42800	33900	29500	20900	21100	48300	259000	270000	239000	35000	38300	26000

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Elk River at Clark for Year Ending Sept. 30, 1930.
Drainage Area, 206 Square Miles. Altitude, 7,300 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	....	....	....	....	....	....	....	1260	1650	414	118	100
2....	....	....	....	....	....	....	....	1340	1340	468	128	93
3....	....	....	....	....	....	....	....	1450	1140	497	128	93
4....	....	....	....	....	....	....	....	1180	1030	526	138	86
5....	....	....	....	....	....	....	....	1180	950	414	138	80
6....	....	....	....	....	....	....	....	1030	1260	364	138	86
7....	....	....	....	....	....	....	....	874	1380	414	138	93
8....	....	....	....	....	....	....	....	689	1490	342	160	100
9....	....	....	....	....	....	....	....	621	1410	244	138	109
10....	....	....	....	....	....	....	....	557	1410	244	138	86
11....	....	....	....	....	....	....	....	497	1100	228	138	86
12....	....	....	....	....	....	....	....	497	1410	228	280	86
13....	....	....	....	....	....	....	....	468	1490	228	468	74
14....	....	....	....	....	....	....	....	468	1300	212	654	74
15....	....	....	....	....	....	....	....	497	1260	212	364	74
16....	....	....	....	....	....	....	....	468	1260	212	212	74
17....	....	....	....	....	....	....	....	441	1260	212	212	74
18....	....	....	....	....	....	....	....	441	1260	212	184	74
19....	....	....	....	....	....	....	....	468	1100	198	149	74
20....	....	....	....	....	....	....	....	414	1220	198	118	80
21....	....	....	....	....	....	....	....	414	1180	198	128	80
22....	....	....	....	....	....	....	....	389	1100	184	138	80
23....	....	....	....	....	....	....	1570	836	1100	184	118	86
24....	....	....	....	....	....	....	1410	874	1030	198	100	86
25....	....	....	....	....	....	....	1650	950	724	212	86	86
26....	....	....	....	....	....	....	1490	1180	526	198	100	86
27....	....	....	....	....	....	....	1380	1410	654	184	109	86
28....	....	....	....	....	....	....	1220	1570	588	172	118	93
29....	....	....	....	....	....	....	1260	1850	497	160	100	93
30....	....	....	....	....	....	....	1220	1810	441	138	100	93
31....	....	....	....	....	....	....	....	1850	....	118	109	....
Total	....	....	....	....	....	....	....	27973	33560	8013	5347	2565
Mean.	....	....	....	....	....	....	....	902	1120	258	172	85.5
Max..	....	....	....	....	....	....	....	1850	1650	526	654	109
Min...	....	....	....	....	....	....	....	389	441	118	86	74
Acre-ft.	....	....	....	....	....	....	....	55500	66600	15900	10600	5090

Discharge of Little Snake River Near Lily for Year Ending Sept. 30, 1929.
Drainage Area, 3,730 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	27	127	....	....	....	....	....	3480	4650	1320	198	79
2....	27	390	....	....	....	....	....	3980	5180	1220	214	59
3....	27	264	....	....	....	....	....	4050	5480	1090	198	50
4....	27	183	....	....	....	....	....	3060	4950	1050	198	114
5....	27	183	....	....	....	....	....	3760	5100	1000	214	79
6....	34	168	....	....	....	....	....	4200	4880	812	230	264
7....	34	140	....	....	....	....	....	4420	4880	776	214	247
8....	34	140	....	....	....	....	....	4650	5250	776	302	230
9....	34	154	....	....	....	....	....	5550	5100	812	415	230
10....	34	154	....	....	....	....	....	5180	5250	740	302	230
11....	50	140	....	....	....	....	....	4500	5400	640	264	302
12....	230	154	....	....	....	....	....	5700	5550	578	230	344
13....	812	140	....	....	....	....	....	6450	5250	548	214	302
14....	1630	140	....	....	....	....	....	7280	5100	492	214	323
15....	1220	140	....	....	....	....	....	7200	4350	440	168	264
16....	812	140	....	....	....	....	....	6900	4350	466	154	264
17....	1050	154	....	....	....	....	....	6450	4420	440	140	247
18....	812	168	....	....	....	....	....	5700	4280	415	127	230
19....	440	127	....	....	....	....	....	5780	4580	367	114	214
20....	344	168	....	....	....	....	....	5480	3760	415	90	214
21....	264	154	....	....	....	....	....	6000	3410	466	79	230
22....	198	154	....	....	....	....	....	6450	3200	466	68	264
23....	168	154	....	....	....	....	....	6600	3200	440	102	323
24....	154	140	....	....	....	....	....	6000	3200	415	68	390
25....	154	168	....	....	....	....	....	6450	2920	367	59	492
26....	140	168	....	....	....	....	....	6750	2640	344	114	440
27....	127	168	....	....	....	....	....	7050	2240	283	114	323
28....	127	168	....	....	....	....	....	7050	1980	230	114	367
29....	114	168	....	....	....	....	....	5400	1520	214	102	390
30....	114	168	....	....	....	....	....	5400	1420	198	90	302
31....	140	....	....	....	....	....	....	4800	....	183	68	....
Total	9405	4984	....	....	....	....	....	171720	123490	18003	5178	7807
Mean.	303	166	....	....	....	....	....	5540	4120	581	167	260
Max..	1630	390	....	....	....	....	....	7280	5550	1320	415	492
Min...	27	127	....	....	....	....	....	3060	1420	183	59	50
Acre-ft.	18600	9880	....	....	....	....	....	341000	245000	35700	10300	15500

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Little Snake River Near Lily for Year Ending Sept. 30, 1930.
Drainage Area, 3,730 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	302	198	....	....	....	200	292	2080	2280	197	6	100
2....	230	168	....	....	....	180	313	1960	1890	124	16	68
3....	230	154	....	....	....	180	334	2020	2080	89	6	78
4....	230	140	....	....	....	180	356	2020	1600	68	4	100
5....	230	154	....	....	....	170	334	2280	1350	58	2	68
6....	230	140	....	....	....	170	620	2020	1260	50	2	58
7....	230	127	....	....	....	170	826	2080	1170	42	2	100
8....	230	127	....	....	....	170	1260	2020	1090	35	6	100
9....	230	140	....	....	....	170	1770	1720	1090	16	28	58
10....	230	183	....	....	....	170	1660	1550	1090	16	50	50
11....	230	168	....	....	....	180	1660	1550	1090	22	58	42
12....	230	198	....	....	....	180	1600	1400	1170	292	124	35
13....	230	154	....	....	....	180	1660	1090	1130	233	180	35
14....	230	154	....	....	....	180	1960	862	1090	165	197	35
15....	230	154	....	....	....	233	1720	862	974	78	214	35
16....	230	183	....	....	....	272	1660	862	826	28	252	28
17....	247	183	....	....	....	252	1550	862	720	28	180	18
18....	247	183	....	....	....	292	1130	899	720	11	197	18
19....	264	183	....	....	....	313	899	899	720	78	180	16
20....	264	183	....	....	....	334	826	862	720	6	180	16
21....	283	154	....	....	....	356	899	899	790	28	137	16
22....	283	140	....	....	....	378	899	974	686	2	100	16
23....	302	127	....	....	....	356	1220	1260	652	2	89	22
24....	302	114	....	....	....	334	1550	1550	620	2	89	150
25....	302	114	....	....	....	378	1720	1260	558	0	68	197
26....	302	102	....	....	....	334	1890	1170	501	6	78	180
27....	283	90	....	....	....	313	2080	1220	424	0	58	137
28....	283	102	....	....	....	334	1890	1450	356	1	42	214
29....	302	102	....	....	....	292	1770	1890	313	2	68	272
30....	264	90	....	....	....	313	2150	1960	233	2	124	214
31....	230	....	....	....	....	334	....	2080	....	4	165	....
Total	7910	4409	....	....	....	7898	38498	45611	29193	1685	2902	2476
Mean.	255	147	85	70	120	255	1280	1470	973	54.4	93.6	82.5
Max..	302	198	....	....	....	378	2150	2280	2280	292	252	272
Min...	230	90	....	....	....	....	292	862	233	0	2	16
Acre-ft.	15700	8750	5230	4300	6660	15700	76200	90400	57900	3340	5760	4910

Discharge of White River Near Meeker for Year Ending Sept. 30, 1929.
Drainage Area, 634 Square Miles. Altitude, 6,182 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	632	564	....	....	....	....	....	1090	2550	2310	900	526
2....	590	576	....	....	....	....	....	1260	2970	2150	900	564
3....	576	576	....	....	....	....	....	1200	2970	1920	873	576
4....	545	576	....	....	....	....	....	1310	3220	1770	873	669
5....	526	576	....	....	....	....	....	1630	3400	1630	846	611
6....	465	576	....	....	....	....	....	1560	3560	1560	837	662
7....	460	576	....	....	....	....	....	1500	3650	1500	810	900
8....	460	590	....	....	....	....	....	1430	3740	1370	685	994
9....	460	590	....	....	....	....	....	1310	3740	1260	646	810
10....	487	611	....	....	....	....	....	1310	3830	1200	632	724
11....	514	611	....	....	....	....	....	1260	3920	1090	625	724
12....	503	611	....	....	....	....	....	1260	3740	1090	583	708
13....	514	632	....	....	....	....	....	1260	3480	1200	564	708
14....	520	724	....	....	....	....	....	1560	3400	1200	564	708
15....	503	767	....	....	....	....	....	2150	3650	1150	545	716
16....	503	767	....	....	....	....	....	2470	3400	1200	526	708
17....	503	767	....	....	....	....	....	2550	3650	1150	514	685
18....	520	767	....	....	....	....	....	2720	3310	1090	503	669
19....	526	810	....	....	....	....	....	2880	2970	994	498	662
20....	514	810	....	....	....	....	....	3060	2880	994	487	654
21....	514	724	....	....	....	....	....	3060	3060	947	476	750
22....	514	685	....	....	....	....	....	3220	3140	900	471	767
23....	514	646	....	....	....	....	....	3400	3220	900	460	855
24....	514	646	....	....	....	....	....	3740	3060	900	471	900
25....	514	611	....	....	....	....	....	4010	2880	810	520	793
26....	514	611	....	....	....	....	....	4190	2800	810	487	724
27....	514	611	....	....	....	....	....	3480	2800	828	487	708
28....	526	611	....	....	....	....	....	2880	2630	837	487	701
29....	533	611	....	....	....	....	....	2390	2550	864	476	669
30....	545	611	....	....	....	....	....	2230	2390	882	498	646
31....	557	....	....	....	....	....	....	2310	....	900	503	....
Total	16080	19444	....	....	....	....	....	69680	96560	37406	18747	21491
Mean.	519	648	....	....	....	....	....	2250	3220	1210	605	716
Max..	632	810	....	....	....	....	....	4190	3920	2310	900	994
Min...	460	564	....	....	....	....	....	1090	2390	810	460	526
Acre-ft.	31900	38600	....	....	....	....	....	138000	192000	74400	37200	42600

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of White River Near Meeker for Year Ending Sept. 30, 1930.
Drainage Area, 634 Square Miles. Altitude, 6,182 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	650	489	....	....	....	460	680	900	2460	828	472	476
2....	650	476	....	....	....	440	696	1040	1980	793	498	476
3....	650	520	....	....	....	440	711	1200	1700	743	539	469
4....	643	476	....	....	....	440	711	1090	1630	711	596	454
5....	636	520	....	....	....	420	726	947	1560	711	520	476
6....	636	570	....	....	....	420	688	810	1700	696	498	650
7....	616	520	....	....	....	420	616	768	1840	673	489	551
8....	616	511	....	....	....	440	650	711	2060	658	498	511
9....	616	511	....	....	....	440	650	650	2380	665	616	498
10....	602	498	....	....	....	440	688	616	2210	551	650	485
11....	609	511	....	....	....	450	711	623	2290	551	636	458
12....	616	498	....	....	....	450	680	623	2630	589	636	454
13....	609	498	....	....	....	450	696	532	2880	726	623	454
14....	602	489	....	....	....	450	688	498	2880	793	616	451
15....	596	489	....	....	....	458	726	511	2630	711	616	447
16....	570	502	....	....	....	454	582	551	2540	665	602	447
17....	570	494	....	....	....	451	520	582	2290	623	596	440
18....	545	476	....	....	....	454	476	650	2210	589	582	431
19....	498	476	....	....	....	454	498	726	2130	616	576	425
20....	498	485	....	....	....	444	502	947	1980	636	532	434
21....	498	460	....	....	....	440	582	1090	2210	673	511	431
22....	498	460	....	....	....	458	726	1260	1910	616	502	458
23....	498	460	....	....	....	447	810	1150	1840	636	507	485
24....	507	470	....	....	....	476	947	1090	1560	511	485	551
25....	511	470	....	....	....	498	994	1200	1310	494	462	520
26....	520	470	....	....	....	511	900	1370	1260	485	465	498
27....	520	470	....	....	....	551	994	1630	1040	480	489	485
28....	511	470	....	....	....	596	947	1910	947	472	476	476
29....	520	470	....	....	....	650	900	2130	919	485	465	476
30....	507	470	....	....	....	665	810	2380	855	485	462	476
31....	507	....	....	....	....	650	....	2630	....	469	458	....
Total	17625	14679	....	....	....	14817	21505	32815	57831	19334	16673	14343
Mean.	569	489	....	....	....	478	717	1060	1930	624	538	478
Max..	650	570	....	....	....	665	994	2630	2880	828	650	650
Min...	498	....	....	....	....	....	476	498	855	469	458	425
Acre-ft.	35000	29100	....	....	....	29400	42700	65200	115000	38400	33100	28400

Discharge of White River Near Watson, Utah, for Year Ending Sept. 30, 1929.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	608	780	....	....	....	....	3140	1930	3780	3250	1800	1670
2....	608	740	....	....	....	....	3080	2100	3970	3320	2420	1670
3....	608	704	....	....	....	....	3020	2270	4160	2350	2650	1550
4....	608	668	....	....	....	....	2970	2440	4340	2350	7040	1550
5....	608	668	....	....	....	....	2920	2610	4200	1740	5300	2500
6....	608	668	....	....	....	....	2860	2780	4070	1800	3400	1010
7....	608	704	....	....	....	....	2800	2950	3940	2000	2210	5380
8....	608	740	....	....	....	....	2820	2900	3940	2280	1430	4180
9....	608	820	....	....	....	....	2840	2840	3700	2350	1550	1550
10....	608	865	....	....	....	....	2860	2780	3550	2000	1670	1210
11....	592	910	....	....	....	....	2880	2720	3400	2140	1800	1160
12....	608	910	....	....	....	....	2820	2630	4500	2500	1430	1110
13....	608	608	....	....	....	....	2770	2540	4820	3100	1670	1010
14....	620	608	....	....	....	....	2710	2450	3550	3480	1160	910
15....	638	582	....	....	....	....	2650	2350	3400	8160	1010	1110
16....	638	582	....	....	....	....	2560	3320	4020	5140	740	1320
17....	638	556	....	....	....	....	2470	4260	3550	3480	780	1430
18....	650	533	....	....	....	....	2370	5200	3480	2140	1320	1800
19....	656	470	....	....	....	....	2270	6140	6720	2820	1430	1550
20....	668	510	....	....	....	....	2170	7040	6640	2720	4980	1670
21....	1110	533	....	....	....	....	2070	3550	5140	2650	1800	1320
22....	3940	556	....	....	....	....	2030	3740	3480	1930	820	1430
23....	2070	582	....	....	....	....	1990	3930	3700	1800	740	3550
24....	1670	608	....	....	....	....	1956	4120	3400	1550	668	3860
25....	1490	638	....	....	....	4180	1900	4310	3700	1550	740	2070
26....	1260	556	....	....	....	2950	1850	4500	3250	1800	820	1800
27....	960	582	....	....	....	3180	1800	4660	3180	3100	1430	1930
28....	638	668	....	....	....	3200	1800	4440	3940	4020	1550	3550
29....	638	704	....	....	....	3220	1800	4230	3550	7360	1670	1550
30....	704	704	....	....	....	3250	1800	4020	3480	3400	1670	1110
31....	780	....	....	....	....	3200	....	3900	....	2350	1670	....
Total	27656	19757	....	....	....	....	73970	109650	120550	90610	59368	57510
Mean.	892	659	....	....	....	....	2470	3540	4020	2920	1920	1920
Max..	3940	910	....	....	....	....	3140	7040	6720	8160	7040	5380
Min...	592	470	....	....	....	....	1800	1930	3180	1550	668	910
Acre-ft.	54800	39200	....	....	....	....	147000	218000	239000	180000	118000	114000

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of White River Near Watson, Utah, for Year Ending Sept. 30, 1930.
Drainage Area, ... Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	1210	740	....	....	....	....	620	1620	2100	609	842	477
2....	1550	780	....	....	....	....	620	1880	2430	584	688	488
3....	910	780	....	....	....	....	640	1810	2690	584	746	496
4....	960	780	....	....	....	....	638	1680	1890	538	876	477
5....	960	780	....	....	....	....	608	1620	1540	477	808	451
6....	910	780	....	....	....	....	582	1560	1400	441	661	458
7....	865	820	....	....	....	....	638	1430	1280	441	634	477
8....	960	820	....	....	....	....	668	1260	1430	441	995	496
9....	2070	780	....	....	....	....	740	1160	1590	424	1130	517
10....	1550	820	....	....	....	....	1160	1110	1760	441	1940	496
11....	1380	820	....	....	....	....	1160	1060	2300	561	1280	477
12....	1260	780	....	....	....	....	1210	865	2270	634	1230	477
13....	1210	740	....	....	....	....	1380	856	2530	2010	2080	466
14....	1160	704	....	....	....	....	1430	733	2740	952	1680	458
15....	1060	700	....	....	....	....	1490	733	2800	808	1180	458
16....	1010	700	....	....	....	....	1430	812	2770	746	1080	451
17....	1010	680	....	....	....	....	1160	856	2410	717	995	441
18....	1010	680	....	....	....	....	1110	856	2150	746	952	441
19....	1010	680	....	....	....	....	1380	892	2080	538	914	431
20....	960	680	....	....	....	....	1520	940	2150	842	808	434
21....	1010	640	....	....	....	....	1650	940	1880	517	584	434
22....	960	600	....	....	....	....	1710	970	1740	466	561	431
23....	960	600	....	....	....	....	1700	1090	1810	441	561	441
24....	865	600	....	....	....	....	1830	1120	1500	409	538	488
25....	820	600	....	....	....	....	1830	1110	1330	400	538	547
26....	740	660	....	....	....	....	1890	1050	1130	400	538	700
27....	668	660	....	....	....	....	1890	1030	777	403	561	672
28....	704	660	....	....	....	....	1760	1150	688	388	661	661
29....	704	660	....	....	....	....	1570	1400	634	386	634	645
30....	704	660	....	....	....	....	1450	1680	609	424	517	672
31....	740	....	....	....	....	....	....	1920	....	409	496	....
Total	31890	21384	....	....	....	....	37464	37193	54408	18177	27708	15058
Mean.	1030	713	....	....	....	....	1250	1200	1810	586	894	502
Max..	2070	820	....	....	....	....	1890	1920	2800	2010	2080	700
Min...	668	600	....	....	....	....	582	733	609	386	496	431
Acre-ft.	63300	42400	....	....	....	....	74400	73800	108000	36000	55000	29900

Unless otherwise noted, all discharges are in cubic feet per second.

CHAPTER XV

ANNUAL REPORTS

OF

IRRIGATION DIVISION ENGINEERS

FOR

1929-1930

ANNUAL REPORT OF IRRIGATION DIVISION NO. 1

December 1, 1929.

Mr. M. C. Hinderlider,
State Engineer,
Denver, Colorado.

Dear Sir:

Herewith a report for Irrigation Division No. 1 for the year 1929.

By an Act of the last General Assembly (Chapter 115, Page 414, Session Laws 1929) the office of Division Engineer, Division No. 1, was abolished and the duties, powers and functions of the office were transferred to the State Engineer, the writer as Deputy State Engineer assuming the duties on July the 9th, the time the Act became effective, Mr. Filmore Cogswell, the encumbent, serving until this time.

