

NR5/10.1/1927-28
c.2

COLORADO STATE PUBLICATIONS LIBRARY



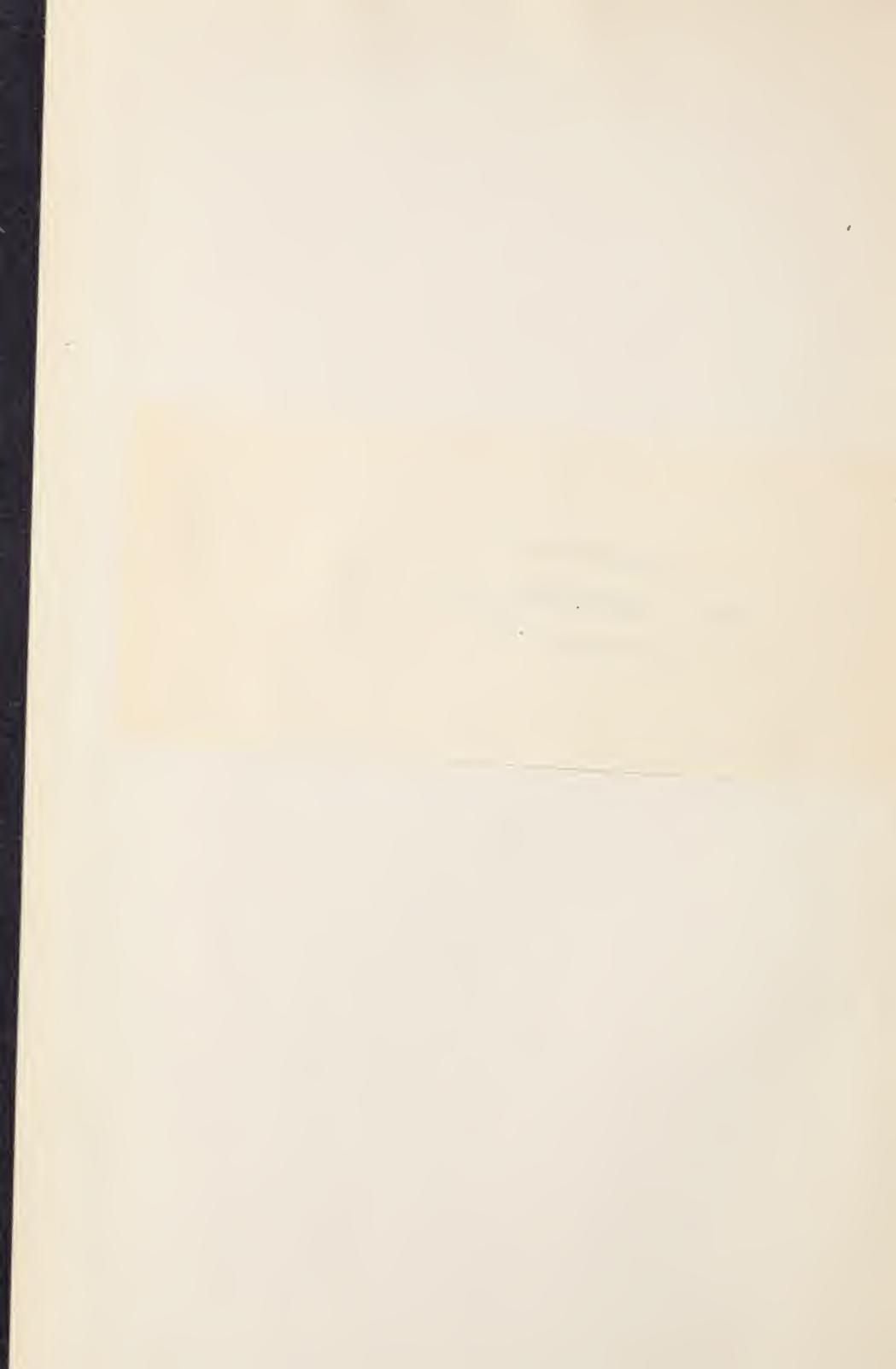
3 1799 00122 4310

TWENTY-FOURTH BIENNIAL REPORT
OF THE
STATE ENGINEER
TO THE
GOVERNOR OF COLORADO
FOR THE YEARS
1927-1928



Digitized by the Internet Archive
in 2013

http://archive.org/details/biennialreportof00colo_24



Twenty-Fourth Biennial Report

OF THE

STATE ENGINEER

TO THE

Governor of Colorado



For the Years 1927-1928

M. C. HINDERLIDER
STATE ENGINEER

THE BRADFORD-ROBINSON PTG. CO.
DENVER, COLORADO
1929

LETTER OF TRANSMITTAL

Sir:

In compliance with the provisions of law, I have the honor to transmit herewith the Twenty-fourth Biennial Report of the activities of the Department of State Engineer, for the two fiscal years ending November 30, 1928.

Very respectfully,

M. C. HINDERLIDER,
State Engineer.

To His Excellency,

WM. H. ADAMS,
Governor.

Table of Contents

	Page
Letter of Transmittal.....	3
List of Officers and Employees.....	7
CHAPTER I.	
Administration	11
CHAPTER II.	
Financial Statement	15
CHAPTER III.	
Seasonal and Crop Conditions.....	17
CHAPTER IV.	
Recording Claims to Water Rights.....	20
CHAPTER V.	
Rulings, Appeals and Supreme Court Decisions.....	21
CHAPTER VI.	
State Board of Examiners for Engineers and Land Surveyors..	23
CHAPTER VII.	
Co-operation with Other State Departments.....	24
CHAPTER VIII.	
Dams and Reservoirs.....	25
CHAPTER IX.	
Interstate River Compacts and Administration of Same.....	30
CHAPTER X.	
Investigations	32
Additional Water Supplies	
For the Arkansas Valley.....	33
For the Rio Grande Valley.....	35
For the South Platte Valley.....	36
CHAPTER XI.	
Interstate Conferences	38

CHAPTER XII.

Irrigation Districts	39
Tринчера Irrigation District.....	39
Maybell Irrigation District.....	39
Del Norte Irrigation District.....	39
Agate Irrigation District.....	40
Bent County Colorado Irrigation District.....	40

CHAPTER XIII.

Recommended Legislation	42
-------------------------------	----

CHAPTER XIV.

Tables of Stream Discharge.....	44
---------------------------------	----

CHAPTER XV.

Annual Reports of Irrigation Division Engineers.....	237
--	-----

LIST OF OFFICERS AND EMPLOYEES

State Engineering Department.

M. C. Hinderlader.....	State Engineer
C. C. Hezmalhalch.....	Deputy State Engineer
J. H. Baily.....	Chief Hydrographer
W. T. Blight.....	Chief Clerk and Draftsman
Bessie Clark	Stenographer
J. R. Williams.....	Speciaal Deputy State Engineer (Appointed May 3, 1927)
C. E. Feetham.....	Hydrographer, Div. 1 (Dec. 1926-June, 1928)
C. K. Hinderlader.....	Hydrographer, Div. 1 (July 5, 1927-Sept. 5, 1927-June 1, 1928-Sept. 10, 1928)
C. E. McGraw.....	Hydrographer, Div. 1 (Appointed May 9, 1928)
Thos. Curtis.....	Hydrographer, Div. 2 (Dec., 1926-June, 1928)
Ralph Owens.....	Hydrographer, Div. 2 (Appointed June 5, 1928)
F. C. Snyder.....	Hydrographer, Div. 2
D. S. Jones, Jr.....	Hydrographer, Div. 3
A. W. Ingham.....	Hydrographer, Div. 4 (Dec., 1926-May, 1927)

IRRIGATION DIVISION ENGINEERS

Div. No. 1, Filmore Cogswell.....	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

WATER COMMISSIONERS

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

Div.	Dist.			Address
No.	No.	Name		
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	R. S. Glenn.....		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

The office of the State Engineer was created in 1881 for the principal purpose of administering the court decrees adjudicating the uses of water in this state. Since that time successive legislatures have added many other responsibilities until the office is now charged with the following duties:

Accounting for the State's natural water supplies and the ascertaining of methods for conserving the same.

Administration of all decreed waters represented by nearly 20,000 priorities.

Supervision of the designing, construction and repair of all dams, and the control of storage of water in all reservoirs.

Relocation of county lines which may be in dispute.

Administration of Interstate River Comacts.

Secretary-Treasurer of the State Board of Examiners for Engineers and Land Surveyors.

Chairman of the State Irrigation District Commission.

Colorado has a most comprehensive and effective system of water laws which has proven well suited to the development of our water resources and agricultural interests. The prosperity and progress of the State is inseparably bound up with her irrigation institutions and very largely to the degree that the most efficient uses may be made of her water supplies, will the best interests of our citizens be conserved.

As in other lines of business endeavor, the returns from agricultural developments depend upon the application of scientific principles, and since irrigated agriculture is one of the most complicated arts, dependent as it is upon a multiplicity of factors, the successful prosecution of the same must necessarily involve the application of highly specialized and rational methods. In the attainment of these objects the efficient handling of our water supplies has an important part, and must not be allowed to lag behind agricultural methods.

Little gain is to be had by the construction of unnecessarily expensive irrigation systems to serve new areas or to provide supplemental water supplies, while older systems are permitted to wastefully apply through inefficient methods, extravagant quantities of water frequently at inopportune times.

Three principal essentials are required in the propagation of plant life—these being heat, moisture and fertility. Of the former we have little or no control, but with regard to the latter requirements man has a very definite control in an arid region. Not only is control over these essentials possible, but the greatest returns are had only through a proper synchronizing of the requirements for, and the application of the water, with changes

in temperature conditions. This control may best be secured through the use of the water constantly made available through regulated stream flow in an arid region.

With the passing of time comes a more definite realization of the values attaching to the water supplies of this State and the need for a more rigorous accounting of the same.

As has been mentioned in former reports, these public water supplies are Colorado's most precious asset, and the careful 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.

For the proper administration of our water laws, careful records of the various uses and more accurate inventories of our water supplies are essential. Records kept in a haphazard manner are not only of doubtful value, but in many instances lead to erroneous conclusions, and may be very costly.

Colorado has a most comprehensive system of water laws and administrative procedure. Great progress in the latter has been made in more recent years in the more intensely irrigated sections of the State, but much yet remains to be done along this line in the upper reaches of many of our drainage systems.

For an efficient administration of the court decrees, the following fundamental requirements are essential:

First. Accurate means for controlling water diverted by the appropriator.

Second. Accurate means for measuring the quantity diverted.

Third. Practical methods for continuously recording in some permanent form the quantity of water diverted.

Fourth. Adequate means of communication between the chief administrative officer and the management of the ditch.

Fifth. Efficient local water officials.

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

In many of the important irrigated sections of the State the foregoing requirements have been met.

Probably no single factor has a more important part in increasing the efficiency of administration than has the automatic recording device. It not only protects the general 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 recording device may now be installed at a nominal cost to the ditch owner.

There are at present in use in this State 209 automatic recording devices on ditches and canals, and 113 at stream gauging stations.

Some opposition has been encountered in certain sections of the State with respect to the installation of such automatic devices. We apprehend, however, that this opposition will gradu-

ally subside as the water users more fully appreciate the great advantages to be secured from the use of the same.

During the biennium, automatic recording devices have been installed on practically all ditches along the Cache la Poudre River, on Clear Creek in Water District No. 7, along the Rio Grande, and on the La Plata River, and in other localities throughout the State.

Within the past few years material progress has also been made in the way of improved equipment for the measurement of water and in recording and reporting the use of the same in this State. As notable examples of such improvements may be mentioned the adoption of the Improved Venturi Flume recently developed by the U. S. Bureau of Irrigation Investigations, and which is being quite generally installed throughout the State.

The proper installation of this type of flume eliminates a large amount of work on the part of the local hydrographer, insures a more accurate record of the amount of water received by the appropriator, and hence acts as a safeguard to the common source of supply.

Outstanding examples of such installations are, the large 20-ft. reinforced concrete Venturi Flume installed in the Holbrook Canal in 1927, which has a capacity of between 700 and 1,000 sec. ft., and the 40-ft. reinforced concrete structure recently installed in the Fort Lyon Canal, with a carrying capacity of substantially 1,800 cu. ft. per second. This is the largest flume of this type ever built.

Many other flumes of this type but of lesser capacity, constructed of either wood or concrete, have been built throughout the State within the past two years.

As examples of improved administrative procedure, there was initiated in 1928 in Water District No. 20, comprising the largest part of the San Luis Valley, a new system for water distribution. More water is distributed in this District than in any other District in the State. In the spring of 1928 the State Engineer was requested to appoint a Special Deputy State Engineer to have charge of the local administration in this District. Following the recommendations of this office and a number of preliminary meetings between the two local Water Users Associations, the latter were amalgamated into a parent association for the purpose of more effectively harmonizing local difficulties and for assisting in the financing of the new administrative program.

With the approval of all water users, D. S. Jones, Jr., local Hydrographer, was deputized by the State Engineer and placed in charge of the local administration.

One of the first moves in initiating this program was the requirement of all ditches of material size to install automatic registers on their rating flumes.

Additional gauging stations with similar devices were located along the river and below all storage reservoirs for the purpose

of furnishing reliable information concerning the amount of water available for distribution each day.

Telephone communication was provided between the head-gate of practically every ditch and the local administrative official.

A comprehensive form of daily report showing all water supplies entering the valley, the amount distributed to each canal, amounts of water in storage, and released to the river, was adopted and has proved invaluable as a medium of supplying all water users with a daily report of all conditions affecting their interests which had not theretofore been available.

We are pleased to report that this system of administration appears to have been an unqualified success, and has done much to remove any misunderstandings between the water users on the upper and lower sections of the river.

There have been fewer complaints to this office from water users with respect to alleged maladministration on the part of the water officials than in any similar period during our administration of the duties of State Engineer. This was partially the result of generally adequate water supplies during the biennium, which condition minimizes causes for dissatisfaction. It is believed, however, that some credit for this condition is due local administrative officials who in many instances are faithful employees receiving from the public sparingly, but of whom much is expected.

In probably no department of the State are more exacting duties demanded than those required of the Water Commissioner and his Deputy. These men are called upon to distribute annually, water valued at approximately \$30,000,000 which during the irrigation period amounts to substantially \$200,000 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 that official.

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 too true that the amount of remuneration paid is too often reflected in the services received.

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.

We are firmly of the opinion that these officials should be compensated 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 receiving the services rendered the obligation of paying for the same, and we believe would greatly increase the efficiency of the employee and the value of his services to the public.

CHAPTER II**FINANCIAL.**

Due to a financial situation with which your administration was confronted at the beginning of the biennium, as a result of appropriations by the last legislature in excess of available revenues, this office, in common with other State departments, was requested to co-operate in curtailing to a minimum, the expenditures of appropriations made available by the legislature.

In harmony with this policy of retrenchment, we agreed to try to effect a saving of \$10,000 of the amount appropriated for this office for the biennium.

A final audit of the expenditures by the office during the biennium shows that such saving amounted to \$10,362.76.

In accomplishing this result, it was needful to limit the regular activities of the office and to forgo a considerable amount of investigational work which would have been of no little value to the public.

Due to increasing demands upon the office by the public, the funds available for the use of the office within recent years have really been inadequate, and it is hoped that the next legislature will approve recommendations set out in another chapter of this report which, if done, would enable certain betterments to be added to the personnel and equipment of the office, and at the same time effect a biennial saving of approximately \$5,000.

The office is badly in need of a draftsman. 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 five years has been done by the State Engineer. These extensive duties, together with the need of checking all claims covering water appropriations, preparation and checking of innumerable maps, records of decrees, etc., justify the employment of a draftsman, qualified for such duties.

Our limited appropriations have also precluded the purchase of additional filing cabinets and vault equipment, both of which are badly needed. The efficiency of such an office cannot be maintained without such equipment. Likewise much data of great value to the public at large remains in the vaults of the office for lack of funds needful for the publication of the same.

It is believed that all these needs may be taken care of through suitable legislation which would, in addition, effect a material saving to the taxpayer.

FINANCIAL STATEMENT

Appropriations	1927	1928	Total
State Engineer, salary.....	\$4,666.66	\$5,000.00	\$ 9,666.66
Deputy State Engineer, salary.....	2,400.00	2,400.00	4,800.00
Chief Clerk, salary.....	2,000.00	2,000.00	4,000.00
Chief Hydrographer, salary.....	2,400.00	2,400.00	4,800.00
Special Deputy State Engineer, salary.....	2,100.00	2,100.00	4,200.00
Five Hydrographers, salaries.....	9,000.00	9,000.00	18,000.00
Stenographer, salary.....	1,200.00	1,200.00	2,400.00
Division Engineer, Div. No. 1, salary.....	2,500.00	2,500.00	5,000.00
Division Engineer, Div. No. 2, salary.....	2,500.00	2,500.00	5,000.00
Division Engineer, Div. No. 3, salary.....	2,500.00	2,500.00	5,000.00
Division Engineer, Div. No. 4, salary.....	2,500.00	2,500.00	5,000.00
Division Engineer, Div. No. 5, salary.....	2,500.00	2,500.00	5,000.00
Division Engineer, Div. No. 6, salary.....	2,500.00	2,500.00	5,000.00
Traveling and Contingent Fund, State Engineer and Deputy.....	1,500.00	1,500.00	3,000.00
Chief Hydrographer's Expense.....	200.00	.....	200.00
Traveling Expense, five hydrographers.....	5,750.00	5,750.00	11,500.00
Traveling Expense, six division engineers.....	6,000.00	6,000.00	12,000.00
Incidental Expense, including gauge readers, salaries, etc.....	4,800.00	4,800.00	9,600.00
Incidental and Contingent Expense, including printing, postage, etc.....	2,250.00	2,250.00	4,500.00

BALANCES TURNED BACK TO GENERAL FUND FROM APPROPRIATIONS

State Engineer, salary.....	\$ 505.42
Special Deputy State Engineer, salary.....	886.29
Hydrographers, salaries	1,783.06
Division Engineers, salaries.....	1,088.00
Traveling and Contingent Fund.....	105.31
Chief Hydrographer's Expense.....	154.59
Traveling Expense, five hydrographers.....	1,927.87
Traveling Expense, six division engineers.....	1,543.15
Incidental Expense, including gauge readers, salaries, etc.....	2,369.07
Total	\$10,362.76

*GAUGING FUND

EXPENDITURES

	1927
Office Supplies	\$ 37.92
Hydrographic Supplies	441.83
Traveling Expenses, Hydrographers.....	1,215.19
Salaries, Hydrographers	300.16
Automatic Gauges and Accessories.....	735.04
Salaries, Gauge Readers.....	1,118.32
Total	\$ 3,848.46

*Note: This fund abolished by statute. After July 9, 1927, all fees received by office have reverted to General Fund.

DISTRIBUTION OF FEES RECEIVED DURING BIENNIAL PERIOD

Filings	\$10,253.84
Postage	1.55
Blue Prints	936.47
Certifications	178.00
Examination Dam Plans.....	528.00
Filing Transfer Decrees and Deeds Transferring Water Rights.....	85.00
Office Labor	32.15
Sale of Gauging Supplies.....	946.06
Total	\$12,961.07

CHAPTER III

SEASONAL AND CROP CONDITIONS, 1928

South Platte River Basin.

Snowfall conditions throughout the drainage basin was subnormal during the winter months, which were very dry, but by late spring the seasonal snowfall was about normal. Copious rains in the early spring and summer saved a serious situation for the farmers. During the remainder of the season there was a scarcity of moisture, which in some instances was detrimental and for a time seriously interfered with the harvesting of the large sugar beet crop.

The discharge of the South Platte River was 75% of normal and that of the tributary streams 94%.

Crop conditions were generally good. The grain crops were exceptionally fine, and excellent fall weather permitted all crops to be harvested in good condition.

The storage capacity of the 95 major reservoirs of this division amounts to about 800,000 acre-feet. The season of 1928 opened with 440,000 acre-feet of water in storage, about three-fourths of this being available for agricultural uses. During the season, approximately 3,500,000 acre-feet of water were applied from stream flow and storage to lands in this division, and at the close of the season 300,000 acre-feet of water are being held in storage against the demand for the season of 1929. The recent heavy snowfall over the Eastern Slope undoubtedly will insure the complete refilling of all reservoirs in this division.

In the Arkansas Basin, where 547,000 acres of land were irrigated, out of a possible total of 700,000, the farmers were fortunate in having in storage at the beginning of the year, 190,000 acre-feet of water as a result of the copious rains in the summer of 1927. The total amount of water applied by the farmers in this Valley amounted to about 1,000,000 acre-feet, of which 194,000 acre-feet were furnished by storage reservoirs. The quantity of water in storage at the close of the season was 200,000 acre-feet, which under normal conditions will insure adequate supplemental water supplies for the season of 1929.

Snowfall conditions throughout the winter were subnormal, but continued heavy rains in the early spring months produced large and continuous stream-flow which lasted well into the summer. The total amount of precipitation during the irrigation season was generally below the average.

The past year was the fifth of a cycle of five dry years, but thanks to the reservoirs, ample water supplies in general were provided for all demands.

Crops in this division were generally good, but in some sections were seriously damaged by hail.

As in the South Platte Valley, sheep feeding has become one

of the greatest industries of the State. Hundrds of thousands of lambs are fattened for market in these two river basins, which provide good markets for alfalfa, corn, beet pulp and roughage from the beet fields after the beets have been harvested.

Indian corn is now being grown extensively throughout these two divisions, with great success, the yield from fertilized lands even exceeding that from lands in the great corn belts of the Middle States.

In the Rio Grande Basin 603,000 acres of land were actually irrigated, out of a possible development of something like 850,000 acres.

In this Valley moisture conditions were subnormal, which condition was intensified by continuous high winds during the spring and early summer months. Snowfall in the mounitains was deficient during the preceding winter, resulting in depleted stream-flow during the latter part of the summer. And had it not been for the amount of water provided by the great reservoir system of the valley, serious losses would have resulted to crops. In spite of such shortage, however, the crops were about 80% of normal.

A total of 745,000 acre-feet of water were applied to lands, of which 142,000 acre-feet were from storage reservoirs.

Extensive areas in this drainage basin are given to the production of head-lettuce, cauliflower and garden peas, which generally are profitable crops, and have resulted in the establishment of extensive marketing depots by eastern produce firms.

The livestock industry of this Valley is one of its greatest assets, many thousands of head of sheep, cattle and hogs being produced and finished for market.

The San Luis Valley also produces a large part of the total potato crop raised in the State. Unfortunately the low price of potatoes made this crop unprofitable to the growers during the past season.

In Division No. 4, comprising the lower Colorado, Gunnison and San Juan River systems, 555,000 acres of land were irrigated, out of a possible total of 1,000,000 acres.

Snowfall, moisture and stream-flow conditions were about normal for the year.

Crop yields were generally good, altho market prices for some products such as potatoes and fruit, were discouraging.

In this division are a large number of small reservoirs, in which 54,000 acre-feet of water were held in storage at the beginning of the season, and at the end of the season 25,000 acre-feet of storage water are held against the demands for the new year.

There are no large reservoir developments in this division. This division includes the only Federal Reclamation projects in the State, these being in Grand Valley near Grand Junction, and under the Gunnison Tunnel at Montrose. Substantially 100,000 acres of land are irrigated under these two projects.

In the Upper Colorado River Basin constituting Irrigation Division No. 5, there are no extensive irrigation projects, altho available water supplies are greater than in any other part of the State. But due to the deep canyons in which the streams flow, and the rather limited area of irrigable lands, the cost of placing water on such land is comparatively high.

Due to the tremendous water supplies, available reservoir sites and steep gradients of all streams, this part of the State provides the greatest opportunity for future hydro-electric development, and is one of the great potential resources of the State.

The total amount of land under irrigation is approximately 150,000 acres. The developed storage facilities are quite limited.

Seasonal conditions as regards precipitation were subnormal. Crop conditions were reasonably good, but market prices for some products were unfavorable.

In the northwestern part of the State about 136,000 acres of land are irrigated. However, abundant water supplies and vast irrigable areas amounting to 670,000 acres are available for future development.

Due to the limited acreage and large stream-flow, the present storage development does not exceed about 10,000 acre-feet.

Seasonal conditions were variable. The spring was dry and backward, and the summer dry and warm. Snowfall the previous winter was above normal, which resulted generally in ample water supplies.

In this Division a large acreage is planted in wheat and other grains, which constitute about one-half the crops. Unseasonable conditions and smut resulted in heavy losses to grain growers.

More than 1,500 carloads of head-lettuce were shipped out of one part of this district alone.

In general the crops, harvesting and market conditions throughout the State were favorable. There was an abundant yield of wheat, other grains, and potatoes, altho market prices for some of these products were unsatisfactory.

Due to failure on the part of beet growers and sugar manufacturers in Northern Colorado to reach an understanding until late in the spring, much of the acreage which otherwise would have been planted to beets, went into other crops, yet the tonnage of beets produced in this section of the State will not be much below normal, while in the Arkansas Valley there was an increase both in acreage and tonnage over the preceding year.

The annual sugar beet crop is now one of our major sources of wealth, and is a known stabilizer of farm values and incomes. Within the past two years, two additional sugar factories and one refining plant have been added to Colorado's extensive list of sugar producing enterprises.

CHAPTER IV

RECORDING CLAIMS TO WATER RIGHTS

During the biennial period 400 maps and statements of claims to water were filed in this office. Of this number 329 were for ditches claiming a total 7,796.28 cubic feet per second, 58 were for reservoirs claiming a total of 168,705 acre-feet, and 13 made claims for both ditches and reservoirs of 1,486.2 cubic feet per second and 40,641 acre-feet.

As in the past few years, the majority of the filings represent the development of small systems by individual owners, and in a number of instances the enlargement and extension of existing systems.

Under the Act of April 9, 1919, (the so-called Supplemental Statement Law) 10 lists of valid claims in various Water Districts were furnished the District Court in adjudication proceedings.

In this connection the public does not seem to be advised of the provision in this statute requiring the recording of all transfers of ownership of water filings in this office, as few such transfers are filed.

By making such record in this office the proper owner is assured of notice of all adjudication proceedings affecting his claim, and is advised as to the proper time to enter his application for a decree.

CHAPTER V

RULINGS, APPEALS AND SUPREME COURT DECISIONS

Within the biennium the office was called upon to make a ruling concerning the rotation of the use of water along Clear Creek in Water District No. 7. Certain ditches in District No. 2 below Denver, protested the loan of water by senior ditches to junior ditches in District No. 7, alleging that such practice had the effect of destroying priority rights in the lower district. The Division Engineer ruled that the ditches in District No. 7 must take water only in order of priority. Following argument before this office by attorneys for the ditches in question, a ruling was made which prohibited loans of water where it is obvious that such loans infringe the rights of a junior appropriator, or which would have the effect of upsetting order of priority along the streams in question. No appeal from this ruling was taken.

Probably the most important ruling made by this office within the past biennium, related to the installation of automatic registers in Water District No. 11, which embraces the headwaters of the Arkansas River above Salida.

Following complaints in the summer of 1926, from water users below Pueblo concerning the alleged illegal diversion of water in this District, the State Engineer, in company with the Local Water Commissioner, made a personal inspection of conditions, and as a result of such investigation found the complaints to be well-founded. Orders were issued to close all headgates which were diverting water out of order of priority.

The following spring we called a mass meeting of water users of this District, at Salida, at which time the need for more effective administration of the decrees was explained, and as a necessary adjunct to the latter requirement, their attention was directed to the need for improvements to headgates, measuring devices, etc.

In this connection the advisability of using automatic registers was also stressed, and the operation, advantages and costs of same fully explained and discussed. The water users seemed inclined to comply with the requirements of this office with respect to headgates and measuring devices, but objected to the installation of automatic registers.

Following a careful inspection by the State Engineer of practically every headgate of material importance, orders were issued to the various ditch owners to make specific repairs and improvements in this regard, and for the purpose of expediting the work and assisting the water users, a deputy from this office was sent into the district in the spring of 1927. Very little co-operation was extended the deputy, the water users with

few exceptions refusing to obligate themselves for labor or materials needful for making the required repairs.

Following demands from water users on the river below Pueblo, that those ditches in Water District No. 11 which were in position to seriously affect runs of reservoir water through District No. 11, be required to install automatic recording devices, orders to this effect were legally served upon the individual owners of such ditches, and upon failure to comply with such order in the time limit provided by law, the Water Commissioner was directed to close the headgates of all such ditches in the summer of 1928. This resulted in a united protest on the part of the owners of such ditches who alleged they would lose much of their crops if the order were not modified.

Upon agreement on the part of these ditch owners to immediately take the matter before the District Court for review, and with the approval of the plaintiffs, the order of this office was temporarily raised, and the ditches permitted to take water in order of priority.

An appeal to the court from the order of this office, which in reality is an attack upon the constitutionality of the so-called Registration Act, has been taken by the water users, but to date no further court proceedings have been had.

Should the contentions of plaintiffs in this case prevail, the results would be most harmful to the efficient administration of the court decrees.

In our opinion, such devices are absolutely essential to an impartial and efficient distribution of the waters of a stream, and in the absence of such police powers our administrative procedure would become largely chaotic. The final disposition of this case will, therefore, be watched with unusual interest by all concerned.

Following argument by counsel for certain groups of ditches in Water District No. 19, concerning the jurisdiction of this office to interfere with certain methods of administration in that District, the office decided that it had the necessary jurisdiction to take cognizance of the matter complained of. Evidence in this case will be presented and argument heard at a later date.

The ruling of this office in 1927 in the case of the Reorganized Consolidated Catlin Canal Company et al vs. the City of Pueblo, was sustained by the Supreme Court.

Likewise the ruling of the office in the case of Catlin vs. Hinderlider, and in the case of Hinderlider vs. the Town of Berthoud.

It is a source of some gratification that during our five-year tenure of office, all rulings of this office reaching the Supreme Court, have been sustained.

CHAPTER VI

STATE BOARD OF EXAMINERS FOR ENGINEERS AND LAND SURVEYORS

H. S. Sands, Chairman, Consulting Engineer, First National Bank building, Denver, Colo.

John A. Hunter, Professor Mechanical Engineering, University of Colorado, Boulder, Colo.

James Underhill, Mining Engineer, Idaho Springs, Colorado, Associate Professor of Mining, Colorado School of Mines, Golden, Colo.

H. I. Reid, Consulting Civil Engineer, Outwest Bldg., Colorado Springs, Colo.

M. C. Hinderlader, State Engineer of Colorado. Ex-officio Secretary-Treasurer.

C. C. Hezmalhaleh, Deputy State Engineer of Colorado, Acting Secretary, 121 Capitol Bldg., Denver, Colo.

The statute creating the Board designates the State Engineer as ex-officio Secretary-Treasurer, so that practically all business of the Board is carried on thru this office, this requiring extended correspondence, bookkeeping and the maintenance of a detailed filing system.

All meetings of the Board are held in the office of the State Engineer, and during the past year six regular meetings and one special meeting were held, requiring practically all of one day for each meeting.

All members of the board have given their full co-operation and have devoted considerable of their time to the administration of the law.

The engineers' library located in the Denver Public Library, has been partly instituted and maintained from the funds of the Board and is now considered to rank favorably with the big libraries of its kind in the country. Since the creation of this library approximately \$30,000 of the funds of the Board have been expended principally for the purchase of books and publications; during the past year \$1,000 was appropriated and expended for this purpose.

The splendid co-operation of the Denver Library and the efficient service rendered by the employees has made this library of great benefit to the engineers.

CHAPTER VII

CO-OPERATION WITH OTHER STATE DEPARTMENTS

At the close of the preceding biennium, this office had completed two earth dams on Big Pine Creek, a tributary of the Poudre River, for the State Game and Fish Department, the cost of which was substantially \$85,000.

Within the past biennium this Department designed and supervised the construction of a combination earth, log and rock-fill dam near Durango at a cost of about \$50,000 for the same department.

At the close of the biennium, plans and specifications had been prepared for the construction of a concrete arch dam 70 feet in height, to be located on Tarryall Creek about eighteen miles below the town of Jefferson. The cost of this development is estimated to be substantially \$100,000.

It is anticipated that contract for this latter work will be signed the early part of the new biennium.

All these structures are for the creation of spawning lakes for the propagation of mountain trout for replenishing our mountain streams.

This office also did certain work at the Golden Rifle Range for the State Military Department.

CHAPTER VIII

DAMS AND RESERVOIRS

Colorado's great system of one thousand or more storage reservoirs is of vital importance to the State. Dams needful for impounding large bodies of our water supplies, which otherwise would 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 from 10 feet to more than 200 feet in height 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 at all times safe.

In conformity with the policy of this office, at least two inspections are made of these dams and reservoirs each year, both when the reservoirs are full and when the same are empty, in order that any defect may be more definitely ascertained. As a result of such inspection in 1927 and 1928, repairs were ordered made to the following dams:

Antero	Sugar Loaf
Point of Rocks	Clear Creek
Julesburg	Lake Meredith
Barr	Thurston
Horse Creek	Adobe
Prospect	DeWeese-Dye
Lord	Teller
Bowles	Brush Hollow
Johnson	Monument Lake
Standley	Fountain Valley No. 2
Nederland	Spring Draw
Valmont	Mt. Pisgah
Foothills	K K Reservoir
Boyd	Cooking Club
Chambers	Cucharas
Terry	Rio Grande
Lake Canal Dam	Smith
Timnath	Goose Creek
Allen Lake	Fruit Growers
Espy Ice Co.'s Dam	Atkinson
Highland Lake No. 2	Island
Fossil Creek	Barren
Loveland	Youngs Nos. 1 and 2
Mariana	Park
Doudy	Fish
Douglas	Womack Nos. 1 and 5

Lake Electra	Owens
Narraquinnep	Patterson Nos. 1, 2, 3
Summit	Pine Cone
Hansen	Skim Milk
Harvey Gap	Dog Fish
Long Lake	Brockman
Mesa Lakes Res.	Elk Park
Battlement Res. No. 2	Bonito
Granby	Twin No. 1
Cedar Mesa	Weir & Johnson
Big Creek No. 1	Sockett
Ryan	Trio
Vella	Cole No. 5
Little Battlement	Trout
Military Park	Basin No. 1
Pedro	Doughty
Kaiser	Ella
Eggleston	Goodenough
Gray	Trickle Park
Lucky Find	Bonham

A severe wind storm of unusual duration in the spring of 1927 seriously damaged the riprap and water face of the Point of Rocks Dam near Sterling, which is one of the largest earth dams in the State. While this is also one of the most impervious earth dams to be found, the slope of the water face as originally constructed was much too steep, which has made it very difficult to maintain the concrete paving and loose rock riprap overlying the same.

As a result of this unprecedented gale when there was a depth of about 83 feet of water against the dam, the riprap protection for a length of about 5,000 feet was dislodged and the earth embankment seriously eroded.

Through the heroic efforts of the management, the railroad crews and citizens, the dam was saved.

Following this near disaster, extensive repairs were ordered made. Such repairs consist of a revised slope for the water face and a protection of the same with two feet of hand-plaeed stone riprap overlying a heavy bed of gravel and quarry spalls.

This dam is more than one mile in length, and the riprap over practically the entire length of the same had to be restored.