Mr. Cogswell had signified his intention of resigning the office soon after January 1st, having completed his twentieth year as Division Engineer. His record as a State official under exceedingly trying conditions is deserving of public commendation.

The records of the office delivered to the State Engineer were complete in every detail and are invaluable for public reference and for use in administering the decrees of the South Platte Drainage.

The records show the first use of water for direct irrigation for this season during the week ending March 23rd in District No. 5 on St. Vrain Creek and during the week ending April 6 in Districts Nos. 1, 8 and 64 on the South Platte River.

Reports indicated below normal precipitation in the upper reaches of all Districts except No. 3 comprising the Cache la Poudre River Drainage; this being borne out to some extent in the run-off of the streams during the early part of the season. Lack of precipitation in the irrigated areas until August created a heavy demand upon all the streams, and necessitated the draft of storage water at an earlier date and in larger volume than is customary.

Practically all reservoirs of major importance were full or nearly so, at the beginning of the season.

The season was peculiar in providing a steady run for the senior ditches without interruption. Under certain canals having late appropriations, lack of precipitation and shortage of run-off prior to August resulted in damage to grain and other crops.

On May the 9th, demand was made for 1879 water for Highline Canal in District No. 9, and orders were issued to stop all storage in District No. 23.

First demand from District No. 2 was made on May 21st for 400 second-feet prior to November 20, 1885.

A rather unusual condition existed in that no demand was made during the entire season on the main stem of the Platte River for priorities of earlier date than 1871.

Heavy rains during August relieved an anticipated shortage and provided an abundance of water during the remainder of the season. Some storage in reservoirs not filled once this year was permitted during this time.

On October 29th, orders were issued to all Districts except No. 23, to permit storage on decrees senior to April 1, 1902, this being the date of priority of Riverside Reservoir in District No. 1. On November 1st, orders were issued to each District to permit storage in any decreed reservoir.

This order, based partly on release of demands by senior rights in District No. 1, permits storage in reservoirs on the headwaters and assures maximum conservation of our water under existing storage facilities.

Extreme fluctuations in stream flow during the rainy period demanded extreme vigilance on the part of water officials, requiring the issuance of different orders of distribution nearly every day. This also brought to our attention the necessity of having daily reports by phone from the Water Commissioners. Such a system was partially inaugurated this year, and will be further perfected before next season.

Crop conditions on the average in the division were good as to yield; however, at this time only 65% of the sugar beet crop has been harvested, and unless warmer weather conditions prevail a heavy and serious loss will result.

Some difficulties arose over the storage of water on direct appropriationis. In several instances canals serving as inlets to large reservoirs have decrees for direct irrigation and water drawn on such decrees has been temporarily impounded, even though demands existed by other priorities for direct application to lands. Although the policy of the officials in this division has been not to permit such storage, and this policy is recognized by the majority of water users, it is anticipated that at some future time a specific order for release of such water to the stream will have to be made in order to bring the matter before the courts for more definite ruling.

Upon receipt of an order from the District Court of Douglas County, directing that in accordance with a remittitur from the Supreme Court, the decree determining the rights of the City of Denver in Cause No. 807 was declared null and void, orders were issued to the proper water officials not to distribute any water under this decree.

This decree included an appropriation of 129.79 s. f. for one of the City pipe lines with a priority date of September 20, 1870,

which right if it had remained in effect, would have been operative practically during the entire irrigation season.

In 1928 the Division Engineer issued an order to the Water Commissioner of District No. 7 not to permit the loan or exchange of water among certain ditches of various dates of priority as requested by the owners, but to distribute the water strictly in accordance with court decrees.

The matter was regularly appealed to the State Engineer and a hearing was held, both sides of the controversy being represented by counsel.

The plaintiffs as a legal justification of their position, referred to the statute of 1889 known as the Loan Act, and the Supreme Court's construction as reported in 33 Colorado in the case of the Ft. Lyon Canal Company vs. Chew.

After due consideration the order of the Division Engineer was upheld.

A temporary injunction against the water officials was granted by the District Court of Jefferson County, and to date is still in effect.

Mr. John K. Samples, who had served for a number of years as Water Commissioner of District No. 1, passed away in September, following an operation. Mr. Samples was a valued and trusted employee and his services were of material benefit to this office and the water users.

Appended hereto is the statutory tabulation of the Water Commissioners' Annual Reports.

Respectfully submitted,

C. C. HEZMALHALCH,
Deputy State Engineer.

IRRIGATION DIVISION NO. 1

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL CROP REPORTS FOR THE IRRIGATION SEASON OF 1929
CROPS IRRIGATED FROM CANALS IN ACRES

District No.	Total No. of Acres that can be irrigated (see note)	Alfalfa	Natural Grasses	Cereals	Orchards	Market Gardens	Potatoes
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	171,910	43,295	21,450	32,125	428	25	2.895
2	236,903	42,315	11,411	78,339	645	6,700	10,840
3	388,540	75,075	5,455	73,140	2,258	3,344	33,344
4	158,000	44,950	270	60,125	1,945	1,125	5,795
5	103,773	22,194	3,077	50,130	592	290	320
6	200,100	31,182	70,915	57,328	765	356	1,468
7	113,060	35,885	1,624	43,551	3,557	15,473	123
8	118,132	20,570	1,033	21,562	1,223	1,640	770
9	18,000	7,186	1,827	8,240	88	256	12
23			No Report Received.				
47			No Report Received.				
48	8,436	.....	7,247	.....	.....	.....	.....
64	225,000	46,325	36,267	46,515	104	360	2,830
65	7,014	1,527	168	1,157	109	34	54
Totals..	1,748,898	370,504	160,744	472,212	11,714	29,603	58,451

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL CROP REPORTS FOR THE IRRIGATION SEASON OF 1929
CROPS IRRIGATED FROM CANALS IN ACRES

Dist. No.	(8) Sugar Beets	(9) Beans	(10) Peas	(11) Cabbage	(12) Lettuce	(13) Other Crops	(14) Total Irrigated
1	30,136	4,589	.....	15	.....	9,413	144,371
2	41,333	16,717	737	2,837	.....	3,112	214,986
3	56,102	4,110	1,531	1,939	.....	12,242	268,540
4	18,005	2,130	1,240	1,250	75	1,780	138,690
5	9,130	400	850	230	.....	3,152	90,365
6	11,570	1,102	1,146	247	.....	2,037	178,116
7	2,055	316	357	1,215	277	460	104,893
8	1,339	800	.....	44	.....	1,171	50,152
9	559	51	9	15	.....	291	18,534
23			No Report Received.				
47			No Report Received.				
48	.....	.....	.....	.....	.....	.....	7,247
64	39,794	1,542	.....	75	.....	9,684	183,496
65	315	35	.....	.....	.....	285	3,684
Totals...	210,338	31,792	5,870	7,867	352	43,627	1,403,074

NOTE: The quantities given in Columns (1) to (14) represent the total acreage that can be irrigated or was irrigated, whether the ditches only used the natural flow of streams, or only used reservoir water, or used river and reservoir water combined.

IRRIGATION DIVISION NO. 1

AMOUNT OF WATER IN STORAGE IN ACRE FEET IN RESERVOIRS OF CAPACITY OF 1,000 ACRE FEET OR MORE ON THE FIRST OF EACH MONTH. COMPILED FROM REPORTS OF WATER COMMISSIONERS.

Dist. No.	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1	June 1	July 1	Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1
					10 Reservoirs Reported.							
1	94,087	101,008	95,634	122,742	129,520	113,582	76,031	41,763	12,550	3,700	22,320	60,003
					7 Reservoirs Reported.							
2	44,239	53,502	62,026	84,081	91,482	89,575	52,551	27,259	14,326	13,122	12,783	35,238
					32 Reservoirs Reported.							
3	51,888	57,441	61,917	72,095	88,296	115,594	125,577	92,899	44,931	47,323	61,943	76.666
					11 Reservoirs Reported.							
4	40,505	40,862	41,212	42,723	45,035	56,575	47,825	45,423	42,828	47,026	48,751	51,251
					9 Reservoirs Reported							
5	12,781	13,285	13,531	14,235	16,421	22,693	21,704	18,989	14,890	12,859	15,640	17,347
					10 Reservoirs Reported.							
6	15,123	13,320	12,284	12,413	15,422	21,998	21,535	18,317	18,772	16,862	15,082	17,783
					6 Reservoirs Reported.							
7	1,200	1,390	1,207	2,050	2,700	5,825	3,975	2,800	2,525	780	770	770
					1 Reservoir Reported (Castlewood Res.)							
8	1,264	1,472	1,722	3,434	3,434	3,264	2,039	1,334	1,538	1,200	1,538	1,965
					2 Reservoirs Reported (Antero and Cheesman)							
23	90,433	87,589	85,098	85,637	92,809	94,748	83,340	75,066	87,788	87,665	84,758	90,351
					3 Reservoirs Reported.							
64	69,731	80,461	91,408	104,462	111,810	96,565	64,501	36,273	6,463	13,115	24,300	42,476
Totals	421,251	450,330	466,039	543,872	596,929	620,419	499,078	360,123	246,611	243,652	287,885	393,850

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER OF IRRIGATION DIVISION NO. 2 FOR 1929.

Pueblo, Nov. 15, 1929.

M. C. Hinderlider,
State Engineer,
Denver, Colo.

Dear Sir:

I herewith submit to you my annual report for the irrigation season just closed.

The snowfall in the mountains during the winter of 1928 and 1929 was forty per cent above average for the last sixteen years. The water content of the snow being 5.84 inches. Irrigators expected a good runoff from this excess of snowfall but in this they were disappointed. The precipitation in the spring and summer months was below the average and the dry winds caused the snow to disappear. The stream flow was short and below the average. This was a great disappointment to all users of water. Had there not been a fair amount of water in storage crops would have suffered materially.

We have gone through six consecutive years where the rainfall has been below the average during the crop growing season. During the past fifty years there has not been a like period of shortage of precipitation. These seasons have tested out the merits of our irrigation systems and their ability to produce crops under adverse conditions.

The shortage of rainfall naturally caused a shortage of runoff in the streams so that the excess of snowfall did not materialize in the streams. Each irrigation season differs from its predecessors in many features. The past season furnished an abundance of water for the older ditches. The junior ditches were short and barely able to get along until the rains started in August. Then rains were plentiful to give an abundance of irrigation water and a large amount of water for storage.

For statistical purposes I give below a tabulation of the rainfall record by months for the Pueblo station and with it the average rainfall for the past fifty years for the same months.

	Nov. 1928	Dec. 1928	Jan. 1929	Feb. 1929	Mar. 1929	Apr. 1929	May 1929	June 1929	July 1929	Aug. 1929	Sept. 1929	Oct. 1929
	1.19	0.21	0.19	0.78	0.30	0.78	1.11	0.15	1.22	4.44	0.51	0.79
Average	0.36	0.50	0.31	0.47	0.59	1.31	1.60	1.36	1.94	1.82	0.75	0.66

The quantities are given in inches.

The above table gives a good idea of irrigation conditions as they existed during the past season. The average annual rain-

fall for the Pueblo station is 11.67 inches. The 1929 season was dry during the growing season and crops suffered from want of water. In August 4.44 inches of water fell and this amount of water with the rainfall for September and October just brought the yearly average up to normal.

The supply of water in the reservoirs on May 1st was 248,010 acre feet. The supply of water in the reservoirs on November 1st was 238,862 acre feet.

There was used some 142,008 acre ft. of water from the reservoirs during the spring and summer months to start and grow crops until the abundant rains of August furnished enough water to properly mature them.

Crops, taking the Irrigation Division as a whole, were never better. There are a few small localities, however, where crops are not up to the average. The Arkansas Valley never looked better.

The past season was remarkable for the small amount of hail that did material damage. This is in contrast to the season of 1928 when much damage was done by hail over a wide territory.

Reservoir water plays a very important part in the irrigated agriculture of the Arkansas Valley. The rains in August gave a large amount of water for storage to replenish the reservoirs so that there is promise of a goodly supply of reservoir water for the season of 1930.

Alfalfa, melons, onions, sugar beets and corn are the principal crops grown. In some localities celery, head lettuce and cauliflower are grown extensively and bring in large returns.

There are three transmountain diversions located in Lake County, now functioning. These diversions together with three large reservoirs require the attention of a hydrographer for six months in each year. There is something going on in connection with the reservoirs and transmountain diversions at all times when the water is not frozen. During the past season a hydrographer was stationed at Salida and was of material aid in properly looking after irrigation in the mountains.

Our system of self-registers and daily reports has become very essential to the proper distribution of the waters of the Arkansas river where we have such a great and erratic variation in stream flow during the summer months. The use of self-registers is gradually extending as people become better acquainted with its advantage.

Respectfully submitted,

C. W. BEACH,
Irrigation Division Engineer Division No. 2.

IRRIGATION DIVISION NO. 2

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL CROP REPORTS FOR THE IRRIGATION SEASON OF 1929

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Number of District	Amount Appropriated in Cubic Feet per Second	Capacity of Ditches in Second Feet	Length of Main Ditches in Miles	Length of Laterals in Miles	First Day Water Was Diverted from Natural Stream	Last Day Water Was Diverted from Natural Stream	Maximum Number of Days Water Was Diverted from Natural Stream	Maximum Number of Days Water Was Carried from Reservoir	Amount Water Carried from Reservoirs in Acre Feet	Average Daily Amount Water Diverted from Natural Stream During Season Cu. F't. per Sec.	Number of Acre Feet Diverted During Season from Nat. Stream	Total Number of Acres That Can Be Irrigated
10....	562.9	.....	144.7	....	April 10	Oct. 31	167	...	.....	259.34	50,792.	34,433
11....	668.46	888	165.0	....	March 1	Oct. 31	212	...	27,430	668.4	242,439	28,955
12....	1,211.4	859.5	229.8	....	Oct. 31, 1928	Oct. 31, 1929	365	169	7,225	332.7	340,160	36,262
13....	460.9	.....	250	....	April 1	Oct. 1	180	91	1,600	315.3	50.499	20,298
14....	2,026.7	2,288	241	....	Nov. 1, 1928	Oct. 31, 1929	347	...	1,000	.....	.....	124,340
15....	213.9	276.9	88.75	....	April 1	Oct. 26	207	...	939	81.12	20,492	14,312
16....	1,815.2	4,716.5	619.2	....	April 4	Oct. 31	...	267	17,400	366.1	62,738	122,258
17....	5,858.8	853.3	522	....	Nov. 1, 1928	Oct. 31	354	67	54,179	1,347.8	583,132	225,045
18....	431.3	343.0	55.5	....	April 12	Aug. 28	30	51	1,200	51	307	9,417
19....	1,849.2	4,035	359.4	....	Nov. 1, 1928	Oct. 31	236	118	10,500	.....	.....	69,156
67....	1,626.4	1,840	221	....	March 5	Oct. 31	236	44	20,535	439	170,000	71,740
Totals									142,008			756,216

Number of District	(14) Alfalfa	(15) Natural Grasses	(16) Cereals	(17) Orchards	(18) Market Gardens	(19) Potatoes	(20) Sugar Beets	(21) Head Lettuce and Cauliflower	(22) Beans, Peas and Cabbage	(23) Other Crops	(24) Total Irrigated	(25) Cost of Superintendence	(26) Cost of Repairs	(27) Cost of Improvements
10	7,710	3,363	2,938	227	429	....	742	....	286	3,089	19,827	.....	$ 7,642.00	$ 180.00
11	6,179	9,712	5,104	62	32	497	0	162	1,932	.....	21,823	.....	1,196.00	860.00
12	7,957	1,691	4,776	3,695	531	19	101	238	409	2,030	21,447	.....	.....	.....
13	1,944	15,097	1,392	....	....	143	....	393	292	1,005	20,298	.....	291.50	.....
14	36,150	17,470	16,640	1,016	6,600	....	9,490	335	5,000	20,570	119,837	$28,153.00	25,200.00	.....
15	52,835	5,182	2,511	32	8	2	215	....	33	44	11,335	.....	.....	4,851.00
16	23,384	10,227	14,255	378	97	....	1,235	....	2,579	1,309	53,415	.....	.....	.....
17	61,655	3,180	52,698	425	760	110	17,109	....	2,149	26,124	164,580	30,583.00	21,748.00	12,050.00
18	3,944	728	544	....	....	10	....	....	275	200	5,667	.....	.....	.....
19	19,360	6,985	5,471	66	162	....	1,209	....	2,719	2,482	36,775	7,300.00	25,626.00	7,893.00
67	31,049	3,876	26,378	235	223	....	4,477	....	243	2,719	69,190	11,390.00	10,293.00	19,446.00
Totals	252,157	77,511	.....	....	8,842	781	34,578	1,128	15,917	59,572	534,194	$77,426.00	$91,996.00	$45,280.00

TABULATION SHOWING AMOUNT OF WATER IN MAJOR RESERVOIRS OF IRRIGATION DIVISION NO. 2

December 1, 1928 to November 1, 1929

Number of District	Name of Reservoir	Amount in Storage December 1, 1928 Acre Feet	Amount in Storage January 1, 1929 Acre Feet	Amount in Storage February 1, 1929 Acre Feet	Amount in Storage March 1, 1929 Acre Feet	Amount in Storage April 1, 1929 Acre Feet	Amount in Storage May 1, 1929 Acre Feet	Amount in Storage June 1, 1929 Acre Feet	Amount in Storage July 1, 1929 Acre Feet	Amount in Storage August 1, 1929 Acre Feet	Amount in Storage September 1, 1929 Acre Feet	Amount in Storage October 1, 1929 Acre Feet	Amount in Storage November 1, 1929 Acre Feet
10	Fountain Valley No. 2	0	708	....	....	5,048	4,947	4,898	3,428	1,748	1,748	2,240	3,000
10	Fountain Valley No. 3	46	46	....	....	....	....	45	45	43	14	104	46
10	Spring Rim No. 2	0	33	....	....	....	....	223	223	0	45	164	192
10	Calahan	22	22	....	....	....	....	269	269	0	85	86	599
10	Cheyenne Mountain	145	145	....	....	....	....	156	156	155	0	155	95
10	Monument (State)	256	289	....	....	....	....	494	494	0	144	289	447
11	Sugar Loaf	8,645	8,565	8,563	8,609	8,609	5,412	6,080	6,552	6,453	8,356	10,416	10,416
11	Twin Lakes	27,361	27,841	28,229	28,559	28,559	18,720	10,037	11,897	14,364	21,303	26,051	26,467
11	Clear Creek	2,334	2,728	2,827	3,081	3,168	3,168	1,524	4,410	2,037	6,112	8,646	8,746
12	Skaguay	1,047	650	637	142	301	624	1,156	1,617	2,658	2,733	2,890	2,875
12	Mount Pisgah	0	0	0	0	0	0	0	0	100	1,114	1,503	1,337
12	Brush Hollow	1,538	2,249	2,322	3,035	3,574	3,666	2,803	3,690	1,780	2,015	3,110	3,654
12	City Colorado Springs	4,398	4,174	4,181	3,746	3,158	2,921	3,534	4,608	5,495	5,548	5,297	5,343
13	Deweese-Dye	733	1,835	2,560	2,767	2,767	2,643	2,180	1,553	1,226	2,767	2,639	2,366
14	Teller	807	754	780	780	618	618	503	426	632	3,322	....	2,317
14	Lake Henry	2,711	6,369	6,369	6,776	6,624	5,307	5,279	6,105	5,169	5,831	2,636	....

14	Lake Meredith	4,923	12,549	25,297	28,339	29,484	27,690	22,905	10,138	214	5,581	7,451	6,899
15	Beckwith	198	386	558	....	776	777	661	224	116	318	198	318
15	Minnequa	1,248	1,431	1,182	1,112	1,143	1,159	1,154	1,115	1,211	1,208	1,211	1,258
15	C. F. & I. No. 2	2,611	2,612	2,586	2,510	2,625	2,592	2,368	2,583	2,612	2,580	2,599	2,701
15	C. F. & I. No. 3	1,901	1,424	1,256	1,285	2,467	2,463	2,197	1,903	2,212	2,221	2,295	2,453
16	Coler	681	1,087	1,538	2,573	5,219	4,844	3,795	1,087	681	2,035	3,552	3,471
16	Cucharas	20,679	20,493	20,400	21,218	22,270	21,330	16,302	11,400	24,040	23,540	21,424	19,848
16	Bradford	0	0	0	0	0	0	0	0	0	0	0	0
16	Crane-Holmes No. 1	0	0	0	0	0	0	0	0	0	0	0	0
16	Lindsley Lake	0	0	0	0	0	0	0	0	1,002	0	822	737
16	Holita	27	50	58	67	432	379	50	23	27	5	10	11
16	Valdez	0	0	0	0	2	2	0	0	0	0	3	3
16	Dotson	....	....	1,944	1,944	2,273	1,944	....	....	2,185	2,207	2,382	....
16	Huerfano Valley	0	999	1,257	....	1,671	1,671	....	....	0	431	578	758
17	Dye	240	2,955	4,466	4,787	4,782	3,588	0	0	0	4,076	2,480	2,518
17	Holbrook No. 1	1,186	4,166	4,232	5,175	5,144	4,723	3,934	1,003	311	2,805	2,576	2,478
17	Horse Creek	4,588	4,950	13,964	15,512	15,334	6,314	4,949	4,347	2,977	18,208	16,504	15,870
17	Adobe Creek	20,956	21,104	21,575	27,722	30,412	29,227	17,269	17,117	12,477	27,556	36,714	35,111
18	Seven Lakes	....	....	809	1,289	1,549	1,306	1,152	....	....	2,065	....	....
19	Model	5,105	6,285	7,390	8,139	9,497	8,852	6,284	3,520	3,520	8,931	7,540	7,037
19	Hermosa	821	821	821	916	916	916	1,531	966	1,070	867	777	777
19	North Lake	708	734	714	682	656	592	801	759	759	759	801	777
67	Nee No She Nee Gronda Nee Sopah	44,847	47,796	53,185	56,490	56,763	55,387	52,634	49,432	31,610	38,992	49,665	51,000
67	Nee Sopah or Queen	10,186	9,927	10,054	13,177	14,329	12,197	10,911	11,198	7,588	11,716	11,175	9,675
67	Two Buttes	9,793	9,539	9,412	9,348	9,539	9,539	8,069	5,828	6,028	2,714	2,851	2,741
67	Thurston	1,178	901	1,162	1,185	1,312	1,285	1,295	1,299	1,228	1,532	934	621

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER OF IRRIGATION DIVISION NO. 3, FOR 1929

Alamosa, Colorado, Nov. 30, 1929.

Hon. M. C. Hinderlider,
State Engineer,
Denver, Colorado.

Dear Sir:

As required by law, I herewith submit to you my annual report for the season ending November 30, 1929.

Reports of the snowfall for the winter and early spring months were very encouraging, and the outlook for an abundance of water for irrigation purposes was extremely flattering.

However, during the months April, May and June we had a great amount of high, steady wind, which caused the snow to disappear very rapidly without increasing to any considerable amount the runoff from the various watersheds. The result of this was that we lacked sufficient water for direct irrigation and by the middle of July were compelled to close all ditches having priorities later than 1882.

Heavy rains during the latter part of July and continuing through September and October gave the reservoirs an opportunity to store considerable water not needed for direct irrigation. On November 1st the amount of water stored in reservoirs was 103,561 acre feet.

The rains, mentioned herein, caused some damage to the potato crop, especially where the crop had been heavily watered just before the rains started. 4,800 cars of potatoes have been shipped and it is estimated that there are 3,000 cars in storage.

The rains did considerable damage to the lettuce crop. It appears that this crop needs dry weather after the head begins to form, if, at this stage there comes a heavy rain the plant goes to seed and the crop is ruined. 1,083 cars of letture were shipped this year.

SUGAR BEETS

One of the beet sugar companies having several factories in the state has had a field man stationed in this division for several seasons for the purpose of testing the raising of sugar beets. 1,800 acres of beets were planted this season, the average yield was 10 tons per acre with a sugar content of 18 per cent.

The company wants 4,500 acres planted in 1930 and 9,000 acres contracted for in 1931, then they will build a factory at some point in the valley.

I want to express my appreciation of the loyal support of the several water commissioners and their deputies in the administration of this office. I would like to see the method of paying these commissioners changed. The present law is unfair to both the commissioners and the taxpayers of the smaller counties.

For an example: Take District 20, this district has 403,772 acres of irrigated land. Under the law the commissioner is paid $8.00 per day, his bills this season amounted to $1,700.00. Under the court interpretation of the term "pro rata" this amount is to be paid equally by six counties. Thus each county is supposed to pay $283.33 by warrants drawn upon the county's ordinary fund. One county pays nothing, the warrants of one county are paid when issued, those of the other counties are registered and run from two months to two years before they are paid.

Now let us see what about the taxpayer in the smaller counties. His county pays just as much on 3,000 acres of irrigated land as the larger county pays on 300,000 acres.

The total cost of administration of the division for the season of 1929 was $12,040.00. This included salaries of all commissioners, their deputies and special assistants. 736,477 acres were irrigated at a cost of .011 per acre.

Why not pay our commissioners and deputies from a state fund, said fund to be raised by levy on irrigated lands and collected by the county and turned over to the state.

Respectfully submitted,

E. S. COUNSELOR,
Irrigation Division Engineer, Division No. 3.

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL CROP REPORTS FOR THE IRRIGATION SEASON OF 1929

District Number	Amount of Appropriations in Second Feet Reported	First Day Water Was Diverted from Natural Streams for Irrigation	Last Day Water Was Diverted from Natural Streams for Irrigation	Max. No. Days Water Was Diverted from Natural Streams for Irrigation
20	5,964	Apr. 1	Oct. 30	214
21	....	Mar. 24	Nov. 24	210
22	2,431	Apr. 1	Nov. 1	200
24	....	Mar. 6	Nov. 8	247
25	202	Apr. 13	Oct 20	190
26	534	Mar. 1	Nov. 9	236
27	130	Mar. 27	Nov. 1	213
35	933	Apr. 1	Nov. 1	194
Totals	10,194			

District Number	Amount of Water Carried from Reservoirs Acre Feet	No. of Ac. Ft. Diverted by Ditches During Season from Natural Streams for Irrigation	Total No. Acres That Can Be Irrigated
20	33,800	719,982	447,238
21	9,344	57,235	80,581
22	4,200	194,430	115,416
24	27,352	37,985	25,250
25	.....	144,556	76,253
26	.....	59,812	109,027
27	.....	.....	8,700
35	24,633	61,346	49,156
Totals	99,329	275,346	911,621

District Number	Alfalfa (1)	Sweet Corn (2)	Cereals (3)	Field Peas (4)	Garden Peas (5)
20	43,729	23,762	45,752	40,405	3,104
21	11,704	.....	6,372	5,981	237
22	14,211	3,640	21,952	8,729	.....
24	6,573	.....	6,283	11,149	.....
25	1,892	.....	992	166	.....
26	3,447	.....	880	.....	.....
27	855	209	403	339	.....
35	850	654	1,473	1,228	460
Totals	83,261	28,266	84,107	67,997	3,801

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL DITCH REPORTS FOR THE IRRIGATION SEASON OF 1929—Continued

District Number	Beans (6)	Lettuce (7)	Cauli-flower (8)	Orch-ards (9)
20	...	2,353	401	...
21	124	45	15	...
22	157	641	...	...
24	428	371	228	293
25	6	...	...	13
26	...	...	...	...
27	6	16	...	...
35	171	585	610	...
Totals	892	4,031	1,250	306

District Number	Market Gardens (10)	Natural Grasses (11)	Potatoes (12)	Other Crops (13)
20	1,110	62,990	33,686	985
21	1,382	21,317	3,296	2,674
22	165	47,035	2,321	3,510
24	2,832	2,853	127	3,683
25	....	37,509	156	1,802
26	....	50,164	20	3,556
27	1	4,675	216	581
35	29	7,084	205	56
Totals	5,519	233,627	40,027	16,870

District Number	Pastures (14)	Summer Growing (15)	Total Irrigated in Acres (16)
20	137,073	8,421	403,772
21	.....	....	53,859
22	.....	....	104,368
24	.....	....	34,645
25	.....	....	49,418
26	.....	....	58,067
27	.....	....	7,158
35	7,826	660	25,190
Totals	144,899	9,081	736,477

District Number	Cost of Superintendence (17)	Cost of Repairs (18)	Cost of Improvements (19)
20	....	....	....
21	....	....	....
22	$2,520	$4,740	$2,640
24	2,225	1,067	576
25	....	50	....
26	....	1,095	....
27	330	710	1,070
35	....	195	65
Totals	$5,075	$7,857	$4,351

IRRIGATION DIVISION NO. 3

AMOUNT OF WATER IN STORAGE IN ACRE FEET IN RESERVOIRS ON THE FIRST DAY OF EACH MONTH DURING THE YEAR OF 1929.

Dist. No.	Name Reservoir	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
20	Rio Grande	3,192	4,614	6,019	8,652	8,534	30,132	45,006	34,839	33,063	31,420	29,777	.....
20	Santa Maria	5,091	6,180	7,038	8,001	9,941	18,377	24,774	15,870	21,693	26,665	29,034	.....
20	Continental	.....	.....	.....	.....	2,290	5,072	8,141	4,058	5,186	5,486	5,812	.....
20	Road Canon	.....	.....	.....	.....	2,751	.....	2,831	.....	.....	.....	2,831	.....
20	Lost Lakes	.....	.....	.....	.....	100	.....	960	708	.....	.....	750	.....
21	Terrace	.....	.....	.....	2,700	4,499	13,766	13,110	9,072	10,155	12,146	10,655	.....
21	La Jara	.....	.....	.....	.....	1,607	2,781	3,286	2,319	1,621	1,586	1,586	.....
22	Cove Lake	.....	.....	.....	.....	500	4,000	3,000	3,000	3,000	3,500	3,000	.....
24	Sanchez	5,700	5,700	6,119	6,799	7,472	11,759	5,242	5,060	6,055	9,207	10,336	.....
24	Eastdale No. 1	393	634	704	774	704	507	52	140	174	207	207	.....
24	Eastdale No. 2	200	150	250	275	200	100	.....	100	.....	.....	.....	.....
35	Mt. Home	2,854	3,279	3,409	3,705	3,786	4,734	3,888	2,791	3,606	4,253	4,143	.....
35	Smith	3,527	4,013	4,731	5,336	5,336	5,336	4,597	3,853	4,192	4,395	5,430	....

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER OF IRRIGATION DIVISION NO. 4 FOR 1929.

Montrose, Nov. 30th, 1929.

M. C. Hinderlider,
State Engineer,
Capitol Building,
Denver, Colo.

Dear Sir:

Though not the end of the fiscal year, owing to an act of the legislature, it is the end of the irrigation season for 1929, consequently I am tendering you my annual report for the past season.

The last General Assembly detached Districts 29, 30, 31, 32, 33, 34 and 69 from this Division and created Division No. 7, which comprises the above named Districts.

The last General Assembly also passed an act providing for the appointment of one Water Commissioner at large in each Irrigation Division. We recommended several times in our annual reports the passing of such a law, but the present law is inadequate, for the reason that it provides that the Water Commissioner at large shall not work more than 60 days during one calendar year. This part of the law should be repealed. Also, the act provides that there shall not be to exceed one Water Commissioner at large for each Irrigation Division. We believe that this should be amended to read, "There shall not be to exceed two Water Commissioners at large for each Division."

The first snowfall of the season took place on Oct. 17th, 1928, bringing to an end considerable reservoir work then being done on Grand Mesa. The snowfall was heavy and the winter an exceedingly severe one. However, the snowfall assured us of ample water for irrigation.

A series of cloudbursts, commencing July 25th, 1929, and occurring rather frequently in various parts of the Division, caused considerable damage. This was especially true in Ouray County, where the damage amounted to several thousands of dollars. The excessive water from these cloudbursts destroyed our rating station on the Uncompahgre river at Ouray and also took out the cable station on the Gunnison river at Grand Junction. Several reservoirs were endangered by these downpours, but no loss of reservoirs resulted therefrom. We did, however, lose one small reservoir in the early spring, owing to the conduit being too small to take care of the runoff—the overflow being inadequate.

The State Engineer made quite an extensive inspection of the various reservoirs in this Division, and as a result of his visit considerable improvements were made on various reservoirs. Considerable seepage came through the sliderock from the Gurley reservoir, which caused some uneasiness for a time, but an examination by the State Engineer, proved the reservoir to be in a safe condition.

The Cone Reservoir Co. refaced the dam of their reservoir and did considerable riprapping.

The new dam on the Island Reservoir on Grand Mesa, which had not been completed during the fall of 1928, was completed this summer.

The Ward Lake Reservoir was improved to the extent of building a wide overflow, and raising one end of the dam, leaving a freeboard of five feet.

The Atkinson Reservoir above Collbran, on Big Creek, had been causing a vast amount of trouble, owing to the inner slope of the dam being too steep, and material slipping. Repairs to this dam during the season, consisted of extending the conduit about 40 feet, the removal of displaced material and riprap, and the reconstruction of the water face of the dam on a 3 to 1 slope. The stone riprap will be replaced later.

Considerable time has been spent by this office and by various Water Commissioners in this Division, in gathering data for the State Engineer's office. This data is to be used in connection with the division of water (7,500,000 acre feet) allocated under the Colorado River Compact to the four upper basin states, among the said four states.

Four new rating stations were established at the head of Taylor river in Taylor Park, Gunnison County.

This office assisted in installing a number of Venturi flumes in Districts 40, 41 and 42.

Crops were generally good throughout the Division, and prices were better than they have been for a number of years. This was especially true of hay, grain, potatoes and fruit. The price of onions was rather discouraging.

The failure of three banks in this Division, one at Telluride, one at Norwood and one at Delta, was the cause of a vast amount of hardship among the patrons of those institutions.

A new enterprise at Montrose, in the way of a box factory, has a very promising future. Aspen timber, which heretofore has been considered almost useless, is found to be excellent material for making crates and boxes of various sizes. Since the opening of this factory, it has been almost impossible to supply the demand created for this commodity. The factory has been working a force of about 50 men and women.

On Sept. 10th, 1929, the State Civil Service Commission had a hearing in Montrose, and a report of the Commission follows:

September 29, 1929.

Statement and Order.

By the Commission:

This proceeding arises from charges filed by H. C. Getty, Division Engineer, against W. O. Roberts, Water Commissioner of District No. 61, Montrose County, Bedrock, Colorado.

The Complainant filed six charges against the respondent; these charges are as follows:

1. He is erratic, unbalanced and prejudiced.
2. He is a breeder of dissension and a trouble maker.
3. He lacks diplomacy, and therefore is unable to get along with the people whom he has to serve.
4. He does not hesitate to penalize any one who incurs his displeasure.
5. He is interested in the Laura Ditch, which stands in the name of his wife, Mrs. Minnie Roberts.
6. He attempts to defend his actions at various times by telling me falsehoods.

For the foregoing reasons he is unfitted for the position he occupies, therefore we petition your Honorable Body to investigate the charges herewith set forth, and pray you to remove him from his position as Water Commissioner of District No. 61. Montrose County, Colorado.

Public hearing was held in the Court House at Montrose on Tuesday the 10th and Wednesday the 11th of September, 1929, both the complainant and the respondent being represented by able counsel.

Evidence, both oral and written, was offered, both by the complainant in support of his charges, and by the respondent in refutation thereof.

After a very thorough consideration, and after carefully weighing the evidence, the State Civil Service Commission held a special meeting in the office of the Commission, Capitol Building, Denver, Colorado, on Tuesday, Sept. 17th, 1929, at two o'clock P. M.

At this meeting, Commissioners Lambert and Jones concurred in the opinion that the evidence adduced was not in their opinion sufficient to warrant the removal of the respondent, W. O. Roberts. Commissioner Quereau dissented from this opinion, stating that in her opinion "sufficient of the charges were proved to justify removal."

All the Commissioners joined in the opinion that whether or not the evidence was strong enough to warrant the removal of the respondent, that it did warrant his being emphatically reprimanded, and advised that if the actions upon his part, as testi-

fied by the witnesses for the complainant, be repeated, that the Commission itself will have no hesitancy in filing charges against him, and he is hereby warned that if it becomes necessary by reason of a repetition of these offenses, for another complaint to be filed, that at the hearing thereof, the evidence introduced at this hearing will be considered by the Commission in connection with the subsequent complaint.

Order.

It Is Therefore Ordered, That W. O. Roberts be not removed from the office of Water Commissioner of District No. 61, but that a copy of these findings be furnished him as a reprimand and admonishment as regards his future conduct.

STATE CIVIL SERVICE COMMISSION
OF COLORADO.

(Signed) ELIZABETH QUEREAU,
(Signed) WM. T. LAMBERT, Jr.,
(Signed) J. M. JONES,
Commissioners.

Dated at Denver, Colorado, this 20th day of September, 1929.

I hereby certify the above to be a true and correct copy of original Statement and Order on file in this office.

ALICE M. GAFFY,
Secretary.
STATE CIVIL SERVICE COMMISSION.

Mr. John C. Page, project manager of the Grand Valley Project U. S. R. S., furnished us the following facts concerning his project:

"The Grand Valley Project, including all districts to which water is supplied by the Bureau of Reclamation, has had a very satisfactory season, both from the standpoint of water supply and also from crop returns. No interruption of service of consequence has occurred on any of the canal systems, and an ample supply has been available at all times.

"Operation started early in April and continued until Nov. 10. Water was furnished to all lands desiring service in the Gravity Division and also to the Orchard Mesa, Palisade and Mesa County Irrigation Districts having a combined total area of 48,900 acres, of which probably 28,000 acres were cropped.

"On the Gravity Division, which is the only portion of the Project on which a crop census is taken, it is estimated that 15,000 acres produced crops with a gross return in excess of $40.00 per acre. Beans will constitute the major crop, with alfalfa, beets, potatoes and tomatoes also giving high returns.

"For the irrigation of this area, about 50,000 acre feet of water were delivered to the farms. Because of the cool season, with rainfall greater than normal, this is approximately a 20% reduction from 1928.

"The project is operated by the United States, under a contract with the Grand Valley Water Users Association, by which the Association is required to assume the management on or before January 1, 1932."

A report of the Uncompahgre Project, furnished us by L. J. Foster, project manager, follows

UNCOMPAHGRE PROJECT, COLORADO

Season of 1929

The Uncompahgre Project was continued in operation by the Bureau of Reclamation of the Department of the Interior during the season of 1929.

Water was delivered upon demand by the water user on an acre-foot basis. The lands generally on the west side of the Uncompahgre River were furnished 4 acre-feet of water for a minimum charge of $1.80. Lands generally on the east side of the Uncompahgre River, which consist principally of adobe soils, were furnished three acre-feet of water at a minimum charge of $1.35 per acre. Excess water was furnished at the rate of $0.45 for the first acre-foot and $0.40 per acre foot, thereafter, to water users on the east side of the Uncompahgre River and at the rate of $0.40 per acre foot to water users on the west side of the Uncompahgre River.

Operating conditions in the project canals and laterals were generally good throughout the irrigation season. No operating troubles of any consequence were experienced in connection with the Gunnison Tunnel and the South Canal. Minor maintenance difficulties were had on side hill canals, due to sliding banks below, or to irrigation from above.

The supply of water available for irrigation purposes was much above normal, except for a period of about one week during the latter part of the month of August. The supply available from the Gunnison River was more than ample to meet the full tunnel capacity during the irrigation year, and due to heavy rains on the Uncompahgre drainage area during the latter part of July and early part of August, the flow available from that stream was sufficient to meet all irrigation demands without any diversion from the Gunnison River. This condition was unusual in the history of the project, as the Gunnison Tunnel is generally pushed to its limit at this period of the year.