This work is being done in excellent manner, and will probably be completed in 1929.

At the Julesburg Reservoir a new 5-inch reinforced concrete slab was placed over the entire face of the northerly dam, which effectively corrected some serious defects.

At the large Riverside Reservoir a new reinforced concrete slab was placed over about 200 lin. ft. of the concrete paved face, and certain repairs to the coping were made.

At Barr Lake near Denver, a new reinforced concrete coping was placed along the entire length of the dam to provide greater

freeboard, and the concrete facing repaired over the main outlets. Additional repairs to this dam will include a drainage system below the same.

At Horse Creek Dam an extensive drainage system is being installed, preparatory to increasing the cross-section and height of this dam at a later date.

At Prospect Reservoir the reinforced concrete facing was raised and a new coping provided to insure greater freeboard.

At Standley Lake Dam, another slip in the water face occurred during the withdrawal of water in the fall of 1928. This movement is superficial and has been occurring with decreased magnitude since the first emptying of the reservoir several years ago. It is anticipated that this movement will ultimately cease.

Repairs to this dam, consisting of the removal of the displaced material and riprap, and the reconstruction of the water face of the dam on a flatter slope, and the replacement of the stone riprap, are now in progress.

At the large concrete dam at Nederland, investigations were carried on during the fall and winter of 1928, for the purpose of ascertaining the source of and best method for treating certain leaks through the structure and both abutments. This condition does not necessarily indicate any weakness in the structure or foundations, but suggests the need for repairs to prevent deterioration in the future.

The Chambers Lake Dam, a large earth structure at the head of the Poudre River, was raised 11 feet in 1927 and 1928, and riprapped with a heavy blanket of granite boulders. The spillway capacity was increased and the inner face of the south abutment blanketed with clay and gravel to minimize seepage losses.

The Timnath and Lake Canal Reservoirs were provided with new faces of hand-placed stone, and drainage systems ordered installed.

Highland Lake No. 2 owned by the Highland Ditch Company of Longmont, was raised and riprapped, while the dam forming the Foothills Reservoir owned by the same company, was raised, the spillway widened and lowered to provide greater safety, and certain drainage works installed. It is anticipated, however, that additional drains and protective work will be required before it will be possible to utilize the full storage capacity of this reservoir.

At the Antero Reservoir, extensive repairs were made to the rock riprap on the face of the dam, and arrangements made for grouting the outlet conduit to cure certain seepage conditions around the same.

In the Arkansas Basin extensive repairs were made to the Sugar Loaf Dam to correct some leaks through the dam. These repairs consisted of a system of drains and puddle trenches with an impervious blanket of earth on the water face, and seem to have been entirely effective.

Following an extensive slip on the water face of the Mt. Pisgah Dam near Cripple Creek in the fall of 1928, it was found needful to require repairs of an extensive nature. The concrete paving will be entirely removed, the water face reconstructed on a much flatter slope and paved with hand-placed stone riprap overlying a gravel blanket. The present capacity of the spillway will be greatly increased and the outlet conduit changed from two 18-inch cast iron pipes to a reinforced concrete conduit leading to a 5x7 ft. tunnel driven through bedrock under the westerly abutment of the dam. The two small valves will be replaced with two 30-inch gate valves located in the tunnel and operated from the top of the dam through a shaft. These repairs will cost approximately \$50,000, and will be completed in 1928.

At Lake Meredith a large concrete outlet structure was completed in the preceding biennium, and last year the embankment at this structure was raised and strengthened, and certain minor repairs made.

Extensive repairs were also made to the outlet of Lake Thurston and to the riprap on the Brush Hollow Dam above Pueblo.

At the Fountain Valley No. 2 Dam, a shearing of the outlet conduit just upstream from the valve tower necessitated extensive repairs.

Repairs were also made to the spillway of DeWeese-Dye Reservoir Dam, and the Cucharas, Teller and Monument Lake Dams, for the purpose of overcoming leaks and seepage conditions.

The Rio Grande Dam, the largest in the Rio Grande Valley in Colorado, was raised, new gate stems, guides and a power driven operating device installed, and extensive repairs ordered made in the spillway thereof.

Minor repairs were also directed to be made on the Smith and Goose Creek Dams in this division.

On the Western Slope, following an investigation in 1927 and 1928, extensive repairs were ordered and later made on a large number of earth dams.

At the Fruitgrowers Dam the riprap was relaid, the spillway enlarged, and a drainage system installed to correct an incipient slip. This treatment seems to have been entirely successful.

As noted in the foregoing list, repairs were either made during the biennial period or are now in progress on some one hundred dams, and it is now believed that the dams in this State are in the safest condition they have ever been in before.

New construction consisted of the building by the City of Denver of a 40-foot gravity type concrete dam at Evergreen; the completion of a large earth dam, 100 feet in height, forming the Continental Reservoir above Creede; some finishing work on the Parvin Dams on Lone Pine Creek and of the Haviland Dam at Durango, both for the State Game and Fish Department; a rein-

forced concrete arch dam at Lake City, and other dams of lesser magnitude.

At the close of the biennial period, work was in progress on the following new structures, the plans for which have been approved by this office:

South Ruxton Creek Dam consisting of an earth and rock-fill structure with gunnited masonry face, is being built by the City of Colorado Springs, on the easterly slope of Pikes Peak. When constructed, this dam will be substantially 100 feet in height.

Long Draw Dam on the headwaters of Poudre River, which consists of a large earth structure located at an altitude of about 10,000 feet above sea level. This dam is being built by The Water Supply and Storage Company, and when completed will impound substantially 4,000 acre-feet of water, much of which will be transmountain diversions from the head of the Colorado River.

Barnes Meadow Dam, an earth structure located on a branch of Poudre River near Chambers Lake.

Peterson Lake Dam, also an earth structure located on a branch of the Poudre River near Long Draw Dam.

Mesa Reservoir Dam being constructed by the Stratton Estate, and the Fisher Canyon Dam by the Broadmoor Hotel Company, both earth structures and located near Colorado Springs.

Red Mesa Ward Dam on a tributary of the La Plata River.

Plans were also approved for a large earth dam to be built across Smith Canyon by The Bent County Colorado Irrigation District.

Many other dams of lesser magnitude were also under construction during the biennium.

It has been a source of no little gratification that within the past five years there has not been a single dam failure of material importance in this State, which we feel is one of the fruits of inspection and supervision of the degree contemplated by our reservoir statutes.

Investigations referred to in another part of this report disclose that there is yet ample opportunity for further conservation of our water supplies through the construction of impounding reservoirs. Such structures, however, contemplate works of larger magnitude, the plans for which will require careful study and supervision during the construction period, since the impounding of huge quantities of water above thickly settled communities must carry with such developments the absolute assurance that they will not fail.

Among such contemplated structures are the Eleven Mile Canyon and Two Forks Dams now being planned by the City of Denver, to be constructed on the South Platte River in the mountains above Denver; the Vega Sylvester Dam across the Rio Grande, above Creede; and the Caddoa Dam across the Arkansas River below Las Animas. These dams will form reservoirs of much larger capacity than any existing reservoirs in the State.

CHAPTER IX

INTERSTATE RIVER COMPACTS AND ADMINISTRATION OF SAME

An historic sketch of interstate river compacts affecting Colorado's water supplies, will be found in Chapter XI of the State Engineer's Biennial Report for 1925-1926.

During the biennium the office administered the La Plata and South Platte River Compacts between the State of Colorado and the States of New Mexico and Nebraska respectively.

The last legislature provided for a Special Deputy State Engineer to administer the La Plata River Compact under the supervision of the State Engineer.

In this connection an appropriation was provided for the installation of a suitable gauging station or measuring weir, across the La Plata River at Hesperus, which is at the upper end of the La Plata River Valley.

The accurate measurement of the total amount of water to be divided between Colorado and New Mexico is essential to an efficient administration of the compact.

Due to high water conditions the latter part of the season of 1927, it was not possible to complete this work until the late fall of 1928.

More effective administration of this compact within the past two years has resulted through the installation of better measuring devices, automatic registers on practically all ditches in Colorado, and the energetic efforts of the Special Deputy State Engineer and local water officials, and through a larger degree of co-operation 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 supplies and the great disparity between such supplies and the demands upon the same.

Credit is due Mr. J. R. Williams, the Special Deputy State Engineer appointed by this office to administer the compact, and to his local assistants.

The compact provides that the State Engineers of Colorado and New Mexico may rotate the water between the two states during periods of extreme shortage. Such rotation during the season of 1928 resulted in a protest by the owners of some of the older decrees in Colorado, and as a result, suit was filed in the District Court at the end of the season of 1928, against this office and the local water officials, for the purpose of restraining such officials from carrying out this provision of the compact insofar as their interests are affected. This case is now pending before the court for determination.

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 water of interstate streams.

No difficulties arose 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.

Investigations and negotiations were carried on by the Interstate River Commissioner and his assistants looking to the formation of compacts between the states of Colorado, Wyoming and Nebraska with respect to the future uses of the water of the North Platte River. Early consummation of such a compact on this stream is confidently looked for.

On the Rio Grande River a three-year period of field investigations and office studies was brought to a close at the end of the present biennium by the Interstate River Commissioner for Colorado and his assistants, and arrangements were made for an interstate conference between the representatives of the three states of Colorado, New Mexico and Texas, at an early date, for the purpose of formulating a basis for an interstate compact between the states in question.

Due to contemplated developments at an early date in both the states of Colorado and New Mexico, looking to the further conservation of unused water supplies, it is hoped that a final disposition of our present interstate problems on this river may be reached in the comparatively near future. It would be most unfortunate for the interests of the latter two states to have the contemplated developments delayed by years of litigation in the courts.

Little or nothing has been accomplished within the biennium looking to the ultimate consummation of a compact between Colorado and Kansas with respect to the uses of the Arkansas River. On the other hand, Colorado, in her sovereign capacity, has brought suit in the Supreme Court of the United States against the State of Kansas, seeking a final determination of this long drawn-out controversy.

At the close of the biennium a solution of the long pending problem over 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 provision of the Santa Fe Compact.

CHAPTER X

INVESTIGATIONS

As mentioned in our last biennial report, there is need for a thorough inventory of the water resources of the state for the purpose of supplying accurate, intelligent and comprehensive data needful for orderly future development of such resources.

Due to the incessant demand from other sources for public funds, it did not appear possible to secure legislative appropriations for such investigations. This need, however, was recognized by public spirited citizens and corporations in certain sections of the state, and as a result substantial contributions have been made in certain localities for financing the costs of investigations in co-operation with this office.

The more important of these investigations consisted of surveys and studies made in 1926 and 1927 under a co-operative arrangement between this office and the Arkansas Valley Ditch Association and allied interests, to determine the feasibility of bringing additional water supplies from the head of the Colorado River into the Arkansas Drainage Basin, which are greatly needed to supplement existing water rights in the upper portion of that Basin.

Under similar arrangements, field surveys and studies were also made to determine the probable feasibility of constructing a large reservoir across the Arkansas River below Las Animas, for equalizing stream flow which now escapes over the state line into Kansas in variable quantities ranging from 59,000 to almost 1,000,000 acre-feet annually.

In the San Luis Valley where substantially 600,000 acre-feet of water leaves the state annually, investigations within the past year were made by this office through co-operative arrangements with the counties, municipalities, public utility corporations, ditch companies and public spirited individuals, to determine the feasibility of constructing a large dam at the Vega Sylvester Reservoir Site some twelve miles above Creede. This reservoir, if built, would have a capacity double that of any existing reservoir in the state.

Through co-operative arrangements between this office, a representative of the Bureau of Irrigation Investigations, U. S. Department of Agriculture, and several of the counties in the South Platte Drainage Basin, a movement was initiated in the past year looking to a complete inventory of the water supplies of the South Platte Drainage Basin in Colorado, which contemplates the plan of procedure for the logical development of any water supplies yet remaining to the state in this basin, susceptible of economic conservation and use. It is now anticipated that the preliminary report of the committee assigned to this work will be ready in January, 1929.

The results of these various investigations are furnished in greater detail under proper headings herein below.

ADDITIONAL WATER SUPPLIES FOR THE ARKANSAS VALLEY

Probably in no other part of the state is there greater need for supplemental water supplies and for the regulation of available run-off, as there is in the Arkansas Valley.

Unlike all other major streams of the state, the tributary inflow to the Arkansas River is most erratic and torrential in character.

The principal tributaries enter the main river well down in the lower reaches of the valley, and consequently the most efficient use of the water furnished by these tributaries is dependent upon regulation by impounding reservoirs.

Except during years of unusual run-off, the large canal systems and storage reservoirs are of ample capacity to control the inflow from the upper drainage basin of this river.

For the purpose of supplementing present available water supplies in the upper basin of the Arkansas River, an investigation to determine the feasibility of diverting waters from the headwaters of the Colorado River, was conducted in 1927 by this office in co-operation with the Arkansas Valley Ditch Association and the various counties and cities interested.

This investigation disclosed that there are two principal foreign sources from which water may be secured for the valley.

The first is by means of a tunnel $1\frac{1}{4}$ miles in length under Tennessee Pass by which 17,000 acre-feet annually could be brought into the valley.

The second source is from the Gunnison River in Taylor Park. Through the construction of a tunnel about nine miles in length between Texas Creek on the Western Slope and Middle Cottonwood Creek above Buena Vista, about 150,000 acre-feet of new water supplies may be secured annually.

This latter project will involve the construction of storage reservoirs in Taylor Park of an aggregate capacity of approximately 30,000 acre-feet.

Through the re-use of these waters in the middle and lower sections of the valley, it is estimated that the ultimate use of such diversions would amount to fully 200,000 acre-feet.

The estimated cost of the Taylor Park diversion is \$5,000,000, if made for agricultural uses only, and \$6,000,000 if the diversions are to be used in connection with power development.

While works of this magnitude may appear to be limited to the rather distant future, yet tunnels have been constructed in this country within recent years, of much greater length.

Since the source of such supplies is the best to be found in Colorado, and would be of a permanent nature, and since this is the only source from which the valley may ever expect to obtain any material additional quantities of water, it is thought that the value of such supplemental supplies amply justifies the cost for obtaining the same. Such contemplated diversions of

course could not be made to the injury of present appropriations on the western slope of the Continental Divide. An allocation of the cost of this development among a multiplicity of users of the water after leaving the tunnel, for power development, domestic, fish culture, manufacturing and agricultural purposes, would make the ultimate cost to the irrigationist, quite nominal.

As a result of these investigations, the Arkansas Valley Ditch Association made appropriations of such water supplies, as evidenced by statements of claim filed in this office in 1927.

As noted in the forepart of this article, practically all of the water escaping out of this valley into Kansas is the result of tributary flow entering the river in the lower reaches of the valley, and for a proper conservation of such supplies, large storage reservoirs are required in the middle or lower section of the valley.

Investigations by this office in 1926 and 1927, in conjunction with the Arkansas Valley Ditch Association, disclosed a large reservoir site of something over 500,000 acre-foot capacity on the main stem of the river near the town of Caddoa. Preliminary estimates of cost prepared by this office as a result of field surveys indicate that this reservoir may be developed at a cost of about \$7,000,000.

The surface area of this reservoir would be 13,630 acres. The length of same would be 14 miles, with an average width of 1.5 miles. It has been estimated that this reservoir would equalize the discharge of the river at that point to an average annual delivery of 153,000 acre-feet, the use of which would develop an additional 50,000 acre-feet of return flow, making a total of 200,000 acre-feet of additional water supplies now badly needed to supplement existing decrees. This usage of water would be made possible through a system of exchange between the reservoir and upstream canals.

The construction of this great reservoir which would be four times as large as any existing reservoir in this State, would involve the construction of an earth dam with a crest length of approximately two miles, and of a maximum height of about 115 feet, and the relocation of the main line of the A. T. & S. F. Railroad for a distance of substantially 15 miles.

Preliminary surveys and studies indicate, however, that the relocation of the railroad may be accomplished with no increase in the present maximum gradient or degree of curvature, and with but a slight increase in present length of line through the reservoir site.

The principal advantages accruing through the construction of the Caddoa Dam may be enumerated as follows:

First. This reservoir would furnish a dependable yearly supply of supplemental waters to the extent of 153,000 acre-feet, all of which is now needed by lands under canals heading immediately above and below La Junta.

Second. Through the return flow resulting from application

of the reservoired water, an additional quantity of probably 50,000 acre-feet per year would be available for application to Colorado lands.

Third. After all possible uses have been made of all these waters in Colorado, the resultant return flow to the river would unquestionably supply all demands from ditches in Western Kansas, and hence would remove any cause for the pending suit between ditches in the two states.

Fourth. Such development would immediately effect a solution of one of the most difficult problems of administration on the river.

Fifth. The use of water under this reservoir would result in an enormous increase in returns from 150,000 to 200,000 acres of land now under ditch, and would completely stabilize existing water rights.

Sixth. This reservoir would remove practically all menace from recurring floods in the lower part of the Arkansas Valley, which have in the past cost the farmers, counties and railroad great sums of money.

Seventh. This development would increase the net returns resulting from the transmountain diversions from the Colorado River, since the Caddoa Reservoir would receive all the seepage and return waters resulting from the application of transmountain diversions to the upper reaches of the valley.

Eighth. This reservoir as a de-silting basin would be of very material benefit to the ditches on the river below the same.

Ninth. Such development in connection with the transmountain diversions above discussed would completely round out and stabilize all existing water rights along the main stem of the river both for municipal and irrigation purposes, and incidentally through river exchange, result in the retention of greater quantities of water on the tributary streams.

In this connection it should be borne in mind that the indirect benefits resulting from these developments and the number of people whose welfare and happiness are dependent upon the same would exceed by far the immediate benefits resulting from the mere application of the water to the land.

SUPPLEMENTAL WATER SUPPLIES FOR THE RIO GRANDE VALLEY

In this valley additional water supplies for supplementing existing rights are greatly needed. The run-off in average years and the facilities for diverting such run-off to the land are generally ample, but regulation of stream-flow is required. Opportunities for such regulation are available through the construction of two major and a number of minor reservoirs.

PROPOSED VEGA-SYLVESTER RESERVOIR.

This reservoir has a storage capacity of 237,500 acre-feet and an estimated capacity to deliver annually 165,000 acre-feet of water eight years out of ten.

Plans for this development contemplate an earth dam of a total length of about one mile and a maximum height of 128 feet; the reservoir created would have a length of about six miles, an average width of about $2\frac{1}{2}$ miles and a maximum depth of 112 feet.

To avoid interference with senior rights both above and below this reservoir and to permit the efficient use of water stored therein, outlet works with a capacity of at least 5,000 cubic feet per second of time, will be required.

The dam sites for this reservoir were thoroughly investigated the latter part of 1927 by this office through co-operative arrangements with various corporate and irrigation interests in the San Luis Valley. From such investigations it appears that this reservoir may be developed to the capacity above mentioned, at a cost of about \$4,000,000, and that the construction of this dam involves no insuperable problems of geology or engineering.

CONEJOS RESERVOIR.

On the Conejos River another reservoir site is available with a capacity of 141,000 acre-feet, the use of which would increase the yearly delivery 80% of the time from 90,000 acre-feet to about 110,000 acre-feet.

Investigation in sufficient detail has not been made to determine the ultimate feasibility of constructing a dam at this site, but preliminary estimates of cost indicate such development, if feasible, may be made at a cost somewhat less than that estimated for the development of the Vega-Sylvester Reservoir.

The construction of these two reservoirs would provide badly needed supplemental water supplies for rounding out existing rights in this valley, and would place no greater burden upon the available water supplies furnished by these streams than now exists, especially when the large areas of seeped land in the valley are provided with adequate drainage systems. In fact, such developments would certainly tend to equalize stream flow to the great advantage of the water users in New Mexico.

SUPPLEMENTAL WATER SUPPLIES FOR THE SOUTH PLATTE VALLEY

Preliminary studies concluded in 1928 with respect to this matter, indicate the following:

First. In general, new reservoirs would be able to secure water only two years out of three.

Second. Due to the fact that some of the more junior reservoirs are not functioning to full capacity, there will be some future draft upon stream flow now escaping from the State.

Third. In years of average run-off, opportunity for further storage in the upper basin of the South Platte River occurs in May and June, but the major opportunity for further conservation is dependent upon the use of storage reservoirs in the middle and lower part of the basin.

Fourth. The average yearly river discharge over the Colorado-Nebraska State line, based upon records of the past thirteen years, is 407,000 acre-feet.

Fifth. When peak flows occurring in intermittent years are disregarded, the averaged annual discharge across the State line during the past thirteen years has been 304,000 acre-feet.

Sixth. Heavy shortage of water occurs in general once every three years with annual shortage under the more junior ditches.

Seventh. The total cumulative return flow to the main stream between Platte Canyon and Julesburg is nearly 1,500 cubic feet per second, or 965,000 acre-feet per year, which is about 50% of the total quantity of water annually used.

Eighth. Under the provisions of the South Platte River compact, present and future diversions by Nebraska ditches may aggregate an average of 120,000 to 125,000 acre-feet per year.

Ninth. After such reservations and unavoidable losses in the lower river have been accounted for, the total available supplies yet remaining to Colorado will average not to exceed about 176,500 acre-feet per year.

Tenth. The major portion of this total amount available for future conservation in Colorado is the result of seepage and return flow to the river between Balzac and Sterling, and to make the same available, storage reservoirs in this section of the valley are essential.

CHAPTER XI

INTERSTATE CONFERENCES

During the biennial period the State Engineer made one trip to Washington, D. C., in connection with the hearings before the Mississippi River Flood Control Committee of the House, for the purpose of presenting the possibilities of the proposed Caddoa Reservoir as a means of flood control on the Arkansas River.

The hearings before the committee were concluded before arrangements could be made for the presentation of Colorado's claims, but a report covering flood problems on this stream and the feasibility of the proposed Caddoa Reservoir as a means of flood regulation on the upper reaches, this stream being one of the principal tributaries of the Mississippi River, was filed with the committee and published in Volume VI of the hearings before that body.

In October, 1928, the State Engineer attended the first annual conference of the Association of Western State Engineers at Salt Lake City. This Association was founded at the conference of Western Governors in Denver in 1927. The purpose of the Association is the study of problems common to all the western states. At the Salt Lake conference the organization of the Association was perfected, and many valuable papers of mutual concern covering questions of conservation and administration of our western water supplies, adjudication procedure, water codes, state vs. government ownership, etc., were presented and discussed. The proceedings of this first conference are being assembled and will be printed for distribution.

It is thought that this Association of Western State Engineers will provide a medium through which matters of most intimate and vital concern to the officials of the various western states, charged with the control and administration of our water resources, may be presented and discussed in the most effective manner.

This Association is composed of the State Engineers of the seventeen states of Arizona, California, Colorado, Idaho, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Wyoming and Washington, with two affiliate members from each of the states mentioned.

The next annual meeting of the Association will be held at Reno, Nevada.

CHAPTER XII

IRRIGATION DISTRICTS

Since the enactment of the Irrigation District Law of 1921, five irrigation districts have been organized under the provisions of that act. These are, The Trinchera, Maybell, Del Norte, Agate and Bent County, Colorado Districts. Mention of the four former is made in the biennial report of the State Engineer for 1925-26.

The following is a brief report concerning the four former districts:

THE TRINCHERA IRRIGATION DISTRICT located in the San Luis Valley was organized in 1922.

Number of acres subject to bond is 56,875.

The total bond issue authorized, \$650,000.

Amount par value of outstanding bonds, \$606,000.

These bonds were disposed of to the contractor in payment for the building of the irrigation system of the district.

Amount of unpaid registered warrants, about \$20,000.

Amount of interest in arrears, \$153,138.

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

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

Area actually irrigated and producing crops in 1928, 10,500 acres.

MAYBELL IRRIGATION DISTRICT. This is a small district organized in 1922 for the purpose of financing certain required betterments for a canal system diverting water from Snake 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 were disposed of for \$18,000.

Amount of outstanding bonds, \$20,000 par value.

Amount registered warrants—none.

Amount of outstanding 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—no report.

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

Acreage actually irrigated and producing crops in 1928, estimated to be 1,400.

DEL NORTE IRRIGATION DISTRICT. This district was organized in 1922.

Number of acres subject to bond, 9,181.

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

Amount of outstanding bonds, \$350,000.

Amount of other outstanding obligations, \$125,000.

Amount registered warrants, \$1,493.60.

Amount of interest in arrears, \$40,743.75.

Amount of land delinquent on assessments, 4,886 acres.

Amount of land which has been sold for non-payment of district taxes, 4,886 acres.

Acreage actually irrigated and producing crops in 1928, 600.

This district completed the large Continental Reservoir Dam in 1928, and now has 28,000 acre-feet of available storage capacity in addition to the direct flow rights in the Rio Grande, amounting to about 130 cubic feet per second.

THE AGATE IRRIGATION DISTRICT was organized on March 9, 1925.

Number of acres subject to bond, 3,154.

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

Total bonds sold and outstanding, \$82,000.

Price at which these bonds were disposed of average 93.59.

Amount of registered warrants, \$1,540.12.

Amount of other outstanding obligations, \$300.

Amount of interest in arrears—none.

Amount of land delinquent on assessments, which has been sold to the district for non-payment of district taxes, and unredeemed, 369.8 acres.

Practically all this acreage is reported by the secretary to have been actually irrigated and was producing crops in 1928.

THE BENT COUNTY COLORADO IRRIGATION DISTRICT was approved on September 29, 1928. This district is located in the Arkansas Valley, south of the town of Las Animas, and derives its water supply from Smith Canyon and Big Muddy Creeks, 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 a large reservoir, main canals and distributing system. For the purpose of completing the presently constructed system it was deemed advisable to include the lands in an irrigation district, which, as above stated, was approved September 29, 1928.

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

Total bond issue authorized, \$600,000. These bonds have not been disposed of.

Amount of registered warrants, \$21,406.

Amount of interest in arrears, \$2,485.

Amount of land delinquent on assessments, 960 acres.

Amount of land which has been sold for non-payment of district taxes—none.

Area actually irrigated and producing crops in 1928, 3,040 acres.

Complete reports concerning the lands, water supply, physical characteristics, amount of land under irrigation, financial status, etc., of all irrigation districts organized under the Act of 1921, are available in this office for the consideration of the public.

CHAPTER XIII

RECOMMENDED LEGISLATION

For the more efficient administration of the duties with which this office is charged, and for the purpose of affecting some saving to the taxpayer, the following legislation is recommended:

First. The consolidation of Irrigation Division No. 5, comprising the headwaters of the Colorado River, with Irrigation Division No. 4, in one division to be designated Irrigation Division No. 4. Such consolidation would effect a biennial saving to the taxpayer of \$6,000, and result in greater efficiency.

Second. Create a new irrigation division, to be known as Division No. 5, in the southwest corner of the State, to include Water Districts 29, 30, 31, 32, 33, 34, 60, 61, 63, 69, and place the administration of this irrigation division under the supervision of the Special Deputy State Engineer who now administers the La Plata River Compact.

Third. Vest the duties of Irrigation Division No. 1 in the Deputy State Engineer, which will effect a biennial saving of nearly \$5,500.

Fourth. Increase the present salary of the Special Deputy State Engineer, who administers the La Plata River Compact, from \$2,100 to \$2,500, the salary now received by all Irrigation Division Engineers.

Fifth. Increase the present salary of the Deputy State Engineer from \$2,400 to \$3,000. He now receives \$2,400 from State appropriations and \$300 from the funds of the State Board of Examiners for Engineers and Land Surveyors. The latter duties performed for the Board to be transferred to the Chief Clerk of this office.

Sixth. Increase the present salary of the office stenographer from \$1,200 to \$1,500 per year. The present stenographer has for three years been handling the duties formerly handled by two individuals, at a biennial saving of \$2,400. The duties of this employee are increasing each year and may be successfully performed only by one thoroughly trained in the same.

Seventh. Provide an appropriation of \$1,800 per year for a draftsman for the office.

The net estimated saving to the taxpayers resulting from the foregoing recommendations would be \$5,000 for the biennium.

Eighth. Consolidate Water Districts 41 and 68, comprising the drainage basin of the Uncompahgre, into one district, which would increase the efficiency of administration and effect an additional saving to the local taxpayers of approximately \$2,000 per year.

Ninth. Legislative provision for the appointment by the Irri-

gation Division Engineer with the approval of the State Engineer, of one or more Water Commissioners who may be assignable for temporary duties in any part of his division. The cost of such officials would be borne by the local water users. This is needful for an efficient administration of the water decrees in certain districts at critical seasons of the irrigation period.

Tenth. Provision for a nominal appropriation to be used by the State Engineer for employment of Special Deputies to assist local Water Commissioners to enforce the court decrees in districts where serious difficulties occur, and for other similar purposes.

CHAPTER XIV

TABLES OF STREAM DISCHARGE

WITH LOCATION AND DESCRIPTION
of

ALL GAUGING STATIONS MAINTAINED
IN COLORADO

BY THE OFFICE OF STATE ENGINEER
AND THROUGH CO-OPERATION WITH
THE UNITED STATES GEOLOGICAL SURVEY
OTHER STATES AND CORPORATIONS

RELATED RUN OFF IN PERCENTAGE OF THE NORMAL
FOR STREAMS IN COLORADO

Stream	Years of Record	1927	1928
	%	%	
Animas River at Durango.....	29	123	80
Arkansas River at Canon City.....	41	95	97
Bear Creek at Starbuck.....	9	60	75
Big Thompson River near Drake.....	11	82	105
Blue River at Dillon.....	18	95	108
Boulder Creek at Orodell.....	22	91	112
Cache la Poudre River at Canon.....	45	81	93
Clear Creek near Golden.....	20	85	93
Colorado River at Glenwood Springs.....	29	104	122
Colorado River at Lee's Ferry.....	34	109	100
Conejos River near Mogote.....	25	124	71
Dolores River at Dolores.....	18	146	98
Fraser River at West Portal.....	18	93	121
Gunnison River near Gunnison.....	18	109	94
Hermosa Creek at Hermosa.....	17	111	86
La Plata River at Hesperus.....	9	131	70
Laramie River near Jelm, Wyo.....	20	80	110
North Platte River at Northgate.....	15	105	115
Purgatoire River at Trinidad.....	20	68	87
Rio Grande River near Del Norte.....	39	124	102
Roaring Fork at Glenwood Springs.....	22	98	92
Saguache Creek near Saguache.....	18	89	117
San Miguel at Naturita.....	11	113	96
South Boulder Creek at Eldorado Springs.....	36	80	96
South Platte River at South Platte.....	36	79	87
St. Vrain Creek at Lyons.....	37	83	96
Uncompahgre River below Ouray.....	16	112	100
White River at Meeker.....	25	103	126
Yampa River at Steamboat Springs.....	22	118	124

TABLE SHOWING TOTAL QUANTITY OF WATER IN ACRE-FEET ORIGINATING IN COLORADO AND DISCHARGING INTO ADJACENT STATES

Compiled by J. H. Baily

Stream	Years of Record	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Big Creek (a)	12	600	500	680	2600	10000	16600	5630	1950	1220	1200	800	700	42500
Encampment Cr. (b)	13	800	670	900	3800	23300	31300	5800	3200	1240	1550	1090	870	74500
North Platte River	13	9390	8890	17800	49500	96800	118000	45500	19800	12100	14000	12300	10200	415000
Laramie River	19	3070	2890	4000	6100	32400	57300	16200	5970	3560	3880	3670	3380	143000
Sand Creek (c)	21	310	290	400	644	3240	5830	1690	590	360	400	380	340	14500
South Platte River	26	29800	31900	34300	34800	57600	110000	17000	8900	11200	21200	28200	26800	407000
Republican River (d)	1000	1000	4500	18000	13500	6800	6000	9000	1800	1800	1800	1100	1000	65500
Arkansas River	21	18100	15800	10200	12600	19900	64000	36700	56200	13700	31000	9720	13100	305000
Rio Grande River (e)	30	20500	21000	33400	47800	143000	175000	53600	22300	24900	33900	25200	22000	622000
San Juan River	23	16500	20000	61200	45500	224000	246000	98300	45700	23600	45700	23600	16600	988000
Pine River	22	6340	6180	44300	36700	80400	88100	35400	12200	11300	14400	8030	66230	320000
Animals River (f)	18100	19200	40600	78900	198000	264000	107000	49700	41900	45200	22800	18500	901000	
La Plata River	9	1050	1640	3120	8110	10900	4260	1010	974	1400	1030	965	1180	35600
Mancos River	8	774	1280	3880	8830	21500	7620	3120	3800	2610	1250	1330	970	57100
McElmo Creek	2	1960	5380	3030	2450	3660	5410	4070	1670	4700	3300	2790	940	39300
Colorado River (g)	8	161000	162000	232000	608000	1660000	1740000	742000	334000	251000	256000	207000	177000	6580000
White River	7	28300	27800	42200	46700	105000	115000	53800	38500	33100	35100	28600	28300	582000
Yampa River	18	19300	20600	49200	164000	456000	375000	95700	28900	21000	24600	22000	130000	130000
Snake River (h)	8	6970	7240	18500	73100	135000	77200	13400	21400	3110	7000	6120	6610	356000
Vermillion Cr.	1	2890	3300	64700	3060	1210	6500	4800	4700	3110	5400	3200	3000	161000
Total		347000	358000	639000	1360000	3320000	3540000	1340000	645000	482000	520000	411000	358000	13400000
Per cent		2.6	2.7	4.8	10.2	24.9	26.5	10.0	4.8	3.6	4.1	3.1	2.7	100.0

(a)—Estimated from Big Creek, Wyo. Station. Drainage area Total 123 square miles; in Colorado 72 square miles.

(b)—Estimated from Encampment Creek, Wyo., Station. Drainage area Total 219 square miles; in Colorado 72 square miles.

(c)—Estimated.

(d)—Estimated from Smoky Hill River at Ellsworth, Kansas.

(e)—No correction made for Los Pinos Creek and San Antonio River in New Mexico as Chama River in Colorado had approximately the same run-off.

(f)—Taken from New Mexico records at Farmington. Table in Twenty-third Biennial Report in error as the inflow to Animas between Durango and State Line was not taken into account.

(g)—Record from Cisco station which is below the mouth of Dolores River.

(h)—Corrected to give run-off from Colorado. 172,000 acre-feet deducted from flow at Lily Park.

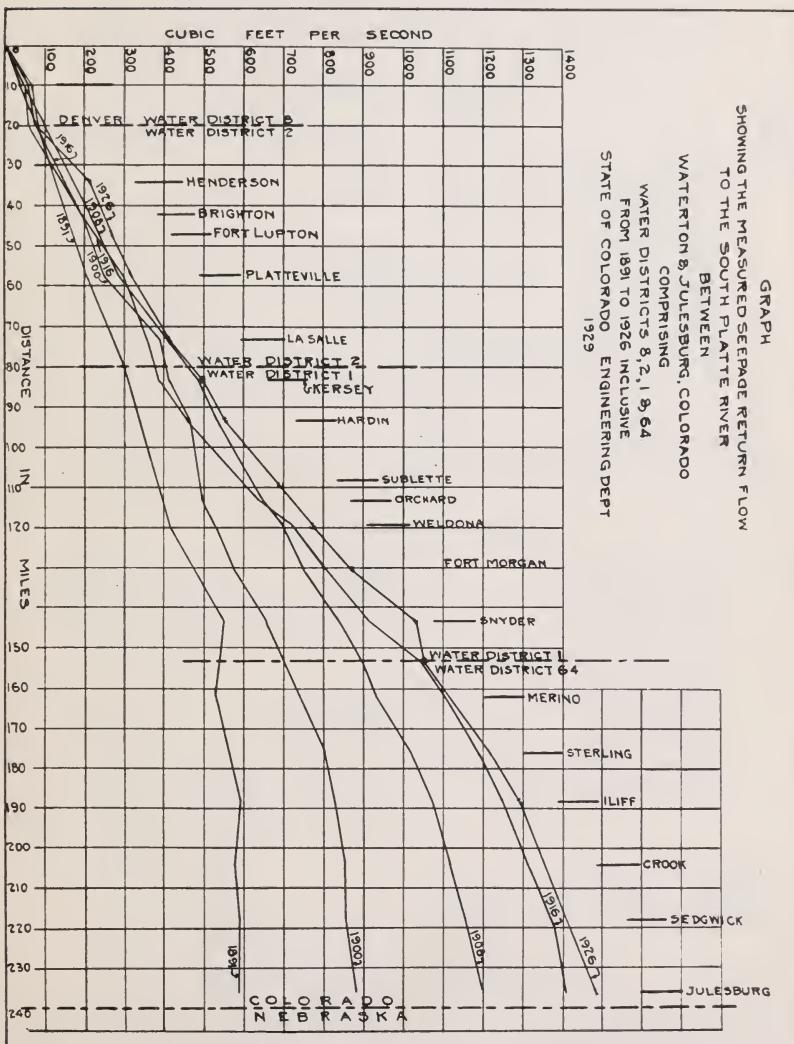
DISCHARGE OF THE DENVER SEWERS TO THE SOUTH PLATTE RIVER
FROM DECEMBER, 1926, TO NOVEMBER, 1927

	Dec. 1926	Jan. 1927	Feb. 1927	Mar. 1927	Apr. 1927	May 1927	June 1927	July 1927	Aug. 1927	Sept. 1927	Oct. 1927	Nov. 1927
Mean												
Sec. Ft., 71.4	71.4	70.4	70.4	71.7	71.7	75.6	73.5	74.6	69.1	69.1	72.1	
Acre Ft., 4390	4390	3900	4330	4210	4410	4500	4420	4590	4110	4250	4290	

Mean Flow in Second-Ft. for year—71.6.

Total Acre feet for year—51800.

(This record furnished by the Board of Water Commissioners.)



SEEPAGE INVESTIGATION

South Platte River

November 15 to December 2, 1926

J. R. WILLIAMS

Waterton to Littleton

Date	Name of Stream or Ditch	Place of Measurement	Inflow Sec. Ft.	Outflow Sec. Ft.
1926				
Dec. 1	South Platte River.....	Waterton (G.H.O. 75)....	46.00	.....
	Platte Canon Ditch Waste...	Wasteway	Est. 1.0	.....
	City Ditch .....	.....	.....	0.0
	Plumb Creek	Mouth	Seepage (2.0)	.....
	Plumb Creek	Mouth	Natural flow 5.3	.....
	Deer Creek	Mouth	Seepage (1.0)	.....
	Dutch Creek	Mouth	Seepage (4.0)	.....
	Brown Ditch .....	.....	.....	0.0
	Rough & Ready Ditch.....	.....	.....	0.0
	South Platte River.....	Littleton .....	.....	89.0
			52.3	89.0

Distance—10 miles.

Apparent gain in section—36.7 sec. ft.

Littleton to 16th St., Denver

Dec. 2	South Platte River.....	Littleton	56.7	.....
	Big Dry Creek.....	Mouth	Seepage (1.30)	.....
	Petersburg Ditch.....	.....	.....	0.0
	Bear Creek .....	.....	14.0	.....
	Little Dry Creek.....	.....	Seepage (2.20)	.....
	Smith Canal.....	.....	.....	0.0
	Epperson Canal .....	.....	.....	0.0
	Storm Sewer	Mississippi Ave.	1.00	.....
	Sewer Outlet	Seventh St.	1.30	.....
	Farmers & Gardeners Ditch.....	.....	.....	5.40
	Cherry Creek .....	.....	3.50	.....
	South Platte River.....	16th St., Denver.....	.....	111.0
			76.5	116.4

Distance—10 miles.

Apparent gain is 39.9 sec. ft.

Total gain Waterton to Denver—76.6 sec. ft.

16th St., Denver, to Burlington Ditch

Nov. 15	South Platte	16th St., Denver	162.0	.....
	Burlington Ditch .....	.....	207.0	.....
	South Platte River.....	Burlington Dam .....	.....	38.6
	(Includes 15.7 s. f. wasted at 1st wasteway)	.....	.....	.....
			162.0	245.6

Distance—4 miles.

Apparent return from Denver sewers* plus seepage—83.6 s. f.

*Average discharge of sewers for Nov., 1926—72 sec. ft.

Burlington Ditch to Henderson

Date 1926	Name of Stream or Ditch	Place of Measurement	Inflow Sec. Ft.	Outflow Sec. Ft.
Nov. 15	South Platte River.....	Burlington Dam	38.6	.....
	Gardners Ditch .....	.....	.....	0.0
	Clear Creek	Mouth	18.6	.....
	Fulton Ditch Seepage to River .....	.....	(10.0)	.....
	Fulton Ditch .....	.....	.....	0.0
	Brantner Ditch .....	.....	.....	16.0
	South Platte River.....	Henderson .....	.....	93.0
			57.2	109.0

Henderson to Ft. Lupton

Nov. 16	South Platte River.....	Henderson	93.0	.....
	Brighton Ditch .....	.....	.....	0.0
	McCann Seep. Ditch.....	Brighton	(7.50)	.....
	Lupton Short Line.....	.....	.....	0.0
	Big Dry Creek.....	Mouth	Seepage (6.00)	.....
	Big Dry Creek.....	Mouth	Waste water 11.8	.....
	Lupton Bottom Ditch.....	.....	.....	0.0
	South Platte River.....	Ft. Lupton .....	.....	161.3
			104.8	161.3

Distance—13 miles.

Apparent seepage return—56.5.

Ft. Lupton to Platteville

Nov. 17	South Platte River.....	Ft. Lupton	161.3	.....
	Platteville Ditch .....	.....	.....	16.3
	Elwood Ditch .....	.....	.....	0.0
	Evans No. 2 Ditch.....	.....	.....	0.0
	Sidehill Ditch.....	.....	.....	0.0
	Mutual Ditch .....	.....	.....	0.0
	Seepage Ditch	Vollmar	(4.94)	.....
	Lou Birkle Slough.....	.....	Est. (1.00)	.....
	Meadow Island No. 2.....	.....	.....	0.0
	Platteville Ditch Waste near Platteville .....	.....	5.20	.....
	Buckers Ditch .....	.....	.....	0.0
	Farmers Independent Ditch.....	.....	.....	0.0
	Graflin Slough	Hodgson Ditch Headgate	(4.60)	.....
	South Platte River.....	Hodgson Bridge— Platteville .....	.....	199.1
			166.5	215.4

Distance—10 miles.

Apparent seepage return—48.9 sec. ft.

Platteville to Twin Bridges

Date	Name of Stream or Ditch	Place of Measurement	Inflow Sec. Ft.	Outflow Sec. Ft.
Nov. 17	South Platte River.....	Hodgson Bridge— Platteville	199.1	.....
	Western Ditch .....	.....	0.0	
	Western Ditch Seepage to River	(3.60)	.....
	Jay Thomas Ditch.....	.....	0.0	
	St. Vrain Creek.....	Near Mouth	78.6	.....
	Union Ditch .....	.....	0.0	
	South Platte River.....	Twin Bridges	304.0	.....
			277.7	304.0

Distance—8 miles.

Apparent seepage return—26.3 sec. ft.

Twin Bridges to Heil Bridge

Nov. 17	South Platte River.....	Twin Bridges	304.0	.....
Nov. 17	Big Thompson River.....	Near Mouth	54.6	.....
Nov. 18	Union Ditch Seepage to River .....	.....	(11.9)	.....
Nov. 18	Section No. 3 Ditch.....	.....	0.0	
	Lower Latham Seep. Ditch.....	.....	(16.3)	.....
	Kingsbury Seep. Ditch.....	.....	Est. (1.0)	.....
	Lower Latham Ditch.....	.....	.....	0.0
	Patterson Ditch .....	.....	.....	0.0
	Lower Latham Seepage.....	Lower Wasteway	(5.40)	.....
	Plumb Ditch .....	.....	.....	0.0
	South Platte River.....	Heil Bridge	475.	.....
			359.	475.

Distance—13 miles.

Apparent seepage return—116 sec. ft.

Heil Bridge to Kersey

Nov. 18	South Platte River.....	Heil Bridge	475.	.....
	Cache la Poudre.....	Gauging Station	111.	.....
	Seepage Stream	1 Mi. E. Poudre Gauging Station ..	Seepage Est. (1.5)	.....
	Lone Tree Creek.....	Highway	Seepage (8.40)	.....
	South Platte River.....	Kersey .....	.....	622.
			586.	622.

Distance—5 miles.

Apparent seepage return—36 sec. ft.

Kersey to Hardin

Nov. 18	South Platte River.....	Kersey	622.	.....
	Hoover Ditch .....	.....	0.0	
	Crow Creek .....	.....	(5.0)	.....
	Box Elder Creek	Empire Canal	(1.5)	.....
	Empire Res. Inlet .....	.....	.....	325.
	Riverside Res. Inlet .....	.....	.....	61.3
	Illinois Dlth .....	.....	.....	0.0
	South Platte Rlver.....	Hardin .....	.....	294.0
			622.	680.

Distance—9 miles.

Apparent seepage return—58 sec. ft.

Hardin to Sublette

Date	Name of Stream or Ditch	Place of Measurement	Inflow Sec. Ft.	Outflow Sec. Ft.
Nov. 18	South Platte River.....	Hardin	294.	.....
Nov. 19	Bijou Canal .....	.....	.....	0.0
	Riverside Outlet	Mouth	Seepage (1.5)	.....
	Jackson Lake Intake.....	R. F. ....	.....	320.
	Days Seep. Ditch.....	.....	Seepage (6.1)	.....
	South Platte River.....	Sublette .....	.....	112.
			294.	432.

Distance—15 miles.

Apparent seepage return—138 sec. ft.

Sublette to Weldona

Nov. 19	South Platte River.....	Sublette	112.	.....
	Weldon Valley Ditch.....	.....	.....	0.0
	Putnam Seep. Ditch.....	.....	(14.2)	.....
	Weldon Valley Seep. Ditch.....	.....	(7.6)	.....
	Ft. Morgan Canal.....	.....	.....	30.7
	Schaefers Upper Seep. Ditch.....	.....	(3.2)	.....
	South Platte River.....	Weldona .....	.....	161.
			112.	191.7

Distance—11 miles.

Apparent seepage return—80 sec. ft.

Weldona to Ft. Morgan

Nov. 19	South Platte River.....	Weldona	161.	.....
	Schaefers Lower Seep. Ditch.....	.....	(10.1)	.....
Nov. 20	Bijou Creek	Mouth	(27.5)	.....
	Upper Platte & Beaver Ditch. R. F. ....	.....	.....	85.0
	Deuel & Snyder Ditch.....	.....	.....	0.0
	Ft. Morgan Sugar Factory Pump .....	.....	(1.9)	.....
	Ft. Morgan S. F. waste.....	.....	9.6	.....
	Ft. Morgan S. F. Overflow from Res. .....	.....	9.9	.....
	South Platte River.....	Fort Morgan .....	.....	194.0
			180.5	279.0

Distance—11 miles.

Apparent seepage return—98.5 sec. ft.

Fort Morgan to Snyder

Date	Name of Stream or Ditch	Place of Measurement	Inflow Sec. Ft.	Outflow Sec. Ft.
Nov. 22	South Platte River.....	Fort Morgan	197.0	.....
	Ft. Morgan Steam Plant—			
	Outlet Pipe	Pumped (3.7)	.....
	Lower Platte & Beaver Ditch.....		49.2	
	Wildcat Creek		6.0	.....
	Tremont Ditch		0.0	
	Snyder Ditch		0.0	
	A. A. Smith Ditch.....		0.0	
	South Platte River.....	Snyder	317.	
			203.	366.2

Distance—13 miles.

Apparent seepage return—163 sec. ft.

Snyder to Balzac

Nov. 22	South Platte River.....	Snyder	317.	.....
	Big Beaver Creek.....	Mouth	Seepage Est. (6.0)	.....
	Big Beaver Creek.....	Mouth	Waste Water 66.1	
	North Sterling Inlet Canal..	R. F.	265.	
	Tetsel Ditch.....		0.0	
	Prewitt Res. Inlet Canal....	R. F.	117.0	
	South Platte River.....	Balzac	21.6	
			383.1	403.6

Distance—10 miles.

Apparent seepage return—20.5 sec. ft.

Balzac to Merino

Nov. 22	South Platte River.....	Balzac	21.6	.....
	South Platte Ditch.....		0.0	
	Pawnee Ditch		0.0	
	Prewitt Seepage in Res.			
	Outlet	(2.8)	.....
	South Platte River.....	Merino	83.6	
			21.6	83.6

Distance—9 miles.

Apparent seepage return—62.0 sec. ft.

Merino to Sterling

Nov. 22	South Platte River.....	Merino	83.6	.....
	Prewitt Res. Seep.....	Mouth	(20.8)	.....
	Davis Bros. Ditch.....			0.0
	Prewitt Res. Seep. at End			
	of South Platte Ditch.....	(2.5)	.....
	Schneider Ditch		0.0	
	Springdale Ditch		0.0	
	Pawnee Creek		Dry	.....
	Sterling No. 1 Ditch.....		0.0	
	Sterling No. 2 Ditch.....		0.0	
	Sterling Sugar Factory Waste.....	Pumped (8.1)	.....
	South Platte River.....	Sterling	186.7	
			83.6	186.7

Distance—14 miles.

Apparent seepage return—103.1 sec. ft.

Sterling to Iliff

Date	Name of Stream or Ditch	Place of Measurement	Inflow Sec. Ft.	Outflow Sec. Ft.
Nov. 23	South Platte River.....	Sterling	186.7	....
	Henderson & Smith Ditch.....	.....	0.0	
	Lowline Ditch .....	.....	0.0	
	Pioneer Drain .....	.....	(5.83)	....
	Bravo Ditch .....	.....	16.9	
	Cedar Creek	Mouth	(26.0)	....
	(Includes Springdale Cr., which gathers seepage under Sterling No. 1, Pawnee & Springdale Ditches)			
	Iliff & Platte Valley Ditch.....	.....	0.0	
	Lone Tree Ditch.....	.....	0.0	
	South Platte River.....	Iliff .....	.....	241.8
			186.7	258.7

Distance—12 miles.

Apparent seepage return—72 sec. ft.

Iliff to Julesburg

Nov. 23	South Platte River.....	Iliff	242.	....
	Lodgepole Creek .....	.....	6.0	....
	South Platte River.....	Julesburg .....	.....	440.
			248.	440.

Distance—48 miles.

Apparent seepage return—192 sec. ft.

RECAPITULATION

Date 1926	Section	Apparent Measured Return from			Total Seepage Sec. Ft.
		Seep. Return Sec. Ft.	Surface Seep. Sec. Ft.	Initial Point Sec. Ft.	
Dec. 1	Waterton to Littleton.....	36.7	7.0	36.7	
Dec. 2	Littleton to Denver.....	39.9	3.5	76.6	
Nov. 15	16th St., Denver, to Burlington Dam	83.6	0.0	160	
Nov. 15	Burlington Dam to Henderson.....	51.8	10.0	212	
Nov. 16	Henderson to Ft. Lupton.....	56.5	13.5	268	
Nov. 17	Ft. Lupton to Platteville.....	48.9	10.5	317	
Nov. 17	Platteville to Twin Bridges.....	26.3	3.6	344	
Nov. 18	Twin Bridges to Heil Bridge.....	116.0	34.6	460	
Nov. 18	Heil Bridge to Kersey	36.0	9.9	496	
Nov. 18	Kersey to Hardin.....	58.0	6.5	554	
Nov. 19	Hardin to Sublette.....	138.0	7.5	692	
Nov. 19	Sublette to Weldona.....	80.0	25.0	772	
Nov. 20	Weldona to Ft. Morgan.....	98.5	37.6	870	
Nov. 22	Ft. Morgan to Snyder.....	163.0	3.7	1033	
Nov. 22	Snyder to Balzac.....	20.5	6.0	1054	
Nov. 22	Balzac to Merino.....	62.0	2.8	1116	
Nov. 22	Merino to Sterling.....	103.0	31.4	1219	
Nov. 23	Sterling to Iliff.....	72.0	31.8	1291	
Nov. 23	Iliff to Julesburg.....	192.0	0.0	1483	

Distance—235 miles.

Apparent seepage return per mile—6.31 sec. ft.

SEEPAGE INVESTIGATION

South Platte River

October 17 to November 21, 1927

C. E. FEETHAM

Waterton to Littleton

Date	Name of Stream or Ditch	Inflow Sec. Ft.	Outflow Sec. Ft.
Oct. 28	South Platte at Waterton G.H. 0.60.....	21.9	.....
	Platte Canon Waste	0.2	.....
	Last Chance Ditch .....	.....	Dry
	City Ditch .....	.....	34.6
	Deer Creek	(1.2)	.....
	Massey Gulch	(Dry)	.....
	Plumb Creek	(4.8)	.....
	Nevada Ditch, G. H. -1.16.....	.....	8.9
	Marcy Gulch	(0.8)	.....
	Clarks Gulch (1.0 s. f)).....	6.4	.....
	Lee Gulch	(2.2)	.....
	Dutch Creek	(5.2)	.....
	Brown Ditch .....	.....	(Dry)
	South Platte at Littleton.....	.....	41.2
		28.5	84.7
			28.5
	Apparent gain .....	.....	56.2
	Apparent gain per mile.....	.....	5.6
	Apparent gain per mile, 1926.....	.....	3.7
	Distance—10 miles.		

Littleton to Denver

Date	Name of Stream or Ditch	Inflow Sec. Ft.	Outflow Sec. Ft.
Oct. 31	South Platte at Littleton	42.0	.....
	Big Dry Creek	(3.5)	.....
	Petersburg Ditch, G.H. 1.87 .....	.....	6.4
	Bear Creek at Mouth, G.H. 0.57	13.1	.....
	Platte and Denver Ditch .....	.....	(Dry)
	Little Dry Creek	(3.4)	.....
	Epperson Ditch .....	.....	(Dry)
	Storm Sewer	(1.5)	.....
	Conduit No. 4 .....	.....	0.0
	Platte Valley Ditch .....	.....	1.0
	Smith Canal (non-consuming) .....	.....	.....
	Seepage at 8th Ave.	(1.0)	.....
	Dry Creek	1.8	.....
	*Farmers and Gardeners Ditch .....	.....	0.2
	Farmers and Gardeners Waste .....	.....	18.4
	Cherry Creek (5.6)	4.0	.....
	South Platte at Denver, G.H. 0.08 .....	.....	100.8
		60.9	126.8
			60.9
	Apparent gain		65.9
	Gain per mile		6.6
	Gain per mile, 1926		4.0
	Distance—10 miles.		

*True headgate of ditch is below wasteway in District No. 2, but water actually diverted from river above Tramway Dam in District No. 8.

Denver to Burlington Ditch

Date	Name of Stream or Ditch	Inflow Sec. Ft.	Outflow Sec. Ft.
Nov. 2	South Platte at Denver G.H. 0.34	158.4	.....
	Farmers and Gardeners Waste	15.8	.....
	Cemetery Ditch .....	.....	0.4
	Burlington Canal, G.H. —1.10 .....	.....	229.0
	City Sewer into Burlington Ditch	1.0	.....
	Second Waste of Burlington Ditch	1.2	.....
	South Platte below Burlington Dam .....	.....	10.8
		176.4	240.2
			176.4
	Includes sewers and return flow		63.8
	1926		83.6

The mean average flow of sanitary sewers for the month of October is 71 sec. ft. as estimated from gaugings and automatic records by the Water Department of the City of Denver.

Burlington Ditch to Henderson

Date	Name of Stream or Ditch	Inflow Sec. Ft.	Outflow Sec. Ft.
Nov. 3	South Platte below Burlington	1.5	.....
	Second waste of Burlington	1.2	.....
	Gardeners Ditch .....	.....	1.4
	Sand Creek	(0.5)	.....
	Clear Creek, G.H. 0.78	10.8	.....
	Fulton Ditch .....	.....	26.8
	Brantner Ditch, G.H. 0.26 .....	.....	7.7
	Waste of District No. 7 Ditch.....	1.5	.....
	Seepage above station	(1.0)	.....
	South Platte at Henderson, G.H. 1.07.....	.....	17.3
		15.0	53.2
			15.0
	Apparent gain		38.2
	Apparent gain per mile		3.8
	Apparent gain per mile, 1926.....		5.2
	Distance—10 miles.		

Henderson to Ft. Lupton

Date	Name of Stream or Ditch	Inflow Sec. Ft.	Outflow Sec. Ft.
Nov. 16	South Platte at Henderson, G.H. 1.35.....	80.7	.....
	Second Creek	(Dry)	.....
	Brighton Ditch .....	.....	27.3
	McCann Seep. Ditch	(2.0)	.....
	Brighton Sugar Factory Waste (non-consuming).....	.....	.....
	Lupton Shortline Ditch .....	.....	(Dry)
	Ogilvie Slough	(2.0)	.....
	Wattenburg Slough	(2.5)	.....
	Big Dry Creek	8.3	.....
	Lupton Bottom Ditch, G.H. 0.91.....	.....	25.9
	South Platte River at Ft. Lupton, G.H. —0.90.....	.....	91.1
		89.0	144.3
			89.0
	Apparent gain		55.3
	Apparent gain per mile		4.3
	Apparent gain per mile, 1926.....		4.3
	Distance—13 miles.		

Ft. Lupton to Hodgson Bridge

Date	Name of Stream or Ditch	Inflow Sec. Ft.	Outflow Sec. Ft.
Nov. 19	South Platte at Ft. Lupton, G.H. 1.12.....	134.8	.....
	Platteville Ditch, G.H. —0.70 .....	.....	42.3
	Fulton Wasteway	9.7	.....
	Sidehill Ditch .....	.....	(Dry)
	Evans No. 2 Ditch, G.H. —1.66.....	.....	92.1
	Mutual Ditch .....	.....	(Dry)
	Seepage at Vollmar Bridge (28.6).....	(5.0)	.....
	Waste water at Vollmar Bridge	23.6	.....
	Lou Birkle Slough	(1.5)	.....
	Platteville Ditch Waste	7.6	.....
	Buckers Ditch .....	.....	(Dry)
	Farmers Independent Ditch .....	.....	(Dry)
	Graefin Slough	(5.0)	.....
	Hodgson Ditch .....	.....	(Dry)
	South Platte at Hodgson Bridge, G. H. —0.67.....	.....	72.5
		175.7	206.9
			175.7
	Apparent gain		31.2
	Apparent gain per mile		3.1
	Apparent gain per mile, 1926.....		4.9
	Distance—10 miles.		

Hodgson Bridge to Twin Bridges

Date	Name of Stream or Ditch	Inflow Sec. Ft.	Outflow Sec. Ft.
Nov. 19	South Platte at Hodgson Bridge (G.H. —0.67).....	72.5	.....
	Western Ditch .....	.....	(Dry)
	Jay Thomas Ditch .....	.....	(Dry)
	Western Drain Ditch	(3.5)	.....
	St. Vrain Creek, G.H. —1.43	114.9	.....
	Big Bend Ditch .....	.....	(Dry)
	Union Ditch .....	.....	43.9
	South Platte at Twin Bridges, G.H. 1.20.....	.....	178.6
		187.4	222.5
			187.4
	Apparent gain		35.1
	Gain per mile		4.4
	Gain per mile, 1926 (26.3 s.f.)		3.3
	Distance—8 miles.		

Twin Bridges to Heil Bridge

Date	Name of Stream or Ditch	Inflow Sec. Ft.	Outflow Sec. Ft.
Nov. 21	South Platte at Twin Bridges, G.H. 1.25.....	198.8	.....
	Union Waste	11.4	.....
	Section No. 3 Ditch .....	.....	(Dry)
	Big Thompson River, G.H. 1.19.....	66.2	.....
	Wyatt Ditch .....	.....	(Dry)
	Seepage Slough below Union Ditch	(8.7)	.....
	Lower Latham Seep. Ditch	(17.3)	.....
	Lower Latham Ditch .....	.....	(Dry)
	Kingsbury Seep. Ditch	(0.5)	.....
	Patterson Ditch, G.H. —0.70.....	.....	3.9
	Plum Ditch .....	.....	(Dry)
	South Platte at Heil Bridge.....	.....	367.5
		276.4	371.4
			276.4
	Apparent gain .....	.....	95.0
	Gain per mile .....	.....	7.3
	Gain per mile, 1926 .....	.....	8.9
	Distance—13 miles.		

Heil Bridge to Kersey

Date	Name of Stream or Ditch	Inflow Sec. Ft.	Outflow Sec. Ft.
Nov. 21	South Platte at Heil Bridge.....	.....	367.5
	Cache la Poudre at Mouth, G.H. 1.82.....	135.1	.....
	Sand Creek .....	.....	3.0
	Lone Tree Creek .....	.....	8.4
	Sterling Seep. Ditch	(2.5)	.....
	South Platte at Kersey, G.H. —3.08.....	.....	534.6
		514.0	534.6
			514.0
	Apparent gain .....	.....	20.6
	Gain per mile .....	.....	4.1
	Gain per mile, 1926 .....	.....	7.2
	Distance—5 miles.		

Kersey to Hardin

Date	Name of Stream or Ditch	Inflow Sec. Ft.	Outflow Sec. Ft.
Oct. 17	South Platte at Kersey, G.H. 3.18.....	698.1	.....
	Hoover Ditch .....	.....	(Dry)
	Box Elder Creek	6.0	.....
	Crow Creek	(6.9)	.....
	Empire Intake .....	.....	(Dry)
	Riverside Intake, G.H. 3.34	430.6	.....
	Illinois Ditch .....	.....	(Dry)
	South Platte at Hardin	345.0	.....
		704.1	775.6
			704.1
	Apparent gain	71.5	.....
	Apparent gain per mile	7.9	.....
	Apparent gain per mile, 1926.....	6.4	.....
	Distance—9 miles.		

Hardin to Sublette

Date	Name of Stream or Ditch	Inflow Sec. Ft.	Outflow Sec. Ft.
Oct. 17	South Platte at Hardin	345.0	.....
	Empire Waste	5.7	.....
	Bijou Canal, G.H. 1.62 .....	.....	160.2
	Riverside Outlet	(1.5)	.....
	Jackson Lake Intake, G.H. 2.70.....	.....	255.3
	Day's Seep. Ditch	(8.2)	.....
	South Platte at Sublette, G.H. —1.57.....	.....	74.9
		350.7	490.4
			350.7
	Apparent gain	139.7	.....
	Apparent gain per mile	9.3	.....
	Apparent gain per mile, 1926.....	9.2	.....
	Distance—15 miles.		

Sublette to Weldona

Date	Name of Stream or Ditch	Inflow Sec. Ft.	Outflow Sec. Ft.
Oct. 18	South Platte at Sublette, G.H. 1.57.....	74.9	.....
	Weldon Valley Ditch .....	.....	(Dry)
	Putnam Seep. Ditch .....	.....	(13.7)
	Jackson Lake Outlet .....	.....	(Dry)
	Weldon Valley Seep. Ditch .....	.....	(7.8)
	Ft. Morgan Ditch .....	.....	48.1
	Schaefer Upper Seep. Ditch .....	.....	(7.1)
	South Platte at Weldona .....	.....	135.9
		74.9	184.0
			74.9
	Apparent gain .....	.....	109.1
	Apparent gain per mile .....	.....	9.9
	Apparent gain per mile, 1926.....	.....	7.3
	Distance—11 miles.		

Weldona to Ft. Morgan

Date	Name of Stream or Ditch	Inflow Sec. Ft.	Outflow Sec. Ft.
Oct. 18	South Platte at Weldona	135.9	.....
	Schaefers Lower Seep. Ditch .....	.....	(3.0)
	Ft. Morgan Waste (Seepage) .....	.....	(0.4)
	Bijou Creek .....	.....	(29.7)
	Upper Platte and Beaver Ditch, G.H. 0.66.....	.....	55.5
	Deuel and Snyder Ditch .....	.....	1.2
	Sugar Factory Waste (Ft. Morgan).....	.....	7.9
	South Platte at Ft. Morgan.....	.....	205.2
		143.8	261.9
			143.8
	Apparent gain .....	.....	118.1
	Apparent gain per mile .....	.....	10.7
	Average gain per mile, 1926.....	.....	9.0
	Distance—11 miles.		

Ft. Morgan to Snyder

Date	Name of Stream or Ditch	Inflow Sec. Ft.	Outflow Sec. Ft.
Oct. 19	South Platte at Ft. Morgan.....	205.2	.....
	Ft. Morgan Power Waste	(2.5)	.....
	Ft. Morgan Sewerage	(1.0)	.....
	Edwards and Gill Seep. Ditch	(3.0)	.....
	Lower Platte and Beaver Ditch, G.H. —0.35.....	.....	22.6
	Tremont Ditch .....	.....	3.9
	Wildcat Creek	5.0	.....
	Snyder Ditch .....	.....	1.0
	A. A. Smith Ditch .....	.....	2.0
	South Platte at Snyder	298.8	.....
		210.2	328.3
			210.2
	Apparent gain		118.1
	Apparent gain per mile		9.1
	Apparent gain per mile, 1926		12.55
	Distance—13 miles.		

Snyder to Balzac

Date	Name of Stream or Ditch	Inflow Sec. Ft.	Outflow Sec. Ft.
Oct. 19	South Platte at Snyder	298.8	.....
	Big Beaver Creek	39.8	.....
	North Sterling Intake, G.H. 4.02 .....	.....	333.6
	Union Ditch .....	.....	(Dry)
	Tetsel Ditch .....	.....	2.1
	Prewitt Intake, G.H. 1.18 .....	.....	44.5
	Prewitt Waste (Seepage)	(1.8)	.....
	North Sterling Waste	(1.2)	.....
	South Platte at Balzac, G.H. 0.66 .....	.....	10.3
		338.6	390.5
			338.6
	Apparent gain		51.9
	Apparent gain per mile		5.2
	Apparent gain per mile, 1926		2.0
	Distance—10 miles.		

Balzac to Merino

Date	Name of Stream or Ditch	Inflow Sec. Ft.	Outflow Sec. Ft.
Oct. 20	South Platte at Balzac, G.H. 0.66.....	10.3	.....
	Tetsel Waste	1.5	.....
	Johnson and Edwards Seep. Ditch	(0.2)	.....
	South Platte Ditch .....	.....	(Dry)
	Shakley Lateral .....	.....	(Dry)
	Prewitt Outlet	(10.2)	.....
	Pawnee Ditch .....	.....	(Dry)
	South Platte at Merino .....	.....	61.0
		11.8	61.0
			11.8
	Apparent gain .....	.....	49.2
	Apparent gain per mile .....	.....	5.5
	Apparent gain per mile, 1926 .....	.....	6.9
	Distance—9 miles.		

Merino to Sterling

Date	Name of Stream or Ditch	Inflow Sec. Ft.	Outflow Sec. Ft.
Oct. 20	South Platte at Merino	61.0	.....
	Prewitt Drain Ditch, G.H. 2.34.....	(26.0)	.....
	Davis Bros. Ditch, G.H. —0.36.....	.....	5.8
	Prewitt Seep. at end of South Platte Ditch.....	(2.5)	.....
	Schneider Ditch .....	.....	(Dry)
	Batten Ditch .....	.....	(Dry)
	Springdale Ditch .....	.....	(Dry)
	Pawnee Creek	5.7	.....
	Sterling No. 1 Ditch .....	.....	(Dry)
	Sterling No. 2 Ditch .....	.....	(Dry)
	Sugar Factory Waste (Sterling)	(7.8)	.....
	South Platte at Sterling .....	.....	200.2
		66.7	206.0
			66.7
	Apparent gain .....	.....	139.3
	Apparent gain per mile .....	.....	10.0
	Apparent gain per mile, 1926 .....	.....	7.4
	Distance—14 miles.		

Sterling to Iliff

Date	Name of Stream or Ditch	Inflow Sec. Ft.	Outflow Sec. Ft.
Oct. 21	South Platte at Sterling	200.2	.....
	Henderson and Smith Ditch .....	.....	2.5
	Sterling Power House Waste	(3.0)	.....
	Sterling Sewerage	(1.0)	.....
	Lowline Ditch .....	.....	2.8
	Pioneer Drain	(8.8)	.....
	Bravo Ditch, G.H. 1.28 .....	.....	16.0
	Farmers Ditch .....	.....	(Dry)
	Community Wasteway	(2.0)	.....
	Cedar Creek	(21.8)	.....
	Iliff and Platte Valley Ditch.....	.....	(Dry)
	Bravo Seep. Ditch	(0.2)	.....
	Lone Tree Ditch .....	.....	0.8
	South Platte at Iliff .....	.....	236.3
		200.2	258.4
			200.2
	Apparent gain .....	.....	58.2
	Apparent gain per mile .....	.....	4.8
	Apparent gain per mile, 1926.....	.....	6.0
	Distance—12 miles.		

Iliff to Crook

Date	Name of Stream or Ditch	Inflow Sec. Ft.	Outflow Sec. Ft.
Oct. 21	South Platte at Iliff	236.3	.....
	Powell Ditch .....	.....	3.0
	Blair Drain	(1.5)	.....
	Sam Rice Ditch .....	.....	(Dry)
	Ramsey Ditch .....	.....	(Dry)
	Chambers Ditch .....	.....	6.0
	Harmony Nos. 1 and 3 .....	.....	(Dry)
	Harmony No. 1 Waste and Drain.....	(27.4)	.....
	South Platte at Crook .....	.....	301.2
		236.3	310.2
			236.3
	Apparent gain .....	.....	73.9
	Apparent gain per mile .....	.....	4.1
	Distance—18 miles.		

Crook to Sedgwick

Date	Name of Stream or Ditch	Inflow Sec. Ft.	Outflow Sec. Ft.
Oct. 22	South Platte at Crook	301.2	.....
	Settlers Ditch .....	.....	(Dry)
	Tamarack Ditch .....	.....	26.9
	Long Island Ditch .....	.....	(Dry)
	Red Lion Supply Ditch .....	.....	3.2
	Seepage from Jumbo Reservoir	(21.1)	.....
	J. F. Ditch .....	.....	(Dry)
	Peterson Ditch .....	.....	(Dry)
	Moore's Creek	(1.0)	.....
	South Platte at Sedgwick .....	.....	321.6
		301.2	351.7
			301.2
	Apparent gain .....	.....	50.5
	Apparent gain per mile .....	.....	2.8
	Distance—18 miles.		