Generally, good yields have been obtained by project farmers during the season of 1929 for all crops. It is estimated that

the prices to be received for the crops raised will also be reasonably good, except for onions. Good prices are being received by potato growers. There will be considerable loss to growers of potatoes, due to the early freezes during the early part of November, which caught some acreage still in the ground. The loss there can be attributed more generally to the fact that sufficient farm labor was not available for harvesting the crops at the time they should be harvested.

It is estimated that approximately 62,000 acres were irrigated during the season of 1929. The actual acreage of the various crops is not available at this time, but it is believed that the usual proportion of project crops will be had as has been grown on the project during former years. Approximately one-third of the project is in alfalfa.

The various cooperative organizations in existence for the disposal of the crops raised on the project are generally in a flourishing condition.

The Board of Directors of the Uncompahgre Valley Water Users' Association petitioned the District Court at Montrose, Colorado, to determine the legality and validity of their articles of incorporation, by-laws, corporate existence of the association, the validity of the various contracts entered into with the United States, and particularly the right of the association to make unequal assessments against its shares of stock. And on November 15, 1929, the findings and decree of the court in connection with said matters was entered upon the records. The findings and decree were favorable to the Association.

The operation and maintenance charges for the project are being collected by the Uncompahgre Valley Water Users' Association and are being turned over to the United States for operation and maintenance purposes.

Mr. J. Harold Baily, Chief Hydrographer, made several trips over the Division, in the interest of the hydrographic work. He also installed the new stations in Taylor Park.

Hereto attached please find tabulated statement of Water Commissioners' Annual Ditch and Reservoir reports.

Respectfully submitted,

H. C. GETTY,
Irrigation Division Engineer, Division No. 4.

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL CROP REPORTS FOR THE IRRIGATION SEASON OF 1929.

Dist. No.	Ditches Reported	Number of Priorities	Amount of Appropriation Cu. Ft. Per Sec.	Capacity of Canals and Ditches Cu. Ft. Per Sec.	Length of Canals or Ditches in Miles	First Day Water Was Used	Last Day Water Was Used
28.....	201	254	646	2,682	227	April 1	July 25
40.....	360	338	2,021	3,069	834	April 1	Sept. 28
41.....	30	30	1,197	3,266	275	April 1	Nov. 11
42.....	258	254	4,428	5,226	595	Jan. 1	Dec. 31
60.....	83	79	512	670	309	April 15	Oct. 15
61.....	36	37	210	189	56	Mar. 1	Nov. 15
68.....	133	174	614	753	228	April 20	Sept. 15
Totals	1,101	1,166	9,628	15,855	2,524		

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL DITCH REPORTS, 1929.

Dist. No.	Average No. Days Water Was Used	Ave. Daily Amount in Sec. Ft.	No. Acre Feet Used	No. Acres Can Be Irrigated	Alfalfa	Natural Grasses	Orchard
28.....	85	632	108,349	29,515	90	29,225	.....
40.....	132	1,721	483,956	230,179	57,727	28,133	13,420
41.....	180	1,450	604,560	182,800	22,055	945	4,930
42.....	111	1,654	606,854	217,346	51,370	14,325	11,983
60.....	93	440	103,393	45,378	18,863	4,815	124
61.....	142	60	15,847	5,978	2,406	40	48
68.....	48	432	50,410	25,088	4,741	6,795	37
Totals...	113	6,389	1,973,369	736,284	157,252	84,278	30,542

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL DITCH REPORTS, 1929.

Dist. No.	Market Gardening	Potatoes	Cereals	Sugar Beets	Other Crops	Total Acres Irrigated
28	.....	29	169	.....	12	29,525
40	1,276	2,760	17,332	4,794	7,998	133,440
41	3,455	10,090	24,780	9,005	10,030	85,290
42	164	1,352	6,420	1,902	19,312	106,830
60	5	198	4,478	.....	30	28,513
61	12	1	451	.....	240	3.198
68	39	234	2,849	2	15	14,712
Totals	4,951	14,664	56,479	15,703	37,637	401,508

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL DITCH REPORTS, 1929.

Dist. No.	Cost of Superintendence	Cost of Repairs	Cost of Improvements
28	.....	.....	.....
40	$ 8,055.00	$ 49,023.00	$ 5,263.00
41	26,535.00	13,550.00	16,275.00
42	50,464.00	97,414.50	812.70
60	3,300.00	8,916.50	1,500.00
61	820.00	1,265.00	.....
68	201.00	7,994.30	896.75
Totals	$ 89,375.00	$178,163.30	$ 24,747.45

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL RESERVOIR REPORT, 1929.

Dist. No.	No. in District	Area of High Water Line, Acres	Capacity in Cubic Feet	Quantity of Water in Reservoir May 1 in Cu. Ft.	Quantity of Water in Reservoir Nov. 1 in Cu. Ft.
40	107	2,762	1,943,036,959	1,940,626,346	554,139,926
42	56	2,030	736,901,259	.....	.....
60	2	....	223,748,000	190,748,000	50,000,000
61	1	....	.....	.....	.....
Totals	165	4,792	2,903,686,218	2,131,374,346	604,139,926

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL RESERVOIR REPORT, 1929.

Dist. No.	First Day Water Was Used	Last Day Water Was Used	Average No. Days Water Was Used	Average Daily Amount in Sec. Ft.	No. Acre Ft. Carried
40	June 22	Sept. 30	37	714	38,700
42	June 23	Sept. 23	32	115	8,683
60	June 15	Aug. 1	40	132	5,134
61	April 22	Sept. 27	79	35	7,681
					60,198

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL RESERVOIR REPORT, 1929.

Dist. No.	Cost of Superintendence	Cost of Repairs	Cost of Improvements
40	$5,780.00	$1,800.00	$3,160.00
42	.....	.....	.....
60	.....	.....	.....
61	560.00	730.00	.....
Totals	$6,340.00	$2,530.00	$3,160.00

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER OF IRRIGATION DIVISION NO. 5 FOR 1929.

Glenwood Springs, Colo.
November 30th, 1929.

Mr. M. C. Hinderlider,
State Engineer,
Denver, Colorado.

Dear Sir:

Herewith I submit to you my annual report, pursuant to the requirements of the statutes, as irrigation division engineer, for Irrigation Division No. 5 for the calendar year ending November 30, 1929.

Owing to the abundance of snow last winter in the mountains of the western slope, the water supply the past season has been above the average, and we have had fewer than the ordinary number of complaints, and practically no litigation over the misapplication of water.

Notwithstanding the very satisfactory water supply, the yield of farm crops was but little, if any, above the usual. Some wheat fields yielded above 65 bushels per acre, and in some instances oats yielded 100 bushels to the acre. Sugar beets produced from 10 to 26 tons to the acre, depending much on the character of the soil and the care that was given them. The fruit crop was about the average, except in some sections where peaches and apricots were almost a failure because of late frosts. The apple crop was good and yielded very satisfactory financial returns. The cherry crop was heavy, but the demand was weak, and growers did not realize much for this crop.

Some sugar beets were grown this year at an altitude of 6,500 feet, but they did not yield very well, either in tonnage or sugar content. Those fields grown at a lower altitude, in the neighborhood of Rifle and Grand Valley, brought very satisfactory returns. Potatoes, considered one of the most dependable crops for this division, gave about the usual yield, and the prices are very satisfactory, although the demand at the present time is slow. One farmer near Glenwood produced 675.9 bushels from a measured acre.

The head lettuce crop promised well in the early season, but in most sections the yield was cut very low by blight.

Demands for live stock are under those of last year, and the prices are not so good. The dairy industry has grown slightly, although the present low price of butterfat is rather discouraging.

The growing of turkeys has claimed more attention from our farmers this year than ever before, and one carload was recently shipped from Garfield County to Boston, but no price returns have as yet been received.

Water commissioners in many districts have been in less demand than usual, and I believe the total expense of administration to the counties will be less than for many years. I observe, however, that in districts reasonably well supplied with water there is considerable quibbling by county commissioners as to the cost of administration of the water service.

There is no complaint as to the per diem rate but county commissioners appear to believe that some water commissioners serve, or charge for more time than is necessary in distributing the water. Possibly there is some truth in that contention, but probably not to the extent which the county commissioners imagine, and it is almost beyond the control of the division engineer. In view of the fact that not one of my commissioners receives in excess of six dollars per day, and five dollars is the maximum per diem for their deputies, and all must furnish their own means of transportation, which calls for a car, and must bear all other traveling expenses, the position is not much sought after, and in fact it is not easy to find good men to accept the appointments.

Working only part time in the irrigation work, the majority of the commissioners are employed the balance of the time in farm operations, and it is chiefly for this reason that it is difficult, and almost impossible, to secure the annual report while the weather is favorable for their farm activities, or within the date fixed by statute.

I have met with fair success in securing the installation of Venturi flumes—in fact have secured 100 per cent installation on some streams, while in other sections I have met with very indifferent success.

During the past summer, in accordance with your instructions, I made a survey, as best I could, in Division No. 5, in order to secure the best data available in the conservation investigations being made in connection with the Colorado River project. Of necessity this work had to be done by the water commissioners, who naturally were more familiar with local conditions than the division engineer could possibly be.

This investigation disclosed several ditches that have been in use for many years but have never been decreed. In some instances the present owners supposed they possessed first class water rights because their ditch was mentioned by name in their deeds, while others were indifferent about the matter, relying on the fact that they secured their supply from a very dependable source. Some have now taken steps to adjudicate their rights,

after using the water over 30 years under the supposition that this formality had been attended to by their grantors.

I am in great need of a water commissioner in District No. 45, to fill the place made vacant by the death of Mr. Glenn, but I have not been advised as to whether there have been any applicants for the position.

I can only renew my recommendations made heretofore that water commissioners should be paid by the state, and the per diem should be increased, or some allowance made for taking care of the expense of these employes.

Yours truly,

A. J. DICKSON,
Irrigation Division Engineer, Division No. 5.

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER OF IRRIGATION, DIVISION NO. 6, FOR 1929.

Steamboat Springs, Colo.
November 30th, 1929.

Mr. M. C. Hinderlider,
State Engineer,
Denver, Colo.

Dear Sir:

I herewith submit my annual report for the season ending November 30th, 1929.

The season was late due to exceptionally heavy snowfall during the winter—with continual storms and cold weather during the month of April, early snow and freezing temperature the first week in September, so that about 120 days was the extent of the planting and growing season.

There was an abundance of water for irrigation and storage, throughout the season, with but few exceptions, these were on streams where shortages occur every year, due primarily to no storage facilities.

The first general demand for water for irrigation being on about May 25th, and continuing until about August 1st.

Of 22 reservoirs reported by the water commissioner of Dist. No. 44, fourteen are on Williams River and tributaries, some of which were built many years ago, and have become filled with silt, and have never been cleaned out, or their dams have broken and were never rebuilt. However, there is some interest shown the past season on the part of the owners of some of these reservoirs to have them repaired and store the flood water to use for late irrigation.

Out of 194 adjudicated ditches reported in District No. 44, the commissioner reports 72 of these ditches not in use that once carried a total of about 150 second feet. Some of these ditches have washed out, and have not been repaired. Others have been temporarily abandoned, although in fair condition. The fields under such ditches are practically idle.

On Williams River especially, for the past two years, extra high water has seriously damaged headgates, and some ditches were almost entirely ruined. Some placed new headgates in 1928, but the high water in May, 1929, again took out a number of headgates.

This condition occurs primarily on account of numerous small, individually owned ditches, and the users cannot afford to place structures substantial enough to withstand flood conditions.

The water commissioner of District No. 58 reports 292 ditches. On 183 of these ditches there is a complete crop report. For the other 109 he reports only the amount of water used, and the total acreage irrigated under the ditches. Of the above total there are only 18 ditches that are not being used, comprising a total adjudication of about 20 cu. ft. per second.

Your visit in the Division May 16, 17, and 18, at which time meetings were held with the water users at Meeker, Craig, Hayden, Yampa, and Steamboat Springs, was appreciated more than was at first indicated by the water users, and much good was accomplished from the results of these meetings.

The meetings were followed by a vigorous campaign to have measuring devices installed on all ditches, the results of which have been most gratifying, especially so in Water Districts 43, 44, and 57 where the water commissioners have worked very faithfully in support of this movement.

All water commissioners were furnished questionnaires to fill out for each ditch in their district, covering information necessary to determine what sort of device or repairs to present structures was needed for each individual ditch. When these questionnaires were returned by the water commissioners, a letter was sent to the owner of such ditch, urging the construction or repairing of measuring device, headgate, etc., together with necessary plans and instructions for placing such devices. About 25% of this work was completed during this year, and it is our intention to continue this work until the division is in such shape that accurate and reliable water commissioners' reports can be obtained on the diversion and consumption of water.

The latter part of July and most of August was spent in gathering and completing data for special reports for your office in connection with the Colorado river investigation.

The Baggs Land & Live Stock Co., large land owners in the Snake river valley, both in Colorado and Wyoming, are planning, and have started, quite an extensive irrigation project, which at present consists of enlarging the Towel ditch and the Heeley ditch on the Colorado side, which will make productive several hundred acres in addition to what was formerly covered by the two ditches.

The project, as planned, calls for a dam on Slater creek, and the reconditioning of the old Routt County canal which was built several years ago, but never used.

In addition to this, they contemplate another unit with a canal around the north end of Black Mountain which, if completed, will bring under irrigation more than 15,000 acres. The company is at the present time carrying on a colonization campaign in connection with the irrigation project.

Pump irrigation is being considered by a number of Moffat county farmers, and is at the present time being used by a few

Farmers in some sections are finding it more satisfactory and economical to install pumping plants than to maintain long stretches of small ditches near the river banks, and maintain inadequate headgate and diversions for a small ditch from a large stream.

The lettuce industry in the Yampa Valley, District No. 58, continues to be the big crop of that section.

Shipments September 1st were just about at the peak, with an average of 25 cars going out every day. In 1928, 123 cars were loaded up to August 23rd, and for 1929, same date, 175 cars had been shipped from the Yampa sheds.

The crop up to September 1st was in very good shape, that is, very little slime or tip burns. The running time from Yampa to Denver on the Moffat road has been reduced to 14 hours, which places the lettuce on the market in much better condition than formerly.

Total shipment from the Yampa district this year was 410 cars, or about 50% of the crop. 310 cars were shipped during August, and 100 in September. The September shipment should have passed that of August. Snow, however, the first week in September and a freeze for two nights, caused heads to slime and turn black. There should have been at least 800 cars loaded for the season.

Two thousand five hundred acres of lettuce were planted, all under irrigation. The crop has normally averaged one car for three acres. It is expected that there will be 500 acres more planted next year.

Three full cars of spinach were shipped from the district, also a number of small shipments of peas. There is an expected increase in acreage of spinach and peas for the coming season.

Growing seed has been found to be a profitable crop for this country, on account of a greater value on a small scale, than to produce more common farm crops on a large scale, owing to distance from market, and consequent freight rates.

The high, cool climate insures seed of wonderful vitality, and the rich soil is not contaminated with the bad perennial weeds, common to older agricultural lands.

The alfalfa seed crop and the certified potatoes were found upon inspection this year, to be in fine shape.

Timothy and clover is the prevailing crop in District No. 58. This year there is an acreage shown of 88% of irrigated land in timothy and clover, and all hay combined shows an acreage of 90%, while in district No. 44 alfalfa has the leading acreage, followed next by natural grass.

The total cost of superintendence, maintenance, and improvements in District No. 44 was $6,827, or a unit cost per acre for the district of .03 cents.

Complete figures are not available for operation and maintenance in District No. 58. The cost per acre, however, will run less than that of District No. 44.

Potatoes will be a profitable crop this year because of their fine quality, and good yield. The early frost was considered more of a benefit than damage to the potatoes in this section because the leaves were killed and not the stalks.

The usually early snow storm and frost have not done as much damage to Northwestern Colorado crops as was first expected. While the grain was laid flat, more than two thirds of the crop was harvested. It was ripe enough so that the frost did not injure it to any extent. That part of the grain which could not be reached by the reaper will be utilized for stock pasture, as dairying is gradually increasing in Northwestern Colorado, and a big revenue is now obtained from this industry.

Following is a tabulation of the water commissioners' annual ditch and reservoir reports.

Respectfully submitted,

B. T. CHASE,
Irrigation Division Engineer, Division No. 6.

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL REPORTS FOR YEAR OF 1929.

Dist. No.	No. of Ditches Reported	No. of Priorities	Amt. of Appropriations in Cu. Ft. Per Sec.	Capacity of Canals
43	351	333	902.85	2,367.93
44	194	183	726.86	799.54
54	No report received.			
55	No water commissioner.			
56	No water commissioner.			
57	75	110	339.61	587.17
58	292	255	869.17	1,080.50
Totals	912	881	2,838.49	4,835.14

Dist No.	Canal Length Miles	First Day Water Was Used	Last Day Water Was Used	Average No. Days Water Carried	Average Daily Amt. Carried Cu. Ft. Sec.
43	473.66	April 28	Sept. 1	73	1,181.52
44	222	May 1	Sept. 1	61	359.95
54	.....	.....	.....	..	.....
55	.....	.....	.....	..	.....
56	.....	.....	.....	..	.....
57	188.75	May 5	Oct. 1	44	309.88
58	401.5	April 1	Sept. 30	81	729.54
Totals	1,285.91			65	2,580.89

District Number	No. of Acre Feet Used	Number of Acres Can Be Irrigated	Alfalfa	Natural Grass	Timothy and Clover
43	286,107.64	52,109	20,870	11,323	.....
44	32,770	41,074	11,113	6,692	.....
54	.....	.....	.....	.....	.....
55	.....	.....	.....	.....	.....
56	.....	.....	.....	.....	.....
57	47,626.05	19,422	1,633	.....	10,705
58	129,003	63,475	220	9,760	28,374.5
Totals	495,506.69	176,080	33,836	27,775	39,079.5

District Number	Potatoes	Cereals	Berries	Market Garden	Cabbage	Lettuce	Other Crops
43	4	3,952	...	...	...	....	1,047
44	85	3,515	...	15	2	....	299
54	...	....	...	...	...	....	....
55	...	....	...	...	...	....	....
56	...	....	...	...	...	....	....
57	...	....	...	5	...	....	....
58	...	....	12	250	...	2,500	....
Totals	89	7,467	12	270	2	2,500	1,346

District Number	Total Acreage Irrigated	Cost of Superintendence	Cost of Repairs	Cost of Improvements
43	37,196	$800.00	$10,230.50	$5,789.00
44	21,727	.....	4,341.00	2,466.00
54	.....	.....	.....	.....
55	.....	.....	.....	.....
56	.....	.....	.....	.....
57	12,243	.....	3,845.00	.....
58	41,116.5	.....	.....	.....
Totals	112,282.5	$800.00	$18,416.50	$8,255.00

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL RESERVOIR REPORT FOR YEAR OF 1929

District Number	Number Reservoirs in District	Area of High Water Line Acres	Capacity in Cubic Feet	Quantity of Water in Reservoir May 1st in Cubic Feet
43	...	...	.....	.....
44	22	...	68,737,860	38,098,110
54	No report from water commissioner.			
55	None. No water commissioner.			
56	1 No water commissioner.			
57	...	...	.....	.....
58	13	132	13,700,398	12,800,298
Totals	36	132	82,438,258	50,898,408

District Number	Quantity of Water in Reservoir Nov. 1 in Cubic Feet	First Day Water Used	Last Day Water Used	Average Number Days Water Carried
43	.....	.....	.....	..
44	8,205,900	May 21	July 20	47
54	.....	.....	.....	..
55	.....	.....	.....	..
56	.....	.....	.....	..
57	.....	.....	.....	..
58	7,323,225	May 1	Aug. 25	94
Totals	15,529,125	.....	.....	70

District Number	Average Daily Amt. Carried Second Feet	No. of Acre Feet Carried	Cost of Repairs	Cost of Improvements
43	....	.....	.....	.....
44	17.00	1,604	.....	.....
54	....	.....	.....	.....
55	....	.....	.....	.....
56	....	.....	.....	.....
57	....	.....	.....	.....
58	21.00	3,753.33	$734.20	.....
Totals	38.00	5,357.33	$734.20	.....