Sedgwick to Julesburg

Date	Name of Stream or Ditch	Inflow Sec. Ft.	Outflow Sec. Ft.
Oct. 22	South Platte at Sedgwick	321.6	.....
	South Reservation Ditch .....	.....	(Dry)
	Lodgepole Creek	17.7	.....
	Sugar Factory Waste (Ovid)	(6.0)	.....
	Ovid Sewerage	(0.2)	.....
	Liddle Ditch .....	.....	(Dry)
	Carlson Ditch .....	.....	(Dry)
	South Platte at Julesburg .....	.....	355.0
		339.3	355.0
			339.3
	Apparent gain .....	.....	15.7
	Apparent gain per mile .....	.....	1.3
	Distance—12 miles.		

RECAPITULATION

1926	Section	Apparent	Measured	Total
		Seep. Return S. F.	Surface Seep. S. F.	Seep. From Initial Point S. F.
Oct. 28—Waterton to Littleton	56.2	14.2	56.2	
Oct. 31—Littleton to Denver	65.9	9.4	122.1	
Nov. 2—Denver to Burlington Dam	63.8	0.0	185.9	
Nov. 3—Burlington Dam to Henderson	38.2	1.5	224.1	
Nov. 16—Henderson to Ft. Lupton	55.3	6.5	279.4	
Nov. 19—Ft. Lupton to Hodgson Bridge.....	31.2	11.5	310.6	
Nov. 19—Hodgson Bridge to Twin Bridges..	35.1	3.5	345.7	
Nov. 21—Twin Bridges to Heil Bridge	95.0	26.5	440.7	
Nov. 21—Heil Bridge to Kersey	20.6	2.5	461.3	
Oct. 17—Kersey to Hardin	71.5	6.9	532.8	
Oct. 17—Hardin to Sublette	139.7	9.7	672.5	
Oct. 18—Sublette to Weldona	109.1	28.6	781.6	
Oct. 18—Weldona to Ft. Morgan	118.1	3.4	899.7	
Oct. 19—Ft. Morgan to Snyder	118.1	6.5	1017.8	
Oct. 19—Snyder to Balzac	51.9	3.0	1069.7	
Oct. 20—Balzac to Merino	49.2	10.4	1118.9	
Oct. 20—Merino to Sterling	139.3	36.3	1258.2	
Oct. 21—Sterling to Iliff	58.2	36.8	1316.4	
Oct. 21—Illif to Crook	73.9	28.9	1390.3	
Oct. 22—Crook to Sedgwick	50.5	22.1	1440.8	
Oct. 22—Sedgwick to Julesburg	15.7	6.2	1456.5	

Distance—235 miles.

Apparent seepage return per mile, 6.20 s. f.

SEEPAGE INVESTIGATION ON

Rio Grande

BY J. H. BAILY AND D. S. JONES, JR.

August 18-22, 1924

Mouth of Clear Creek to Wason

	Distance, 25 Miles.	Outflow Sec. Ft.	Inflow Sec. Ft.
Rio Grande 2 miles below Clear Creek.....		556.9	
Trout Creek		10.8	
Red Mountain Creek		18.6	
Lime Creek		1.0	
Santa Maria Seepage		(22.2)	
Fir Creek		0.5	
Antlers Park Ditch			
Shallow Creek			
Miner Creek		12.5	
Small Creek opposite Miner Creek			
Deep Creek		0.4	
Willow Creek		10.3	
Rio Grande at Wason		686.3	
Total		686.3	611.0
Apparent gain			75.3

Wason to Del Norte Station

	Distance, 26 Miles.	Outflow Sec. Ft.	Inflow Sec. Ft.
Rio Grande at Wason		686.3	
McIntyre Ditch			
Farmers Creek		0.3	
Bellows Creek		16.7	
Goose Creek		33.3	
Blue Creek		0.8	
Haney Ranch Ditch			
Elk Creek			
South Fork Rio Grande		55.7	
Alder Creek		1.8	
Bear Creek		0.1	
Anaconda Ditch		7.0	
Goin Ditch		0.1	
Willow Creek		2.0	
Ehrowitz Ditch		2.4	
Bower Ditch			
Carson Ditch			
Miner Ditch		9.2	
Meyers Creek			2.5
Meadow Glen Ditch		1.4	
Independence Ditch		1.6	
Rio Grande at Del Norte Station		803.0	
Total		824.7	799.5
Apparent gain			25.2

Del Norte Station to Gunbarrel Road

Distance, 20 Miles.

	Outflow Sec. Ft.	Inflow Sec. Ft.
Rio Grande at Del Norte Station .....	.....	803.0
Park and Green Ditch	1.6	.....
Pinos Creek Seepage .....	.....	(1.9)
Voss Seepage .....	.....	(2.0)
Pinos Creek .....	.....	0.5
Schrader Creek Seepage .....	.....	(2.0)
Wolf Creek .....	.....	.....
Del Norte City Ditch	4.6	.....
Rio Grande Canal	376.9	.....
Midland Ditch	2.8	.....
Seepage to Midland Ditch	2.0	.....
Rio Grande No. 2 Ditch	2.6	.....
Rio Grande No. 4 Ditch	0.5	.....
Rio Grande No. 1 Ditch	5.6	.....
Kane Callen Ditch	8.5	.....
Off Ditch	0.9	.....
Rabor Ditch	0.6	.....
McIntosh Arroyo Ditch	0.9	.....
Farmers Union Ditch	189.7	.....
Pioneer Ditch	3.0	.....
Silva Ditch	6.4	.....
North Silva Ditch	1.7	.....
McDonald Ditch	3.4	.....
Prairie Ditch	44.8	.....
Monte Vista Canal	89.5	.....
Piedra Valley Ditch	21.6	.....
Consolidated Ditches (Anderson, Lariat, Ydren and Homer Gilchrist, Star)	31.9	.....
Marajo Ditch .....	.....	.....
Blind Ditch (Undecreed)	0.5	.....
Hubbard Ditch .....	.....	.....
Fish Ditch	0.7	.....
Rio Grande at Gunbarrel Road	14.1	.....
Total	814.8	803.5
Apparent gain .....	.....	11.3

Gunbarrel Road to Alamosa

Distance, 22 Miles.

	Outflow Sec. Ft.	Inflow Sec. Ft.
Rio Grande at Gunbarrel Road .....	.....	14.1
Empire Ditch	27.8	.....
Centennial Ditch	8.8	.....
Jas. Peterson Ditch	2.6	.....
Bowen Drain .....	.....	.....
Billings Ditch (Fish Ditch Water)	2.4	.....
San Luis Canal	2.1	.....
North Farm Seepage to San Luis Canal	2.0	.....
Rio Grande Drain to River .....	.....	(7.5)
Rio Grande Drain to Prairie Ditch	25.2	.....
Excelsior Ditch	2.2	.....
Costilla Ditch (includes Little San Luis water)	18.0	.....
Rio Grande at Alamosa	18.6	.....
Total	109.7	14.1
Apparent gain .....	.....	95.6

Alamosa to LaSause

Distance 18 Miles.

	Outflow Sec. Ft.	Inflow Sec. Ft.
Rio Grande at Alamosa	18.6
Chicago Ditch
Rock Creek and Waverly Seepage	(6.5)
Carmel Drain	(6.0)
Adams Ditch from Carmel Drain	4.6
La Jara Creek	8.4
Norton Drain	(1.1)
Waste Water from Norton Ranch.....	8.0
Trinchera Creek	0.0
Conejos at Mouth	13.0
Rio Grande at LaSause	54.0
 Total	 58.6	 48.0
Apparent gain	10.6

La Sause to Lobatos Station

Distance, 13 Miles.

	Outflow Sec. Ft.	Inflow Sec. Ft.
Rio Grande at La Sause	54.0
Culebra River	0.0
Rio Grande at Lobatos	51.0
 Total	 51.0	 54.0
Apparent loss	3.0

Note: The waste water was turned down from Norton farm the afternoon before this investigation was made so that this section should show a 5-foot gain instead of a loss.

SEEPAGE INVESTIGATION

Rock Creek and Spring Creek

August 23, 1924

Distance, 25 Miles.

	Outflow Sec. Ft.	Inflow Sec. Ft.
Rock Creek at Cadle Ranch .....	.....	4.8
Muller Ditches	2.1	.....
Ditches above Gunbarrel	0.5	.....
Rock Creek at Gunbarrel, dry.		
Spring Creek at Gunbarrel .....	.....	(14.3)
Ditch one-fourth mile below Gunbarrel from Spring Creek.....	15.9	.....
Parma Ranch Ditches	2.9	.....
Spring Creek and Parma and McLane District.....	.....	(2.0)
Bowen Drain at Rock Creek .....	.....	(0.3)
McLean Drain (Irrigation on Parma Ranch).....	1.60	.....
Rock Creek 4 miles west of Alamosa.....	.....	0.0
	23.0	4.8
Apparent gain .....	.....	18.2

SEEPAGE INVESTIGATION

D. S. JONES, JR.

August 25-26, 1924

Conejos River

Distance, 36 Miles.

	Inflow Sec. Ft.	Outflow Sec. Ft.
Conejos at Broyles Bridge	55.7	.....
Ditch No. 37	1.00
Ditch No. 36	2.20
Ditch No. 34	3.70
Ditch No. 27	9.60
Ditch No. 13	0.10
Ditch No. 22	0.10
Ditch No. 38	0.20
Ditch No. 42	0.50
Antonito and Conejos Water Supply	1.00
Ditch No. 66	0.90
Ditch No. 33	0.40
Ditch No. 115	0.26
Ditch No. 2	1.00
Ditch No. 1	21.80
Ditch No. 5	1.00
Manassa No. 3	3.26
Espinosa Spring	0.40
Manassa Drain	4.20
Ditch No. 59	1.10
Ditch No. 56	0.20
Ditch No. 104	3.10
Ditch No. 75	1.90
McIntire Spring	16.30	.....
Archuleta Spring	2.20
La Sauses Ditch No. 32	20.90
Conejos River at mouth	18.50
Total	72.0	99.4
Apparent gain	27.4

Note: Espinosa Spring, Manassa Drain and Archuleta Spring diverted before reaching river.

SEEPAGE INVESTIGATION

D. S. JONES, JR.

August 28, 1924

Alamosa River

Distance, 32 Miles.

	Inflow Sec. Ft.	Outflow Sec. Ft.
--	--------------------	---------------------

Alamosa River above—

Terrace Reservoir	26.0	.....
Outlaw Ditch .....	.....	0.10
Terrace Canal .....	.....	2.56
J. M. Valdez Ditch .....	.....	4.34
Valdez Ditch .....	.....	1.63
El Viejo Ditch .....	.....	7.94
Alamosa Cr. Canal .....	.....	3.04
Exchange Ditch	0.50	.....
T. K. Walsh Ditch .....	.....	0.34
Union Ditch .....	.....	0.39
Alamosa River at Harvey Ranch .....	.....	0.00
 Totals	26.50	20.34
	20.34	 <hr/>
Apparent loss .....	.....	6.16

SEEPAGE INVESTIGATION

D. S. JONES, JR.

August 29, 1924

La Jara Creek

Distance, 34 Miles.

	Inflow Sec. Ft.	Outflow Sec. Ft.
--	--------------------	---------------------

La Jara Creek at station 9 miles above Capulin	12.50	.....
Lemita Ditch .....	.....	0.0
Saico Ditch .....	.....	0.10
Alamo Ditch .....	.....	0.10
Desert Ditch .....	.....	0.20
Exchange Ditch .....	.....	0.50
Garcia Ditch .....	.....	0.86
Valley Ditch .....	.....	1.39
Miller Ditch .....	.....	0.75
Diamond Springs Arroyo (seepage)	(34.30)	.....
Keystone Ditch .....	.....	0.47
Lower La Jara Ditch .....	.....	8.30
La Jara Drain (seepage)	(6.18)	.....
Morgan Drain (seepage)	(2.87)	.....
Hansen Overflow .....	.....	0.20
La Jara Creek at mouth .....	.....	15.90
 12.50	28.77	
	12.50	<hr/>
Apparent gain in La Jara Creek .....	.....	16.27
Apparent loss in Arroyo, 18.4 s. f.		

SEEPAGE INVESTIGATION

D. S. JONES, JR.

September 15, 1924

Diamond Spring Arroyo

Distance, 7 Miles.

	Inflow Sec. Ft.	Outflow Sec. Ft.
Arroyo at head	36.1	.....
Arroyo Springs Ditch .....	.....	2.20
South Side Arroyo Ditch .....	.....	2.60
Arroyo at Richfield Lane, 1 mile above outlet to La Jara Creek	23.60	.....
Total	36.1	28.40

Apparent loss in section, 7.7.

Note: Diamond Spring has developed since irrigation started in the San Luis Valley, so that instead of a loss of 7.7 second-feet, it shows a gain of 28.4 second-feet.

SEEPAGE INVESTIGATIONS
1924

SUMMARY

Rio Grande Drainage

River	Section	Gain Sec. Ft.	Loss Sec. Ft.
Rio Grande—Clear Creek to Wason	75.3	.....
Rio Grande—Wason to Del Norte	26.8	.....
Rio Grande—Del Norte to Monte Vista.....	11.3	.....
Rio Grande—Monte Vista to Alamosa.....	95.6	.....
Rio Grande—Alamosa to La Sauses.....	10.6	.....
Rio Grande—La Sauses to State Line.....	.....	3.0	
Rock Creek and Spring Creek—Gauging Station to mouth.....	18.2	.....
Conejos River—Broyles Bridge to mouth.....	27.4	.....
Alamosa River—Terrace Res. to mouth .....	.....	6.2	
La Jara Creek—Gauging Station to mouth.....	16.3	.....
Diamond Spring Arroyo	28.4	.....
Total	309.9	9.2	
Net gain .....	.....	300.7	
Net gain corrected for Norton waste.....	.....	306.7	

SEEPAGE INVESTIGATION

Rio Grande

D. S. JONES, JR.

September 23-30, 1924

Clear Creek to Wason

Distance, 25 Miles.

	Inflow Sec. Ft.	Outflow Sec. Ft.
Rio Grande below mouth of Clear Cr.....	102.8	.....
Red Mt. Creek	12.7	.....
Trout Creek	12.1	.....
Lime Creek	0.8	.....
Seepage Creek	(11.3)	.....
Fir Creek	0.5	.....
Antlers Park Ditch.....	.....	0.0
Shallow Creek	2.3	.....
Miner Creek	10.9	.....
Deep Creek	1.0	.....
Willow Creek	7.0	.....
Rio Grande at Wason .....	.....	202.7
<hr/>	<hr/>	<hr/>
Total	150.1	202.7
Apparent gain .....	.....	52.6

Wason to Del Norte Station

Distance, 26 Miles.

	Inflow Sec. Ft.	Outflow Sec. Ft.
Rio Grande at Wason	202.7	.....
McIntire Ditch .....	.....	0.0
Farmers Creek	0.0	.....
Bellows Creek	15.5	.....
Goose Creek	21.1	.....
Blue Creek	0.6	.....
Haney R. Ditch.....	.....	0.0
Elk Creek	0.0	.....
Alder Creek	0.0	.....
Bean Creek	30.9	.....
South Fork Rio Grande	0.3	.....
Gain Ditch .....	.....	1.1
Anaconda Ditch .....	.....	2.2
Willow Creek	1.8	.....
Shaw Creek	0.0	.....
Wolf Creek	0.0	.....
Miner Ditch .....	.....	1.3
Myers Creek	1.7	.....
Meadow Glen Ditch .....	.....	2.4
Independence Ditch .....	.....	1.8
Ehrowitz Ditch .....	.....	2.2
Bauer Ditch .....	.....	0.0
Carson Ditch .....	.....	0.1
Rio Grande at Del Norte Station .....	.....	278.6
<hr/>	<hr/>	<hr/>
Total	274.6	289.7
Apparent gain .....	.....	15.1

Del Norte Station to Gunbarrel Road Distance, 20 Miles.	Inflow Sec. Ft.	Outflow Sec. Ft.
Rio Grande at Del Norte	278.6	.....
Park and Green Ditch.....	.....	0.0
Voss Seep.....	(1.0)	.....
Schrader Creek Seep.....	(0.6)	.....
Pinos Creek	0.0	.....
Del Norte City Ditch .....	.....	2.0
Pinos Creek Seep.....	(0.4)	.....
Rio Grande Canal .....	.....	203.5
Midland Ditch .....	.....	0.0
Seep. to Midland Ditch.....	.....	0.0
Rio Grande No. 2 .....	.....	2.5
Rio Grande No. 4.....	.....	0.0
Rio Grande No. 1 .....	.....	2.3
San Francisco Seep.....	(1.0)	.....
Kane Callen .....	.....	0.0
Off Ditch .....	.....	0.0
Rabor Ditch .....	.....	0.7
McIntosh Arroyo Ditch .....	.....	0.2
Farmers Union Ditch.....	.....	2.0
Pioneer Ditch .....	.....	0.3
Silva Ditch .....	.....	1.4
North Silva Ditch .....	.....	0.4
McDonald Ditch .....	.....	0.0
Prairie .....	.....	1.0
Monte Vista Canal .....	.....	21.7
Piedra Valley .....	.....	2.0
Consolidated Ditches .....	.....	27.3
Navajo Ditch .....	.....	0.0
Blind Ditch .....	.....	0.2
Hubbard Ditch .....	.....	0.0
Fish .....	.....	0.2
Rio Grande at Gunbarrel .....	.....	8.9
 Total	 278.6	 276.6
Apparent loss .....	.....	2.2

Note: The Rio Grande No. 2 Ditch was shut off about 2 hours before hydrographer arrived at the headgate, so it was necessary to take the Water Commissioner's record for the amount of water turned out of ditch.

Gunbarrel Road to Alamosa Distance, 22 Miles.	Inflow Sec. Ft.	Outflow Sec. Ft.
Rio Grande at Gunbarrel.....	8.9	.....
Jas. Patterson Ditch.....	.....	0.0
Billings Ditch .....	.....	4.2
Empire Ditch (includes Adams Lane and M. V. Town Drains).....	.....	8.7
Centennial Ditch .....	.....	2.1
Old Centennial Ditch .....	.....	3.1
San Luis Ditch .....	.....	10.2
North Farm Drain to San Luis.....	.....	2.0
Excelsior Ditch .....	.....	1.2
Rio Grande Drain to Prairie .....	.....	12.5
Rio Grande Drain to River.....	(4.7)	.....
Costilla Ditch .....	.....	10.1
Bowen Drain .....	.....	0.0
Alamosa Sewer No. 2	(0.5)	.....
Rio Grande at Alamosa .....	.....	15.7
 Total	 8.9	 69.8
Apparent gain .....	.....	60.9

Alamosa to La Sauses

Distance, 18 Miles.

	Inflow Sec. Ft.	Outflow Sec. Ft.
Rio Grande at Alamosa	15.7	.....
Alamosa Sewer No. 1	(1.5)	.....
Chicago Ditch . . . . .	.....	0.0
Rock Creek	0.9	.....
Waverly Drain	(4.2)	.....
Carmel Drain to river	(1.1)	.....
Carmel Drain to Adams Lake . . . . .	.....	9.0
La Jara Creek	27.2	.....
Norton Drain	(0.4)	.....
Trinchera Creek	0.0	.....
Conejos at mouth	29.7	.....
Rio Grande at La Sauses . . . . .	.....	74.7
 Total	73.5	83.7
 Apparent gain . . . . .	.....	10.2

La Sauses to State Bridge

Distance, 13 Miles.

	Inflow Sec. Ft.	Outflow Sec. Ft.
Rio Grande at La Sauses	74.7	.....
La Sauses Waste Ditch	5.1	.....
Culebra	0.0	.....
Rio Grande at Lobatos . . . . .	.....	89.4
 Total	79.8	89.4
 Apparent gain . . . . .	.....	9.6

Summary

River	Section	Gain Sec. Ft.	Loss Sec. Ft.
Rio Grande—Clear Creek to Wason	52.6	.....
Rio Grande—Wason to Del Norte Station	15.1	.....
Rio Grande—Del Norte Station to Gunbarrel . . . . .	.....	2.2	
Rio Grande—Gunbarrel to Alamosa	60.9	.....
Rio Grande—Alamosa to La Sauses	10.2	.....
Rio Grande—La Sauses to State Line	9.6	.....
 Total	148.4	.....	2.2
 Net gain . . . . .	.....	146.2	

SEEPAGE INVESTIGATION

Uncompahgre River Basin

February, 1921

F. C. SNYDER

Colona to Montrose

Distance, 16 Miles.

	Inflow Sec. Ft.	Outflow Sec. Ft.
Uncompahgre River at Colona	75.28	.....
West Canal .....	.....	14.24
Montrose and Delta Canal .....	.....	43.65
Midland Ditch .....	.....	*.20
Horsefly Creek	*.20	.....
Chipeta Montrose Canal .....	.....	.45
Loutsenheizer Canal .....	.....	9.88
Uncompahgre River at Montrose .....	.....	44.14
Total	75.48	112.56
		75.48
Seepage return water .....	.....	37.08

Montrose to Ross Bridge

Distance, 8 Miles.

	Inflow Sec. Ft.	Outflow Sec. Ft.
Uncompahgre River at Montrose	47.35	.....
Happy Canon Creek	3.28	.....
Cedar Creek	8.14	.....
Selig Canal .....	.....	21.79
Uncompahgre River at Ross Bridge .....	.....	49.15
Total	58.77	70.94
		58.77
Seepage return water .....	.....	12.17

Ross Bridge to Olathe

Distance, 6 Miles.

	Inflow Sec. Ft.	Outflow Sec. Ft.
Uncompahgre River at Ross Bridge	49.15	.....
Spring Creek	8.97	.....
Ironstone Canal .....	.....	6.91
East Canal .....	.....	7.88
Uncompahgre River at Olathe .....	.....	45.78
Total	58.12	60.57
		58.12
Seepage return water .....	.....	2.45

*Estimated.

Olathe to Delta
Distance, 14 Miles.

	Inflow Sec. Ft.	Outflow Sec. Ft.
Uncompahgre River at Olathe	45.78	.....
East Dry Creek	18.20	.....
Carnett Canal .....	.....	*0.50
Seepage stream off Ash Mesa	1.93	.....
West Dry Creek	56.30	.....
Uncompahgre River at Delta .....	.....	133.11
 Total	 122.21	133.61
		 122.21
 Seepage return water		11.40

*Estimated.

Cedar Creek Valley

	Inflow Sec. Ft.	Outflow Sec. Ft.
Cedar Creek at Tunnel Outlet	1.61	.....
Loutsenheizer Canal Waste	8.85	.....
Cedar Creek at mouth .....	.....	12.21
 Total	 10.46	12.21
		10.46
 Seepage return water		1.75

Loutsenheizer Canal Arroyo

	Inflow Sec. Ft.	Outflow Sec. Ft.
Loutsenheizer Canal at Head of Arroyo.....	9.88	.....
Loutsenheizer Arroyo at Cedar Creek .....	.....	13.26
 Total	 9.88	13.26
		9.88
 Seepage return water		3.38

Spring Creek Valley

	Inflow Sec. Ft.	Outflow Sec. Ft.
Spring Creek at West Canal Flume.....	0.74	.....
Spring Creek Valley Ditch .....	.....	0.80
Spring Creek at mouth .....	.....	8.97
 Total	 0.74	9.77
		0.74
 Seepage return water		9.03

Seepage Return Water, West Dry Creek

	Inflow Sec. Ft.	Outflow Sec. Ft.
West Dry Creek at Montrose and Delta Canal Wasteway.....	3.48	.....
Coal Creek at mouth	28.53	.....
Ironstone Canal Waste into Dry Creek	3.00	.....
West Dry Creek at mouth .....	.....	60.98
Total	35.01	60.98
		35.01
Seepage return water		25.97

Visible Seepage Return Water Along the Gunnison River Which Is Due to Irrigation of Uncompahgre Valley Lands

	Dry
Peach Valley Creek	0.83
Jaico Draw	0.34
Gunn Draw	*0.20
Conklin Draw No. 1	*0.20
Conklin Draw No. 2	*0.20
Conklin Draw No. 3	*0.25
Duer Draw No. 1	0.38
Duer Draw No. 2	0.54
Campbell Draw	6.37
Small stream below Campbell Draw	*0.25
Deadman's Gulch No. 1	1.76
Deadman's Gulch No. 2	*0.30
King's Lateral	0.36
Buttermilk Gulch	5.29
Halley Gulch	4.41
Total visible seepage return to the Gunnison River.....	21.48

*Estimated.

Summary of Total Seepage Return Water Due to Irrigation of Lands Under Uncompahgre Valley Irrigation Protect

	Sec. Ft.	Sec. Ft.
Colona to Montrose	37.08	.....
Montrose to Ross Bridge	12.17	.....
Ross Bridge to Olathe	2.45	.....
Olathe to Delta	11.40	.....
Total return water, direct to river.....	.....	63.10
Horsefly Creek		*0.20
Happy Canon Creek		3.38
Cedar Creek		1.75
Loutsenhelzer Canal		3.28
Spring Creek		9.03
East Dry Creek		18.20
Seepage stream off Ash Mesa		1.93
West Dry Creek		25.97
Seepage return to Gunnison River (visible)		21.48
Seepage return to Gunnison River (invisible)		*12.00
Total seepage return		160.32

*Estimated.

PLATTE RIVER DRAINAGE

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, 1928.

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, 1928. 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, 1928. 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, 1928.

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, 1928.

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 June 30, 1928.

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, 1928.

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, 1928.

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 miles 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, 1928.

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, 1928.

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, 1928.

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, 1928.

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. 62 W., at McLaughlin's ranch.

Records Available—June 19 to October 26, 1916; April 1, 1925, to September 30, 1928.

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, 1928. Acre-foot estimates, 1909 to date.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Records furnished by City of Denver.

BEAR CREEK AT STARBUCK

Location—In Sec. 32, T. 4 S., R. 70 W., at highway bridge at Starbuck postoffice.

Records Available—October 1, 1919, to September 30, 1928.

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, 1928.

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, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered good.

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

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, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered good.

SOUTH BOULDER CREEK AT ELDORADO SPRINGS

Location—In Sec. 30, T. 1 S., R. 70 W., at Eldorado Springs.

Records Available—May 15, 1895, to September 30, 1901; July 1, 1904, to September 30, 1928.

Gage—Automatic recording gage.

Accuracy—Estimates 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, 1928. 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 $\frac{1}{4}$ mile below highway bridge and four and one-half miles southeast of Longmont.

Records Available—March 16, 1927, to September 30, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered good.

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, 1928.

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, 1928.

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. 61 W., just below the upper concrete dam of City of Longmont.

Records Available—1913 to 1917 (partial records); June 1, 1926 to September 30, 1928.

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, 1928.

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.

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, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered good.

LEFT HAND CREEK NEAR MOUTH

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

Records Available—March 1, 1927, to September 30, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered good.

BIG THOMPSON RIVER AT CANON

Location—In Sec. 4, T. 5 N., R. 74 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, 1928.

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, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered good.

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, 1928.

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, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with the Greeley-Poudre Irrigation District.

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, 1928.

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, 1928.

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, 1928.

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, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered good.

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

NORTH FORK OF THE NORTH PLATTE RIVER NEAR WALDEN

Location—In Sec. 19, T. 9 N., R. 80 W., about one-fourth mile above mouth and 8 miles west of Walden.

Records Available—May 14, 1904, to October 31, 1905, and October 1, 1924, to September 30, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with the 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, 1928.

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, 1928.

Gage—Automatic recording 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 Glen-devey Postoffice.

Records Available—June 24, 1904, to October 31, 1905, and August 18, 1910, to September 30, 1928.

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, 1928. 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.

TWENTY-FOURTH BIENNIAL REPORT

Discharge of South Fork of South Platte River at Lake George for Year Ending Sept. 30, 1927.
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....	19	18	54	.....	.....	177	18	86	320	251	270	
2....	20	27	49	.....	.....	190	16	121	210	286	266	
3....	19	38	.....	.....	.....	177	16	145	159	320	270	
4....	18	35	.....	.....	.....	148	18	165	145	278	258	
5....	18	33	.....	.....	.....	114	18	159	142	232	247	
6....	18	36	.....	.....	.....	104	16	126	145	235	247	
7....	19	35	.....	.....	.....	77	13	88	159	307	266	
8....	19	35	.....	.....	.....	63	19	56	193	338	255	
9....	18	32	.....	.....	.....	58	21	52	210	449	266	
10....	16	31	.....	.....	.....	52	27	88	262	549	266	
11....	18	35	.....	.....	.....	44	39	99	278	384	282	
12....	19	44	.....	.....	.....	46	33	165	203	274	303	
13....	21	58	.....	.....	.....	49	23	177	159	232	320	
14....	22	50	.....	.....	.....	52	23	111	154	210	316	
15....	23	49	.....	.....	.....	54	23	148	154	193	307	
16....	23	50	.....	.....	.....	47	19	247	154	171	303	
17....	18	52	.....	.....	.....	44	18	162	148	159	307	
18....	14	50	.....	.....	.....	41	18	92	142	142	316	
19....	13	50	.....	.....	.....	46	17	67	92	137	303	
20....	14	50	.....	.....	.....	49	16	104	56	184	291	
21....	17	49	.....	.....	.....	46	13	104	54	214	295	
22....	19	46	.....	.....	.....	39	31	79	111	165	295	
23....	19	44	.....	.....	.....	36	94	54	329	145	228	
24....	15	71	.....	.....	.....	30	124	49	197	142	90	
25....	13	58	.....	.....	.....	23	116	50	154	129	79	
26....	13	60	.....	.....	.....	21	111	77	210	119	82	
27....	14	56	.....	.....	.....	24	102	232	303	121	79	
28....	14	54	.....	.....	.....	26	42	312	413	129	71	
29....	14	54	.....	.....	200	26	26	375	403	119	62	
30....	19	47	.....	.....	187	24	21	429	334	116	56	
31....	18	.....	.....	.....	239	41	41	303	266	.....	.....
Total	544	1347	.....	.....	.....	1927	1132	4219	6296	6996	6996	
Mean.	17.5	44.9	.....	.....	.....	64.2	36.5	141	203	226	233	
Max..	23	71	.....	.....	.....	190	124	429	413	549	320	
Min...	13	18	.....	.....	.....	21	13	49	54	116	56	
Acre-ft.	1080	2670	.....	.....	.....	3820	2240	8390	12500	13900	13900	

Discharge of South Fork of South Platte River at Lake George for Year Ending Sept. 30, 1928.
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....	67	17	.....	.....	.....	30	7	374	172	661	76	
2....	67	.....	.....	.....	.....	29	13	365	115	524	72	
3....	56	.....	.....	.....	.....	30	21	365	89	444	72	
4....	56	.....	.....	.....	.....	43	27	356	87	541	65	
5....	61	.....	.....	.....	.....	43	26	220	78	465	57	
6....	57	.....	.....	.....	.....	30	18	139	74	316	56	
7....	56	.....	.....	.....	.....	30	15	89	82	274	52	
8....	50	.....	.....	.....	.....	35	13	61	78	250	50	
9....	43	.....	.....	.....	.....	44	15	93	61	227	43	
10....	38	.....	.....	.....	.....	37	20	126	50	202	131	
11....	37	.....	.....	.....	.....	30	50	113	45	178	78	
12....	31	.....	.....	.....	.....	27	65	142	48	169	56	
13....	32	.....	.....	.....	.....	21	52	145	126	154	43	
14....	30	.....	.....	.....	.....	19	47	169	316	128	37	
15....	27	.....	.....	.....	.....	21	163	160	202	142	27	
16....	26	.....	.....	.....	.....	20	169	113	128	160	25	
17....	23	.....	.....	.....	.....	20	128	67	175	407	23	
18....	24	.....	.....	.....	.....	19	91	52	374	460	23	
19....	26	.....	.....	.....	.....	12	52	61	356	460	26	
20....	24	.....	.....	.....	.....	11	38	67	342	465	24	
21....	24	.....	.....	.....	.....	12	34	54	428	507	22	
22....	26	.....	.....	.....	.....	12	30	36	342	497	37	
23....	25	.....	.....	.....	.....	7	31	23	299	497	32	
24....	24	.....	.....	.....	.....	7	40	17	581	347	24	
25....	25	.....	.....	.....	.....	10	123	20	727	118	25	
26....	25	.....	.....	.....	.....	11	166	41	694	80	23	
27....	23	.....	.....	.....	.....	10	206	96	635	65	22	
28....	19	.....	.....	.....	.....	9	278	154	635	63	22	
29....	21	.....	.....	.....	.....	6	324	187	668	72	24	
30....	19	.....	.....	.....	.....	5	342	175	749	65	22	
31....	17	.....	.....	.....	.....	365	.....	789	63	.....	.....
Total	1079	.....	.....	.....	.....	640	2969	4080	9545	9001	1239	
Mean.	34.8	.....	.....	.....	.....	21.3	95.8	136	308	290	43.0	
Max..	67	.....	.....	.....	.....	44	365	374	789	661	131	
Min...	17	.....	.....	.....	.....	5	7	17	45	63	22	
Acre-ft.	2140	.....	.....	.....	.....	1270	5890	8090	18900	17800	2560	

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

STATE ENGINEER, COLORADO

89

Discharge of South Fork of South Platte River Above Lake Cheesman for Year Ending Sept. 30, 1927. 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....	43	38	58	20	19	27	216	116	127	500	375	316
2....	42	35	57	21	18	30	196	110	179	329	362	320
3....	42	48	61	21	19	30	219	110	212	231	388	312
4....	44	37	70	21	19	44	190	108	213	210	388	312
5....	47	48	71	22	20	33	187	104	222	202	329	308
6....	45	40	66	22	16	36	195	91	188	199	283	308
7....	45	49	88	22	16	36	244	88	140	199	320	299
8....	45	42	57	23	11	39	279	95	104	227	456	299
9....	44	33	60	20	11	43	266	101	88	230	552	308
10....	45	38	42	20	11	69	281	90	97	262	778	308
11....	49	43	50	20	11	43	248	108	112	371	541	325
12....	46	42	49	20	11	33	203	119	188	262	388	350
13....	48	45	33	20	14	49	161	104	295	159	346	362
14....	48	35	16	20	14	51	108	91	354	130	304	367
15....	47	35	27	20	11	55	111	93	388	101	304	354
16....	48	30	30	19	11	68	111	95	432	92	262	346
17....	44	34	33	19	11	35	104	95	329	83	283	358
18....	43	30	23	18	11	67	106	93	230	73	217	367
19....	42	68	20	19	13	55	163	92	180	69	192	367
20....	40	38	27	18	11	37	159	93	188	70	222	358
21....	40	66	23	18	14	46	151	88	238	84	291	350
22....	40	42	23	19	14	48	112	88	184	155	246	341
23....	40	59	31	20	15	55	108	108	126	521	209	333
24....	39	47	25	21	20	55	122	151	108	466	230	159
25....	38	55	23	20	12	55	159	147	168	383	180	106
26....	37	55	24	20	19	69	163	130	102	383	163	126
27....	38	57	24	20	26	92	172	133	262	262	155	163
28....	38	54	17	21	26	137	155	97	388	500	176	151
29....	40	45	17	20	....	144	136	64	475	568	184	130
30....	38	45	17	19	....	184	112	65	573	470	159	112
31....	38	....	21	19	....	230	....	72	....	432	278	....
Total	1323	1333	1183	622	424	1995	5137	3139	6890	8323	9561	8615
Mean.	42.7	44.4	38.2	20.1	15.1	64.4	171	101	230	268	308	287
Max..	49	68	88	23	26	230	281	151	573	568	778	367
Mix..	37	30	16	18	11	27	104	64	88	69	155	106
Acre-ft.	2630	2640	2350	1240	839	3960	10200	6210	13700	16500	18900	17100

Discharge of South Fork of South Platte River Above Lake Cheesman for Year Ending Sept. 30, 1928. 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....	117	49	32	9	13	15	97	50	546	235	808	110
2....	132	44	31	12	13	15	98	64	562	211	670	114
3....	131	38	31	13	14	15	103	153	582	155	427	136
4....	113	39	33	13	14	36	90	157	694	110	512	129
5....	110	40	67	13	14	28	82	127	552	106	530	113
6....	113	47	54	13	14	26	74	106	416	100	326	113
7....	100	46	36	13	14	33	74	90	282	107	315	108
8....	87	44	21	11	14	25	28	91	220	104	283	98
9....	84	48	21	10	14	19	51	94	208	100	271	88
10....	72	49	29	10	15	24	60	113	251	113	248	100
11....	65	47	26	10	15	42	49	106	269	125	234	169
12....	67	32	25	10	13	38	59	128	333	84	219	104
13....	67	40	22	11	16	38	67	182	330	92	220	78
14....	62	41	22	11	17	42	48	153	353	275	208	104
15....	66	37	22	12	19	42	53	233	415	290	200	79
16....	63	33	22	11	20	42	40	330	352	241	204	72
17....	60	37	22	11	23	42	54	264	249	180	353	68
18....	58	36	16	11	24	38	72	220	179	264	487	82
19....	52	38	16	11	21	38	73	176	188	570	486	84
20....	51	47	16	11	20	38	104	166	212	622	457	78
21....	48	43	16	11	17	40	63	147	201	606	433	72
22....	43	41	16	12	17	50	48	135	170	711	416	92
23....	57	39	16	12	16	62	56	138	137	649	433	85
24....	58	39	16	12	14	84	54	119	125	721	451	75
25....	57	43	15	12	13	101	60	252	103	663	203	62
26....	54	54	12	12	10	182	69	340	114	652	135	71
27....	54	57	11	12	10	164	61	348	132	598	114	60
28....	50	53	10	12	11	168	46	438	185	554	110	70
29....	49	53	10	11	15	133	47	512	237	658	104	56
30....	44	41	10	12	....	106	44	520	259	746	98	74
31....	53	....	10	12	....	91	....	512	....	862	96	....
Total	2237	1295	706	356	450	1817	1924	6164	8856	11504	10051	2744
Mean.	72.2	43.2	22.8	11.5	15.5	58.6	64.1	209	295	371	324	91.5
Max..	132	57	67	13	24	182	104	520	694	862	808	169
Min..	43	32	10	9	10	15	28	50	103	84	96	56
Acre-ft.	4440	2570	1400	707	892	3600	3810	12900	17600	22800	19900	5440

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

TWENTY-FOURTH BIENNIAL REPORT

Discharge of South Platte River Below Lake Cheesman for Year Ending Sept. 30, 1927.
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....	91	89	16	22	22	58	6	381	360	805	425	158
2....	83	89	25	22	22	57	6	105	358	549	309	158
3....	47	92	25	22	23	57	5	59	487	237	460	441
4....	52	102	23	22	23	57	5	59	288	172	396	441
5....	59	103	22	22	25	57	6	80	288	172	396	441
6....	55	102	22	22	42	57	5	149	261	136	270	405
7....	49	102	22	22	58	57	16	149	217	293	245	384
8....	49	102	22	22	66	57	29	149	150	618	391	145
9....	49	103	22	22	66	56	29	149	107	724	362	89
10....	49	108	22	22	66	56	29	149	98	707	301	89
11....	49	112	22	22	66	56	29	145	98	717	303	89
12....	49	113	22	22	66	56	29	149	136	751	329	115
13....	49	124	22	22	66	56	29	158	255	737	349	118
14....	49	141	22	22	61	56	29	158	391	520	320	118
15....	49	131	22	22	57	58	89	152	299	351	231	92
16....	49	96	22	22	57	59	122	141	367	270	110	68
17....	49	76	22	22	58	59	122	141	198	115	117	62
18....	49	76	22	22	58	59	122	141	198	83	161	62
19....	68	76	22	22	58	59	122	141	198	71	177	62
20....	115	76	22	22	58	59	136	141	198	66	176	62
21....	90	122	22	22	58	59	147	129	265	66	219	62
22....	88	132	22	22	58	59	147	113	219	80	324	62
23....	89	127	22	22	58	59	147	107	170	326	261	72
24....	96	118	22	22	58	59	147	147	149	573	202	163
25....	88	118	22	22	58	59	147	181	105	606	202	152
26....	80	118	22	22	58	59	147	181	80	473	198	156
27....	81	118	22	22	58	29	147	181	110	337	158	174
28....	84	118	22	22	58	13	147	181	267	503	158	176
29....	85	118	22	22	...	6	147	179	384	644	158	159
30....	90	76	22	22	...	6	181	235	588	517	158	138
31....	90	...	22	22	...	6	...	379	...	444	158	...
Total	2119	3178	683	682	1482	1521	2470	4909	7419	12775	7959	4707
Mean.	68.4	106	22.0	22.0	52.9	49.1	82.3	158	247	412	257	157
Max.	115	141	25	22	66	59	181	381	588	805	460	441
Min.	47	76	16	22	22	6	5	59	80	66	110	62
Acre-ft.	4210	6310	1350	1350	2940	3020	4900	9720	14700	25300	15800	9340

Discharge of South Fork of South Platte River Below Lake Cheesman for Year Ending Sept. 30, 1928. 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....	138	120	26	52	54	77	23	181	693	322	509	211
2....	149	124	26	52	54	77	23	225	710	322	379	120
3....	145	118	26	52	54	77	23	263	744	282	396	124
4....	134	93	26	54	54	77	23	158	834	145	401	149
5....	132	93	26	54	54	77	23	156	744	213	344	156
6....	129	93	26	54	54	77	23	158	576	418	326	117
7....	121	102	26	54	54	76	23	196	415	413	344	113
8....	110	110	26	54	52	76	23	192	344	410	322	107
9....	100	110	26	54	52	76	23	124	318	410	301	95
10....	118	110	26	54	52	76	23	122	326	410	276	96
11....	167	100	26	54	52	76	23	156	367	272	259	84
12....	183	98	26	54	52	61	23	67	415	117	247	67
13....	183	102	26	54	52	51	23	71	438	117	245	140
14....	183	102	26	54	52	51	23	177	484	259	235	219
15....	181	102	26	54	52	51	23	107	576	295	227	217
16....	181	102	26	54	52	51	22	17	473	237	243	213
17....	181	102	26	54	52	51	19	19	353	210	344	211
18....	179	102	26	54	52	51	29	19	293	307	506	217
19....	177	102	26	54	52	51	76	19	301	546	515	211
20....	172	102	26	54	56	51	98	19	305	676	490	198
21....	156	102	26	54	67	46	96	19	297	603	479	229
22....	158	102	26	54	69	24	84	19	274	693	476	241
23....	165	102	26	54	72	24	69	20	235	573	487	235
24....	165	102	26	54	77	24	69	60	211	454	471	217
25....	165	84	26	54	77	23	70	90	239	517	280	198
26....	163	57	26	54	77	23	85	90	301	594	274	196
27....	163	57	28	54	77	23	134	145	454	433	156	196
28....	163	57	32	54	77	23	134	441	482	391	158	200
29....	161	51	42	54	77	23	136	660	509	420	176	202
30....	161	31	49	54	...	23	145	693	322	615	183	202
31....	147	...	52	54	...	23	...	676	...	755	163	...
Total	4830	2832	879	1668	1728	1590	1611	5359	13033	12429	10212	5181
Mean.	156	94.4	28.4	53.8	59.6	51.3	53.7	173	434	401	329	173
Max.	183	124	52	54	77	77	145	693	834	755	515	241
Min.	100	31	26	52	52	23	19	19	211	117	156	67
Acre-ft.	9590	5620	1750	3310	3430	3150	3200	10600	25800	24700	20200	10300

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

STATE ENGINEER, COLORADO

91

Discharge of North Fork South Platte River at South Platte for Year Ending Sept. 30, 1927.
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....	79	77	57	.....	.....	.....	80	219	303	297	176	152
2....	74	66	62	.....	.....	.....	89	239	308	272	181	161
3....	77	73	57	.....	.....	.....	100	242	323	264	209	156
4....	79	65	59	.....	.....	.....	97	244	303	256	181	159
5....	79	63	58	.....	.....	.....	90	234	288	249	163	161
6....	80	72	58	.....	.....	.....	87	229	288	239	154	165
7....	78	71	63	.....	.....	.....	93	254	291	232	156	127
8....	80	63	59	.....	.....	.....	96	297	314	229	185	116
9....	84	56	15	.....	.....	.....	89	236	306	219	314	116
10....	83	59	51	.....	.....	.....	88	222	308	249	224	111
11....	79	72	50	.....	.....	.....	96	244	320	224	190	110
12....	77	69	50	.....	.....	.....	90	234	367	209	174	107
13....	76	66	.....	.....	.....	.....	83	239	358	209	172	111
14....	74	60	.....	.....	.....	.....	80	269	355	207	172	114
15....	73	49	.....	.....	.....	.....	79	278	398	202	167	140
16....	73	56	.....	.....	.....	.....	82	320	388	185	163	144
17....	72	50	.....	.....	.....	.....	90	355	352	178	159	150
18....	73	66	.....	.....	.....	.....	97	404	352	174	146	156
19....	72	82	.....	.....	.....	.....	108	391	346	174	142	154
20....	72	85	.....	.....	.....	.....	107	385	332	174	146	144
21....	70	71	.....	.....	.....	.....	94	388	320	176	148	110
22....	70	66	.....	.....	.....	.....	100	394	303	224	140	101
23....	69	66	.....	.....	.....	.....	100	370	291	214	138	104
24....	69	61	.....	.....	.....	.....	107	329	294	216	142	105
25....	66	62	.....	.....	.....	.....	119	317	297	200	138	117
26....	68	41	.....	.....	.....	.....	154	326	346	172	144	146
27....	70	59	.....	.....	.....	.....	185	317	326	185	146	138
28....	69	57	.....	.....	.....	.....	202	323	323	190	150	129
29....	71	47	.....	.....	.....	.....	190	311	358	234	156	121
30....	69	66	.....	.....	.....	.....	209	308	334	209	144	121
31....	61	.....	.....	.....	.....	.....	.....	288	188	188	136	...
Total	2286	1916	669	.....	.....	.....	3281	9206	9792	6650	5156	3946
Mean.	73.7	63.9	55.8	.....	.....	.....	109	297	326	215	166	132
Max..	84	85	63	.....	.....	.....	209	404	398	297	314	165
Min...	61	41	45	.....	.....	.....	79	219	288	172	136	101
Acre-ft.	4530	3800	1330	.....	.....	.....	6490	18300	19400	13200	10300	7860

Discharge of North Fork of South Platte River at South Platte for Year Ending Sept. 30, 1928.
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....	135	97	.....	.....	.....	.....	63	150	709	309	212	127
2....	131	93	.....	.....	.....	.....	70	217	718	300	212	120
3....	124	92	.....	.....	.....	.....	71	207	675	298	217	109
4....	135	94	.....	.....	.....	.....	73	200	592	284	205	76
5....	138	98	.....	.....	.....	.....	62	205	540	277	200	70
6....	119	93	.....	.....	.....	.....	55	210	492	274	183	68
7....	124	92	.....	.....	.....	.....	52	252	492	264	172	68
8....	119	92	.....	.....	.....	.....	49	262	528	260	165	72
9....	110	89	.....	.....	.....	.....	48	334	500	254	161	72
10....	107	90	.....	.....	.....	.....	68	369	473	247	152	72
11....	107	87	.....	.....	.....	.....	62	320	448	224	150	72
12....	105	83	.....	.....	.....	.....	59	274	428	237	152	72
13....	105	85	.....	.....	.....	.....	59	272	417	230	150	68
14....	111	89	.....	.....	.....	.....	44	346	392	230	183	65
15....	104	85	.....	.....	.....	.....	53	396	356	217	210	67
16....	104	73	.....	.....	.....	.....	60	459	340	244	202	67
17....	108	90	.....	.....	.....	.....	63	512	356	284	205	65
18....	110	90	.....	.....	.....	.....	68	508	349	306	188	65
19....	107	92	.....	.....	.....	.....	70	484	330	375	170	67
20....	103	96	.....	.....	.....	.....	66	500	310	331	111	70
21....	97	94	.....	.....	.....	.....	71	524	298	284	100	83
22....	97	90	.....	.....	.....	.....	62	564	303	300	96	78
23....	101	89	.....	.....	.....	.....	73	572	303	292	98	74
24....	104	74	.....	.....	.....	.....	82	548	309	306	107	70
25....	104	78	.....	.....	.....	.....	85	528	317	309	132	65
26....	105	88	.....	.....	.....	.....	88	605	331	264	139	65
27....	107	84	.....	.....	.....	.....	97	736	334	260	137	65
28....	104	85	.....	.....	.....	.....	127	742	323	254	132	64
29....	100	84	.....	.....	.....	58	131	796	328	262	129	60
30....	98	73	.....	.....	.....	58	133	802	326	254	125	59
31....	96	.....	.....	.....	.....	58	772	.....	230	122	...	...
Total	3419	2642	.....	.....	.....	.....	2164	12666	12698	8460	4917	2215
Mean.	110	88.1	.....	.....	.....	.....	72.1	441	423	273	159	73.8
Max..	138	98	.....	.....	.....	.....	133	802	790	375	217	127
Min...	96	73	.....	.....	.....	.....	44	150	298	217	96	59
Acre-ft.	6760	5240	.....	.....	.....	.....	4290	27100	25200	16800	9780	4390

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

Discharge of South Platte River at South Platte for Year Ending Sept. 30, 1927.
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....	164	202	142	...	...	...	160	400	715	1120	590	342
2....	152	181	126	...	...	...	160	416	715	1000	558	348
3....	152	200	126	...	...	...	160	366	750	670	536	345
4....	154	191	126	...	...	...	160	356	805	655	590	395
5....	162	202	121	...	...	...	160	348	710	518	600	600
6....	171	218	120	...	...	...	164	420	610	456	464	590
7....	159	215	127	...	...	...	161	452	610	476	436	527
8....	166	193	120	...	...	...	177	509	563	825	518	400
9....	164	179	114	...	...	...	175	440	496	972	770	232
10....	166	193	112	...	...	...	175	432	476	994	554	223
11....	159	215	112	...	...	...	187	472	496	962	532	215
12....	154	210	110	...	...	...	185	468	563	1010	514	215
13....	154	210	...	...	...	...	170	484	630	1010	563	247
14....	152	226	...	...	...	...	162	518	840	860	527	244
15....	152	200	...	...	...	...	232	527	740	572	492	277
16....	152	215	...	...	...	...	238	576	901	563	317	241
17....	150	145	...	...	...	...	259	600	595	370	301	226
18....	148	143	...	...	...	...	277	650	600	298	286	229
19....	157	170	...	...	...	...	301	610	600	277	345	226
20....	205	185	...	...	...	...	304	610	586	259	352	215
21....	187	175	...	...	...	...	301	610	615	262	352	179
22....	183	212	...	...	...	...	317	581	620	317	456	171
23....	183	226	...	...	...	...	314	550	550	404	472	179
24....	183	205	...	...	...	...	314	527	514	680	370	244
25....	183	208	...	...	...	...	334	563	500	810	359	301
26....	173	173	...	...	...	...	362	572	504	645	362	345
27....	171	200	...	...	...	...	396	558	476	536	342	338
28....	173	195	...	...	...	...	400	554	576	660	328	338
29....	175	179	...	...	...	...	554	550	785	785	342	317
30....	175	210	...	...	...	...	496	522	890	765	331	301
31....	185	...	...	...	...	...	720	...	586	317	...	...
Total	5164	5876	2928	2929	3301	4517	7755	15961	19031	20317	13876	9250
Mean	167	196	94	95	118	146	258	515	634	655	448	308
Max..	205	226	...	...	...	...	554	720	901	1120	770	600
Min...	148	143	...	...	...	...	160	348	476	259	286	171
Acre-ft.	10300	11700	5780	5840	6550	8980	15400	31700	37700	40300	27500	18300

Discharge of South Platte River at South Platte for Year Ending Sept. 30, 1928.
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....	304	216	...	...	...	140	132	359	1760	577	746	349
2....	298	203	...	...	...	140	138	509	1690	568	549	294
3....	292	201	...	...	...	140	142	581	1840	544	587	209
4....	298	190	...	...	...	140	142	452	1870	415	591	205
5....	292	184	...	...	...	140	130	444	1700	339	577	205
6....	271	175	...	...	...	140	118	444	1350	582	460	180
7....	274	173	...	...	...	140	116	496	1150	606	469	171
8....	262	184	...	...	...	140	116	563	1060	601	446	164
9....	244	184	...	...	...	140	116	540	989	587	402	153
10....	229	180	...	...	...	140	124	572	945	582	381	147
11....	283	176	...	...	...	125	130	522	967	535	357	148
12....	310	164	...	...	...	125	124	484	912	331	342	126
13....	317	178	...	...	...	125	129	362	923	310	335	121
14....	324	182	...	...	...	125	127	705	967	346	377	218
15....	310	171	...	...	...	125	127	820	978	530	385	223
16....	307	162	...	...	...	106	127	780	895	424	402	225
17....	314	184	...	...	...	106	127	790	776	469	460	223
18....	310	178	...	...	...	106	134	770	688	516	606	225
19....	304	175	...	...	...	106	159	720	649	925	615	230
20....	292	178	...	...	...	106	198	705	611	920	544	225
21....	265	173	...	...	...	106	210	730	587	850	530	255
22....	250	169	...	...	...	106	195	680	549	905	525	267
23....	262	169	...	...	...	175	187	700	511	805	539	264
24....	259	150	...	...	...	173	195	680	478	732	554	245
25....	253	164	...	...	...	164	202	870	455	751	455	228
26....	247	142	...	...	...	179	191	1020	446	800	335	221
27....	247	130	...	...	...	164	250	1170	659	693	281	218
28....	244	130	...	...	...	157	307	1350	693	596	261	223
29....	247	131	...	...	...	138	310	1730	786	611	270	228
30....	244	115	...	...	...	130	328	1880	625	732	294	225
31....	238	...	...	...	...	130	...	1840	...	880	261	...
Total	8591	5111	...	...	...	4177	5031	21268	28509	19062	13936	6415
Mean	277	170	68	105	106	135	168	783	950	615	450	214
Max...	324	216	...	...	...	...	328	1880	1870	925	746	349
Min...	229	115	...	...	...	...	116	359	446	310	261	121
Acre ft	17000	10100	4180	6460	6100	8300	10000	18100	56500	37800	27700	12700

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

Discharge of South Platte River at Waterton for Year Ending Sept. 30, 1927.
Drainage Area, 2,621 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	52	8	37	29	32	44	72	124	290	618	76	250
2....	52	8	10	27	30	82	69	124	227	436	69	275
3....	44	20	15	16	29	27	85	55	285	82	88	270
4....	47	14	27	21	27	42	85	30	366	174	91	246
5....	34	7	30	29	20	25	79	30	265	280	79	241
6....	11	15	25	25	27	39	69	52	44	217	76	250
7....	7	14	42	34	29	30	42	66	55	187	63	162
8....	5	8	44	30	37	29	29	128	47	520	76	151
9....	5	6	23	30	47	37	34	76	42	576	408	143
10....	5	6	16	21	34	50	23	50	128	542	200	136
11....	5	14	32	30	32	29	25	66	275	486	136	128
12....	8	10	50	37	44	39	32	57	232	509	117	113
13....	6	15	32	39	37	52	15	66	121	514	158	151
14....	5	18	27	32	30	44	21	72	408	453	139	170
15....	5	10	32	50	34	69	50	57	376	366	128	191
16....	5	18	14	29	44	72	47	66	475	366	110	179
17....	4	10	14	27	39	27	42	98	121	183	110	170
18....	5	5	27	34	44	55	44	227	76	98	98	174
19....	6	10	25	30	52	52	60	246	66	76	232	158
20....	10	55	21	21	50	72	57	335	55	60	217	155
21....	6	47	25	32	44	121	47	340	63	85	128	124
22....	6	47	21	37	50	166	47	350	76	136	128	98
23....	7	66	20	27	30	147	55	345	44	98	458	110
24....	5	55	39	27	25	72	57	320	76	340	280	158
25....	4	50	32	25	27	55	76	371	250	588	179	232
26....	5	23	39	32	44	63	113	350	320	345	305	179
27....	5	30	32	27	39	82	113	340	232	481	300	91
28....	5	42	27	30	21	91	95	340	236	531	270	72
29....	8	18	23	39	....	88	200	330	475	305	275	55
30....	21	44	20	39	....	113	255	305	531	300	280	44
31....	7	....	23	27	....	98	....	265	....	102	260	....
Total	400	693	844	933	998	2012	2038	5681	6257	10054	5534	4876
Mean.	12.9	23.1	27.2	30.1	35.6	64.9	67.9	183	209	324	179	163
Max..	52	66	50	50	52	166	255	371	531	618	458	275
Min..	4	5	10	16	20	25	15	30	42	60	63	44
Acre-ft.	793	1370	1670	1850	1980	3990	4040	11300	12400	19900	11000	9700

Discharge of South Platte River at Waterton for Year Ending Sept. 30, 1928.
Drainage Area, 2,621 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	49	63	7	19	18	7	2	74	1210	57	340	277
2....	44	60	6	14	14	7	1	234	1110	63	138	230
3....	41	34	21	15	11	8	2	169	1290	131	172	131
4....	44	27	9	22	14	7	2	22	1380	222	172	135
5....	44	24	6	15	14	6	2	18	1190	202	199	135
6....	41	24	18	15	12	7	2	14	840	214	74	128
7....	41	16	41	19	12	18	3	15	640	195	145	107
8....	46	29	52	24	34	18	3	57	562	187	222	92
9....	39	24	34	21	32	8	2	101	478	199	272	89
10....	34	19	24	18	34	9	2	234	460	230	325	77
11....	34	18	24	21	39	7	2	454	478	158	310	66
12....	39	16	19	22	24	9	2	148	406	169	286	68
13....	32	15	14	18	15	3	2	32	424	131	226	41
14....	24	16	21	19	22	4	3	259	478	141	226	49
15....	19	15	24	19	21	3	3	400	508	356	234	54
16....	19	14	15	16	18	3	2	277	430	250	217	60
17....	16	14	46	21	15	4	2	286	325	320	200	57
18....	18	16	39	19	18	4	8	277	242	340	187	54
19....	18	15	27	12	14	2	95	264	191	812	195	60
20....	15	16	29	19	11	4	141	254	169	670	141	60
21....	15	16	27	22	9	3	172	277	191	548	107	68
22....	18	16	21	19	12	3	148	286	98	508	169	95
23....	18	16	18	16	11	2	39	305	63	406	183	86
24....	19	7	19	41	11	3	41	242	141	295	210	66
25....	21	6	15	32	16	2	131	400	305	259	191	44
26....	22	7	15	19	15	2	63	442	330	325	268	34
27....	21	4	12	14	8	2	16	619	340	272	210	32
28....	22	12	14	15	9	2	14	794	300	114	199	18
29....	24	32	12	14	15	2	11	1210	305	118	206	27
30....	24	39	12	15	....	2	8	1360	128	214	242	41
31....	36	....	19	14	....	2	....	1290	....	478	226	....
Total	897	630	660	589	498	163	924	10814	15012	8584	6492	2481
Mean.	28.9	21.0	21.0	19.0	17.2	5.26	30.8	349	500	277	209	82.7
Max..	49	63	52	41	39	18	172	1360	1380	812	340	277
Min..	15	4	6	12	8	2	1	14	63	57	74	18
Acre-ft.	1780	1250	1290	1170	989	323	1830	21500	29800	17000	12900	4920

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

Discharge of South Platte River at Denver for Year Ending Sept. 30, 1927.
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....	131	170	131	144	123	87	191	281	480	741	299	358
2....	161	191	123	144	128	98	161	233	406	640	307	350
3....	173	167	108	142	126	110	136	230	415	346	379	334
4....	173	207	118	158	128	115	147	139	470	179	480	315
5....	170	182	108	155	121	115	147	91	523	315	747	288
6....	144	182	115	155	118	113	139	78	266	256	514	315
7....	100	185	128	153	126	121	123	76	173	223	388	263
8....	80	217	128	139	126	110	94	485	155	342	299	223
9....	80	201	113	115	96	98	78	614	131	614	523	223
10....	72	185	103	108	108	142	66	438	115	594	538	194
11....	74	191	118	110	128	131	103	375	384	604	354	191
12....	78	214	115	110	153	96	110	542	1160	588	281	179
13....	80	170	108	96	123	96	126	646	568	625	226	158
14....	74	170	98	91	100	115	108	514	547	630	388	194
15....	64	182	94	98	123	105	118	299	747	499	470	217
16....	74	167	98	126	123	115	142	252	747	419	303	230
17....	60	155	98	128	128	123	214	214	620	350	226	220
18....	57	108	105	105	121	110	226	277	303	233	223	223
19....	68	108	110	100	121	103	179	366	249	167	284	230
20....	68	134	126	103	139	147	214	447	210	134	375	230
21....	91	147	121	96	118	220	201	456	194	188	301	226
22....	78	142	108	78	118	281	147	415	185	706	230	194
23....	98	170	105	78	105	330	182	442	179	370	466	188
24....	82	170	91	100	100	277	220	410	144	330	594	207
25....	68	155	84	103	96	223	217	379	226	816	370	354
26....	72	155	91	96	98	188	270	397	456	588	388	397
27....	76	128	115	108	103	176	303	384	470	433	466	259
28....	87	134	128	118	98	161	315	388	315	662	388	236
29....	158	136	105	126	....	176	366	342	442	916	410	214
30....	176	110	128	110	....	176	447	375	562	695	384	214
31....	161	....	158	98	....	201	....	370	....	442	504	....
Total	3128	4933	3479	3591	3295	4659	5490	10935	11842	14645	12105	7424
Mean.	101	164	112	116	118	150	183	353	395	472	390	247
Max..	176	217	158	158	153	330	447	646	1160	916	594	397
Min..	57	108	84	78	96	87	66	76	115	134	223	158
Acre-ft.	6210	9760	6890	7130	6550	9220	10900	21700	23500	29000	24000	14700

Discharge of South Platte River at Denver for Year Ending Sept. 30, 1928.
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....	202	122	142	86	97	93	170	107	1370	154	722	253
2....	199	152	138	89	101	93	154	233	1360	109	485	276
3....	175	154	136	106	107	104	150	494	1690	101	380	192
4....	168	128	138	122	106	100	145	253	1700	178	296	186
5....	161	138	115	128	104	100	142	189	1590	223	336	186
6....	154	132	107	115	104	97	138	199	1410	206	272	186
7....	147	118	93	110	100	98	104	189	1240	212	202	147
8....	140	117	122	110	89	117	101	167	1090	206	233	136
9....	133	117	157	112	98	110	94	219	874	212	233	140
10....	126	115	159	117	97	98	91	499	784	240	324	136
11....	145	114	152	114	101	106	86	868	814	240	312	145
12....	115	110	157	120	91	128	89	722	826	206	362	132
13....	110	103	147	124	96	114	91	300	668	184	328	112
14....	115	101	136	114	90	106	98	686	626	157	260	117
15....	118	107	101	117	89	118	83	1350	686	202	276	117
16....	122	104	124	107	91	118	83	1280	662	353	276	128
17....	115	110	120	103	97	112	79	1260	544	344	353	150
18....	120	128	96	93	107	106	80	1190	437	380	332	157
19....	120	140	103	89	104	98	103	1120	336	790	223	145
20....	104	117	109	98	104	114	145	1130	292	1050	189	147
21....	103	130	104	66	101	115	219	1080	316	970	132	147
22....	101	122	20	90	97	122	243	951	328	900	150	145
23....	89	118	124	94	83	134	154	856	184	686	189	170
24....	91	115	115	94	80	136	103	808	152	509	223	154
25....	91	114	110	89	80	128	170	740	253	401	219	132
26....	91	107	109	93	89	134	272	1020	371	353	264	117
27....	94	104	115	96	100	152	147	1200	403	456	292	115
28....	96	107	114	101	110	170	117	1160	340	398	240	110
29....	103	136	107	103	94	180	118	1270	375	442	223	112
30....	101	172	106	103	....	170	117	1450	280	371	236	115
31....	101	....	80	104	....	159	....	1410	....	523	272	....
Total	3850	3652	3756	3207	2807	3730	3886	24400	22001	11756	8834	4505
Mean.	124	122	121	103	96.8	120	130	787	733	379	285	150
Max..	202	172	159	128	110	180	272	1450	1700	1050	722	276
Min..	89	101	80	66	80	93	79	107	152	101	132	110
Acre-ft.	7620	7260	7440	6330	5570	7380	7740	48400	43600	23300	17500	8930

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

STATE ENGINEER, COLORADO

95

Discharge of South Platte River at Henderson for Year Ending Sept. 30, 1927.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	143	293	157	76	68	49	107	372	577	713	220	345
2....	150	313	126	74	68	68	98	199	485	467	208	279
3....	176	345	113	84	63	84	68	133	611	298	224	220
4....	161	318	101	96	76	79	61	113	543	176	269	212
5....	146	308	93	93	66	113	66	66	790	246	563	199
6....	157	294	90	101	53	126	51	32	556	251	242	172
7....	136	308	98	101	53	120	46	35	345	208	356	179
8....	110	323	98	84	63	120	68	460	264	176	318	150
9....	123	340	101	76	66	123	56	987	256	172	442	164
10....	116	168	104	76	68	133	37	340	233	308	436	139
11....	96	133	90	72	68	130	28	187	269	389	356	133
12....	76	120	88	58	71	126	68	120	2100	289	284	126
13....	74	116	82	58	68	143	136	68	640	323	238	113
14....	79	113	76	60	63	157	87	79	407	334	395	113
15....	68	107	72	60	49	228	251	172	329	308	728	116
16....	63	107	74	61	58	204	350	183	289	199	356	136
17....	66	126	76	51	63	123	378	153	303	133	384	93
18....	63	157	78	58	61	98	153	164	340	172	460	93
19....	58	157	80	71	53	110	126	308	345	168	491	96
20....	56	161	76	58	53	84	308	356	289	139	577	84
21....	56	123	84	62	58	79	367	436	246	146	479	90
22....	56	110	101	64	93	130	313	430	183	852	340	113
23....	68	123	90	68	68	136	139	424	195	454	384	143
24....	93	126	90	74	61	146	98	384	318	407	597	133
25....	98	104	101	66	61	120	81	313	367	713	378	289
26....	96	101	104	66	79	93	90	340	647	524	395	424
27....	87	101	104	71	68	84	116	334	782	467	436	168
28....	98	130	104	68	61	84	120	318	550	460	367	110
29....	187	136	104	74	.....	71	212	318	611	1060	323	93
30....	308	161	101	63	.....	79	274	308	676	698	329	93
31....	298	.....	66	58	.....	90	.....	329	.....	442	395	.....
Total	3562	5527	2922	2202	1800	3530	4353	8511	14546	11692	11970	4818
Mean.	115	184	94.3	71.0	64.3	114	145	275	485	377	386	161
Max..	308	345	157	101	93	228	378	987	2100	1060	728	424
Min..	56	101	66	51	49	49	28	32	183	133	208	84
Acre-ft.	7070	10900	5800	4370	3570	7010	8630	16900	28900	23200	23700	9580

Discharge of South Platte River at Henderson for Year Ending Sept. 30, 1928.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	111	22	82	95	212	108	82	80	1580	358	442	188
2....	92	21	95	95	224	90	67	67	1270	208	321	268
3....	72	18	98	100	248	95	84	423	2240	220	340	256
4....	90	16	102	120	256	92	82	174	2910	212	296	163
5....	178	26	102	138	260	70	80	118	2070	272	272	140
6....	264	36	82	144	264	84	77	77	1650	304	236	124
7....	288	44	85	130	244	80	87	118	1270	228	224	111
8....	188	51	90	124	228	80	82	264	1210	232	224	74
9....	127	36	90	124	240	77	72	292	1080	232	174	70
10....	105	26	90	240	240	77	62	612	1070	236	188	84
11....	98	24	95	256	260	80	62	573	1270	330	256	65
12....	105	21	95	280	244	82	53	601	1230	312	252	65
13....	105	44	108	280	174	84	53	321	942	272	236	60
14....	111	77	121	264	124	77	72	330	822	208	204	65
15....	118	77	108	264	111	84	65	1100	690	185	167	77
16....	87	77	108	276	105	87	42	1100	556	272	153	84
17....	70	72	82	260	108	92	32	1130	524	349	232	95
18....	60	92	53	248	98	90	22	1130	518	452	276	84
19....	42	121	95	228	108	95	21	1100	513	636	232	84
20....	38	134	98	248	121	98	58	1150	367	595	163	84
21....	42	143	98	260	111	105	174	1150	304	442	14	92
22....	58	137	98	256	111	95	284	1050	252	584	102	92
23....	70	111	92	252	105	87	188	959	167	518	108	98
24....	53	95	90	240	84	77	87	847	280	296	108	114
25....	38	224	90	224	74	82	87	770	452	296	163	114
26....	34	143	90	224	82	62	376	970	567	276	170	92
27....	30	114	84	224	105	65	326	1310	584	326	163	74
28....	30	102	70	228	105	87	204	1460	578	276	160	80
29....	28	72	90	224	102	82	130	1460	556	404	133	65
30....	26	92	85	212	...	82	114	1660	462	140	140	60
31....	21	.....	90	232	...	90	...	1660	...	288	181	.....
Total	2779	2268	2856	6490	4748	2636	3225	24056	27984	9059	6300	3122
Mean.	89.6	75.6	92.1	209	164	85.0	108	776	933	321	204	104
Max..	288	224	121	280	264	108	376	1660	2910	636	442	268
Min..	21	16	53	95	74	62	21	67	167	140	14	60
Acre-ft.	5510	4500	5660	12900	9430	5230	6430	47700	55500	19700	12500	6190