ANNUAL REPORT IRRIGATION DIVISION ENGINEER IRRIGATION DIVISION No. 7 FOR 1929

Durango, Colorado, November 8, 1929.

Mr. M. C. Hinderlider,
State Engineer,
Denver, Colorado.

Dear Sir:

Annual reports of Water Commissioners for water districts 30, 33, 34 and 69 are herewith submitted together with a report of the administration of Irrigation Division Number 7.

REPORT—1929

Administration

Active administrative duties in the new division were assumed on June first in addition to the already existing duties in connection with the La Plata River Compact and the general assignment of hydrographic duties in connection with stream flow and other studies.

To assist the water commissioners of several districts where exacting administration is required, measurements were made of stream flow at head of the irrigated areas and ratings were made of the flow in ditches in order that proper regulation of flow in accordance with decrees might be made.

All districts in the new division were visited.

The Improved Venturi Flume has been found valuable in proper determination of flow of water in canals. This type of rating flume has been recommended in all cases where new rating flumes have been required. There are now sixteen of this type flume in the division with nine orders given for the construction of new flumes prior to the next irrigation season. Seven of such flumes were installed during the season just past. All are of timber construction with the exception of one concrete flume. Plans for construction and bills of material are furnished with orders for flumes by this office and aid is given in the construction and installation of the flumes to assure the proper functioning of same. Water users have been quick to see the advantage of this type of flume over the old rectangular type and consequently there has been thus far no objection to orders which specify the venturi type flume.

Hydrographic Data

Measurements of flow and records of stream flow were made on the San Juan and Dolores Rivers and all major tributaries of each.

Water Supply

The snow supply as measured at high elevations on the San Juan and Dolores Rivers watersheds on March 31, 1929, was in excess of normal. There was a plentiful water supply generally lasting well into July with the exception of the La Plata flow which as usual became practically exhausted during the last week of June.

Precipitation was thirty-eight per cent of normal for the months of May and June. Temperatures were also below normal. These two conditions caused a retarded growth of crops. The situation was becoming acute when the rains commenced in July. Excess rainfall occurred during the remainder of the season.

Some damage was done canal structures from floods during the cloudburst season. Considerable damage was experienced from hail and there was difficulty in harvesting the crops due to the excessive rain. Also many of the harvested crops were of inferior quality for the same reason. Grazing conditions are improved and the underground water table raised so the benefits tend to balance the damage.

Improvements and Development

The major improvement in the division for the past season has been the construction of new diversion works and laying of a new twenty inch pipe line for the City of Durango's water supply. This improvement has involved a total expenditure of $346,000.

Accurate measurement of diversion and record of same is provided by installation of an orifice in the line near the head with automatic recording device in units of cubic feet per minute.

Other new structures for water diversion consist of a new headgate and diversion works of concrete for the Freed Ditch in District 33 and a new diversion works of concrete construction under way on the Pine River Canal in District 31.

Reservoirs

Only seven reservoirs exist in the entire division which store water for irrigation purposes and one reservoir which stores water for power purposes. The combined storage capacity of the former is 18,500 acre feet. This amount of water is entirely inadequate in storage during years of low stream flow.

The Red Mesa Reservoir in District No. 33 is still under construction. The outlet conduit and gate tower are completed. The earth fill has reached an elevation of twenty-five feet above the outlet tube. Completion of the fill to elevation forty feet is expected this year unless adverse weather conditions stop work. This would allow the storage of about seven hundred and fifty acre feet of water. This amount of water would be very beneficial as supplemental water on eleven hundred acres of highly productive lands situated near the Town of Red Mesa.

Other storage projects will no doubt be undertaken in the near future. Increased transportation facilities which make for a more rapid and cheaper movement of crops will soon bring about an economic condition justifying expenditures for the storage of water to be used on existing and new irrigation projects.

Reports by Water Commissioners

Ditch and crop reports have been received from water commissioners for all districts with the exception of District No. 29. Before another irrigation season the decrees will be made by the Court for District 31. This will bring administration of decrees for an irrigated area of forty-seven thousand acres. There is an additional seventy-seven thousand acres which can be irrigated in this district.

A summary of total ditch diversions and irrigated acreage as shown by water commissioners' reports, follows.

Respectfully,

J. R. WILLIAMS,
Special Deputy State Engineer,
in Charge Division No. 7.

IRRIGATION DIVISION NO. 7

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL CROP REPORTS FOR THE IRRIGATION SEASON OF 1929

District Number	Number of Priorities	Amount of Appropriations Second Feet	Capacity of Canals Second Feet	First Day Water Was Used	Last Day Water Was Used	Maximum Number of Days Water Was Used	Average Number of Days Water Used
29	220	530	....	.....	.....	...	...
30	176	580	772	April 1	Nov. 15	229	80
31	...	....	....	April 1	Nov. 15	229	100
32	...	....	....	April 1	Nov. 15	229	120
33	74	655	405	April 7	Oct. 2	178	100
34	60	1,452	1,872	May 15	Sept. 15	120	100
69	11	20	46	May 12	Aug. 9	89	89
Totals	541	3,237					

District Number	Number Acre Feet Used from Stream	Number Acres That Can Be Irrigated	Crops Irrigated in Acres: Alfalfa	Natural Grasses	Cereals	Orchards
29	[a]74,400	43,000	.....	.....	.....	.....
30	[b]98,400	58,000	11,700	6,203	10,240	660
31	[c]140,400	124,000	.....	.....	.....	.....
32	9,000	70,000	.....	.....	.....	.....
33	35,000	48,000	11,771	.....	7,230	181
34	187,100	80,500	16,370	6,668	13,723	3,125
69	1,950	1,937	670	40	54	12
Totals	546,250	425,437	40,411	12,911	31,247	3,978

District Number	Crops Irrigated in Acres: Market Gardens	Potatoes	Sugar Beets	Beans	Other Crops	Total No. of Acres Irrigated
29	...	....	.....	....	....	[d]24,800
30	92	668	.....	....	540	30,103
31	...	....	.....	....	....	[e]46,800
32	...	....	.....	....	....	[f]3,000
33	20	612	.....	250	120	[g]20,884
34	40	1,086	.....	1,000	4,427	[h]46,439
69	0	....	.....	....	....	776
Totals	152	2,366	.....	1,250	5,187	172,802

[a] Estimated on basis of gross diversion of three acre feet per acre.

[b] Includes 930 acre feet from storage.

[c] Estimated from investigation during 1929 season by Division Engineer, there being no Commissioner for District 31.

[d] No report in 1929. Acreage estimated to be approximately the same as last reported in 1921.

[e] Acreage estimate made in 1929 by Division Engineer.

[f] Acreage estimate made in 1929 by Division Engineer and does not include lands irrigated by Montezuma Valley Irrigation Company and by Summit Reservoir and Land Company. Irrigated lands under such systems are included in report of District 34 since the water is diverted from the natural stream in that district.

[g] Includes seven hundred acres irrigated under canals which have no decreed rights.

[h]

IRRIGATION DIVISION NO. 7

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL RESERVOIR REPORTS FOR IRRIGATION SEASON OF 1929

District Number	Number of Reservoirs in District	Area of High Water Line in Acres	Capacity in Cubic Feet	Quantity of Water in Reservoir on May 1 Cubic Feet	Quantity of Water in Reservoir on November 1 Cubic Feet
29	...	....	.....	.....	.....
30	3	909	1,089,290,535	249,388,800	1,040,640,000
34	5	909	507,053,988	502,871,688	105,085,340
Totals	8	1,818	1,596,344,523	752,260,488	1,145,725,340

District Number	First Day Water Was Used	Last Day Water Was Used	Number of Days Water Was Used for Power	Average Number of Days Water Used for Irrigation	Average Daily Amount Used in Second Feet	Number of Acre Feet Used
29	.....	.....	...	...	...	.....
30	Jan. 1	Dec. 31	365	55	75.5	37,000
34	May 15	Sept. 30	...	103	28.6	14,700
Totals	.....	.....	...	...	...	51,700

Note: Of the total amount of water used from storage in acre feet 33,200 acre feet was used in development of electric power.

ANNUAL REPORT IRRIGATION DIVISION NO. 1 FOR THE YEAR 1930

November 28, 1930.

M. C. Hinderlider,
State Engineer,
Denver, Colorado.

Dear Sir:

This year marks the second season of administration of Division No. 1 by the State Engineer, which has been under the direct supervision of the writer as Deputy State Engineer.

On March 1st precipitation above 8,000 feet was above normal throughout the division, with the exception of the Cache la Poudre drainage, which was sub-normal.

Deficiency in snowfall below 8,000 feet in elevation was reflected in the run-off during the spring and early summer; this, together with the lack of precipitation in the cropped area, caused considerable anxiety and forced a heavy draft of stored water at least two weeks earlier than is customary. January and March were extremely cold, while the months of February and April were the warmest for these months in the 43 years of climatic history of the State. The situation was most fortunately relieved by rain during August, during which time all demands for direct irrigation were satisfied and considerable water stored.

During June and July 12,000 acre-feet of water was sold and delivered for irrigation by the City of Denver from Lake Cheesman. At the start of the irrigation season storage was normal or above in all districts with few exceptions.

Storage in the North Sterling or Point of Rocks Reservoir, in District No. 64, was below normal, but this was later made up by storage permitted during August and September.

Cheesman Lake was reported full on April 9th.

On April 14th demand was made by the Commissioner of District No. 64 for water for direct irrigation, which was supplied from the diversion of the North Sterling for storage.

The Commissioner of District No. 1 also made a demand of 150 second feet for direct irrigation to supply the Riverside Canal with priority date of May 31, 1907.

Orders were sent to all districts to stop storage; at the same time a letter was addressed to all water commissioners not to permit storage of water diverted under direct appropriations when water was demanded for direct irrigation by junior appropriators.

Injunction proceedings were threatened against the water officials in complaint of this order by certain users, but to date the proceeding has not been instituted.

In addition to several inlet canals to large reservoirs that have direct appropriations, a number of systems have developed storage with both private and corporate capital, and water drawn for direct application is stored for use later in the season.

Complaints have been made to the water officials, and in two instances the injury to the junior appropriator is apparent.

It is not practical for the water commissioner to patrol the canals in question, however, more direct supervision will have to be exercised in the future.

In several instances disputes arose over the exchange of reservoir water with the river, and in each case by reference to the automatic gage records the matter was definitely adjusted to the satisfaction of all concerned.

On July 11th District No. 2 made demand for water to supply 1866 priorities; this was the low period for the year.

Some slight loss in yield of the early crops was experienced. However, in the main, excellent crops were produced throughout the division.

Ideal weather conditions prevailed during the harvest season, and preparations for next year are well advanced.

On October 6th storage was permitted in all reservoirs of appropriation date prior to April 1, 1902, and later through agreement with senior appropriators, storage in all decreed reservoirs was permitted.

It is hoped that wherever practical replacement of rectangular measuring flumes will be made with the improved Parshall Flume, especially in Districts 1 and 64, where moss conditions seriously affect the ratings during periods of low flow.

Difficulties of administration are still apparent in District No. 23, but a marked improvement has been made in the past few years. Lack of funds for the employment of deputies to patrol the streams has been a serious handicap, and an appropriation to cover such emergencies will be requested during the coming legislative session.

The annulment by the Supreme Court of the City of Denver's priority for 130.0 second feet as of date September 20, 1870, resulted in a new decree, in which the amount of water as of this date of priority was reduced to 3.0 second feet. The result of such action was apparent in the administration during the past season. During the past year approximately 200 priorities were added to the rolls for administration in the Division.

In Water District No. 9 a proceeding has been instituted to adjudicate domestic rights, in which some 200 claims have been presented. As the majority of these claims represent recent de-

velopment, and the water supply of several small communities being involved, the administration of such decree subject to senior priorities for irrigation will present a serious problem.

All annual reports from the Water Commissioners, with the exception of Districts 23 and 48, have been received. The Commissioner of District No. 48, which comprises North Park, is rarely called, so that the data for the preparation of an annual report is not available.

The customary tabulation of the Commissioners' annual reports is appended hereto.

Respectfully,

C. C. HEZMALHALCH,
Deputy State Engineer.

IRRIGATION DIVISION NO. 1

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL CROP REPORTS FOR THE IRRIGATION SEASON OF 1930 CROPS IRRIGATED FROM CANALS IN ACRES

District Number	(1) Total No. of Acres that can be irrigated (see note)	(2) Alfalfa	(3) Natural Grasses	(4) Cereals	(5) Orchards	(6) Market Gardens	(7) Potatoes
1	171,627	35,610	18,061	36,665	95	29	2,767
2	245,362	38,904	10,602	78,322	502	6,501	7,977
3	390,000	71,715	5,170	68,535	2,248	2,972	33,408
4	158,425	44,580	270	61,605	2,345	1,025	6,220
5	103,773	19,844	3,042	45,970	592	290	250
6	200,180	29,649	71,810	48,404	690	346	1,058
7	113,060	36,825	1,564	42,459	3,689	15,513	113
8	118,594	19,751	1,525	22,175	1,223	1,537	770
9	18,000	4,965	1,910	5,677	87	302	29
23			No Report Received				
47			No Report Received				
48	8,426	.....	6,107	.....	....	.....	.....
64	225,000	40,500	32,759	42,207	118	392	1,985
65	7,129	1,715	216	989	32	38	162
Totals..	1,759,576	344,058	153,036	453,008	11,621	28,945	54,739

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL CROP REPORTS FOR THE IRRIGATION SEASON OF 1930 CROPS IRRIGATED FROM CANALS IN ACRES

District Number	(8) Sugar Beets	(9) Beans	(10) Peas	(11) Cabbage	(12) Lettuce	(13) Other Crops	(14) Total Irrigated
1	29,748	10,524	....	79	...	12,066	145,644
2	46,310	20,102	1,190	2,159	...	3,513	216,082
3	61,970	4,217	1,415	1,443	...	13,446	266,539
4	18,835	2,340	1,260	1,260	190	2,195	142,125
5	10,610	400	870	200	...	3,047	85,115
6	13,097	1,140	986	278	...	1,740	169,198
7	2,015	354	377	1,220	314	450	104,893
8	1,271	800	....	44	...	733	49,829
9	481	47	9	58	...	247	13,812
23			No Report Received				
47			No Report Received				
48	.....	.....	....	....	...	.....	6,107
64	33,645	1,475	....	100	...	9,501	162,682
65	270	.....	....	....	...	212	3,634
Totals..	218,252	41,399	6,107	6,841	504	47,150	1,365,660

NOTE: The quantities given in Columns (1) to (14) repesent the total acreage that can be irrigated or was irrigated, whether the ditches only used the natural flow of streams, or only used reservoir water, or used river and reservoir water combined.

IRRIGATION DIVISION NO. 1—1930

AMOUNT OF WATER IN STORAGE IN ACRE FEET IN RESERVOIRS OF CAPACITY OF 1,000 ACRE FEET OR MORE ON THE FIRST OF EACH MONTH. COMPILED FROM REPORTS OF WATER COMMISSIONERS.

Dist. No.	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1	June 1	July 1	Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1
						10 Reservoirs reported.						
1	93,350	100,825	104,770	121,355	120,000	109,524	74,766	42,982	32,981	11,962	35,695	58,380
						7 Reservoirs reported.						
2	50,480	55,084	72,094	85,767	90,340	84,399	48,770	33,391	27,642	13,219	15,128	26,537
						32 Reservoirs reported.						
3	85,914	90,261	96,031	100,739	111,416	112,656	99,698	62,126	56,009	33,070	44,990	55,300
						11 Reservoirs reported.						
4	54,555	30,451	30,551	59,120	61,150	63,105	50,924	34,524	47,336	38,466	39,416	41,386
						9 Reservoirs reported.						
5	18,169	19,331	20,116	20,609	24,316	25,286	19,924	16,038	17,585	11,748	12,676	13,664
						10 Reservoirs reported.						
6	16,293	18,715	18,219	15,492	20,891	24,094	20,064	17,149	23,468	17,802	17,321	16,540
						6 Reservoirs reported.						
7	1,600	1,700	2,100	1,930	3,200	3,025	1,150	980	2,870	280	280	280
						1 Reservoir reported.						
8	2,128	2,263	2,907	3,434	3,434	3,097	1,838	1,170	2,097	1,812	1,812	1,965
						2 Reservoirs reported.						
9	14,900	14,900	17,063	17,813	17,235	16,591	15,088	14,154	13,523	13,666	16,065	15,401
						3 Reservoirs reported.						
23	92,767	90,070	91,371	96,595	101,826	95,215	90,749	76,251	93,142	87,141	82,452	87,281
						3 Reservoirs reported.						
64	49,474	62,092	72,471	89,977	98,836	103,736	71,080	40,487	35,532	20,479	35,468	47,545
						Total of 94 Reservoirs reported.						
Totals	479,630	485,602	527,693	612,831	652,644	640,728	494,051	339,252	352,185	249,375	301,303	364,279

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER OF IRRIGATION DIVISION NO. 2, FOR 1930.

Pueblo, Nov. 20th, 1930.

M. C. Hinderlider,
State Engineer,
Denver, Colo.

Dear Sir:

I herewith submit to you my annual report for the irrigation season of 1930.

The storms which interfered so much with the harvest of sugar beets during the fall of 1929 provided considerable moisture for the ground and the streams kept up at a good flow all through the winter following so that we were able to capture a large amount of reservoir water for the season of 1930. There was more water in the reservoirs at the beginning of the season than at any time since the year 1923 when we were able to get the reservoirs full.

The snowfall in the mountains during the winter of 1929 and 1930 had a water content of 4.31 inches. The seventeen year average for water content is 4.22 inches. The snowfall only promised an average runoff which is not sufficient to give water to all the large canals without being supplemented by flood waters.

The June runoff was short of requirements and the canals had not succeeded in watering all their lands. The month of July started off hot and dry. Some of the oldest canals were entirely out of water. A very unusual occurrence for them. The hot winds caused crops to suffer and at one time it looked as though we were due for a drought and shortage of crops similar to that suffered by the middle states. However, seasonable rains began to fall about July 15th and continued throughout July, August and September. The net result was one of the largest crops ever grown in the Arkansas Valley.

The late rains during the latter part of the growing season brought the total precipitation above normal for the year and broke the six years of dry weather with precipitation below the average. Since precipitation records have been kept at Pueblo beginning in 1889 there had never been a period of time of as long duration when the average annual rainfall was below normal.

Below I give a table of the rainfall records at the Pueblo station and the average for a comparison:

	Nov. 1929	Dec. 1929	Jan. 1930	Feb. 1930	Mar. 1930	Apr. 1930	May 1930	June 1930	July 1930	Aug. 1930	Sept. 1930	Oct. 1930	Total
	1.14	0.65	0.51	0.60	0.56	1.24	2.12	1.89	2.64	3.03	1.03	0.57	15.98
Av.	0.36	0.50	0.31	0.47	0.59	1.31	1.50	1.36	1.94	1.82	0.75	0.66	11.67

The quantities are given in inches.

The yearly average for the Pueblo station is 11.67 inches.

The supply of water in the reservoirs on May 1st amounted to 313,251 acre feet. The supply on November 1st was 192,938 acre feet. The amount of reservoir water used by the ditches during the past season was 236,735 acre feet. Water was run into the reservoirs and run out again between May 1st and November 1st so that it is not accounted for on either of these dates.

When it is considered the amount of acreage that actually receives the reservoir water it can be seen how important reservoir water is to the irrigated agriculture of the Arkansas Valley. A little reservoir water applied to growing crops during the dry spell in the early part of July carried the plants along until the rains and irrigation water were more plentiful, with the result that we are harvesting another record breaking crop.

The past growing season was comparatively free from hail. Just an occasional storm. The resulting damage was not extensive, over much area.

Alfalfa, sugar beets, corn, melons, onions and seed crops are the principal products of the farms in the lower altitudes. In the mountain districts some potatoes, cauliflower and head lettuce are grown by the farmers in addition to hay crops.

Three trans-mountain diversions continued to operate at the head waters of the Arkansas river during the past season. The water thus brought over came in at an opportune time and aided materially in the irrigation of crops.