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

Discharge of South Platte River at Kersey for Year Ending Sept. 30, 1927.
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....	405	846	633	532	532	398	616	856	114	431	1370	127
2....	459	856	633	539	532	445	600	907	110	405	1070	148
3....	509	856	649	576	524	466	592	846	139	438	958	148
4....	576	876	633	616	516	459	546	752	162	379	1290	144
5....	633	827	624	641	516	438	532	641	221	316	1290	127
6....	624	780	616	682	516	425	516	562	524	221	1280	123
7....	600	735	608	691	495	431	502	495	398	162	1220	152
8....	624	691	633	691	474	405	495	481	253	148	1180	216
9....	641	682	649	674	459	385	481	790	190	139	1230	211
10....	641	682	633	633	445	398	481	1530	162	166	1330	237
11....	641	691	624	624	452	405	524	1120	139	148	1270	248
12....	624	674	641	608	509	398	682	799	298	107	1010	253
13....	600	665	502	584	532	438	827	608	1530	242	790	232
14....	584	649	412	569	524	466	886	488	1490	524	691	221
15....	592	649	398	576	502	466	886	405	1220	488	735	211
16....	592	649	366	608	532	502	981	322	970	452	1090	211
17....	584	616	481	600	532	569	1220	242	761	405	509	200
18....	569	608	569	592	516	569	1260	232	600	372	392	200
19....	532	641	624	584	509	546	1140	237	641	316	226	181
20....	495	674	641	569	502	509	1000	270	752	288	259	176
21....	459	657	649	562	459	509	970	232	657	282	195	171
22....	459	641	608	562	452	532	1040	221	584	248	171	195
23....	488	641	600	524	431	569	1040	211	459	237	176	265
24....	481	633	569	524	425	592	1010	152	310	276	181	282
25....	488	633	495	539	425	608	907	103	131	248	157	310
26....	502	616	481	546	412	608	818	96	100	248	157	452
27....	502	608	481	546	405	584	818	93	110	232	157	691
28....	495	616	502	554	379	562	837	107	144	221	152	717
29....	546	624	474	554	400	546	837	107	221	700	148	691
30....	674	633	481	554	379	385	481	93	100	107	139	123
31....	780	502	532	500	616	500	96	1710	1710	139	...	...
Total	17399	20649	17411	18186	13507	15390	23890	14094	13802	12959	20971	8181
Mean.	561	688	562	587	482	496	796	455	460	418	676	273
Max..	780	876	649	691	532	616	1260	1530	1530	2410	1370	717
Min..	405	608	366	524	379	385	481	93	100	107	139	123
A.-ft.	34500	40900	34600	36100	26800	30500	47400	28000	27400	25700	41600	16200

Discharge of South Platte River at Kersey for Year Ending Sept. 30, 1928.
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....	679	483	566	520	635	504	483	253	3710	3170	535	147
2....	733	476	600	394	652	497	462	274	3130	2900	519	151
3....	751	476	652	305	652	512	441	322	3590	2400	635	162
4....	733	490	661	226	661	490	441	551	6200	2070	780	199
5....	715	490	644	327	670	476	441	608	6730	1320	820	204
6....	706	476	600	574	670	490	441	504	4970	810	688	199
7....	800	497	394	626	617	535	434	476	3550	608	527	170
8....	893	520	408	635	574	543	408	448	2840	566	401	166
9....	904	527	455	617	559	543	414	421	2480	520	289	170
10....	871	512	543	600	543	535	401	476	2730	381	230	217
11....	820	512	582	644	535	512	388	1190	2920	333	279	244
12....	770	504	644	661	527	512	375	2560	2730	300	159	253
13....	780	497	697	724	527	504	362	2320	2140	279	132	244
14....	780	469	706	733	551	497	345	1640	1480	263	125	258
15....	760	434	635	742	527	520	322	2200	1100	289	125	263
16....	760	434	591	733	504	535	310	3430	871	300	132	268
17....	697	434	582	724	504	551	284	2320	742	316	143	268
18....	652	448	559	724	520	543	235	3100	1130	339	143	274
19....	635	462	527	679	520	559	212	3230	1540	408	140	263
20....	608	490	543	679	504	559	204	3100	1340	591	136	258
21....	574	520	559	688	504	566	208	3430	1080	1060	136	230
22....	574	527	564	670	520	608	240	3490	926	1150	132	221
23....	591	535	574	661	483	582	253	3080	871	1260	132	244
24....	600	543	582	626	469	559	225	2800	871	1170	132	249
25....	559	551	551	617	476	543	208	2580	800	1150	143	243
26....	543	551	543	600	476	520	217	2460	742	948	147	274
27....	527	582	551	600	490	504	225	2990	724	742	140	279
28....	520	559	551	644	504	504	230	3840	790	555	140	268
29....	497	566	551	652	527	512	253	4450	1940	661	143	240
30....	490	566	551	661	512	253	4610	3230	1380	143	240	240
31....	483	543	626	500	497	512	4340	3230	368	143	147	147
Total	21005	15131	17709	18912	15901	16321	9715	68403	67897	28607	8469	6866
Mean.	678	504	571	610	548	527	324	2210	2260	923	273	229
Max..	904	582	706	742	670	608	483	4610	6730	3170	820	279
Min..	483	434	394	226	469	476	204	253	724	263	125	147
A.-ft.	41700	30000	35100	37500	31500	32400	19300	136000	134000	56800	16800	13600

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

STATE ENGINEER, COLORADO

97

Discharge of South Platte River at Sublette for Year Ending Sept. 30, 1927.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	449	85	78	122	199	185	517	390	251	524	462	182
2	501	94	72	115	192	178	524	306	210	449	462	178
3	549	94	70	103	178	165	517	222	222	422	403	182
4	532	91	74	100	182	168	577	178	234	396	396	188
5	532	94	74	94	214	175	558	162	251	378	632	192
6	509	100	69	80	192	171	493	210	326	321	623	195
7	384	98	70	85	182	162	422	360	455	251	698	192
8	336	89	70	89	255	178	372	396	277	214	568	182
9	336	94	66	83	336	168	286	470	141	210	517	185
10	336	96	66	78	390	156	246	968	135	214	509	185
11	336	91	72	81	429	162	260	999	171	226	540	182
12	206	91	72	85	517	202	336	524	268	226	449	178
13	135	98	78	76	604	291	568	416	403	214	509	175
14	115	98	78	85	623	178	568	326	493	455	422	165
15	103	91	78	195	623	105	586	326	182	429	372	159
16	103	94	94	222	586	94	676	273	195	485	623	178
17	100	100	159	185	442	87	890	260	185	524	462	162
18	98	107	222	192	416	98	1400	242	156	501	384	175
19	96	112	251	185	416	260	1450	218	156	462	396	218
20	94	120	199	162	378	360	1340	210	156	422	354	222
21	85	110	156	182	354	390	1160	210	159	378	291	218
22	85	98	168	311	348	416	1220	199	144	336	246	348
23	91	100	159	429	336	429	1290	195	128	321	238	390
24	94	100	156	558	311	416	1290	195	115	336	226	384
25	87	89	403	568	306	342	1120	168	182	348	202	422
26	100	85	296	485	286	331	936	159	222	326	199	316
27	87	91	238	409	218	268	768	188	218	311	202	449
28	80	87	192	331	192	246	586	199	230	301	192	396
29	83	78	156	268	....	264	422	192	251	372	185	336
30	91	80	210	222	....	301	403	222	372	1360	195	273
31	87	....	182	199	....	485	....	251	....	1270	185	....
Total	6820	2855	4328	6379	9705	7431	21781	9634	6888	12982	12142	7207
Mean.	220	95.2	140	206	347	240	726	311	230	419	392	240
Max..	549	120	403	568	623	485	1450	999	493	1360	698	449
Min..	80	78	66	76	178	87	246	159	115	210	185	159
A-ft.	13500	5660	8610	12700	19300	14800	48200	19100	13700	25800	24100	14300

Discharge of South Platte River at Sublette for Year Ending Sept. 30, 1928.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	318	71	77	110	363	194	389	431	2880	2820	520	295
2	266	68	77	117	431	179	250	350	2180	2280	498	277
3	283	60	88	198	528	189	179	260	1760	1820	700	272
4	277	60	82	260	482	179	165	356	4180	1410	772	289
5	255	68	80	283	445	165	165	475	6780	1110	828	289
6	234	68	85	312	424	160	148	452	6210	718	799	295
7	277	63	110	306	403	156	189	382	3630	536	691	272
8	324	66	82	250	337	140	266	344	2480	674	520	250
9	289	68	120	174	306	110	301	331	1760	376	520	229
10	250	60	234	170	301	88	198	376	1960	638	389	229
11	203	60	356	160	306	88	160	554	2440	553	363	234
12	165	66	272	156	331	80	160	1080	2220	403	331	250
13	140	66	203	165	396	77	155	865	1660	363	306	239
14	120	66	148	165	482	74	160	545	1020	337	283	239
15	104	71	156	128	553	71	234	337	570	301	277	260
16	91	77	301	91	638	77	283	754	445	301	272	266
17	82	71	376	88	656	88	318	1210	460	350	295	260
18	80	80	389	82	691	85	283	1210	621	363	289	266
19	80	88	356	68	700	77	239	1190	1020	389	266	260
20	66	85	389	66	691	77	218	1140	1090	490	255	255
21	71	82	417	85	665	82	218	1190	790	691	250	260
22	77	82	350	74	513	80	224	1410	621	970	255	260
23	74	82	295	63	595	77	266	1540	562	1200	250	318
24	63	74	255	66	621	101	277	1190	545	1280	208	382
25	66	77	229	68	630	156	260	1020	513	903	213	376
26	68	85	198	53	638	152	266	913	498	356	234	376
27	71	82	198	55	621	152	301	1230	452	403	266	376
28	68	80	140	82	410	218	369	1840	498	369	344	389
29	74	85	94	344	244	244	382	2770	1080	301	350	260
30	74	85	101	356	....	255	403	3400	3500	781	337	356
31	71	....	114	363	....	350	....	3420	....	884	283	....
Total	4681	2196	6372	4958	14401	4221	7426	32565	54425	24370	12164	8579
Mean.	151	73.2	206	160	497	136	248	1050	1810	786	392	286
Max..	324	88	417	363	700	350	403	3420	6780	2820	828	389
Min..	63	60	77	53	244	71	148	260	445	301	208	229
Acre-ft.	9280	4360	12700	9840	28600	8360	14800	64600	108000	48300	24100	17000

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

Discharge of South Platte River at Balzac for Year Ending Sept. 30, 1927.
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....	220	24	22	22	47	40	406	377	140	238	1350	319
2....	269	24	21	16	32	28	469	348	144	210	545	245
3....	326	23	22	15	24	74	479	222	162	144	612	204
4....	364	22	24	13	25	210	469	101	180	108	490	180
5....	406	22	21	13	25	300	458	76	144	101	377	174
6....	350	24	20	12	25	348	469	79	149	153	284	136
7....	192	24	20	12	23	348	417	91	149	115	261	122
8....	153	22	29	12	22	338	329	101	140	104	253	118
9....	119	22	19	12	28	348	253	216	115	127	238	111
10....	113	22	18	12	140	329	168	230	94	136	104	111
11....	108	21	18	11	192	310	162	300	84	149	61	108
12....	82	21	18	12	367	417	230	438	204	162	68	111
13....	64	21	20	17	329	396	269	222	406	292	84	111
14....	52	21	23	37	406	469	427	140	238	358	136	98
15....	60	20	31	84	367	406	964	122	238	490	144	84
16....	70	21	50	192	310	269	1450	108	58	396	111	84
17....	68	21	36	216	277	216	1550	98	79	222	186	101
18....	60	20	26	292	269	198	1740	98	74	269	210	140
19....	46	21	19	153	300	245	2020	98	40	261	186	136
20....	42	25	22	40	192	261	2090	101	34	238	153	131
21....	36	24	22	76	122	300	1740	122	29	210	118	122
22....	35	22	20	127	111	367	1650	140	32	210	118	104
23....	39	20	19	118	91	490	1720	144	53	216	127	111
24....	34	18	23	144	84	511	1720	131	68	427	149	144
25....	29	17	44	458	74	469	1510	111	98	192	180	186
26....	28	18	47	367	63	406	1240	108	127	158	180	329
27....	27	20	60	396	52	367	1010	94	108	140	180	438
28....	26	24	32	396	45	300	744	94	122	144	168	448
29....	29	23	37	358	....	230	556	101	153	136	192	500
30....	32	23	28	284	....	216	438	111	140	949	174	511
31....	25	....	23	122	....	277	....	111	....	964	245	....
Total	3504	650	825	4039	4042	9483	27147	4833	3802	8019	7684	5717
Mean	113	21.7	26.6	130	144	306	905	156	127	259	248	191
Max.	406	25	60	458	406	511	2090	438	406	964	1350	511
Min.	25	17	18	11	22	28	162	76	29	101	61	84
Acre-ft.	6950	1290	1640	7990	8000	18800	53900	9590	7560	15900	15200	11400

Discharge of South Platte River at Balzac for Year Ending Sept. 30, 1928.
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....	518	12	13	60	276	407	91	151	2400	2270	907	151
2....	454	12	12	61	228	312	124	163	2040	2790	572	172
3....	258	11	13	78	218	264	135	180	1640	2160	378	214
4....	167	10	13	104	223	190	114	176	1630	1730	336	218
5....	142	16	12	121	223	167	91	176	1730	1320	328	223
6....	121	18	12	150	199	151	91	199	6210	880	336	218
7....	104	12	13	228	194	131	135	209	5200	572	296	180
8....	107	12	20	420	172	121	172	194	3400	288	218	176
9....	104	12	40	180	159	114	180	167	2350	209	176	163
10....	101	21	60	111	151	114	208	159	1700	246	151	124
11....	83	13	70	78	142	118	199	151	1400	416	167	121
12....	53	14	24	53	131	111	176	167	1590	445	163	121
13....	43	14	23	38	151	111	142	228	1650	352	159	107
14....	42	14	20	36	223	111	121	475	1380	344	167	111
15....	34	13	23	28	258	128	99	653	948	368	151	121
16....	23	13	37	21	336	185	104	406	416	426	138	111
17....	14	13	38	18	445	234	111	246	304	360	138	118
18....	13	12	37	17	550	270	121	258	270	378	128	121
19....	12	13	48	21	584	270	128	416	328	387	118	124
20....	10	14	69	19	584	282	135	464	738	425	107	131
21....	9	14	69	20	550	264	163	406	1070	618	114	131
22....	10	14	69	35	507	163	180	344	812	507	118	135
23....	10	14	69	155	475	121	159	352	595	894	121	138
24....	9	13	74	163	507	111	142	435	464	1210	128	131
25....	10	12	56	155	561	104	128	475	387	1680	121	142
26....	10	13	36	151	607	107	128	320	312	1750	131	131
27....	9	12	28	146	618	107	114	214	246	1320	151	138
28....	9	12	36	155	595	88	121	180	194	1160	146	163
29....	10	14	41	146	540	76	128	344	163	1160	155	180
30....	11	14	41	159	....	81	135	1020	336	866	172	209
31....	12	....	43	209	....	86	....	1990	826	163	....	....
Total	2512	401	1159	3336	10407	5099	4075	11318	41903	28357	6657	4523
Mean	81.0	13.1	37.4	108	359	161	136	365	1400	921	215	151
Max.	518	21	74	420	618	407	208	1990	6210	2790	907	223
Min.	9	10	12	18	131	76	91	151	163	209	107	107
Acre-ft.	4980	797	2360	6640	20600	10100	8090	22100	83300	56000	13200	8980

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

STATE ENGINEER, COLORADO

99

Discharge of South Platte River at Julesburg for Year Ending Sept. 30, 1927.
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 . . .	160	375	402	414	453	453	742	1060	55	40	62	28
2 . . .	207	400	392	472	478	456	750	939	56	42	163	26
3 . . .	308	385	395	511	498	178	755	777	52	37	430	29
4 . . .	384	364	405	497	470	522	769	646	46	36	604	40
5 . . .	426	368	408	517	479	542	767	553	48	33	618	44
6 . . .	488	372	389	521	516	616	774	478	50	27	649	46
7 . . .	568	379	410	473	514	665	755	408	44	24	527	45
8 . . .	667	379	420	489	411	688	740	430	41	26	420	73
9 . . .	672	358	415	421	351	663	698	492	39	25	385	46
10 . . .	603	361	403	405	319	590	625	475	51	27	348	42
11 . . .	534	349	417	437	352	519	588	463	55	26	270	43
12 . . .	484	366	379	397	428	461	686	490	158	27	236	38
13 . . .	458	374	180	380	408	524	654	518	279	28	209	37
14 . . .	422	402	263	244	418	704	449	560	389	57	184	35
15 . . .	412	388	327	210	410	691	916	519	469	32	212	36
16 . . .	395	429	334	367	415	707	1430	383	544	28	242	34
17 . . .	381	342	377	497	407	684	1820	318	420	27	230	34
18 . . .	367	359	380	436	401	630	2110	238	370	27	195	33
19 . . .	356	367	366	451	408	460	2210	181	303	26	153	34
20 . . .	353	391	357	476	448	407	2330	145	269	26	125	35
21 . . .	334	373	385	303	488	494	2400	122	248	25	83	37
22 . . .	329	387	421	340	583	963	2210	105	221	27	63	36
23 . . .	336	457	408	408	547	1210	2160	77	212	26	52	39
24 . . .	345	453	369	428	531	1060	2050	68	159	25	43	48
25 . . .	334	459	353	448	490	1060	2000	64	121	25	37	85
26 . . .	333	469	317	457	521	1080	1930	68	80	23	35	128
27 . . .	325	438	281	366	504	1000	1780	65	63	22	35	166
28 . . .	309	431	307	418	488	898	1600	58	50	35	35	204
29 . . .	341	426	323	453	448	816	1400	52	53	44	32	332
30 . . .	381	408	337	448	407	717	1240	48	42	40	34	392
31 . . .	386	377	383	383	714	49	49	49	39	32	32	32
Total	12398	11809	11297	13067	12736	21472	39338	10819	4987	952	6743	2245
Mean.	400	394	364	422	455	693	1310	350	166	30.7	218	74.8
Max..	672	469	421	521	583	1210	2400	1960	544	57	649	392
Min..	160	342	180	210	319	407	449	48	39	22	32	26
A.-ft.	24600	23400	22400	25900	25300	42600	78000	21500	9880	1890	13400	4450

Discharge of South Platte River at Julesburg for Year Ending Sept. 30, 1928.
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 . . .	475	360	352	280	380	499	205	24	135	1120	894	20
2 . . .	548	358	390	272	350	522	207	24	415	863	763	21
3 . . .	535	355	417	288	360	530	179	34	665	1380	702	22
4 . . .	574	349	400	298	360	521	129	31	1130	1770	638	21
5 . . .	578	355	392	312	410	563	108	23	1170	1500	655	23
6 . . .	532	371	347	324	440	528	80	22	1180	1290	713	25
7 . . .	421	384	335	430	450	446	64	21	2010	1010	680	26
8 . . .	380	384	308	395	460	396	58	23	3820	720	571	24
9 . . .	358	394	308	395	440	327	52	24	3380	529	510	22
10 . . .	337	384	332	395	440	326	48	22	2500	396	437	22
11 . . .	318	371	348	430	430	277	44	33	2010	297	375	22
12 . . .	293	347	342	430	430	296	49	28	1680	236	339	24
13 . . .	278	342	338	432	440	328	52	33	1640	177	255	26
14 . . .	258	348	334	440	428	327	50	60	1750	173	144	26
15 . . .	241	368	330	475	414	370	46	143	1760	145	98	27
16 . . .	225	362	326	496	429	447	47	167	1610	125	84	27
17 . . .	255	360	342	530	394	488	46	390	1690	204	74	27
18 . . .	303	360	356	512	428	521	46	622	2350	236	68	27
19 . . .	318	371	326	456	436	556	43	797	2250	264	52	35
20 . . .	323	368	334	338	454	612	41	638	1610	555	41	36
21 . . .	351	356	348	356	450	570	50	381	1320	1060	35	33
22 . . .	360	359	316	366	440	513	48	507	1320	917	33	34
23 . . .	339	359	324	376	440	482	41	504	1320	882	28	32
24 . . .	242	356	326	356	406	411	37	534	1160	1010	25	34
25 . . .	208	356	328	344	380	346	34	551	1040	1080	25	33
26 . . .	246	362	328	332	390	378	34	528	1000	1220	22	36
27 . . .	315	364	334	344	440	313	32	429	1030	1410	20	36
28 . . .	350	362	334	362	480	278	33	328	867	1410	21	35
29 . . .	362	385	348	380	520	245	30	261	752	1240	23	32
30 . . .	373	392	360	404	233	26	200	996	1120	20	20	33
31 . . .	363	324	416	190	190	151	151	1080	19	19	19	19
Total	11059	10942	10627	11964	12319	12839	1959	7533	45560	25419	8364	841
Mean.	357	365	343	386	425	414	65.3	243	1520	820	270	28.0
Max..	578	394	344	344	612	207	797	3820	1770	894	36	36
Min..	208	342	344	190	26	21	135	125	125	19	20	20
A.-ft.	22000	21700	21100	23700	24400	25500	3890	14900	90400	50400	16600	1670

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

Discharge of Tarryall Creek Near Lake George for Year Ending Sept. 30, 1927.
Drainage Area, 460 Square Miles. Altitude, Feet Above Sea Level

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	18	22	.....	.....	.....	.....	108	99	41	168	80	38
2	18	19	.....	.....	.....	.....	106	98	58	104	72	34
3	18	20	.....	.....	.....	.....	100	98	61	72	92	32
4	22	14	.....	.....	.....	.....	98	97	71	65	110	30
5	24	22	.....	.....	.....	.....	107	88	86	60	75	29
6	24	21	.....	.....	.....	.....	160	78	64	54	65	30
7	24	24	.....	.....	.....	.....	221	68	51	40	68	28
8	22	18	.....	.....	.....	.....	268	78	53	34	117	26
9	22	18	.....	.....	.....	.....	237	80	48	31	242	26
10	26	16	.....	.....	.....	.....	234	62	42	50	310	30
11	24	23	.....	.....	.....	.....	197	100	42	98	131	27
12	21	22	.....	.....	.....	.....	151	82	62	62	98	24
13	20	22	.....	.....	.....	.....	103	78	184	53	89	25
14	20	19	.....	.....	.....	.....	98	63	268	38	76	36
15	18	15	.....	.....	.....	.....	82	70	305	27	65	31
16	19	15	.....	.....	.....	.....	98	80	237	22	62	24
17	18	18	.....	.....	.....	.....	51	83	145	16	58	24
18	16	18	.....	.....	.....	.....	55	77	123	12	52	24
19	16	18	.....	.....	.....	.....	80	84	99	12	49	25
20	17	18	.....	.....	.....	.....	123	80	98	12	57	24
21	16	18	.....	.....	.....	.....	112	68	110	12	55	22
22	16	18	.....	.....	.....	.....	88	70	94	25	51	20
23	16	19	.....	.....	.....	.....	89	67	71	128	50	22
24	15	19	.....	.....	.....	.....	102	64	59	99	50	28
25	14	19	.....	.....	.....	.....	123	58	51	117	47	31
26	14	20	.....	.....	.....	.....	150	52	57	126	43	48
27	15	20	.....	.....	.....	.....	148	47	98	110	50	70
28	15	20	.....	.....	.....	.....	135	41	107	138	59	69
29	15	20	.....	.....	.....	.....	126	112	38	160	134	64
30	15	20	.....	.....	.....	.....	127	102	34	199	128	56
31	15	.....	.....	.....	.....	.....	119	.....	31	.....	98	44
Total	573	567	.....	.....	.....	.....	3838	2213	3162	2145	2537	990
Mean	18.5	18.9	.....	.....	.....	.....	128	71.4	105	69.2	81.8	33.0
Max.	26	24	.....	.....	.....	.....	268	190	305	168	310	70
Min.	14	14	.....	.....	.....	.....	51	31	11	12	43	20
Acre-ft.	1140	1120	.....	.....	.....	.....	7620	4390	6250	4250	5030	1960

Discharge of Tarryall Creek Near Lake George for Year Ending Sept. 30, 1928.
Drainage Area, 460 Square Miles. Altitude, Feet Above Sea Level

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	66	32	.....	.....	.....	.....	34	24	234	68	94	36
2	67	.....	.....	.....	.....	.....	34	32	245	58	83	36
3	59	.....	.....	.....	.....	.....	34	97	288	38	95	30
4	59	.....	.....	.....	.....	.....	42	86	349	28	104	27
5	60	.....	.....	.....	.....	.....	40	75	253	28	84	25
6	51	.....	.....	.....	.....	.....	38	52	194	22	82	22
7	43	.....	.....	.....	.....	.....	26	38	144	18	84	42
8	40	.....	.....	.....	.....	.....	20	49	131	16	76	69
9	35	.....	.....	.....	.....	.....	18	50	127	15	67	65
10	31	.....	.....	.....	.....	.....	33	75	134	17	60	108
11	29	.....	.....	.....	.....	.....	34	67	156	16	58	84
12	28	.....	.....	.....	.....	.....	33	53	183	15	56	71
13	24	.....	.....	.....	.....	.....	24	42	166	14	54	63
14	32	.....	.....	.....	.....	.....	38	60	213	25	54	59
15	33	.....	.....	.....	.....	.....	35	114	242	21	68	52
16	31	.....	.....	.....	.....	.....	26	126	156	17	62	49
17	29	.....	.....	.....	.....	.....	31	95	117	15	72	47
18	29	.....	.....	.....	.....	.....	44	75	99	87	71	46
19	28	.....	.....	.....	.....	.....	47	71	107	163	59	49
20	27	.....	.....	.....	.....	.....	36	78	111	245	50	47
21	27	.....	.....	.....	.....	.....	34	68	104	186	41	34
22	27	.....	.....	.....	.....	.....	31	66	89	163	34	33
23	26	.....	.....	.....	.....	.....	22	66	72	175	32	26
24	26	.....	.....	.....	.....	.....	26	114	62	140	30	20
25	25	.....	.....	.....	.....	.....	35	164	57	150	31	18
26	25	.....	.....	.....	.....	.....	37	183	65	127	31	17
27	25	.....	.....	.....	.....	.....	24	186	76	94	31	18
28	25	.....	.....	.....	.....	.....	26	196	78	157	28	18
29	28	.....	.....	.....	.....	.....	28	218	68	145	28	18
30	31	.....	.....	.....	.....	.....	26	223	67	166	25	18
31	32	.....	.....	.....	.....	.....	223	.....	163	26	26	18
Total	1098	.....	.....	.....	.....	.....	956	3046	1387	2592	1770	1247
Mean	35.4	.....	.....	.....	.....	.....	31.9	98.9	146	83.6	57.1	41.6
Max.	67	.....	.....	.....	.....	.....	47	223	349	245	104	108
Min.	24	.....	.....	.....	.....	.....	18	24	57	14	25	17
Acre-ft.	2180	.....	.....	.....	.....	.....	1900	6080	8690	5140	3510	2480

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

Discharge of Goose Creek at Lake Cheesman for Year Ending Sept. 30, 1927.
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....	11	12	11	5	5	9	31	55	24	20	14	13
2....	11	12	10	4	5	11	24	65	23	17	14	12
3....	11	11	12	4	4	10	30	62	22	16	18	12
4....	11	11	15	5	4	12	36	57	24	15	17	12
5....	10	10	14	5	5	10	31	50	24	14	15	12
6....	9	9	10	5	4	9	42	48	24	13	15	12
7....	9	10	13	5	4	9	37	53	23	12	18	11
8....	9	9	11	5	3	10	46	56	21	12	33	12
9....	9	11	9	4	3	11	47	26	17	12	64	11
10....	10	11	7	4	2	11	47	34	17	16	34	10
11....	10	10	7	4	2	10	38	48	17	15	23	9
12....	9	12	12	4	3	8	42	58	21	12	19	9
13....	9	13	8	4	3	9	30	55	31	12	19	10
14....	9	12	5	4	4	9	22	51	28	12	17	11
15....	9	3	7	4	3	10	14	44	55	11	16	9
16....	9	6	7	4	3	13	14	43	60	10	16	9
17....	9	8	8	4	3	5	16	42	39	10	15	10
18....	9	6	6	4	3	14	16	40	32	9	14	15
19....	9	10	6	3	4	11	16	38	31	10	14	12
20....	9	8	6	4	3	5	16	37	29	10	18	10
21....	9	16	6	4	4	5	16	35	26	11	17	9
22....	9	9	6	4	3	6	16	34	24	15	18	8
23....	9	10	7	5	3	7	16	33	23	16	16	10
24....	8	8	8	5	5	7	16	32	21	16	16	11
25....	8	9	11	5	5	12	29	30	25	14	14	13
26....	9	11	5	5	5	12	29	30	25	14	14	28
27....	8	10	6	5	7	12	56	28	22	33	19	28
28....	8	12	4	5	8	17	65	27	19	26	21	23
29....	9	11	4	5	5	20	54	25	22	20	19	22
30....	10	8	4	5	5	24	56	24	23	16	15	22
31....	12	...	5	4	...	36	...	24	...	15	13	...
Total	290	298	245	137	109	350	941	1285	786	456	596	395
Mean.	9.35	9.93	7.90	4.42	3.89	11.3	31.4	41.5	26.2	14.7	19.2	13.2
Max..	12	16	15	5	8	36	65	65	60	33	64	28
Min..	8	3	4	3	2	5	14	24	17	9	13	8
Acre-ft.	575	591	486	272	216	695	1870	2550	1560	904	1180	786

Discharge of Goose Creek at Lake Cheesman for Year Ending Sept. 30, 1928.
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....	18	11	6	3	7	5	31	67	145	35	33	16
2....	18	12	6	3	7	6	30	87	143	33	30	14
3....	16	9	6	3	7	6	26	47	153	31	33	13
4....	18	11	6	3	7	8	20	39	171	30	38	12
5....	17	11	9	3	7	8	18	51	158	28	35	11
6....	16	12	10	3	7	7	18	70	131	26	32	11
7....	16	12	7	3	7	7	18	88	118	26	29	10
8....	15	12	5	4	7	7	9	60	108	27	27	9
9....	14	11	5	5	7	6	17	77	100	22	25	7
10....	12	11	6	5	7	5	24	62	97	22	23	9
11....	12	12	6	5	7	14	19	54	96	22	22	9
12....	12	11	5	5	7	14	26	37	92	24	25	9
13....	12	12	4	5	7	12	30	41	88	25	25	5
14....	12	12	5	5	7	12	20	51	114	26	23	4
15....	12	12	4	5	7	12	20	51	127	25	29	5
16....	11	12	4	5	7	12	20	65	87	22	25	8
17....	11	11	4	5	7	12	20	87	74	24	36	8
18....	11	11	4	5	8	16	20	75	68	31	31	8
19....	11	10	4	5	7	20	20	83	67	33	23	9
20....	11	9	4	5	6	20	20	109	63	45	17	14
21....	11	9	4	5	6	22	20	105	58	35	16	17
22....	11	9	4	5	5	24	16	114	55	44	16	14
23....	11	8	4	5	5	30	18	112	51	51	16	12
24....	11	8	4	5	5	35	16	118	49	61	16	10
25....	11	9	3	5	5	35	18	158	49	66	16	10
26....	11	11	2	5	6	40	19	211	47	43	16	9
27....	11	9	3	5	4	40	20	181	45	34	16	9
28....	11	8	3	5	5	35	38	186	41	32	13	9
29....	12	8	3	5	5	35	50	181	38	45	13	11
30....	12	6	3	6	...	30	50	174	37	50	13	9
31....	11	...	3	7	...	25	...	159	...	43	17	...
Total	398	309	147	143	186	560	691	3000	2670	1061	744	301
Mean.	12.8	10.3	4.74	4.61	6.41	18.1	23.0	96.8	89.0	34.2	24.0	10.0
Max..	18	12	10	7	8	40	50	211	171	66	38	17
Min..	11	6	3	3	4	5	9	39	37	22	13	4
Acre-ft.	787	613	291	283	369	1110	1370	5950	5300	2100	1480	595

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

Discharge of Bear Creek at Starbuck for Year Ending Sept. 30, 1927.
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...	37	38	19	...	12	24	26	94	69	59	91	55
2...	38	26	20	...	15	30	100	60	60	92	52	52
3...	37	36	21	21	...	17	40	100	64	59	101	54
4...	36	21	22	...	16	33	98	57	55	83	55	55
5...	34	31	23	...	26	31	96	64	49	82	54	54
6...	37	29	26	...	24	33	94	60	49	82	52	52
7...	40	31	27	...	20	36	98	59	50	87	52	52
8...	43	29	26	...	21	36	103	57	49	98	50	50
9...	46	20	21	...	20	37	94	49	55	120	50	50
10...	43	34	13	...	17	40	94	49	73	103	52	52
11...	36	26	...	...	16	42	91	54	57	94	48	48
12...	36	23	...	...	17	34	82	66	46	92	42	42
13...	34	18	...	...	26	31	78	71	44	94	43	43
14...	34	17	...	...	26	29	87	66	40	114	44	44
15...	31	14	...	...	30	26	91	91	37	103	40	40
16...	29	18	...	...	21	36	95	89	40	91	40	40
17...	29	16	...	...	15	46	97	69	32	89	43	43
18...	26	43	...	...	11	54	92	73	36	83	48	48
19...	24	44	...	...	13	59	98	73	30	85	46	46
20...	23	38	...	...	17	54	94	71	30	87	43	43
21...	22	40	...	...	19	44	72	66	36	83	40	40
22...	23	31	...	...	20	48	84	71	69	80	37	37
23...	27	24	...	...	21	55	80	64	85	87	40	40
24...	23	23	...	...	20	21	62	77	62	92	85	44
25...	20	23	...	...	30	21	67	71	62	73	74	59
26...	26	21	...	...	19	21	76	65	74	64	80	67
27...	33	20	...	...	21	23	85	71	69	73	74	57
28...	40	17	...	...	26	21	92	60	67	80	73	49
29...	42	15	...	...	33	91	54	71	113	76	40	40
30...	26	22	...	...	43	91	52	64	100	67	43	43
31...	26	...	...	...	33	...	60	...	87	64	...	...
Total	1001	788	...	...	668	1464	2622	1981	1777	2714	1442	
Mean.	32.3	26.3	20	18	16	21.5	48.8	84.6	66.0	57.3	87.5	48.1
Max...	46	44	...	...	43	92	103	91	113	120	67	
Min...	20	14	...	...	11	26	52	49	30	64	37	
Acre-ft.	1990	1560	1230	1110	889	1320	2900	5200	3930	3520	5380	2860