These transmountain diversions and the three large reservoirs in Lake County, Sugar Loaf, Twin Lakes, and Clear Creek reservoirs, require special attention during the summer season and necessitate the services of a hydrographer. There is something going on at all times with these reservoirs and trans-mountain diversions and unless special attention is given to them irregularities will occur.

The installations of the improved Parshall flume are practically complete on the larger ditches on the Arkansas river east of Pueblo. Progress is being made with installing these flumes in the mountain districts. In a short time I hope to have every ditch of importance equipped with Parshall flumes. They are a great aid to the Water Commissioner and in settling disputes.

I have requested the installation of a few additional self-registers in new places where it seemed advisable. Whenever a self-register is installed it has always been of great assistance to the Water Commissioner and has settled many disputes and promoted better feeling among the water users. This office is in need of additional money for expense account to enable us to cover more ground in our work.

Yours truly,

C. W. BEACH,
Irrigation Division Engineer, Division No. 2.

IRRIGATION DIVISION NO. 2

TABULATED STATEMENT OF WATER COMMISSIONERS ANNUAL CROP REPORTS FOR THE IRRIGATION SEASON OF 1930

(1) Number of District	(2) Amount Appropriated in Cubic Feet Per Second	(3) Capacity of Ditches in Cubic Feet Per Second	(4) Length of Main Ditches in Miles	(5) Length of Laterals in Miles	(6) First Day Water Was Diverted from Natural Stream	(7) Last Day Water Was Diverted from Natural Stream	(8) Maximum Number of Days Water Was Diverted from Natural Stream	(9) Maximum Number of Days Water Carried from Reservoir	(10) Amount of Water Carried from Reservoirs in Acre Feet	(11) Average Daily Amount of Water Diverted from Natural Stream in Cu. Ft. Per Sec.	(12) Number of Acre Feet Diverted During Season from Natural Stream	(13) Total Number of Acres That Can Be Irrigated
10....	784.87	.....	131.25	....	Jan. 1, 1930	Nov. 1, 1930	232	167	5,076	267.61	61,841	27,415
11....	777.24	866	190.5	....	Mar. 1	Nov. 1	220	71	34,767	212	274,988	26,886
12....	774.58	1,205.98	345.7	....	Nov. 1, 1929	Oct. 31, 1930	356	123	6,975	800.6	337,575	35,858
13....	341.06	.....	248	75	Mar. 1	Oct. 1	220	80	1,846	312.57	33,730	20,427
14....	2,000.3	2,288	241	....	Nov. 1, 1929	Oct. 31, 1930	357	...	30,151	608	295,385	136,585
15....	213.9	276.9	88.45	....	Mar. 1	Oct. 21	190	...	624	85.37	19,098	14,243
16....	1,485.53	3,982	648.36	....	Nov. 1, 1929	Oct. 31, 1930	220	...	19,450	333	50,419	87,943
17....	5,858.80	8,698	522	....	Nov. 1, 1929	Oct. 31, 1930	343	69	65,946	1,145.5	484,956	228,980
18....	418.34	422.84	64	....	Apr. 4	Aug. 19	22	...	1,286	55	484	9,531
19....	1,852.46	4,035	349.51	....	Feb. 6	Oct. 31	233	112	18,768	215.15	72,906	49,055
67....	1,626.40	1,845.0	213	166			243	...	45,846	425.1	155,640	74,390
Total	16,133.21	23,619.72	3,041.77				356	167	236,735		1,787,022	711,313

Number of District	(14) Alfalfa	(15) Natural Grasses	(16) Cereals	(17) Orchards	(18) Market Gardens	(19) Potatoes	(20) Sugar Beets	(21) Head Lettuce, Cauliflower and Cabbage	(22) Beans and Peas	(23) Other Crops	Total Irrigated	(25) Cost of Superintendence	(26) Cost of Repairs	(27) Cost of Improvements
10	6,398	3,916	3,012	151	381	...	942	...	226	5,345	21,329	$ 7,865.00	$ 50.00	$ 449.16
11	5,269	7,439	5,170	42	20	516	186	290	2,158	....	21,045	1,402.00	.....	1,596.00
12	7,435	1,830	3,985	3,985	394	14	48	281	394	2,180	21,447	980.00	10,900.00	.....
13	2,487	14,797	1,343	15	20	109	...	311	241	1,104	20,427	.....	387.00	.....
14	37,625	17,480	13,820	936	4,670	...	23,000	325	200	19,070	131,021	36,630.00	36,630.00	.....
15	4,860	2,836	2,453	33	16	5	186	...	44	....	10,664	.....	.....	6,364.50
16	22,380	8,991	13,502	341	52	...	1,582	...	3,225	3,092	53,168	12,749.74	55,120.00	19,000.00
17	58,948	2,966	54,364	437	869	155	20,858	553	2,552	23,812	165,433	44,443.00	31,857.00	31,010.00
18	3,809	688	1,065	4	...	5	...	...	750	....	6,446	.....	.....	.....
19	17,593	6,532	5,863	64	178	...	718	380	3,582	4,611	39,521	11,830.00	26,594.00	20,227.00
67	30,080	2,553	24,818	194	127	...	4,367	...	307	4,971	67,447	16,702.50	27,625.00	7,050.00
Totals	196,884	70,028	129,395	6,202	6,727	804	51,887	2,140	13,684	64,185	548,008	$132,602.24	$189,163.00	$ 85,696.66

TABULATION SHOWING QUANTITY OF WATER IN STORAGE IN THE MAJOR RESERVOIRS OF IRRIGATION DIVISION NO. 2

From December 1, 1929, to November 1, 1930

Number of District	Name of Reservoir	Amount in Storage December 1, 1929, Acre Feet	Amount in Storage January 1, 1930, Acre Feet	Amount in Storage February 1, 1930, Acre Feet	Amount in Storage March 1, 1930, Acre Feet	Amount in Storage April 1, 1930, Acre Feet	Amount in Storage May 1, 1930, Acre Feet	Amount in Storage June 1, 1930, Acre Feet	Amount in Storage July 1, 1930, Acre Feet	Amount in Storage August 1, 1930, Acre Feet	Amount in Storage September 1, 1930, Acre Feet	Amount in Storage October 1, 1930, Acre Feet	Amount in Storage November 1, 1930, Acre Feet
10	Fountain Valley No. 2	3,644	3,894	4,395	4,645	4,645	4,645	4,395	2,404	1,370	1,912	1,912	1,496
10	Fountain Valley No 3	145	450	450	405	123	104	87	57	57	104	71	46
10	Spring Run No. 2	181	181	239	207	192	192	192	59	59	207	181	181
10	Calahan	599	599	599	599	1,086	269	220	85	15	14	15	269
10	Cheyenne Mountain	95	69	69	95	95	95	124	69	0	13	13	13
10	Monument	494	494	494	494	494	494	494	58	177	403	494	494
11	Sugar Loaf	10,680	10,830	10,905	11,063	11,094	9,559	10,792	12,142	8,196	7,712	7,747	7,783
11	Twin Lakes	27,688	28,365	29,336	29,919	30,016	20,366	14,224	12,992	9,836	10,943	11,897	12,361
11	Clear Creek	9,401	9,401	9,401	9,402	9,401	8,664	6,238	5,260	2,280	3,045	1,724	1,836
12	Skagway	2,732	2,238	1,573	1,153	831	1,299	1,389	1,859	2,467	2,823	2,787	2,891
12	Mount Pisgah	1,755	1,886	2,141	2,468	2,360	1,682	1,561	1,384	545	808	750	696
12	Brush Hollow	3,427	3,181	3,146	3,560	3,954	3,788	2,822	1,701	852	1,889	3,129	3,670
12	City of Colorado Springs	5,083	4,750	4,580	4,316	3,609	3,442	3,971	4,643	4,875	5,091	4,903	4,788
13	Deweese-Dye	2,710	2,767	2,767	2,767	2,767	2,597	1,674	1,092	2,767	1,523	951	916
14	Teller	2,317	2,117	2,117	1,958	1,958	1,958	1,645	....	1,011	2,291	2,875	2,875

14	Lake Henry	5,625	6,468	6,321	7,425	7,158	6,419	4,801	5,307	4,083	2,862	2,222	2,674
14	Lake Meredith	12,549	22,428	26,028	27,547	26,729	25,300	23,859	7,451	2,856	2,737	2,498	4,217
15	Beckwith	....	608	661	661	777	661	558	198	74	153	153	175
15	Minnequa	1,215	1,157	1,169	1,172	1,073	1,094	1,163	1,059	1,098	1,157	1,163	1,236
15	C. F. & I. Co. No. 2	2,591	2,539	2,275	2,447	2,449	2,097	2,533	2,522	2,573	2,664	2,675	2,685
15	C. F. & I. Co. No. 3	1,871	1,839	801	2,467	2,053	2,017	2,402	1,745	1,964	2,439	2,531	2,532
16	Coler	4.086	6,000	6,208	6,413	6,413	6,413	6,413	1,538	1,305	922	1,421	1,421
16	Cucharas	19,664	19,664	19,940	20,679	20,216	13,940	8,760	8,520	7,030	13,240	12,612	12,930
16	Bradford	0	0	0	0	0	0	0	0	0	0	0	0
16	Crane-Holmes	80	80	80	117	80	48	0	0	0	191	191	191
16	Lindsley Lake	694	657	657	592	547	353	353	195	146	1,152	1,002	932
16	Holita	111	134	158	195	158	158	111	37	37	8	1	5
16	Valdez	2	2	2	2	2	2	0	0	0	0	0	0
16	Dotson	....	....	....	....	1,944	1,944	2,163	1,660	732	2,382	2,382	2,382
16	Huerfano Valley	1,529	1,671	....	1,671	1,529	1,194	782	170	0	0	0	0
17	Dye	4,474	4,929	4,860	4,802	3,394	3,324	1,650	970	0	2,437	2,625	2,417
17	Holbrook No. 1	4,200	5,179	5,076	5,282	5,008	4,818	4,133	1,833	217	62	344	740
17	Horse Creek	15,902	16,108	15,909	17,133	16,307	10,938	11,565	11,022	8,891	13,399	12,108	11,127
17	Adobe	37,442	46,528	59,423	68,765	68,307	56,936	47.510	44,760	23,630	22,382	24,117	23,306
18	Seven Lakes	....	....	....	....	....	....	1,689	1,599	1,473	313	1,499	1,499	1,499
19	Model	9,456	10,739	11,198	11,976	11,473	9,669	7,764	6,020	10,112	11,875	9,446	11,198
19	Hermosa	777	777	777	777	771	821	821	695	695	695	431	431
19	North Lake	798	798	798	782	787	771	782	771	787	787	777	736
67	Nee No Shee Nee Gronda Nee Sopah	64,391	74,265	82,808	89,453	86,247	85,889	78,293	77,920	55,286	54,286	52,859	54,009
67	Nee Skak or Queen	16,443	16,288	16,367	16,056	15,472	14,480	13,822	13,894	11,109	10,713	9,297	9,297
67	Two Buttes	2,631	2,577	2,522	2,467	2,440	2,123	379	493	506	506	2,714	5,364
67	Thurston	620	730	814	1,162	999	999	1,162	1,016	620	839	1,162	1,097

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER OF IRRIGATION DIVISION NO. 3 FOR 1930

Alamosa, Colorado, November 28, 1930.

Mr. M. C. Hinderlider,
State Engineer,
Denver, Colorado.

Dear Sir:

I herewith submit to you my report for the irrigation season, ending November 15, 1930.

Remembering that several years past you requested one of the division engineers to make his report as brief as possible, so as to save the expense of printing, I will endeavor to make my report brief.

The snowfall of last winter was below normal and during the last days of June and the first ten days of July, many of the ditches with late priorities, were dry.

Rains began July 10th and by the 20th crops were well irrigated and what appeared on the first to be a dry season turned out to be a very fair crop season.

We need more storage reservoirs in this division.

Potatoes made a good crop, 5,789 cars have been shipped and 3,000 cars are in storage.

Carload shipments of vegetables for the season were: Lettuce, 671; cauliflower, 616; garden peas, 354; cabbage, 24; spinach, 7, and mixed vegetables, 432 cars.

There was also a heavy shipment by trucks which is not included herein.

No grain shipments were made this year because of shortage and grain grown in the valley is needed for feeding purposes.

Following is a tabulated statement of Water Commissioners' reports.

Respectfully submitted,

E. S. COUNSELOR,
Irrigation Division Engineer, Division No. 3.

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL CROP REPORTS FOR THE IRRIGATION SEASON OF 1930

District Number	Number of Priorities Reported	Amount of Appropriations in Second Feet Reported	Length of Main Ditches in Miles	Length of Laterals in Miles
20	411	6,629.86	609	997
21	...	1,509.83	292	...
22	...	3,727.08	110	...
24	...	No Report	...	...
25	...	536.08	...	...
26	...	81.00	45	8
27	...	No Report	216	201
35	...	1,007.83	...	...

District Number	First Day Water Was Diverted from Natural Streams for Irrigation	Last Day Water Was Diverted from Natural Streams for Irrigation	Max. No. of Days Water Was Diverted from Natural Streams for Irrigation	Max. No. of Days Water Carried from Reservoirs
20	April 1	October 31	214	124
21	March 14	November 15	204	204
22	April 1	November 1	210	200
24	March 1	November 14	248	157
25	March 5	November 15	240	...
26	March 5	November 15	251	...
27	March 20	November 1	217	...
35	April 5	October 24	169	150

District Number	Amount of Water Carried from Reservoirs, Acre Feet	Average Daily Amount of Water Diverted by Ditches During Season from Natural Streams for Irrigation, Cubic Feet	Number of Acre Feet Diverted by Ditches During Season from Natural Streams for Irrigation	Total Number Acres That Can Be Irrigated
20	68,328	1,537.81	505,713	457,330
21	9,069	322	34,810	79,471
22	8,000	666	197,240	112,976
24	32,500	258	37,219	25,920
25	.....	161	58,797	77,690
26	.....	192	40,655	112,609
27	.....	No Report	No Report	6,757
35	.....	282.15	53,487	72,216
Totals	.....	3,418.96	927,921	944,969

District Number	Alfalfa	Natural Grasses	Cereals	Potatoes	Market Gardens
20	41,752	182,704	75,597	38,517	1,936
21	10,126	17,202	5,890	2,768	....
22	14,714	44,010	20,723	2,763	100
24	6,274	4,195	6,654	754	2,613
25	2,235	30,711	916	191	....
26	3,227	36,869	828	132	....
27	1,002	3,156	1,415	238	28
35	3,869	18,999	1,479	302	457
Totals	83,199	337,846	113,502	45,665	5,134

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL CROP REPORTS FOR THE IRRIGATION SEASON OF 1930

District Number	Field Peas	Garden Peas	Head Lettuce	Sugar Beets	Cauliflower
20	39,405	...	2,524	...	...
21	4,662	667	50	193	146
22	10,795	...	10	150	...
24	11,376	...	555	...	127
25	172	...	...	...	...
26	.....	...	...	...	...
27	523	...	...	...	...
35	1,443	26	525	53	578
Totals	68,376	693	3,664	396	851

District Number	Beans	Cabbage	Sweet Clover	Other Crops
20	8	...	25,695	17,209
21	109	...	2,149	....
22	251	...	....	8,534
24	484	55	230	1,153
25	...	...	....	3,576
26	...	...	....	....
27	...	...	....	330
35	431	32	736	....
Totals	1,283	87	28,810	30,802

District Number	Total Irrigated in Acres	Cost of Superintendence	Cost of Repairs	Cost of Improvements
20	426,340	$ 680	$3,023	$ 2,326
21	43,920	....	....	....
22	102,050	200	....	....
24	35,589	3,215	1,525	3,390
25	34,245	150	200	1,280
26	44,682	....	....	2,080
27	6,696	653	788	635
35	28,871	4,905	3,577	4,096
Totals	722,393	$9,803	$9,113	$13,807

IRRIGATION DIVISION NO. 3

AMOUNT OF WATER IN STORAGE IN ACRE FEET IN RESERVOIRS ON THE FIRST OF EACH MONTH FROM MAY 1, 1930, TO NOV. 1, 1930, BOTH INCLUSIVE

	Rio Grande	Santa Maria	Sanchez	Terrace	La Jara	Mt. Home	Smith	Conti-nental
May	34,040	29,856	13,048	7,012	2,463	6,379	5,336	6,672
June	23,934	30,049	10,704	4,997	2,173	6,379	4,225	5,124
July	13,012	21,468	7,497	3,832	1,626	5,049	2,805	3,468
August	8,165	9,900	9,602	5,163	1,006	5,301	1,996	1,525
Sept.	1,829	9,414	....	2,478	917	5,941	1,213	873
October	1,941	9,212	....	1,589	881	4,569	1,087	803
Nov.	200	9,292	....	1,117	366	5,124	1,231	803

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER OF IRRIGATION DIVISION NO. 4 FOR 1930

Montrose, November 30, 1930.

State Engineer,
Capitol Bldg.,
Denver, Colorado.

Dear Sir:

Herewith I am submitting my 20th Annual Report of Irrigation Division No. 4 for the season of 1930.

This meeting is also the 20th meeting of Irrigation Division Engineers that I have attended, not having missed a single meeting in that time.

When I assumed the duties of Irrigation Division Engineer of Division No. 4 twenty years ago, Chas. W. Comstock was State Engineer, and Junius W. Johnson and Arthur F. Hewitt were Deputy State Engineers. The Division Engineers were Cogswell, Chew, Swanson, Rosenberg and myself. I found that there were hundreds of ditches in my Division without headgates or measuring devices, and that many of the reservoir dams were in bad condition. It was impossible to compel ditch owners to put in headgates and measuring boxes. Each of you probably remember the old law which is found on page 874, section 3246 Revised Statutes of 1908, which reads as follows:

> "All persons, associations or corporations who have heretofore or may hereafter divert water for purposes of irrigation from any of the public streams of the State, shall erect and maintain headgates and wastegates in connection therewith, and in case of failure or neglect, or refusal to do so, after five days' notice has been given by the Water Commissioner or State Engineer, then said headgates shall be constructed by the Water Commissioner of the district within which said ditch, canal or conduit may be located, and if, upon demand, the owner or owners of said ditch, canal or conduit shall neglect or refuse to pay the expenses thereof, then the said Water Commissioner shall take such proceedings to recover the same as is now provided for by sections seventeen hundred and thirty, seventeen hundred and thirty-one and seventeen hundred and thirty-two of the general statutes of 1883, in the case of failure to build and maintain bridges."

I came up to Denver during the session of the General Assembly and persuaded Senator Delph Carpenter to incorporate

the present headgate law found in Section 1, L. 1911, P. 463 in his proposed bill known as "The Carpenter Bill."

The Atkinson Reservoir on Big Creek in Mesa County, broke in October, 1911, and fearful of losing other reservoirs, at my request the State Engineer sent Deputy State Engineer Johnson to assist me in making an inspection of the reservoir dams on Grand Mesa. This inspection was made during the month of September, 1912, Mr. Johnson's report being incorporated in my report for that year.

In 1911 the Gunnison Tunnel furnished 300 second feet of water to the Uncompahgre valley; in 1912, 350 second feet. Much irrigation work was done these years. The Highland Canal and Uncompahgre Projects were completing their canal systems. The Lilylands Company in San Miguel County and the Paradox Land & Development Co. in western Montrose County were doing a vast amount of canal and reservoir work. Also, the San Miguel Irrigation and Land Company and the San Miguel Development Company were actively in irrigation work. The Lone Cone Reservoir Company completed the Lone Cone Reservoir in 1912. Irrigation work was also being carried on in La Plata, Montezuma and Dolores Counties.

In order to conserve water and save the expense of distribution, we were successful in getting the Surface Creek Water Users' Association formed. This Association included practically all of the reservoirs on Grand Mesa which were tributary to Surface Creek. The Association is still functioning.