Discharge of Bear Creek at Starbuck for Year Ending Sept. 30, 1928.
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...	48	32	...	...	5	30	117	278	90	68	31	31
2...	42	29	...	...	5	34	100	254	86	75	34	34
3...	41	28	...	...	5	35	86	246	90	79	30	30
4...	40	26	...	...	5	34	92	216	86	79	26	26
5...	38	27	...	...	5	29	104	205	83	75	28	28
6...	35	26	...	...	7	28	109	188	75	64	27	27
7...	35	27	...	...	7	30	120	188	71	62	24	24
8...	36	23	...	...	7	28	124	188	71	61	24	24
9...	31	23	...	...	7	24	146	192	73	54	24	24
10...	29	24	...	...	7	32	182	185	79	46	24	24
11...	28	23	...	...	9	28	169	182	73	46	26	26
12...	27	19	...	...	9	28	166	158	61	45	24	24
13...	29	21	...	...	9	28	172	152	66	42	22	22
14...	28	28	...	...	9	30	234	144	68	41	16	16
15...	29	21	...	...	9	34	216	136	62	46	18	18
16...	29	18	...	...	10	35	274	136	59	48	18	18
17...	31	26	...	...	22	38	287	136	70	51	17	17
18...	30	22	...	...	34	44	266	138	57	46	15	15
19...	29	20	...	...	27	42	230	124	57	41	17	17
20...	29	17	...	4.5	19	41	234	122	52	36	20	20
21...	29	21	19	...	34	46	220	115	73	35	23	23
22...	31	21	...	...	44	38	212	115	88	36	23	23
23...	31	21	...	...	37	34	198	111	86	36	30	30
24...	31	13	...	...	34	38	195	107	104	42	28	28
25...	30	23	...	...	35	56	209	102	109	48	26	26
26...	30	24	...	...	34	52	223	102	84	50	23	23
27...	30	24	13	...	34	71	258	107	84	46	23	23
28...	31	27	...	...	35	70	258	102	84	38	20	20
29...	36	28	...	...	27	73	266	98	84	35	17	17
30...	34	26	...	...	24	83	266	94	81	34	15	15
31...	32	...	...	...	28	...	274	71	34	...	...	...
Total	1009	708	...	...	583	1223	6037	4621	2377	1539	693	
Mean.	32.5	23.6	20	15	7.5	18.8	40.8	195	154	76.7	49.6	23.1
Max...	48	32	...	...	44	83	287	278	109	79	34	
Min...	27	19	...	...	28	86	94	52	34	34	15	
Acre-ft.	2000	1400	1230	922	431	1160	2420	12000	9160	4720	3050	1370

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

Discharge of Bear Creek at Mouth for Year Ending Sept. 30, 1927.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	9	14	7	15	6	19	36
2	9	14	12	10	6	19	19
3	9	11	12	15	3	20	15
4	9	7	12	10	3	29	10
5	8	8	7	6	3	29	10
6	8	9	2	3	3	30	20
7	8	11	2	3	3	21	26
8	8	8	50	3	3	15	15
9	8	9	54	3	10	31	16
10	8	12	78	6	15	15	16
11	8	18	71	9	10	14	27
12	8	22	50	19	6	14	16
13	8	24	31	25	6	14	16
14	12	21	20	19	10	49	21
15	13	24	20	29	10	75	11
16	11	30	15	18	10	35	7
17	16	29	10	18	6	29	16
18	10	29	10	18	6	22	16
19	18	29	6	13	3	22	16
20	12	41	10	13	3	60	16
21	18	35	10	13	13	60	16
22	15	29	6	8	35	60	16
23	8	16	18	10	5	24	53
24	8	16	18	10	13	22	54
25	8	16	24	10	13	18	61
26	8	14	29	10	18	11	61
27	8	10	18	10	24	11	61
28	8	7	18	10	13	11	65
29	5	13	15	13	35	62	65
30	8	13	10	8	35	55	65
31	16	..	10	..	25	49	..
Total	341	585	590	383	365	1199	690
Mean.	11.9	19.5	19.0	12.8	11.8	38.7	23.0
Max..	18	41	78	29	35	75	65
Min..	5	7	2	3	3	14	7
Acre-ft.	676	1160	1170	762	726	2380	1370

Discharge of Bear Creek at Mouth for Year Ending Sept. 30, 1928.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	65	16	21	16	10	10	8	27	243	2	9	4
2	65	21	16	16	10	10	8	62	248	1	13	6
3	51	21	16	16	10	10	8	85	248	1	23	8
4	33	21	16	30	10	6	7	70	235	2	8	6
5	27	21	16	14	10	6	5	98	209	1	9	6
6	27	16	14	9	10	6	6	130	165	1	8	4
7	27	16	16	9	10	6	14	154	138	1	5	4
8	21	16	16	14	10	6	15	180	120	2	6	4
9	16	21	16	9	10	6	14	227	88	2	5	5
10	16	21	16	9	10	3	1	326	64	4	5	7
11	11	17	21	9	10	3	3	321	47	5	5	8
12	16	17	16	9	10	6	17	243	32	3	6	4
13	16	17	21	9	10	6	15	185	24	1	7	4
14	16	22	21	9	15	3	17	308	18	2	6	4
15	27	28	18	9	10	6	11	422	15	2	6	4
16	39	34	18	9	15	9	9	404	12	2	5	3
17	39	22	18	9	10	9	18	396	10	4	4	3
18	39	12	18	13	15	9	16	399	4	12	5	3
19	33	7	16	18	10	9	6	388	3	7	6	4
20	16	12	16	13	10	9	6	371	4	8	5	6
21	21	17	16	24	10	8	30	362	3	4	5	9
22	16	17	16	13	10	8	33	316	6	20	5	10
23	16	17	16	18	10	8	42	295	6	20	4	8
24	16	17	16	18	20	5	20	261	12	14	4	6
25	16	17	25	18	20	5	16	248	10	18	5	6
26	16	12	25	18	15	8	24	235	8	11	6	7
27	16	12	25	24	10	13	18	264	6	14	6	6
28	21	12	21	13	10	8	35	261	6	17	6	6
29	16	17	21	10	10	13	50	248	4	27	6	6
30	16	17	18	10	...	13	46	248	3	18	6	8
31	16	...	18	10	...	13	...	243	9	6	...	...
Total	786	533	563	425	330	240	518	7777	1991	235	206	169
Mean.	25.4	17.8	18.2	13.7	11.4	7.74	17.3	251	66.4	7.58	6.65	5.63
Max..	65	34	25	30	20	13	50	422	248	27	23	10
Min..	11	7	14	9	10	3	1	27	3	1	4	3
Acre-ft.	1560	1060	1120	842	656	476	1030	15400	3950	466	409	335

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

Discharge of Clear Creek Near Golden for Year Ending Sept. 30, 1927.
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	107	100	....	....	....	....	64	258	552	650	374	184
2	102	92	....	....	....	....	64	289	546	600	419	165
3	112	102	....	....	....	....	78	313	520	572	441	142
4	124	82	....	....	....	....	81	358	465	552	391	142
5	116	88	....	....	....	....	74	348	476	593	348	145
6	107	98	....	....	....	....	71	327	506	558	374	178
7	92	96	....	....	....	....	71	332	593	506	396	184
8	92	86	....	....	....	....	72	407	680	513	441	184
9	107	79	....	....	....	....	70	327	672	552	339	178
10	119	96	....	....	....	....	83	308	758	650	413	178
11	119	77	....	....	....	....	90	294	807	572	385	181
12	112	77	....	....	58	....	88	275	841	546	396	168
13	112	90	....	....	....	....	90	275	742	546	402	181
14	102	90	....	....	....	....	72	322	734	500	424	175
15	98	102	....	....	....	....	72	353	790	441	369	159
16	98	112	....	....	....	....	78	407	702	424	358	145
17	92	76	....	....	....	....	81	494	695	407	327	139
18	92	52	....	....	....	....	85	579	816	369	303	134
19	95	50	....	....	....	....	116	565	841	353	298	122
20	100	45	....	....	....	....	116	600	734	385	303	122
21	102	50	49	....	....	....	85	865	710	402	275	122
22	100	50	....	....	....	....	90	710	695	532	249	114
23	98	50	....	....	....	....	110	695	665	494	258	129
24	109	50	....	....	....	....	114	635	742	488	244	136
25	96	50	....	....	....	....	112	579	798	407	213	154
26	98	52	....	....	....	....	142	621	926	374	209	156
27	98	55	....	....	....	....	168	593	926	385	217	126
28	96	55	....	....	....	....	71	184	650	934	453	228
29	90	55	....	....	....	....	74	184	635	943	488	228
30	88	55	....	....	....	....	78	217	565	807	470	209
31	92	....	....	....	....	....	74	....	579	....	413	205
Total	3165	2212	....	....	....	....	3022	14558	21616	15195	10236	4463
Mean.	102	73.7	52	50	55	60	101	470	721	490	330	149
Max..	124	112	....	....	....	....	217	865	943	650	539	184
Min..	88	45	....	....	....	....	64	258	465	353	205	94
Acre-ft.	6760	4390	3200	3070	3060	3690	6010	28900	42900	30100	20300	8870

Discharge of Clear Creek Near Golden for Year Ending Sept. 30, 1928.
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	116	107	55	....	....	....	51	194	1400	926	318	171
2	112	81	64	....	....	....	52	284	1340	892	332	154
3	112	83	88	....	....	....	52	275	1230	850	322	151
4	119	79	81	....	....	....	54	240	1030	790	318	132
5	116	88	....	....	....	....	52	244	918	798	322	124
6	122	92	....	....	....	....	52	284	850	758	280	122
7	129	85	....	....	....	....	50	358	884	742	266	103
8	132	85	....	....	....	....	49	402	978	702	224	110
9	126	72	....	....	....	....	56	513	1030	665	209	116
10	116	66	....	....	....	....	76	607	1030	628	217	122
11	112	66	....	....	....	....	60	532	987	579	232	116
12	101	74	....	....	....	....	56	459	875	552	232	110
13	116	92	....	....	....	....	54	453	774	579	224	99
14	110	78	....	....	....	....	52	532	734	579	220	74
15	114	74	....	....	....	....	64	482	688	539	198	78
16	112	78	....	....	....	....	52	500	790	546	232	119
17	107	81	....	....	....	....	66	494	875	628	240	71
18	107	79	....	....	....	....	62	513	832	547	213	92
19	107	85	....	....	....	....	58	526	710	579	194	94
20	108	88	....	....	....	....	56	579	650	547	213	142
21	109	76	....	....	....	....	72	593	642	532	198	110
22	110	85	....	....	....	....	65	665	750	520	191	112
23	110	83	....	....	....	....	65	726	798	500	198	126
24	114	65	....	....	....	....	70	734	900	494	178	90
25	132	74	....	....	....	....	90	866	926	470	191	116
26	112	71	....	....	....	....	87	1050	935	391	198	79
27	94	70	....	....	....	....	90	1240	926	413	228	119
28	90	64	....	....	....	....	134	1280	943	396	194	81
29	96	85	....	....	....	....	156	1380	996	419	178	79
30	78	78	....	....	....	....	151	1430	969	424	156	110
31	72	....	....	....	....	....	....	1450	....	385	162	....
Total	3411	2384	....	....	....	....	2104	19885	27390	18370	7078	3322
Mean.	110	79.5	....	....	....	....	70.1	641	913	593	228	111
Max..	132	107	....	....	....	....	156	1450	1400	926	332	171
Min..	72	64	....	....	....	....	49	194	642	385	156	71
Acre-ft.	6760	4730	....	....	....	....	4170	39400	54300	36500	14000	6600

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

Discharge of Clear Creek at Mouth for Year Ending Sept. 30, 1927.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	34	18	23	120	77	142	17
2	75	14	19	61	31	148	16
3	73	11	11	117	22	207	12
4	75	11	10	138	23	227	13
5	68	11	11	117	26	250	12
6	70	11	10	92	23	98	11
7	67	11	14	75	20	152	10
8	67	12	182	96	20	174	10
9	73	14	220	115	23	281	10
10	82	12	105	142	62	230	10
11	73	13	84	145	31	198	11
12	62	25	77	651	16	194	11
13	52	35	77	296	16	180	9
14	75	30	54	253	18	311	9
15	73	31	64	270	20	307	10
16	61	53	64	311	18	204	10
17	44	70	53	345	20	227	11
18	42	36	43	364	22	223	12
19	33	33	67	360	21	220	12
20	40	28	64	334	33	201	12
21	48	43	90	284	86	158	13
22	66	26	102	246	303	122	14
23	58	20	77	210	171	113	14
24	61	16	22	198	145	105	13
25	15	41	15	233	109	73	26
26	15	29	12	23	435	75	58
27	16	25	18	33	392	43	50
28	16	23	26	18	296	155	29
29	20	23	23	303	330	13	17
30	21	18	18	194	246	11	13
31	24	.....	23	.....	220	12	...
Total	1655	706	1694	7193	2425	4868	469
Mean.	53.4	23.5	54.6	240	78.2	157	15.6
Max..	82	70	220	651	330	311	52
Min..	20	11	10	61	16	11	9
Acre-ft.	3280	1400	3360	14300	4810	9650	923

Discharge of Clear Creek at Mouth for Year Ending Sept. 30, 1928.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	20	8	36	20	30	24	19	8	899	448	16	23
2	37	9	41	22	31	23	14	36	746	335	48	25
3	27	12	41	22	29	25	14	175	946	238	100	26
4	14	11	32	24	22	21	12	100	1000	126	71	25
5	14	10	30	24	21	22	11	47	879	71	65	10
6	31	13	28	26	21	22	12	32	694	34	38	8
7	50	14	31	26	20	22	15	44	639	28	29	7
8	48	13	38	26	20	21	10	64	722	38	23	7
9	38	13	40	26	20	20	6	129	780	50	20	6
10	37	13	42	26	20	19	5	295	790	76	13	6
11	38	12	42	32	23	17	5	330	977	152	7	6
12	38	13	42	36	23	22	4	288	799	118	9	6
13	32	13	42	40	24	23	4	262	547	92	12	6
14	35	13	42	28	22	21	5	342	496	90	19	5
15	35	14	42	33	22	24	17	338	385	53	19	5
16	36	13	40	36	32	24	22	183	335	38	29	5
17	16	40	30	34	25	11	157	437	126	60	6	
18	10	25	40	35	40	25	5	169	509	123	23	5
19	10	31	40	40	34	24	6	316	414	219	15	5
20	10	23	40	38	28	33	6	508	285	71	12	5
21	10	19	38	50	28	33	14	552	186	41	10	5
22	10	17	38	44	25	26	24	534	98	38	10	5
23	11	16	38	43	24	23	7	598	118	28	9	5
24	11	17	38	44	18	24	7	581	178	26	9	5
25	10	22	38	43	30	22	9	766	238	30	9	5
26	9	24	36	40	36	19	32	1030	331	22	9	
27	10	21	36	28	17	31	1220	285	16	10	5	
28	10	16	36	42	28	17	12	1070	392	17	20	4
29	10	37	36	41	25	23	9	1010	612	23	26	7
30	9	46	36	34	....	31	7	1070	559	20	24	9
31	9	20	43	....	....	24	....	920	18	26	...	
Total	685	524	1159	1062	758	719	355	13174	16276	2805	790	252
Mean.	22.1	17.5	37.4	34.3	26.1	23.2	11.8	425	543	90.5	25.5	8.40
Max..	50	46	....	50	40	33	32	1220	1000	448	100	26
Min..	9	8	....	....	18	17	4	8	98	16	7	4
Acre-ft.	1360	1040	2300	2110	1500	1430	702	26100	32300	5560	1570	500

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

Discharge of South Boulder Creek at Eldorado Springs for Year Ending Sept. 30, 1927.
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....	12	21	20	12	14	19	21	132	205	171	48	22
2....	12	16	21	14	14	19	21	166	233	148	52	21
3....	16	20	20	14	14	18	26	174	239	150	67	20
4....	14	14	21	14	14	18	26	174	216	144	74	19
5....	15	22	18	14	14	18	26	164	210	138	54	19
6....	15	21	17	14	14	18	26	174	207	146	60	19
7....	19	19	17	14	13	16	28	173	233	150	63	19
8....	20	17	14	14	14	17	43	221	258	125	65	21
9....	22	11	12	14	15	18	43	200	252	127	131	21
10....	21	24	12	14	15	15	42	209	258	140	69	20
11....	16	23	17	14	15	14	41	166	252	112	67	19
12....	15	22	12	14	14	14	40	119	302	108	46	18
13....	14	20	8	14	15	16	38	129	287	108	52	18
14....	14	16	8	14	15	16	37	166	270	104	51	19
15....	14	11	8	14	18	16	37	165	287	92	49	19
16....	14	15	12	14	18	16	37	218	216	84	39	20
17....	12	10	12	14	15	16	34	271	247	78	35	18
18....	6	15	12	14	18	16	43	313	273	72	32	16
19....	14	24	12	14	15	16	53	298	264	67	33	15
20....	15	27	12	14	15	16	53	318	248	67	34	14
21....	17	22	12	14	15	16	45	328	234	79	31	13
22....	18	22	12	14	15	16	46	333	228	101	32	12
23....	19	21	12	14	15	16	53	304	210	91	31	14
24....	18	20	12	14	15	16	63	268	196	74	33	16
25....	17	20	12	14	15	16	68	246	211	60	29	22
26....	17	15	12	14	20	16	72	252	293	53	30	21
27....	14	21	12	14	19	21	88	252	242	56	31	20
28....	14	20	12	14	18	21	92	268	217	91	29	17
29....	14	19	12	14	...	21	92	255	218	88	27	16
30....	14	20	12	14	...	21	103	216	196	109	24	18
31....	18	...	12	14	...	21	...	216	...	59	24	...
Total	480	568	417	432	431	533	1437	6888	7202	3192	1442	546
Mean	15.5	18.9	13.5	13.9	15.4	17.2	47.9	222	240	103	46.5	18.2
Max.	22	27	21	14	20	21	103	333	302	171	131	22
Min.	6	10	8	12	13	14	21	119	196	53	24	12
Acre-ft.	953	1120	830	855	855	1060	2850	13600	14300	6330	2860	1080

Discharge of South Boulder Creek at Eldorado Springs for Year Ending Sept. 30, 1928.
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....	24	16	15	14	12	12	26	113	439	289	59	18
2....	21	10	22	14	12	12	26	177	420	286	57	18
3....	18	17	24	14	12	12	26	122	380	249	58	18
4....	26	18	20	14	12	12	26	107	326	236	59	17
5....	28	19	20	14	12	12	26	109	281	233	50	17
6....	26	20	21	12	11	12	26	103	278	223	45	16
7....	27	19	17	12	10	12	26	85	272	213	47	16
8....	24	21	15	12	10	12	26	97	302	190	36	16
9....	19	18	18	12	10	12	26	164	305	173	38	16
10....	17	18	18	12	11	12	26	341	235	159	39	15
11....	16	18	18	10	10	14	26	326	277	159	41	16
12....	13	18	16	10	15	14	26	326	250	155	39	15
13....	15	20	16	10	6	14	26	313	208	164	41	15
14....	16	19	17	10	5	14	26	402	211	193	36	15
15....	18	18	17	13	5	15	21	128	201	161	36	16
16....	19	17	17	11	4	15	27	401	245	151	41	16
17....	16	18	18	12	13	14	32	241	276	188	53	14
18....	23	18	15	12	12	17	34	334	288	166	42	11
19....	19	21	15	12	12	16	20	337	226	173	33	10
20....	16	25	15	12	12	16	36	314	201	151	29	14
21....	17	23	15	13	12	16	38	314	217	138	27	19
22....	17	23	15	13	12	16	34	311	255	127	25	20
23....	17	18	15	12	12	16	28	308	260	119	24	17
24....	18	12	15	12	12	16	30	339	275	125	26	16
25....	18	15	15	12	14	21	34	357	285	97	25	16
26....	17	14	15	12	12	21	36	414	293	85	22	19
27....	17	20	15	12	12	21	59	461	302	97	19	19
28....	17	22	15	12	12	21	83	468	303	86	20	17
29....	19	22	15	12	10	21	91	464	317	87	19	15
30....	17	16	15	12	...	21	86	466	303	77	18	17
31....	16	...	15	12	...	21	...	448	...	65	17	...
Total	591	753	519	376	314	480	1053	9190	8431	5015	1121	484
Mean	19.1	18.1	16.7	12.1	10.8	15.5	35.1	296	281	162	36.2	16.1
Max.	28	25	21	14	15	21	91	468	429	289	59	20
Min.	13	10	15	10	4	12	21	85	201	65	17	10
Acre-ft.	1170	1090	1030	744	621	953	2090	18200	16700	9960	2230	958

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

Discharge of Boulder Creek near Oro dell for Year Ending Sept. 30, 1927.
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....	39	46	34	16	28	33	35	92	196	398	164	58
2....	32	56	35	16	39	22	45	122	222	298	157	74
3....	20	63	37	23	45	24	22	114	240	278	174	77
4....	39	44	24	24	66	26	41	109	236	262	180	66
5....	45	60	17	26	47	24	55	114	209	303	159	73
6....	40	54	34	32	15	14	51	114	349	326	145	71
7....	35	28	42	24	37	20	47	122	298	294	136	68
8....	34	55	35	20	43	22	50	105	339	262	193	74
9....	47	47	28	17	38	22	32	109	339	247	200	74
10....	28	48	32	32	20	26	22	102	360	298	172	71
11....	54	37	32	31	48	20	51	95	355	316	150	66
12....	73	52	18	27	43	25	39	109	164	282	145	87
13....	55	47	32	31	24	13	35	107	290	270	111	76
14....	90	19	26	39	39	22	28	113	282	250	92	83
15....	51	40	40	33	49	22	26	94	316	220	122	76
16....	43	48	40	18	52	26	28	131	206	209	116	65
17....	47	26	54	56	40	25	25	147	222	162	129	68
18....	58	51	41	45	47	30	43	152	222	187	111	55
19....	52	58	23	45	31	26	60	127	174	278	98	69
20....	47	47	43	56	12	12	40	162	196	177	81	59
21....	42	17	60	47	28	18	54	185	212	180	56	60
22....	37	40	49	54	22	18	59	209	203	182	87	64
23....	28	35	52	16	31	11	65	270	206	190	77	59
24....	25	42	18	32	24	11	39	298	209	180	78	70
25....	47	14	10	37	24	11	70	270	274	185	76	68
26....	63	12	13	39	23	18	102	254	298	162	76	66
27....	37	15	20	27	16	14	136	258	404	150	81	59
28....	50	12	19	39	24	20	120	236	471	162	52	65
29....	32	40	20	26	....	30	113	216	478	174	74	58
30....	42	37	26	16	....	43	114	190	452	169	78	60
31....	32	....	32	33	....	44	....	159	....	136	78	....
Total	1364	1190	984	980	955	686	1647	4885	8422	7187	3639	2042
Mean.	44.0	39.7	31.7	31.6	34.1	22.1	54.9	158	281	232	117	68.1
Max..	90	63	60	56	66	44	136	298	478	398	200	87
Min..	20	12	10	16	12	11	22	92	164	136	52	55
Acre-ft.	2710	2360	1950	1940	1890	1360	3270	9720	16700	14300	7190	4050

Discharge of Boulder Creek near Oro dell for Year Ending Sept. 30, 1928.
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....	52	54	32	75	34	44	12	98	380	503	198	102
2....	40	57	57	55	33	44	34	132	536	529	202	78
3....	62	44	65	24	35	24	54	118	576	510	208	50
4....	57	54	29	25	26	11	52	116	503	442	192	62
5....	57	61	53	22	11	36	47	118	418	466	172	68
6....	70	106	42	21	32	29	42	114	380	497	152	67
7....	62	120	56	24	22	38	24	112	400	412	132	67
8....	57	108	78	10	29	36	7	126	418	336	138	49
9....	48	79	91	20	26	36	13	142	412	341	88	44
10....	50	104	71	22	21	23	17	166	375	327	88	55
11....	32	166	31	27	30	9	14	246	370	313	97	61
12....	57	89	54	19	11	22	14	218	360	286	86	61
13....	40	13	53	20	25	34	14	144	295	291	89	57
14....	43	37	53	40	20	34	14	198	242	327	110	78
15....	32	38	44	14	30	37	7	205	249	295	124	72
16....	36	42	36	28	23	11	218	327	273	73	65	
17....	35	35	60	31	27	28	22	198	365	322	93	65
18....	43	38	91	31	18	9	55	221	442	336	82	50
19....	52	44	60	21	11	35	61	205	365	350	57	47
20....	53	22	43	23	24	40	62	161	273	365	58	62
21....	50	49	41	40	23	40	53	189	282	304	80	64
22....	62	48	48	12	26	42	21	202	360	269	58	64
23....	37	36	53	27	28	52	44	195	380	249	73	64
24....	50	39	57	27	38	50	37	211	365	242	90	61
25....	55	47	55	28	28	14	49	246	400	198	100	62
26....	53	60	50	32	28	22	36	256	412	211	53	62
27....	53	30	55	28	36	30	57	242	442	202	73	64
28....	53	46	53	32	30	29	76	304	510	205	60	61
29....	54	42	53	15	44	17	70	318	522	171	65	27
30....	29	40	55	31	....	15	93	286	536	171	56	26
31....	54	....	95	31	....	19	....	350	....	182	90	....
Total	1519	1742	1720	863	774	922	1112	6055	11895	9925	3237	1815
Mean.	49.0	58.1	55.5	27.8	26.7	29.7	37.1	195	396	320	104	60.5
Max..	70	166	95	75	44	52	93	350	576	529	208	102
Min..	17	13	29	10	11	9	7	98	242	171	53	26
Acre-ft.	3010	3460	3410	1710	1540	1830	2210	12000	23600	19700	6400	3600

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

Discharge of Boulder Creek at Mouth for Year Ending Sept. 30, 1927.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	44	144	5	60	73	2
2	36	124	3	45	95	2
3	28	120	6	17	120	2	2
4	24	119	46	8	141	2	2
5	22	109	67	5	104	3	3
6	40	114	73	4	137	4	4
7	35	122	34	3	134	4	4
8	22	149	34	2	148	5	5
9	28	219	22	3	215	4	4
10	25	197	17	4	172	6	6
11	43	151	39	5	142	4	4
12	100	120	232	5	134	3	3
13	106	114	165	4	117	3	3
14	89	111	214	14	186	4	4
15	92	115	137	4	204	3	3
16	34	115	103	18	109	3	3
17	32	131	148	83	12	95	3
18	38	90	158	83	9	82	3
19	46	120	137	78	8	69	3
20	57	107	76	62	8	53	3
21	57	83	71	83	7	51	3
22	49	89	62	104	12	25	3
23	44	109	23	66	33	6	2
24	37	124	12	6	25	3	3
25	52	101	7	5	19	3	4
26	46	144	3	89	21	2	4
27	42	165	3	59	21	3	10
28	38	173	6	124	12	3	9
29	47	165	6	122	257	3	21
30	57	166	7	107	144	3	29
31	64	...	6	...	111	2	...
Total	2626	2856	2301	900	2634	154
Mean.	87.5	92.1	76.7	29.0	85.0	5.13
Max.	173	219	232	257	215	29
Min.	22	3	3	2	2	2
Acre-ft.	5210	5660	4560	1780	5230	305

Discharge of Boulder Creek at Mouth for Year Ending Sept. 30, 1928.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	53	31	53	44	64	45	34	172	333	236	65	3
2	53	30	65	44	75	59	32	205	344	224	61	3
3	46	29	66	44	78	79	52	224	549	216	125	3
4	53	27	69	44	72	61	75	201	643	181	121	2
5	51	34	53	44	62	47	73	187	453	131	94	2
6	44	40	57	45	34	79	65	164	323	117	66	2
7	61	32	42	45	48	78	66	152	236	92	52	2
8	48	32	55	45	41	79	53	164	226	56	38	2
9	44	34	53	45	46	69	31	198	209	20	15	2
10	43	33	55	45	31	68	31	318	268	10	8	2
11	42	36	55	46	28	66	28	459	260	10	5	2
12	28	36	53	47	18	50	20	331	234	17	3	2
13	45	32	54	65	16	59	21	226	198	12	3	2
14	38	25	54	59	14	65	26	293	109	15	3	2
15	40	27	52	56	13	79	24	539	58	26	3	2
16	31	26	35	26	85	18	412	39	22	6	6	2
17	21	31	54	46	29	76	15	364	82	28	5	3
18	25	31	53	44	32	71	14	409	262	95	5	3
19	21	35	54	50	37	46	12	446	264	109	4	3
20	19	31	52	53	29	88	12	491	181	140	4	3
21	16	31	36	61	48	100	16	498	164	130	4	3
22	16	39	38	62	32	86	16	475	174	145	3	3
23	14	41	38	44	34	78	22	459	216	164	3	4
24	14	32	38	39	45	98	18	440	205	189	2	4
25	16	30	40	47	80	78	18	434	232	137	3	3
26	23	34	40	58	66	56	29	466	198	71	5	1
27	21	30	42	68	45	34	98	525	187	62	3	6
28	21	29	42	62	44	47	128	556	214	68	3	8
29	29	44	44	53	29	50	153	556	268	80	4	7
30	28	40	44	33	...	43	164	488	300	61	4	7
31	25	—	44	75	37	...	412	...	61	4	—	—
Total	1029	985	1548	1548	1216	2056	1364	11264	7429	2925	724	93
Mean.	33.2	32.8	49.9	49.9	41.9	66.3	45.5	363	248	94.4	23.4	3.10
Max.	61	44	69	75	80	100	164	556	643	236	125	8
Min.	14	25	—	—	13	34	12	152	39	10	2	1
Acre-ft.	2040	1950	3070	3070	2410	4080	2710	22300	14800	5800	1440	184

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

Discharge of St. Vrain Creek at Lyons for Year Ending Sept. 30, 1927.
Drainage Area, 226 Square Miles. Altitude, 5349 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	28	18	12	14	14	12	33	210	332	369	200	104
2....	32	14	12	14	13	14	37	226	348	344	210	92
3....	33	14	12	14	14	10	48	270	332	348	206	89
4....	30	12	12	14	15	11	55	226	265	352	184	109
5....	28	13	12	16	16	13	48	210	373	365	159	109
6....	26	15	11	18	17	12	52	193	373	373	150	106
7....	22	14	14	18	14	10	62	226	454	332	203	106
8....	22	14	15	19	14	9	72	258	449	324	219	106
9....	26	12	10	18	15	12	60	200	432	320	251	101
10....	25	12	11	14	13	12	87	184	467	348	181	111
11....	24	14	14	16	12	12	89	165	445	320	156	111
12....	24	14	15	15	13	15	70	156	498	289	153	104
13....	11	14	12	12	13	15	60	142	458	285	136	106
14....	9	12	9	13	12	14	60	168	369	270	168	109
15....	9	9	8	15	14	16	74	187	432	255	168	99
16....	9	10	12	14	14	15	55	240	360	233	156	96
17....	9	8	17	12	10	14	99	308	415	226	145	96
18....	9	10	21	12	10	15	122	348	508	226	142	92
19....	9	15	21	12	11	18	139	304	480	244	136	94
20....	12	19	18	10	10	15	117	312	476	230	153	92
21....	12	18	17	10	9	18	89	365	441	210	142	84
22....	12	15	15	12	10	17	92	410	389	270	133	74
23....	12	15	14	12	9	15	92	389	352	270	120	75
24....	12	16	15	12	9	15	111	332	441	328	125	72
25....	11	16	18	12	10	17	133	308	427	292	120	82
26....	11	14	15	12	12	17	174	332	445	244	133	74
27....	12	15	14	11	14	17	210	332	517	233	130	72
28....	13	14	14	11	10	18	233	336	550	262	136	68
29....	16	12	14	12	...	21	213	340	526	381	120	70
30....	18	13	13	12	...	28	206	304	480	244	117	66
31....	14	...	13	12	...	33	...	289	...	219	109	...
Total	540	411	430	418	347	475	2992	8270	12834	9006	4861	2770
Mean.	17.4	13.7	13.9	13.5	12.4	15.3	99.7	267	428	291	157	92.3
Max..	33	19	21	19	17	33	233	410	550	381	251	111
Min...	9	8	8	10	9	9	33	142	265	210	109	66
Acre-ft.	1070	815	855	830	689	941	5930	16400	25500	17900	9650	5490

Discharge of St. Vrain Creek at Lyons for Year Ending Sept. 30, 1928.
Drainage Area, 226 Square Miles. Altitude, 5349 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	57	29	20	17	14	12	18	143	748	498	199	57
2....	57	26	22	18	14	14	38	218	685	456	186	56
3....	51	26	23	18	14	10	62	236	685	442	192	56
4....	45	25	24	18	14	5	71	268	522	388	195	80
5....	39	24	27	18	16	4	56	276	416	404	199	80
6....	32	22	25	18	16	3	46	260	344	429	176	78
7....	27	22	23	18	15	3	26	253	380	429	166	75
8....	25	21	23	17	16	3	27	284	408	384	157	73
9....	22	21	23	17	15	3	40	332	400	360	149	78
10....	20	21	23	16	18	3	42	380	372	372	146	75
11....	20	21	26	16	17	4	38	336	384	368	152	73
12....	20	21	29	16	16	6	36	268	348	320	146	75
13....	20	21	26	18	14	6	29	218	280	348	140	48
14....	21	20	26	16	17	5	23	570	368	392	138	42
15....	21	18	25	16	14	5	33	610	332	376	138	40
16....	20	16	27	16	15	6	18	595	388	368	140	36
17....	21	14	28	15	14	6	13	550	465	433	195	36
18....	22	13	29	16	14	5	17	531	456	380	192	36
19....	22	12	23	14	15	8	13	498	404	404	176	38
20....	22	11	16	13	15	14	12	474	372	292	166	45
21....	23	10	26	14	17	21	16	460	384	360	173	56
22....	23	9	20	14	14	29	14	452	429	353	132	48
23....	24	10	19	15	14	30	19	488	442	346	124	44
24....	23	12	23	12	14	23	26	526	456	300	121	39
25....	23	14	18	14	15	32	38	580	465	268	113	36
26....	23	14	18	13	14	25	39	675	442	256	100	42
27....	24	16	17	12	12	25	54	776	465	256	96	27
28....	25	17	16	14	12	25	84	875	555	253	80	42
29....	27	18	15	14	10	19	110	941	665	268	73	50
30....	27	18	16	16	...	17	113	892	575	253	58	42
31....	29	...	16	15	...	16	...	875	...	218	54	...
Total	855	542	692	484	425	387	1171	14840	13635	10974	4472	1603
Mean.	27.6	18.1	22.3	15.6	14.7	12.5	39.0	479	454	354	144	53.4
Max..	57	29	29	18	18	32	113	941	748	498	199	80
Min...	20	9	15	12	10	3	12	143	280	218	54	27
Acre-ft.	1700	1080	1370	959	846	769	2320	29500	27000	21800	8850	3180