In my report of 1912 I called attention to the unsatisfactory method of appointing and paying Water Commissioners. In 1913 and 1914, John E. Field was State Engineer, and Hewitt, McAnelly and Meeker were Deputies, and the Division Engineers were the same as in 1911 and 1912. During these years the Gunnison Tunnel was completed except lining; the South Canal and Loutsenhizer Canal systems were completed, and the M. & D. Canal system mostly completed.

The project manager, Mr. C. T. Pease, appealed to this office from the decision of the Water Commissioner relative to the return water. The decision of this office substantiated the project manager's decision, and as a result, the ditches in the valley were unified during the next year, the U. S. R. S. purchasing the Ironstone Canal.

In my annual report for the year 1914 I emphasized the fact that Water Commissioners should be paid by the year and should be assignable by the Division Engineers to any district where their services might be needed.

In 1915 and 1916 A. A. Weiland was State Engineer and Lyman E. Bishop was Deputy. Cogswell, Chew, Norton, Dickson and myself were Division Engineers.

As my reports each year had been advocating a change in the manner of paying Water Commissioners, we had a bill intro-

duced in the General Assembly, paying Water Commissioners by the State. We succeeded in getting this Bill passed by the General Assembly, but Governor Shafroth vetoed the Bill.

Mr. A. J. McCune was State Engineer from 1917 to 1923 inclusive.

Up to 1917, the salary of Irrigation Division Engineers for Divisions 3, 4 and 5, was $1,500.00 each per annum. In 1917 this salary was raised to $2,100.00. The traveling expenses allowed by the State to each Division Engineer was $500.00 per year, and in my division my expenses exceeded this amount from $100.00 to $200.00 each year.

During 1917 and 1918 the State Engineer had me visit every Clerk of the District Court in my division, for the purpose of securing certified copies of decrees, and as a result of these visits many certified copies were furnished the State Engineer's office and this office. In my annual report I recommended a law to compel clerks of the court to furnish decrees, and in 1919 the statutes provided that a judicial decree for water was not effective until the State and Division Engineers were furnished with certified copies of the Decree.

In 1921 the Division Engineers were empowered by statute to approve Water Commissioners' bills, and also this year an expense fund of $6,000.00 was provided for Division Engineers, to be apportioned by the State Engineer.

In 1923 we examined the dams of 77 reservoirs and reported them to the State Engineer's office.

Mr. M. C. Hinderlider became State Engineer in 1924, and I think he has been in closer touch with the work of the Division Engineers and with irrigation matters generally throughout the State, than had any previous State Engineer.

In 1925 we began installing Parshall Flumes in this division, and have found them most satisfactory.

In 1927 a Special Deputy State Engineer was appointed to take care of the Colorado-New Mexico Compact, and the salaries of all Division Engineers were fixed at $2,500.00 per annum.

A brief summary of what has been accomplished during the last 20 years, is as follows:

We have traveled and driven about 200,000 miles, or a distance of eight times around the world.

Litigation and ditch fights are almost a thing of the past. Most of the present day disputes are between owners in the same ditch and not between the various ditches.

By a close inspection of reservoirs, life and property has been safeguarded.

Ditches and reservoirs are in general equipped with adequate headgates and measuring devices.

No appeal from the decision of this office has been reversed by the State Engineer.

In the last five or six years this office has kept up the river stations without the aid of a resident hydrographer.

Water Commissioners are receiving better pay and are not changed each year as they formerly were before the passage of the Civil Service law.

As to the year 1930, the snowfall during the winter of 1929 and 1930 was much below normal, and portended a scarcity of irrigation water, but rains of July and August made ample addition to the supply. Crops were generally good, except fruit, which was badly hurt by late freezing.

Much work was done on Grand Mesa during the late summer and early fall by various reservoir owners.

The weather during September, October and the early part of November was especially fine, there being no early frost. The streams on Nov. 1st were far below normal, owing to the extremely dry weather. A heavy fall of snow began on Nov. 16th and continued until the 20th, the precipitation being about 1½ inches during the storm.

This year we had the services of a Water Commissioner-at-Large in Districts 59 and 62.

So many of our recommendations have been carried out, that we are encouraged to make a few more. Districts 41 and 68 should by all means be consolidated in order to simplify the distribution of water from the Uncompahgre river, to lessen the expense of distribution and to give more efficient service.

The Statute providing for a Water Commissioner-at-Large should be amended as not to limit the Commissioner to a specified number of days, nor as to where he should work.

The following are brief reports of the two large Reclamation Projects in this Division.

United States Department of the Interior
Bureau of Reclamation
Montrose, Colorado, Nov. 21, 1930.

Mr. H. C. Getty,
Montrose, Colorado.

Dear Mr. Getty:

In reply to your letter of November 7th you will find enclosed the narrative matter as requested.

It is impossible at this time to give you the detailed information that you ask for, for the reason that the crop census has not yet been taken in the field and for the further reason that the hydrographic data during the past irrigation season has not yet been computed or tabulated. Consequently the narrative matter enclosed is more or less of a general nature but I trust that it will serve your purpose.

Very truly yours,

L. J. FOSTER,
Project Superintendent.

UNCOMPAHGRE PROJECT, COLORADO

Season of 1930

The Uncompahgre Project was continued in operation by the Bureau of Reclamation of the Department of the Interior during the season of 1930.

Water was delivered upon demand by the water user on an acre-foot basis. The lands generally on the west side of the Uncompahgre River were furnished four acre-feet of water for a minimum charge of $1.76. Lands generally on the east side of the Uncompahgre River, which consist principally of adobe soils, were furnished three acre-feet of water at a minimum charge of $1.32 per acre. Excess water was furnished at the rate of $0.44 for the first acre-foot and $0.40 per acre-foot thereafter to water users on the east side of the Uncompahgre River and at the rate of $0.40 per acre-foot to water users on the west side of the Uncompahgre River.

Operating conditions in the project canals and laterals were generally good throughout the irrigation season. No operating troubles of any consequence were experienced in connection with the Gunnison Tunnel and the South Canal. Minor maintenance difficulties were had on side hill canals due to sliding banks below, or to irrigation from above.

The supply of water available for irrigation purposes was a little above normal for the Gunnison watershed and about normal for the Uncompahgre watershed. The supply of water available to meet the demands of project water users was generally sufficient to supply all needs throughout the season except during the fore part of July when it became necessary to rotate for a period of about two weeks. This particular shortage at that time was due entirely to the fact that the usual rains which begin along about July 4th did not commence this year until the middle of July.

Generally fair yields have been obtained by project farmers during the season of 1930 for all crops. The prevailing prices for wheat and onions have been exceptionally low all fall. The price of sugar beets of course was based upon contracts made with the Holly Sugar Company. The price for potatoes has fluctuated somewhat since digging began and the outlook for this crop is somewhat uncertain. Wherever storage was available the money crops have been stored in anticipation of better prices to be received after the first of the year.

The fall weather conditions were ideal for getting all crops out of the ground without damage or delay. There was no precipitation for a period of 30 days or so from the middle of October until the middle of November and there was no loss on ac-

count of farmers being delayed in their farming operations, with the result that early freezes would catch them in the harvesting of their crops.

It is estimated that approximately 62,000 acres were irrigated during the season of 1930. The actual acreage of the various crops is not available at this time but it is believed that the usual proportion of project crops will be had as has been grown on the project during former years. Approximately one-third of the project is in alfalfa.

The various cooperative organizations in existence for the disposal of the crops raised on the project are generally in a flourishing condition.

The operation and maintenance charges for the project are being collected by the Uncompahgre Valley Water Users' Association and are being turned over to the United States for operation and maintenance purposes.

The Coordinating Committee, which was appointed by Governor Adams last February to review conditions on the project, submitted their report relative thereto during the month of September. The Coordinating Committee, among other recommendations, submitted two principal recommendations, one of which had to do with a plan of financing needed drainage operations on the project with the result that whatever monies were expended for drainage would not be collectible until beginning with the year 1961 at the regular annual rates that are now in force. The monies so provided for such purposes would not be subject to any interest charge until the annual installments became due in 1961.

Another recommendation had to do with the delinquencies that were incurred during past years and it was recommended that these delinquencies be also set over to 1961 and be collected at that time as supplemental construction at the regular annual rates per acre now in force which amount to $1.25 per acre generally for the majority of the project lands. This recommendation would result in having charges set over to that period in the amount of over $600,000 approximately.

The recommendations made by the Coordinating Committee are of course subject to approval by the Department of the Interior and needed legislation with respect thereto must be passed by Congress before the terms thereof can be made fully effective.

United States Department of the Interior

Bureau of Reclamation

Grand Junction, Colorado,
November 10, 1930.

BUREAU OF RECLAMATION GRAND VALLEY PROJECT

The 1930 season on this project was an average season although peculiar to the extent that the last killing frost in the spring occurred on May 10th, and the first in the autumn on October 17th, giving a growing season of 160 days. This is 25 days shorter than the average for this valley. The crop yields were nearly average but the low prices were a severe disappointment.

The water supply was ample and the season's run to the farm was normal with a use of 3.4 acre-feet per acre. The irrigation system functioned perfectly during the year and water was delivered on demand as required, without any interruption of service.

Trusting that this will serve your requirements, I am,

Very truly yours,

W. J. CHIESMAN,
Superintendent.

Attached hereto are the tabulated ditch and reservoir reports.

Thanking you for your courteous treatment and helpful suggestions, I am,

Most respectfully,

H. C. GETTY,
Irrigation Division Engineer, Division No. 4.

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL CROP REPORTS FOR THE IRRIGATION SEASON OF 1930.

Dist. No.	Ditches Reported	No. of Priorities	Amt. of Appropriation Cu. Ft. Per Sec.	Capacity of Canals and Ditches Cu. Ft. Per Sec.	Length of Canals or Ditches in Miles	First Day Water Was Used	Last Day Water Was Used
28.....	197	234	629	2,549	241	April 15	Aug. 5
40.....	373	323	2,082	3,121	776	April 1	Oct. 23
41.....	34	35	2,046	3,266	327	March 20	Nov. 15
42.....	257	252	4,126	5,223	595	Jan. 1	Dec. 31
60.....	85	74	416	615	313	April 1	Nov. 1
61.....	27	34	69	108	45	Jan. 1	Dec. 31
68.....	164	178	653	799	243	April 1	Nov. 15
Totals	1,137	1,130	10,321	15,681	2,540		

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL DITCH REPORTS, 1930.

Dist. No.	Average No. Days Water Was Used	Av. Daily Amount in Sec. Ft.	No. Acre-Feet Used	No. Acres Can Be Irrigated	Alfalfa	Natural Grasses	Cereals
28	83	495	80,804	31,853	80	27,688	90
40	130	1,529	444,658	227,103	58,762	27,974	19,759
41	141	1,735	733,329	166,050	21,670	1,220	24,440
42	104	1,855	701,844	196,532	49,777	14,027	8,744
60	86	237	56,346	51,946	18,516	2,380	3,802
61	160	27	8,099	5,786	1,954	12	447
68	52	419	56,522	25,474	4,618	7,295	2,274
Totals	108	5,958	1,920,241	704,744	155,377	80,596	59,556

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL DITCH REPORTS, 1930.

Dist No.	Orchard	Market Gardening	Potatoes	Sugar Beets	Other Crops	Total Acres Irrigated
28	.....	....	35	.....	.....	27,893
40	13,352	925	3,514	5,231	9,933	139,450
41	4,865	3,264	11,990	8,440	14,356	90,245
42	11,804	317	748	1,000	22,052	108,469
60	103	....	50	.....	4	24,855
61	42	3	2	.....	226	2,686
68	34	27	269	13	5	14,535
Totals	30,200	4,536	16,608	14,684	46,576	408,133

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL DITCH REPORTS, 1930.

Dist. No.	Superintendence	Repairs	Improvements
28	.....	.....	.....
40	$ 18,526.00	$ 41,471.00	$ 100.00
41	23,975.00	22,555.00	18,510.00
42	38,084.00	67,913.00	27,107.00
60	2,000.00	8,370.00	.....
61	221.00	1,378.00	740.00
68	157.50	7,691.50	857.15
Totals	$ 82,963.50	$149,378.50	$ 47,314.15

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL RESERVOIR REPORTS, 1930.

Dist No.	No. in District	Area of High Water Line, Acres	Capacity in Cubic Feet	Quantity of Water in Reservoir May 1st	Quantity of Water in Reservoir Nov. 1, Cu. Ft.
40	120	3,580	1,851,826,905	1,851,826,905	36,921,656
42	56	2,031	739,215,189	.....	.....
60	2	....	223,748,000	130,900,000	50,000,000
61	1	....	.....	.....	.....
Totals	179	5,611	2,814,790,094	1,982,726,905	86,921,656

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL RESERVOIR REPORTS, 1930.

Dist No.	First Day Water Was Used	Last Day Water Was Used	Average No. Days Water Was Used	Average Daily Amount in Second Feet	Number Acre Feet Carried
40	June 8	Oct. 23	44	561	40,963
42	June 6	Sept. 30	37	106	10,288
60	.....	.....	...	...	.....
61	May 15	Sept. 15	60	30	5,187
			47	697	56,438

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL RESERVOIR REPORTS, 1930

District Number	Cost of Superintendence	Cost of Repairs	Cost of Improvements
40	$5,360.00	.....	$7,850.00
42	.....	.....	.....
60	.....	.....	.....
61	186.00	$855.00	50.00
Totals	$5,546.00	$855.00	$7,900.00

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER OR IRRIGATION DIVISION NO. 5 FOR 1930

Glenwood Springs, Colorado, January 12th, 1931.

Mr. M. C. Hinderlider,
State Engineer,
Denver, Colorado.

Dear Sir:

Owing to an illness which attacked me on November 7th and confined me to my home until a very recent date, I have been unable to prepare my annual report until this time. Also, and for the same reason, I was unable to urge the water commissioners to forward me their reports on time, hence many of these came to me late, and it was necessary for me to send some of them back for correction. I am still waiting for the reports of two districts and cannot prepare my tabulated report to you until these have been received. I am hoping, however, to finish up all this work within a very few days.

The season of 1930 was not a very favorable one as far as farming and crop conditions were concerned. The irrigation outlook in the spring was not at all favorable, and there was a general prediction of poor crops. The snowfall for the winter of 1929-30 was not at all heavy throughout the district, although in some places it was almost up to the average. The climatic conditions were ordinarily favorable and crops had a very promising start in the spring. However, it soon became apparent that if we had to depend upon the actual stream flow, heavy crops could not be expected, and farmers for the most part were rather discouraged.

But with the stream flow supplemented by copious rains crop returns were almost, if not quite, up to normal. Perhaps there were fewer outstanding yields than usual, but the general average throughout the division was very satisfactory. This was especially true of the sugar beet crop in which there was a better stand and a larger yield than in any previous year in the county's history. Potatoes and grain also yielded well, but the hay crop was short. This was due principally to the cold weather in the early part of the season with late frost.

Generally speaking the yield of all farm crops with the exception of hay has been very good during the past year. The unfortunate condition which our farmers are forced to face is not from a lack of production but is due to the lack of demand and the very poor prices for all sorts of crops. The sheep men have complained of the very poor prices they have received, and the dairy men are likewise disappointed in the low price of butterfat. Added to these discouraging features the potato growers have

not been able to market their products until very recently, and then at a very poor price. If it were not for the thoroughly satisfactory prices received for cattle and hogs, our farmers would certainly be very much discouraged. As it is, there is very little money circulating in the country, but there is hope that the farmers may yet receive a fairly good price for their potatoes.

I believe the irrigation work has been carried on quite as well the past year as ever before, and I do not recall any litigation over water rights or serious difficulty of any kind, except that there was a little friction in district No. 45, due to the absence of a water commissioner. I have been without a commissioner in this district since the death, more than two years ago, of Mr. R. S. Glenn, who for a number of years officiated in a very satisfactory manner as water commissioner of that district. Recently Mr. J. S. Taughenbaugh, of Rifle, was appointed by the Governor to fill the vacancy caused by Mr. Glenn's death, and Mr. Taughenbaugh has entered upon his duties and, while he was only able to get started on the work this fall, he will be all ready in the spring to administer the affairs of the district, and I hope for better results.

Each year we are adding a number of Venturi or Parshall flumes, and I will be able to report to you in a few days the number of these appliances that we now have installed in the division. They are a very great help in our work and are proving very satisfactory, although at first there was a little objection to their use. As the farmers become accustomed to their use I think they will more and more favor them as the only proper equipment for measurement.

There has been practically no new construction in the division the past year, and very little replacement or repair work. I succeeded in installing a new valve control device on the Consolidated Reservoir near Carbondale, and some new flume work has been installed, but no new project has been undertaken. We have been reasonably free from damage by cloudbursts the past year, and I think the districts in the division are in better condition than usual. I am making constant efforts to secure the installation of Venturi flumes and in this I think I have succeeded very well the past year.

I very much regret that I was so indisposed at the time of the annual meeting of division engineers in your office that it was impossible for me to attend. I felt that this was a great loss to me because I have always found these meetings to be very helpful indeed.

I am deeply appreciative of the cooperation that your office has extended during the past year, and hope I may be worthy of its continuance. I am

Yours very truly,

A. J. DICKSON,
Irrigation Division Engineer, Division No. 5.

IRRIGATION DIVISION NO. 5

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL CROP REPORTS FOR THE IRRIGATION SEASON OF 1930

(1) District Number	(2) Amount of Appropriation Cubic Feet Per Second	(3) Capacity of Canal	(4) Length of Main Ditch, Miles	(5) First Day Water Used from Natural Stream	(6) Last Day Water Used from Natural Stream	(7) Number of Days Water Carried from Natural Stream
37	852	258	...	...	...	108
38	1,004	...	...	...	...	115
39	645	394	148	...	...	137
45	652	753	212	...	...	88
53	....	...	...	...	...	133
70	1,234	335	139	...	...	172
Totals	4,387	1,741	499	...	...	125

(8) District Number	Average Daily Amount of Water During Season (Cubic Feet Per Second) from Natural Stream	(9) Number of Acre Feet Used by Canal for Season from Natural Stream	(10) Total Number of Acres That Can Be Irrigated	(11) Alfalfa	(12) Natural Grasses	(13) Cereals
37	381	103,340	26,840	10,932	6,709	3,065
38	861	209,814	39,655	26,209	2,555	6,589
39	291	80,132	24,452	10,468	2,592	2,477
45	348	53,259	28,818	14,607	4,447	4,699
53	293	78,466	18,997	14,229	1,195	350
70	115	39,947	17,250	6,170	176	955
Totals	2,290	564,958	156,012	82,612	17,674	18,135

(14) Number	Orchards	(15) Market Gardens	(16) Potatoes	(17) Sugar Beets	(18) Beans	(19) Peas
37	....	...	1,373	....	...	57
38	....	...	3,652	....	5	...
39	1,164	68	1,171	1,492	41	...
45	460	92	543	140	17	...
53	5	...	240	30	...	...
70	98	5	189	3	10	2
Totals	1,727	165	7,168	1,665	73	59

District Number	Other Crops	(20) Total Acreage Irrigated	(21) Cost of Superintendence	(22) Cost of Repairs	(23) Cost of Improvements
37	513	23,021	....	$19,182	....
38	...	.....	....	.....	....
39	213	19,091	$3,049	16,943	....
45	371	25,744	2,600	2,563	$ 320
53	...	17,497	....	4,640	2,100
70	142	7,747	....	1,415	405
Totals	1,264	93,100	$5,649	$44,743	$2,825

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER OF IRRIGATION DIVISION NO. 6 FOR 1930

Steamboat Springs, November 29, 1930.

Mr. M. C. Hinderlider,
State Engineer,
Denver, Colorado.

Dear Sir:

In compliance with the provisions of the law, I have the honor to transmit herewith my report for Irrigation Division No. 6 for the year ending November 30, 1930.

Conditions were unsatisfactory in the early part of the season for a good crop production, due to continuous cold weather extending up to the early part of June, followed by cold nights and hot days with dry period from June 20 to July 12.

This condition was detrimental principally to the hay crop. It is estimated that the alfalfa crop is about 40% less than normal, with the other hay probably 20% less than normal. Rains started the latter part of July with very little let up throughout August.

Although the water supply for direct irrigation was subnormal, there were no severe conditions resulting therefrom. The various small reservoirs were well filled without exception and proved a decided advantage to the owners over others in the same localities who depended entirely upon direct irrigation. The extreme shortage for direct irrigation occurred only on small streams or tributaries to the main rivers.

Harvesting conditions were also unfavorable to a minor extent, on account of adverse weather conditions during the greater part of the harvesting season.

Intermittent wet and cold, the latter part of September and continuing into October, made the hay harvest slow, also bad for the threshing of grain. Climatical conditions as described were an advantage, however, rather than a detriment to the lettuce and other garden crops.

Potato harvesting was carried on during the good weather the latter part of October and early November. The crop showed a good yield, the principal acreage however is dry land.

While the market for all produce is not up to the average, it is considered the potato crop will be the most profitable.

Lettuce returned a fair profit, approximately $100.00 per acre to the producer.

While the price of grain is low, this crop is being used to a good advantage by many for feeding.

Starting on August 30 and continuing the balance of the season, orders were sent to the owners of all ditches diverting

water from Deep Creek and tributaries, District No. 58, to install necessary headgates and measuring devices, with instructions to the Water Commissioner of District No. 58 to turn no more water to these ditches until these orders had been complied with.

Investigations carried on during July showed no headgates or measuring devices in any of these ditches. The use of water and diversions as heretofore practiced on this stream were contrary to all fairness to more than 90% of the water users concerned.

Necessary plans and instructions for installation, accompanied these orders. This involved some thirty ditches having total adjudications of about 54.73 cubic second feet. The average available supply during the direct irrigation season in Deep Creek is less than 50% of the demand. This year the percentage of supply was much less.

The Deputy Water Commissioner of District No. 58 has been actively engaged in assisting and supervising the placing of the structures.

At the writing of this report about 75% of the ditches have complied with these orders. The present indications are that before the irrigation season next spring, the necessary devices will have been placed in the remaining 25%, so that it will probably not be necessary to enforce the provisions contained in the order on any of the ditches concerning the turning off of water for non-compliance.

All measuring devices with the exception of those on two small ditches will be Parshall flumes, about an equal number of concrete, metal and wood.

This work is being pushed as rapidly as possible. One creek or drainage area being taken at a time and pushed until completion.

Fortification Creek in District No. 44 was 100% completed this season in respect to headgates and measuring devices on all ditches.

Flag Creek in District No. 43 has a 100% installation. Piceance Creek, District No. 43, is about 90% completed.

Investigations are now being carried on preparatory to following out the same plans on Fish Creek, District No. 57; Hunt Creek, District No. 58; Coal Creek, District No. 43, and Williams River, District No. 44.

Six river rating stations were maintained, at which 44 discharge measurements were made during the year.

Heavy runoff commenced much earlier than usual. High stage in runoff as early as April 10th and continuing to May 10th. A cold wave retarded the flow for several days, the highest stage occurring, however, during the latter part of May, receding in the early part of June. The total runoff for all streams is considerably below normal.

District No. 43

Thirty adjudications were made during the year for ditches in District No. 43 for approximately 2,300 acres.

Complete water commissioners' ditch and reservoir report for this district. Also a tabulation of Venturi flumes placed during 1930.

District No. 44

Five adjudications for ditches were made in District No. 44 the past year, for approximately 400 acres.

Primarily through the efforts of Mr. Hamilton, Water Commissioner for the above district, considerable progress and improvement concerning irrigation has been made in this district. Water has been applied to about 3,500 acres under old adjudicated ditches that have been lying idle for the past several years. The ditches rebuilt, put in shape and water again applied to the ground. Principally among these is the Lily Park Ditch, adjudicated 36.67 cubic second feet for 2,200 acres. Water was applied to about 1,000 acres under this ditch this season and arrangements are in progress to bring the entire acreage under the ditch by next spring into cultivation.

Cloudbursts and floods caused minor damages to headgates and ditches scattered throughout the district, few repairs having been made to date.

The season has been above the average for crop production and general irrigation improvements for District No. 44.

Water Commissioner reports a total of 22 adjudicated reservoirs for his district, only six of which were used in 1930 for irrigation. Five partly used in 1930; seven reservoirs temporarily abandoned due to washouts and other defects; four unused.

There is a complete Water Commissioners' Ditch and Reservoir Report for this district.

Districts Nos. 54, 55, 56

In District No. 54, there is a necessity for the services of a water commissioner. The present water commissioner, however, is inactive, consequently there is no report for this district.

Districts Nos. 55 and 56 have no water commissioners and no reports for these districts.

District No. 58

The Water Commissioner's work in District No. 58 has been carried on largely by the deputy Water Commissioner. The report for this district contains such ditches as covered by the deputy and is not a complete report for this district.

The Yampa District in Water District No. 58 includes the Yampa, Trappers and Toponas Shipping Points.

The lettuce acreage was approximately	2,500
Peas acreage was approximately	200
Spinach acreage was approximately	75
Carloads Shipped—	
Lettuce	480
Peas	5
Spinach	3
Mixed cars lettuce, spinach and peas	18
Total	506 cars

Average price to growers—Lettuce 75 cents per crate. Peas 6 cents per pound. Spinach 5 cents per pound.

In addition to the above, about 10,000 pounds of green peas were shipped out by express and probably ten to twelve cars of lettuce hauled out by auto truck.

REPORT ON INSTALLATION OF VENTURI OR PARSHALL FLUMES, AS MADE BY WATER COMMISSIONER, DISTRICT NO. 43, FOR THE YEAR 1930

	Name of Ditch	Feet Width of Throat	Kind of Material	Cost of Flume
1	Melvin	2	Oregon Fir	$ 30.00
2	Bawden	1	Oregon Fir	25.00
3	Nichols	1	Oregon Fir	25.00
4	Sawyer No. 1	1	Galvanized Iron	55.00
5	Meeker	4	Reinforced Concrete	200.00
6	Howey	2	Galvanized Iron	60.00
7	E. Chandler	2	Galvanized Iron	60.00
8	Chandler	2	Galvanized Iron	60.00
9	Metz & Reigan	2	Oregon Fir	40.00
10	Metz	2	Oregon Fir	40.00
11	Cox & Cole P. D.	4	Oregon Fir	50.00
12	Ryan	2	Oregon Fir	40.00
13	Ryan	2	Oregon Fir	40.00
14	B. M. & H.	2	Oregon Fir	40.00
15	German	2	Oregon Fir	45.00
16	German	2	Oregon Fir	45.00
17	Robert McKee	3	Native Lumber	35.00
18	B. & M.	3	Oregon Fir	50.00
19	Piceance	2	Oregon Fir	40.00
20	Emily	3	Oregon Fir	50.00
21	Oldland from Major Dam	1	Native Lumber	20.00
22	Oldland from Spring	2	Native Lumber	27.50
23	Rye Grass	3	Native Lumber	35.00
24	Oldland	3	Native Lumber	35.00
25	Oldland Auxiliary	3	Native Lumber	35.00
26	Schuttee	1	Oregon Fir	40.00
27	Home	2	Oregon Fir	47.50
28	McKee	2	Oregon Fir	45.00
29	Baxter	1	Native Lumber	20.00
30	D. D. Taylor	2	Oregon Fir	45.00
31	Scweiger	2	Oregon Fir	45.00
32	Youch	2	Oregon Fir	50.00
33	Rooney	2	Oregon Fir	40.00
34	J. W. Bainbrich, Jr., 1 & 2	1	Oregon Fir	37.50
35	Boise	1	Oregon Fir	37.50
36	Spaulding	2	Oregon Fir	45.00
37	Val Verde No. 1	1	Native Lumber	20.00
38	Quinton	1	Native Lumber	20.00
39	Chas. Smith	2	Oregon Fir	45.00
40	Marcott	2	Oregon Fir	45.00
41	Marcotte	1	Oregon Fir	40.00
42	Mooney	1	Oregon Fir	40.00
43	Hill Creek No. 2	1	Oregon Fir	40.00
44	Beckman Enl. & Ext.	2	Oregon Fir	45.00
45	Old Agency	3	Reinforced Concrete	151.00

Attached hereto is a tabulation of the Annual Reports of the Water Commissioners.

Respectfully submitted,

B. T. CHASE,
Irrigation Division Engineer Division No. 6.

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL CROP REPORTS FOR THE IRRIGATION SEASON OF 1930

District Number	Number of Priorities	Complete Ditches Reported Number	Amount of Appropriation in Second Feet	Capacity of Ditch in Second Feet	Length of Main Ditch in Miles	Length of Laterals in Miles	First Day Water Diverted from Natural Stream	Last Day Water Diverted from Natural Stream
43	373	231	870.43	2,553.34	550	...	3-25	9-5
44	133	89	483.58	656.00	194	111	4-22	10-31
54				No Report				
55				No Report				
56				No Report				
57	106	75	368.38	716.27	189	14	4-29	10-16
58	307	198	921.54	1,114.00	468	...	4-1	11-1
Totals	919	593	2,643.93	5,039.61	1,401	125	4-1	11-1

District Number	Average Number of Days Water Diverted from Natural Stream	Average Daily Amount Carried in Second Feet	Number of Acre Feet Used	Number Acres That Can Be Irrigated	Alfalfa	Natural Grasses
43	72	887.57	206,417	46,976	19,335	9,283
44	56	300.83	37,255	22,106	8,667	7,042
54			No Report			
55			No Report			
56			No Report			
57	59	316.07	84,797	19,410	1,153	10,630
58	79	743.66	132,705	64,270	695	32,089
Totals	66	2,248.13	461,174	152,752	29,850	59,044

District Number	Cereals	Orchards	Market Gardens	Potatoes	Sugar Beets	Beans	Peas	Lettuce
43	4,675	...	...	4	...	...	...	...
44	3,076	5	1	111	1	...	...	...
54				No Report				
55				No Report				
56				No Report				
57				No Report				
58	6,000	1	117	10	...	...	200	2,500
Totals	13,751	6	118	125	1	...	200	2,500

District Number	Other Crops	Total Irrigated	Superintendence	Repairs	Improvements
43	596	33,893	$660.00	$11,422.00	*$133,235.00
44	380	19,283	.....	5,005.00	891.00
54			No Report		
55			No Report		
56			No Report		
57	...	11,783	.....	.....	.....
58	250	41,862	.....	.....	.....
Totals	1,226	106,821	$660.00	$18,487.00	$134,126.00

*Improvements include $115,000.00 Meeker Water System.

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL RESERVOIR REPORTS FOR IRRIGATION SEASON OF 1930

District Number	Number of Adjudications	Area of High Water Line Acres	Total Capacity Cubic Feet	Number of Reservoirs Reported	Quantity of Water in Reservoirs May 1st Cubic Feet	Quantity of Water in Reservoirs November 1st Cubic Feet	First Day Water Was Used	Last Day Water Was Used
43	3	54	10,849,900	3	9,368,860	1,306,800	5-1	8-25
44	22	188	68,747,870	6	18,648,000	2,500,000	6-6	9-1
54				No Report				
55				No Report				
56				No Report				
57	25	314	152,971,243	6	56,961,664	3,092,760	5-20	10-1
58	19	132	13,700,598	12	13,700,398	323,225	5-1	8-25
Totals	69	688	246,269,411	27	98,678,922	7,222,785	5-1	10-1

District Number	Average Number of Days Water Carried	Average Daily Amount Carried Cubic Feet	Number of Acre Feet Reservoir Water Carried	Alfalfa	Natural Grass	Cereals	Other Crops	Total Irrigated	Repairs
43	27	4.60	215	Crop Reported Under Howey & Youch Ditch, Nicholas Ditch & Evacuation No. 2					
44	48	*14.50	1,718	230	355	...	...	585	....
54				No Report					
55				No Report					
56				No Report					
57	54	16.52	1,634	320	200	...	...	520	$ 70.00
58	101	*19.66	1,453	15	727	...	...	742	734.00
Totals	57	*55.28	5,020	565	1,282	...	...	1,847	$804.00

*Average daily flow not continual for average number of days.

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER OF IRRIGATION DIVISION NO. 7 FOR 1930

Durango, Colorado, November 12, 1930.

Mr. M. C. Hinderlider,
State Engineer,
Capitol Building,
Denver, Colorado.

Dear Sir:

Herewith is the annual report of the administration and activities in Irrigation Division No. 7 for 1930.

Administration

Of the seven water districts in this division only five have water commissioners. One district, number 29, has a water commissioner who is inactive. This is because a portion of the district lies within counties which refuse to pay the fees for services rendered by the commissioner.

Splendid cooperation has been rendered this office in the administration of water rights by the commissioners in the other districts. Particularly is this true in district Number 33 where the commissioner has been called upon to do considerable work and travel incident to the La Plata River Compact Administration.

An acute water shortage was experienced during the month of June. One particularly bitter dispute arose in District No. 34 between claimants of water from Crystal Creek, a tributary of the Mancos River. The dispute was at least temporarily settled by this office.

The accurate measurement of water is one of the most important factors in the proper administration of decrees. To this end the improved Parshall Flume is replacing the old measuring flume. Eight new flumes of timber construction were installed in ditches in District 34 and two new flumes of timber and one of metal in District 33. Plans, specifications, bills of material and assistance in the construction and placing of the Parshall Flumes was furnished by this office.

Hydrographic work has also been carried on. Stream flow records being obtained on the major streams in the Division.

Water Supply

The stream flow was fifty per cent of the mean in practically all streams of the San Juan and Dolores watersheds during the early summer. The average precipitation in the same watersheds from November 1, 1929, to June 30, 1930, was 7.43 inches or 64 per cent of normal. The snow supply, as measured at high elevations on March 31st of this year, averaged eight inches, exactly fifty per cent of the mean for a long period.

Rains in July and August, together with the use of some storage water, relieved the acute situation and as a result fair crops were raised. Harvest weather was ideal, resulting in first class produce of all kinds.

Activities or Development

Stored water to supplement the natural stream flow during dry periods is entirely inadequate in this division. Probably of as much importance as any movement in the San Juan Basin are the efforts being made to bring about the construction of dams for the impounding of water to be used as supplemental to the natural flow and direct diversions. The Red Mesa Ward Reservoir Dam was constructed to height of 36 feet early in the spring. This is the first reservoir to be built in District 33 on the La Plata River in Colorado. The use of 570 acre feet of water from same resulted in three good crops of hay on three hundred thirty acres of highly productive land on which there would otherwise have been a small crop as the ditch furnishing water to such lands had only one week of flow from the stream. Work is going ahead on this dam to increase the height four feet this year. This added height will allow the storage of 150 acre feet more water. This is a mutually owned project of farmers principally under the Freed Ditch. There is no bonded or other indebtedness, stock in the project being acquired by work performed, or money advanced for supplies and labor. The gross return in 1930 on the basis of $8.00 hay, was $7,200.00 or 30 per cent of the principal investment.

Adjudication of water rights in Districts 31 and 34 is slowly progressing. Probably the same will be completed by early spring of next year.

Recommendations

In order to bring about an efficient yet economical administration of decrees in districts which are being adjudicated, it is suggested that Districts 32 and 34 be combined. This would make for a complete natural boundary for the district and would effect a saving to the counties.

An adjustment of County Boundaries should be made between Hinsdale and Archuleta, and between Mineral and Archuleta Counties.

Investigations

Since the return water to the streams of the Upper Colorado River Basin, is of great importance in respect to divisions of water between states, it is suggested that a complete investigation be made of the return flow to streams in the San Juan Basin of Colorado.

Respectfully submitted,

J. R. WILLIAMS,
Special Deputy State Engineer in Charge Division No. 7.

IRRIGATION DIVISION NO. 7

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL REPORTS FOR THE IRRIGATION SEASON OF 1930

Dist. No.	No. Ditches Reported	No. of Priorities	Amount Appropriated, Cu. Ft.	Capacity of Canals in Cu. Ft.	Length of Canals in Miles	First Day Water Was Used	Last Day Water Was Used from Natural Stream
30.....	178	178	596	745	238	Mar. 1	Nov. 10
33.....	53	53	656	399	60	Apr. 5	*Sept. 9
34.....	60	51	1,455	1,155	91	Apr. 15	Oct. 15
69.....	14	14	17	47	22	June 1	Aug. 30
Totals	305	296	2,722	2,346	411	Mar. 1	Nov. 10

*Indicates the last date of diversions for irrigation.

Dist. No.	Number of Days Water Used	Average Daily Amount Diverted Sec. Ft.	Number of Acre-Feet Used	Number of Acres That Can Be Irrigated	Acres Irrigated: Alfalfa	Natural Grasses	Cereals
30.....	220	221	97,329	58,023	11,660	6,071	9,934
33.....	155	70	21,406	44,975	11,597	40	6,105
34.....	180	295	106,086	54,225	14,065	2,478	18,821
69.....	90	9	1,623	1,950	662	1	155
Totals....	220	515	226,444	159,173	37,984	8,589	35,015

Dist. No.	Orchard	Market Gardens	Potatoes	Beans	Other Crops	Total Acres Irrigated
30.....	687	92	686	...	535	29,665
33.....	181	7	....	285	118	19,686
34.....	5,060	....	2,505	....	5,051	48,275
69.....	11	....	....	....	13	841
Totals.....	5,939	99	3,191	285	5,717	98,467

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL REPORTS FOR THE IRRIGATION SEASON OF 1930

COST OF MAINTENANCE

Dist. No.	Superintendence	Repairs	Improvements
30	$ 4,365.00	$ 13,132.00	$ 6,695.00
33	915.00	615.00	450.00
34	37,765.00	Includes Rep.and Imp.	
69	.....	1,230.00	.....
Totals	$ 43,045.00	$ 14,977.00	$ 7,145.00

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL RESERVOIR REPORTS FOR 1930

Dist. No.	No. in District	Area of High Water Line, Acres	Capacity in Cu. Ft.	Amount of Water in Storage on May 1st	Amount of Water in Storage on Nov. 1st	First Day Water Used	Last Day Water Used
30	3	869	1,047,022,685	314.883,200	845,624,000	Jan. 1	Oct. 31
33	1	25	18,513,000	17,946,720	.....	June 12	Aug. 28
34	5	909	519,211,988	506,130,380	7,403,920	May 1	Nov. 1
Totals.	9	1,803	1,584,747,673	838,920,300	853,027,920	Jan. 1	Nov. 1

Dist. No.	Number of Days Water Was Used	Average Daily Amount Used in Sec. Ft.	Number of Acre-Feet Used	Number of Acres Irrigated	Maintenance Cost
30	*304	51	31,304	1,380 (Report Incomplete)	$ 300.00
33	23	13.4	570	330	50.00
34	180	62	22,320	5.665	2,900.00
Totals	304	89	54,194	7,375	$3,250.00

*This report complete only to October 31. Water is used 365 days from the Cascade Reservoir at the Western Colorado Power Hydro-electric plant at Tacoma.

IRRIGATION DIVISION NO. 7

LA PLATA RIVER COMPACT

REPORT OF ADMINISTRATION
1929-30

By J. R. WILLIAMS, Special Deputy State Engineer

Each season brings forth distinct problems of administration on the La Plata River. The Interstate Compact provides that certain quantities of water shall be delivered daily to New Mexico, such quantities governed by the flow at Hesperus, Colorado, or in lieu of such daily deliveries, the stream flow may be rotated between the two states. The procedure is therefore governed largly by the water supply. During the months of May, June and July, which is the period of greatest demand on the stream in both states, the supply in 1929 was 86%, and in 1930 was 38% of the mean. On account of so great a deficiency of supply it was necessary to rotate the water between the two states in order to obtain a greater use in each state.

The injunction suit brought by the La Plata River and Cherry Creek Ditch Company in 1928, to restrain Colorado officials from rotating the water between Colorado and New Mexico, was decided by the District Court of Judicial District No. 6 for the defendants. The case has since been carried to the Supreme Court by the plaintiff company.

All disputes over methods of delivery and quantities of water to New Mexico, as between the states, have been satisfactorily ironed out by the officials in charge of administration.

Relief for the existing condition of insufficient water supply for both Colorado and New Mexico during the irrigation season can be had only by construction of reservoirs for storage of run-off during periods of excess flow.

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