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

Discharge of North St. Vrain near Allen's Park for Year Ending Sept. 30, 1927.
Drainage Area, 33 Square Miles. Altitude, 8,250 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	13	11	...	7.0	6.4	6.7	9.8	45	103	210	130	54
2	15	18	...	7.5	6.4	6.9	9.6	50	132	210	149	50
3	18	19	...	7.5	6.2	6.7	8.9	49	143	220	138	51
4	17	25	...	7.5	6.4	6.9	9.6	49	122	222	117	50
5	15	14	...	8.0	6.7	7.5	10	45	136	227	105	46
6	17	13	...	7.8	7.3	7.8	10	41	158	208	113	45
7	14	13	...	7.8	7.8	7.3	10	60	220	187	134	45
8	13	14	...	7.8	7.1	6.9	10	59	256	175	140	40
9	18	14	...	7.6	6.7	7.1	12	42	254	180	143	41
10	15	25	...	7.8	8.9	6.9	12	40	254	189	122	45
11	13	16	...	7.5	7.8	7.8	12	37	246	180	113	42
12	13	15	...	7.0	6.7	7.1	11	37	274	173	101	38
13	13	14	...	6.5	6.2	7.8	12	41	234	180	95	42
14	12	14	...	6.7	7.3	8.2	10	52	222	164	91	42
15	11	13	...	6.4	6.2	7.8	10	66	246	147	85	36
16	11	14	...	6.9	6.2	6.7	11	109	220	145	78	34
17	10	14	...	6.9	6.4	6.9	12	153	269	138	71	34
18	10	14	...	7.1	6.9	6.4	12	166	329	134	64	32
19	9	14	...	6.9	7.3	6.7	11	126	314	130	58	30
20	10	14	...	6.4	10	8.4	10	130	306	126	64	29
21	9	15	...	6.7	6.7	7.1	10	155	284	124	60	28
22	8	15	...	6.4	6.4	6.0	11	201	246	153	59	28
23	9	15	...	6.9	6.7	6.7	14	162	259	155	56	29
24	8	15	...	6.7	7.5	7.1	17	124	299	169	55	30
25	8	15	...	6.9	7.1	6.2	25	120	299	143	59	33
26	8	13	...	6.7	6.9	7.2	31	149	329	132	68	34
27	8	13	...	7.1	7.1	7.5	42	140	363	128	70	34
28	8	13	...	7.3	8.0	8.2	42	149	379	155	76	33
29	7	13	...	7.1	...	13	38	147	350	171	70	30
30	7	13	...	6.7	...	10	39	109	289	153	66	32
31	10	...	...	8.9	...	7.8	...	101	...	140	62	...
Total	357	448	...	222	197.3	230.3	481.9	2954	7535	5168	2812	1137
Mean.	11.5	14.9	8.0	7.16	7.05	7.43	16.1	95.3	251	167	90.7	37.9
Max..	18	25	...	8.9	10	13	42	201	379	227	149	54
Min...	7	11	...	6.4	6.2	6.0	8.9	37	103	124	55	28
Acre-ft.	707	887	492	440	392	457	958	5860	14900	10300	5580	2260

Discharge of North St. Vrain near Allen's Park for Year Ending Sept. 30, 1928.
Drainage Area, 33 Square Miles. Altitude, 8,250 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	31	19	...	...	...	8	39	353	337	128	29
2	28	16	...	...	...	9	55	353	324	115	28
3	29	18	...	...	...	9	44	306	296	107	28
4	28	15	...	...	...	9	37	232	292	105	27
5	29	15	...	...	...	9	37	196	296	93	26
6	29	15	...	...	...	8	41	194	292	87	28
7	28	15	...	...	...	10	54	218	264	85	25
8	26	15	...	...	...	9	87	232	242	76	26
9	25	14	...	...	...	8	99	230	234	71	29
10	22	13	...	...	...	11	117	215	234	73	29
11	20	13	...	...	...	8	71	215	232	71	32
12	25	13	...	...	...	8	64	187	196	70	29
13	23	12	...	...	...	7	59	160	213	65	28
14	20	12	...	...	...	9	56	164	232	66	25
15	20	12	...	...	...	7	56	162	208	65	22
16	20	13	...	...	...	7	58	225	208	68	24
17	21	13	...	...	...	7	54	266	249	66	25
18	22	12	...	...	...	7	55	240	218	62	25
19	22	12	...	...	...	6	59	191	237	59	27
20	22	12	...	...	...	7	68	171	222	56	31
21	22	12	...	...	...	9	91	175	201	55	30
22	22	12	...	...	...	9	113	218	210	55	29
23	21	13	...	...	...	9	149	232	189	56	26
24	20	11	...	...	...	9	153	242	187	51	25
25	20	11	...	...	...	10	191	259	158	49	25
26	20	11	...	...	...	10	266	282	140	44	25
27	20	11	...	...	...	12	299	319	140	44	25
28	19	11	...	...	...	22	397	337	136	39	35
29	19	12	...	...	...	22	420	381	149	34	29
30	21	18	...	...	...	22	433	348	153	30	27
31	22	...	...	...	...	...	105	...	136	27	...
Total	716	401	...	...	...	297	1127	7309	6825	2072	819
Mean	23.1	13.4	...	...	...	9.9	133	244	220	66.8	27.3
Max..	31	19	...	...	...	22	433	381	337	128	35
Min...	19	11	...	...	...	6	37	160	136	27	22
Acre-ft.	1420	797	...	...	...	589	8180	11500	13500	1110	1620

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

Discharge of North Fork St. Vrain Creek at Longmont Dam for Year Ending Sept. 30, 1927.
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....	31	27	10	12	9	9	16	132	181	251	191	74
2....	33	24	10	12	10	10	16	151	194	239	191	69
3....	38	28	10	12	11	9	20	151	229	242	173	60
4....	35	23	10	12	9	9	20	142	223	248	140	56
5....	34	27	10	14	10	10	22	136	197	234	129	55
6....	35	23	9	16	10	10	24	129	173	242	138	53
7....	32	22	12	16	10	9	26	151	220	217	181	55
8....	30	21	13	17	11	9	28	170	268	208	186	58
9....	40	16	9	16	10	10	25	134	277	197	188	56
10....	40	21	9	12	12	10	32	121	291	223	149	51
11....	35	20	12	14	11	11	34	108	295	208	132	50
12....	31	19	13	13	10	10	28	112	340	191	125	47
13....	31	18	10	10	9	11	24	112	298	208	123	52
14....	29	13	7	10	10	11	24	132	298	197	119	50
15....	28	13	6	9	9	11	28	140	284	181	113	42
16....	28	16	10	10	9	10	26	178	268	168	106	36
17....	28	16	15	10	9	14	50	232	328	165	97	38
18....	28	14	17	10	10	14	54	252	347	151	92	42
19....	27	12	17	10	10	12	63	223	332	158	92	43
20....	27	16	15	8	12	12	58	229	316	149	102	38
21....	25	15	14	9	9	11	47	251	320	142	95	36
22....	25	12	13	8	9	11	49	274	277	181	90	38
23....	28	12	9	9	7	52	52	288	271	170	97	49
24....	24	13	13	9	10	8	49	254	309	214	97	43
25....	25	13	15	9	9	10	73	232	328	186	87	51
26....	24	11	12	9	9	11	92	208	340	165	84	56
27....	23	12	11	9	9	14	115	191	359	163	76	49
28....	22	11	11	9	10	13	132	173	413	208	85	40
29....	25	10	11	10	...	14	129	160	380	264	88	40
30....	20	11	11	10	...	18	125	151	359	223	88	46
31....	30	...	11	11	...	19	...	170	...	197	88	...
Total	911	509	358	345	275	347	1481	5486	8715	6210	3742	1473
Mean.	29.4	17.0	11.5	11.1	9.82	11.2	49.4	177	290	200	121	49.1
Max..	40	28	...	...	...	...	132	288	413	264	191	74
Min...	20	...	...	...	...	...	16	108	173	142	76	36
A.-Ft.	1810	1010	707	682	545	689	2940	10900	17300	12300	7440	2920

Discharge of North Fork St. Vrain Creek at Longmont Dam for Year Ending Sept. 30, 1928.
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....	45	35	28	18	14	13	33	125	604	374	150	50
2....	44	32	28	18	14	12	36	174	589	336	132	49
3....	46	33	28	17	13	13	41	190	574	347	125	46
4....	45	41	28	17	14	13	40	196	284	332	123	44
5....	46	40	28	17	15	13	26	202	252	344	128	45
6....	47	37	24	17	14	14	23	199	321	336	130	45
7....	47	34	24	16	14	12	34	212	416	336	113	44
8....	45	32	24	16	13	11	49	252	374	321	106	44
9....	36	31	24	16	12	11	40	321	347	245	106	43
10....	34	31	24	16	12	11	30	416	336	255	112	42
11....	33	30	22	16	12	11	33	374	313	202	106	45
12....	30	30	22	16	12	12	33	355	287	209	106	38
13....	41	33	22	16	12	12	34	317	262	215	102	35
14....	36	32	22	16	12	12	34	438	255	255	102	27
15....	35	32	22	15	13	9	34	416	262	252	98	32
16....	36	34	20	16	13	14	35	387	328	238	106	29
17....	34	34	20	15	13	12	40	336	374	291	108	30
18....	32	31	20	15	13	11	44	317	366	252	95	32
19....	34	28	20	13	13	14	44	298	351	273	88	33
20....	36	25	20	14	13	16	47	298	252	266	80	43
21....	36	25	20	14	13	24	55	291	252	255	70	41
22....	35	28	18	14	13	32	63	306	284	262	74	36
23....	32	28	18	14	13	41	56	321	298	238	76	32
24....	32	28	18	13	13	38	64	416	313	235	74	31
25....	33	28	18	13	13	36	66	460	328	193	66	32
26....	34	30	18	11	13	41	70	516	355	179	63	30
27....	34	30	18	12	14	38	81	579	355	179	63	28
28....	36	30	18	12	13	33	93	667	363	179	57	43
29....	36	30	18	13	13	30	100	699	460	176	53	36
30....	35	30	18	13	...	32	102	705	415	206	50	32
31....	34	...	18	13	...	33	683	...	179	50	...	...
Total	1159	942	670	462	379	624	1480	11466	10571	7960	2912	1147
Mean.	37.4	31.4	21.6	14.9	13.1	20.1	49.3	370	352	257	93.9	38.2
Max..	47	41	...	...	15	41	102	705	604	374	150	50
Min...	30	25	...	11	12	9	23	125	252	176	50	28
Acre-ft.	2300	1870	1330	916	754	1240	2920	22800	20900	15800	5770	2270

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

Discharge of Middle St. Vrain near Allen's Park for Year Ending Sept. 30, 1927.
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....	9	6	....	4.5	4.9	4.9	6.6	7.0	119	116	79	30
2....	10	6	....	4.5	4.9	5.1	7.1	7.4	127	117	93	29
3....	12	6	....	4.5	4.9	4.9	8.0	7.5	124	126	85	30
4....	9	6	....	4.8	4.9	4.9	9.0	7.9	116	124	76	29
5....	8	6	....	5.0	4.9	4.9	8.2	7.6	126	134	68	28
6....	9	6	....	4.8	4.9	4.9	9.5	7.6	129	124	68	23
7....	8	5	....	4.6	4.8	4.8	14	8.4	142	113	80	25
8....	6	4	....	4.5	4.9	5.3	12	8.5	144	105	89	24
9....	13	4	....	4.5	4.9	5.5	12	7.2	142	110	85	21
10....	12	5	....	4.5	4.6	5.5	13	6.8	139	119	71	20
11....	10	4	....	4.5	4.9	4.8	15	6.4	136	103	65	23
12....	10	4	....	4.4	4.8	4.9	15	6.4	133	99	59	24
13....	9	5	....	3.9	4.8	5.1	14	6.4	124	98	54	22
14....	8	5	....	4.2	4.9	6.2	16	8.0	129	93	56	25
15....	8	4	....	4.8	4.9	6.2	15	108	123	82	58	20
16....	6	4	....	4.4	4.9	5.7	16	122	144	81	51	19
17....	8	4	....	4.9	5.1	5.7	15	144	165	80	49	20
18....	6	5	....	5.1	5.1	5.1	17	155	153	81	42	21
19....	6	10	....	5.7	4.9	5.1	25	144	159	85	42	19
20....	6	7	....	4.9	4.9	5.1	22	148	153	85	46	18
21....	7	6	....	4.2	4.9	5.3	20	151	144	88	43	19
22....	6	6	....	4.2	5.5	5.3	20	150	134	94	40	18
23....	7	7	....	4.2	5.7	5.5	26	142	138	100	41	19
24....	6	7	....	4.2	5.3	5.7	29	133	142	110	41	18
25....	6	7	....	4.2	5.1	5.5	34	129	144	102	40	21
26....	6	6	....	4.2	4.9	5.3	46	134	151	90	41	20
27....	5	6	....	4.6	4.9	5.5	57	129	153	96	42	19
28....	5	6	....	4.6	4.8	5.7	62	133	158	112	48	19
29....	5	6	....	4.9	....	6.6	56	132	161	112	42	16
30....	4	6	....	4.8	....	9.0	59	119	151	98	38	16
31....	7	....	....	4.6	....	8.2	....	119	....	82	36	....
Total	237	169	....	141.7	138.4	172.2	678.4	3323	4203	3159	1768	655
Mean.	7.65	5.63	5.0	4.57	4.94	5.55	22.6	107	140	102	57.0	21.8
Max.	13	10	....	5.7	5.7	9.0	62	155	165	134	93	30
Min.	4	4	....	3.9	4.4	4.8	6.6	64	116	80	36	16
Acre-ft.	470	335	307	281	274	341	1340	6580	8320	6270	3500	1300

Discharge of Middle St. Vrain near Allen's Park for Year Ending Sept. 30, 1928.
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....	18	15	....	4.5	4.8	13	17	210	159	72	16	16
2....	14	14	....	4.5	4.8	14	59	204	155	64	16	16
3....	15	15	....	4.5	4.8	14	52	191	152	60	15	15
4....	16	13	....	4.0	4.8	13	53	148	145	59	14	14
5....	16	12	....	3.6	4.8	11	60	130	143	53	14	14
6....	16	12	....	3.2	4.8	11	62	137	143	52	14	14
7....	15	12	....	4.9	4.8	11	66	147	135	50	14	14
8....	13	11	....	4.9	4.9	10	93	150	122	48	15	15
9....	13	10	....	4.9	4.8	11	118	147	119	48	17	15
10....	12	9	....	4.8	4.9	12	154	143	122	49	15	15
11....	12	6	....	4.8	5.1	13	135	143	116	53	15	15
12....	14	12	....	4.9	5.0	11	119	127	100	53	14	14
13....	14	10	....	4.6	4.4	11	100	108	119	50	12	12
14....	13	8	....	5.3	4.8	12	105	113	126	50	12	12
15....	12	9	....	4.8	5.3	11	114	116	113	48	12	12
16....	12	12	....	4.6	5.3	12	124	148	118	50	11	11
17....	13	12	....	4.6	5.3	13	118	162	134	51	11	11
18....	13	11	....	4.7	5.3	14	113	150	114	50	12	12
19....	13	11	....	4.8	5.3	13	110	114	127	47	12	12
20....	12	10	....	4.8	5.6	13	111	102	116	44	14	14
21....	12	10	....	4.8	6.4	15	121	108	110	41	13	13
22....	12	10	....	4.8	8.5	14	142	134	111	43	13	13
23....	12	9	....	4.9	9.6	17	164	142	100	40	12	12
24....	11	10	....	4.7	9.0	19	185	142	89	33	11	11
25....	11	12	....	4.6	11	21	189	148	75	31	11	11
26....	12	10	....	4.2	12	20	226	154	70	29	10	10
27....	12	10	....	4.6	9.2	23	945	162	75	26	10	10
28....	11	10	....	4.6	9.0	31	238	168	76	22	13	13
29....	11	10	....	4.8	9.0	23	235	179	85	19	12	12
30....	12	10	....	4.9	9.2	35	231	166	87	17	12	12
31....	13	....	....	....	9.6	294	....	78	16	....	....	....
Total	405	325	....	133.7	202.1	171	1113	1292	3534	1368	395	....
Mean.	13.1	10.8	7	6	4.61	6.52	15.7	133	146	114	44.1	13.1
Max.	18	15	....	....	5.3	19	35	245	210	159	72	17
Min.	11	6	....	....	3.2	4.4	10	47	102	70	16	10
Acre-ft.	806	643	430	269	265	401	934	8180	8690	7010	2710	730

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

STATE ENGINEER, COLORADO

113

Discharge of St. Vrain Creek at Mouth for Year Ending Sept. 30, 1927.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	90	123	350	63	326	328	101
2....	100	121	296	62	188	328	102
3....	117	104	285	59	150	338	101
4....	100	95	260	59	103	371	112
5....	92	89	241	234	100	380	120
6....	89	97	234	225	142	350	127
7....	84	97	241	180	60	359	199
8....	84	89	285	142	56	355	203
9....	83	83	584	112	56	495	213
10....	86	87	260	117	65	315	219
11....	97	113	350	137	87	384	228
12....	90	244	271	257	92	320	211
13....	101	285	228	363	93	390	200
14....	103	244	197	406	177	290	208
15....	109	254	212	425	169	738	195
16....	117	299	197	367	133	367	121
17....	100	319	215	260	158	266	111
18....	100	289	292	244	160	222	116
19....	119	274	334	267	128	193	116
20....	109	292	203	271	135	166	122
21....	98	247	133	247	125	151	116
22....	137	234	111	257	150	141	111
23....	140	244	93	274	228	115	115
24....	89	142	278	70	212	260	107
25....	93	133	247	63	152	278	99
26....	79	121	257	52	254	222	101
27....	76	105	322	50	363	195	195
28....	84	93	363	50	406	272	206
29....	87	393	50	495	1000	122	198
30....	93	376	60	452	726	104	193
31....	109	.....	66	.....	456	97	...
Total	3227	6562	6336	7449	6406	8324	4673
Mean.	104	219	204	248	207	269	156
Max..	142	393	584	495	1000	738	228
Min..	83	83	50	62	56	97	101
Acre-ft.	6400	13000	12500	14800	12700	16500	9280

Discharge of St. Vrain Creek at Mouth for Year Ending Sept. 30, 1928.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	234	112	108	112	112	84	94	334	1340	578	270	96
2....	244	110	145	112	104	104	88	318	1170	408	249	96
3....	206	110	178	122	104	130	89	450	1440	302	334	98
4....	215	112	175	124	124	112	108	417	1220	249	431	97
5....	197	113	136	124	120	107	113	385	1320	232	286	86
6....	188	124	107	128	113	105	110	350	955	220	249	85
7....	200	126	107	136	98	112	105	246	678	220	198	84
8....	206	115	105	140	99	113	101	302	551	213	177	82
9....	191	112	104	143	102	108	95	350	551	207	122	143
10....	175	110	113	145	95	104	82	595	741	174	85	174
11....	170	107	113	145	89	101	88	1500	777	145	76	160
12....	145	110	110	143	85	94	82	1460	666	120	98	145
13....	152	112	108	140	80	89	74	1070	495	102	91	140
14....	150	110	110	145	83	95	79	890	310	122	96	138
15....	150	105	107	145	75	110	78	1630	213	154	100	136
16....	138	105	105	130	70	126	73	1630	174	177	115	129
17....	126	113	107	132	73	140	64	1550	189	171	138	143
18....	116	115	108	130	73	140	58	1420	520	223	154	138
19....	115	122	107	124	74	138	55	1450	650	226	157	138
20....	112	122	107	126	74	143	56	1590	431	274	151	79
21....	108	120	105	130	75	148	70	1590	298	322	143	74
22....	108	122	102	130	77	152	78	1550	290	294	131	73
23....	113	132	101	128	70	150	73	1470	422	350	127	72
24....	110	128	101	126	69	150	79	1420	440	431	127	64
25....	107	116	105	122	70	150	68	1420	455	431	131	64
26....	107	126	105	118	88	116	90	1590	480	306	136	58
27....	104	122	106	116	88	112	127	1680	495	274	131	55
28....	102	115	112	118	88	110	198	1850	495	260	118	55
29....	110	124	113	113	88	110	256	1890	694	460	109	67
30....	118	130	115	105	...	107	294	1810	922	412	97	64
31....	112	...	112	94	...	102	...	1570	...	330	96	...
Total	4629	3500	3537	3346	2560	3669	3025	35777	19382	8387	4993	3033
Mean.	149	117	114	127	88.3	118	101	1150	646	271	159	101
Max..	244	132	178	145	124	157	291	1890	1440	578	431	174
Min..	102	105	101	94	69	84	55	246	174	102	76	55
Acre-ft.	9160	6960	7010	7810	5080	7260	6010	70700	38400	16700	9780	6010

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

Discharge of Left Hand Creek at Mouth for Year Ending Sept. 30, 1927.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	7	5	64	5	21	36	7
2	7	6	72	9	6	45	5
3	5	7	67	4	7	59	6
4	5	7	61	9	8	50	8
5	6	8	56	20	6	41	8
6	5	6	52	12	6	37	7
7	4	6	57	15	6	46	8
8	5	9	76	14	6	49	6
9	6	11	57	9	6	65	6
10	4	13	54	8	10	46	5
11	4	24	52	8	7	33	4
12	7	26	46	32	10	25	4
13	3	21	44	27	8	23	5
14	3	19	52	26	12	18	4
15	3	19	58	24	10	15	4
16	3	20	58	21	14	14	5
17	2	24	52	20	20	11	7
18	1	32	62	32	11	6	6
19	5	39	38	44	12	8	6
20	3	44	24	49	12	8	4
21	3	36	20	53	12	11	5
22	7	36	10	48	19	8	6
23	7	39	14	41	24	8	7
24	5	40	7	37	28	7	8
25	6	36	6	42	24	9	8
26	6	51	6	68	21	7	8
27	4	68	4	80	20	11	7
28	3	76	5	62	35	8	7
29	3	74	5	57	63	12	6
30	6	65	5	45	49	11	6
31	6	...	4	...	39	9	...
Total	144	867	1188	917	532	736	181
Mean	4.65	28.9	38.3	30.6	17.2	23.7	6.03
Max.	7	76	76	80	63	65	8
Min.	1	5	4	4	6	6	4
Acre-ft.	286	1720	2360	1820	1060	1460	359

Discharge of Left Hand Creek at Mouth for Year Ending Sept. 30, 1928.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	...	8	5	6	5	5	4	41	94	35	28	4
2	...	10	5	6	5	7	4	4	55	32	24	5
3	...	8	5	10	5	6	4	6	78	29	53	5
4	...	8	6	8	5	7	4	6	85	26	33	5
5	...	7	8	9	5	6	3	4	83	16	28	6
6	...	7	7	8	6	5	3	4	77	73	10	23
7	...	8	7	8	6	6	4	6	78	68	10	24
8	...	8	7	10	6	7	3	6	72	67	9	22
9	...	7	8	10	6	6	3	5	109	61	6	10
10	...	6	6	10	6	6	4	7	188	67	6	8
11	...	6	6	8	6	6	4	6	190	68	8	10
12	...	8	7	8	6	7	3	6	174	50	10	10
13	...	6	6	8	6	8	4	6	152	37	10	10
14	...	6	8	5	8	8	4	6	190	35	14	7
15	...	7	7	8	3	9	14	6	234	34	13	6
16	...	6	9	6	3	8	4	5	232	34	14	6
17	...	5	8	6	4	8	6	6	223	45	19	8
18	...	6	8	6	6	8	5	6	212	63	20	8
19	...	6	9	6	9	6	4	6	190	41	28	5
20	...	5	7	6	9	3	5	6	183	37	36	8
21	...	7	6	6	9	5	5	8	177	38	31	8
22	...	8	6	9	4	4	7	7	176	48	38	6
23	...	8	7	6	10	3	4	6	168	59	39	8
24	...	8	6	12	6	5	6	6	156	56	36	6
25	...	8	6	12	8	4	9	151	52	28	8	6
26	...	7	6	5	12	4	3	12	144	39	24	9
27	...	7	5	5	12	3	4	14	147	35	24	5
28	...	7	4	5	15	3	4	19	140	23	31	4
29	...	6	6	4	8	5	4	24	131	27	43	6
30	...	6	8	4	5	...	1	34	125	24	41	3
31	...	6	4	6	...	1	1	100	...	34	2	...
Total	216	199	212	222	173	135	250	4461	1634	720	401	159
Mean	6.97	6.63	6.84	7.16	5.97	4.35	8.33	144	54.5	23.2	12.9	5.30
Max.	10	9	10	15	9	14	34	234	97	43	53	8
Min.	5	4	4	3	3	3	4	41	23	6	2	4
Acre-ft.	429	395	421	440	343	267	496	8850	3240	1430	793	315

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, 1927.
Drainage Area, 307 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1 . . .	62	33	41	. . . .	. . . .	23	54	193	352	599	299	116
2 . . .	62	33	41	. . . .	. . . .	23	32	234	358	558	320	107
3 . . .	64	44	41	. . . .	. . . .	23	39	246	430	562	348	104
4 . . .	67	53	42	. . . .	. . . .	23	46	231	383	582	320	99
5 . . .	63	53	41	. . . .	. . . .	23	42	240	406	599	278	98
6 . . .	62	47	40	. . . .	. . . .	25	37	212	458	554	262	96
7 . . .	59	46	45	. . . .	. . . .	25	36	246	542	510	292	90
8 . . .	56	35	34	. . . .	. . . .	25	46	302	689	490	316	89
9 . . .	55	25	22	. . . .	. . . .	25	55	228	712	466	390	90
10 . . .	64	41	13	. . . .	18	25	50	207	770	617	288	97
11 . . .	66	46	13	. . . .	. . . .	22	49	188	761	558	252	108
12 . . .	62	41	13	. . . .	. . . .	22	78	190	833	470	234	110
13 . . .	61	41	13	. . . .	. . . .	22	62	195	770	450	222	113
14 . . .	59	41	13	. . . .	. . . .	22	58	237	644	454	212	117
15 . . .	57	22	13	. . . .	. . . .	22	54	288	716	394	212	115
16 . . .	55	24	28	. . . .	. . . .	20	55	402	658	362	202	94
17 . . .	52	20	28	. . . .	. . . .	20	60	558	635	352	186	87
18 . . .	52	20	28	. . . .	. . . .	20	72	644	838	338	177	90
19 . . .	54	20	28	. . . .	. . . .	20	88	570	882	341	179	94
20 . . .	51	20	28	. . . .	. . . .	20	83	554	806	327	179	89
21 . . .	50	20	30	. . . .	. . . .	29	69	622	797	338	173	85
22 . . .	49	35	30	. . . .	. . . .	29	76	694	684	422	169	80
23 . . .	48	49	30	. . . .	. . . .	29	77	644	671	406	171	88
24 . . .	46	42	30	. . . .	. . . .	29	83	494	806	390	160	92
25 . . .	43	44	30	. . . .	. . . .	29	91	426	842	376	151	99
26 . . .	45	27	30	. . . .	. . . .	37	115	474	842	316	160	117
27 . . .	46	24	28	. . . .	. . . .	36	146	486	905	292	160	110
28 . . .	46	27	30	. . . .	. . . .	25	173	502	923	334	169	105
29 . . .	44	41	33	. . . .	. . . .	26	175	502	928	422	160	93
30 . . .	44	43	27	. . . .	. . . .	35	175	390	824	398	135	92
31 . . .	48	. . .	30	. . . .	. . . .	54	. . . .	355	. . . .	341	124	. . .
Total	1692	1057	893	. . . .	. . . .	808	2276	11754	20865	13618	6900	2964
Mean.	54.6	35.2	28.8	22	. . . .	20	26.1	75.9	379	696	439	223
Max..	67	53	45	. . . .	. . . .	54	175	694	928	617	348	117
Min..	43	. . .	. . .	. . . .	. . . .	32	188	352	292	124	80	
Acre-ft.	3360	2090	1770	1350	1110	1600	4520	23300	41400	27000	13700	5880

Discharge of Big Thompson River at Canon Near Drake for Year Ending Sept. 30, 1928.
Drainage Area, 307 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1 . . .	95	65	40	32	27	24	41	130	1310	967	400	112
2 . . .	98	52	40	33	27	23	43	228	1250	885	377	106
3 . . .	95	52	38	32	27	22	45	243	1180	822	343	96
4 . . .	100	40	38	31	28	22	45	209	901	758	311	86
5 . . .	97	60	38	33	28	26	39	222	758	797	274	81
6 . . .	98	56	48	33	28	26	40	214	701	807	252	76
7 . . .	102	58	33	32	27	26	34	255	772	758	228	73
8 . . .	95	57	25	30	26	25	36	336	797	656	222	73
9 . . .	88	56	18	31	25	25	32	498	848	643	217	78
10 . . .	86	52	19	31	25	26	41	724	772	647	217	82
11 . . .	80	45	36	33	26	25	38	634	807	626	222	87
12 . . .	69	41	42	33	26	28	36	510	715	592	222	82
13 . . .	76	52	39	33	25	26	34	482	592	643	222	73
14 . . .	74	50	39	32	24	26	31	605	634	762	212	65
15 . . .	74	43	33	31	24	23	37	575	592	665	206	58
16 . . .	73	37	30	30	24	23	38	550	626	643	265	55
17 . . .	74	57	29	30	25	26	40	550	706	885	268	59
18 . . .	73	52	31	29	25	25	40	522	748	715	222	60
19 . . .	73	51	27	28	24	27	58	510	600	724	196	61
20 . . .	73	54	26	28	25	27	37	510	550	715	180	62
21 . . .	72	52	26	27	24	34	40	550	522	669	173	63
22 . . .	71	48	26	26	24	47	38	605	634	584	169	59
23 . . .	68	42	26	28	24	60	42	734	715	558	162	56
24 . . .	63	29	24	26	23	54	42	812	738	542	158	53
25 . . .	61	48	24	25	22	46	47	901	772	502	146	49
26 . . .	60	51	27	25	20	42	51	1110	848	442	133	47
27 . . .	59	50	28	24	23	53	53	1220	917	446	119	47
28 . . .	58	44	28	24	23	43	76	1500	995	458	116	49
29 . . .	63	44	29	24	24	41	98	1520	1100	474	113	47
30 . . .	64	42	30	27	. . . .	36	101	1500	1100	502	108	47
31 . . .	63	. . .	31	27	. . . .	35	. . . .	1540	. . . .	450	108	. . .
Total.	2395	1480	968	908	723	992	1353	20499	24200	20337	6561	2042
Mean.	77.3	49.3	31.2	29.3	24.9	32.0	45.1	661	807	656	212	63.1
Max..	102	65	48	33	28	60	101	1540	1310	967	400	112
Min..	58	29	18	24	20	22	31	130	522	442	108	47
Acre-ft.	4750	2930	1920	1800	1430	1970	2680	40600	48000	40300	13000	4050

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

Discharge of Big Thompson River at Mouth for Year Ending Sept. 30 1927.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	39	37	15	6	3	39	15
2	41	32	13	5	4	40	15
3	59	31	12	42	3	40	15
4	56	29	10	64	4	38	15
5	51	28	9	135	3	37	16
6	46	26	12	53	2	36	18
7	40	23	19	33	2	42	19
8	40	24	26	25	2	39	19
9	42	25	40	43	10	41	20
10	46	26	31	53	13	39	20
11	54	37	29	30	21	32	20
12	49	61	19	120	25	30	19
13	60	60	9	105	28	32	18
14	60	49	10	61	25	31	10
15	60	43	10	36	26	30	9
16	60	51	10	32	20	22	9
17	57	54	10	29	15	20	10
18	59	51	9	29	15	15	8
19	61	45	4	43	17	12	6
20	63	59	3	37	16	10	7
21	60	64	2	28	15	7	10
22	63	56	4	32	15	4	14
23	64	53	13	19	22	8	9
24	64	53	5	6	21	9	9
25	64	49	3	3	15	7	27
26	67	45	1	2	9	9	42
27	64	43	4	2	5	11	38
28	63	46	6	4	21	7	38
29	61	51	6	10	145	18	33
30	54	32	3	4	92	27	34
31	46	....	3	....	48	20	....
Total	1713	1283	350	1091	662	752	542
Mean.	55.3	42.8	11.3	36.4	21.4	24.3	18.1
Max.	67	64	40	135	145	42	42
Min.	39	23	1	2	2	4	6
Acre-ft.	3400	2550	695	2170	1820	1490	1080

Discharge of Big Thompson River at Mouth for Year Ending Sept. 30, 1928.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	75	78	64	54	29	48	45	7	111	245	64	29
2	97	77	61	52	25	46	43	3	41	202	52	34
3	95	72	63	53	22	46	41	8	53	176	67	30
4	95	73	60	54	23	45	38	18	214	119	77	28
5	93	75	59	50	21	43	31	20	238	57	69	28
6	88	73	59	50	20	44	31	33	128	32	57	27
7	98	72	36	53	20	45	30	77	63	33	19	27
8	100	72	45	50	20	43	30	53	125	31	18	26
9	98	67	45	48	20	41	27	54	169	21	18	26
10	93	66	50	50	23	46	26	77	324	15	18	26
11	97	66	50	54	27	44	15	363	324	22	19	26
12	93	67	57	29	43	8	351	169	20	27	26	25
13	95	67	66	57	29	41	6	80	67	18	26	25
14	97	67	64	59	29	41	6	63	22	54	24	27
15	98	67	57	57	30	49	7	81	38	146	20	32
16	93	73	53	53	29	53	7	57	30	67	22	36
17	90	72	53	40	33	53	6	37	31	83	24	35
18	88	77	53	37	37	53	6	33	97	123	28	32
19	86	81	69	32	40	52	5	40	70	70	29	28
20	82	72	56	38	35	50	5	39	26	178	29	27
21	83	66	53	41	39	53	6	72	23	173	28	27
22	86	66	50	41	41	52	6	44	33	158	26	27
23	92	60	50	40	40	52	6	40	75	106	25	32
24	88	59	56	38	41	52	4	37	64	100	25	33
25	86	59	56	37	46	52	4	35	50	108	28	33
26	85	61	52	35	45	48	4	30	50	81	27	33
27	83	61	53	35	46	45	8	36	61	50	25	33
28	85	60	53	36	45	45	8	43	52	45	25	31
29	90	61	50	35	48	44	13	130	162	158	24	33
30	86	72	52	31	....	45	13	140	263	106	23	32
31	81	....	56	31	....	46	....	128	....	90	25	....
Total	2797	2059	1711	1398	932	1460	485	2229	3183	2886	988	889
Mean.	90.2	68.6	55.2	45.1	32.1	47.1	16.2	71.9	106	93.1	31.9	29.6
Max.	100	81	69	59	48	53	45	363	324	245	69	36
Min.	75	59	36	31	20	41	4	3	23	15	18	25
Acre-ft.	5550	4080	3390	2770	1850	2900	964	4420	6310	5720	1960	1760

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

Discharge of Cache La Poudre River at Mouth of Canon for Year Ending Sept. 30, 1927.
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....	61	42	45	....	49	30	54	220	1220	1320	418	242
2....	59	46	46	....	49	30	57	350	1200	1180	402	235
3....	56	46	45	....	49	30	59	365	1310	1170	434	250
4....	56	41	46	....	49	30	68	375	1210	1200	391	250
5....	57	37	45	53	49	30	56	355	1180	1360	360	284
6....	54	45	45	....	49	30	52	360	1320	1100	316	246
7....	56	45	45	....	49	30	56	412	1500	1020	360	263
8....	59	48	44	....	49	30	61	471	1910	968	418	280
9....	65	35	23	....	49	30	61	380	2080	851	471	289
10....	65	29	41	....	49	30	63	380	2080	1080	375	316
11....	72	48	52	....	45	22	92	380	2010	1000	321	380
12....	65	46	52	....	45	22	70	258	1820	842	321	418
13....	59	45	52	....	45	22	85	224	1720	800	316	385
14....	52	45	52	....	45	22	83	262	1690	859	298	418
15....	48	42	52	....	45	22	72	330	1990	760	298	380
16....	48	34	50	....	45	22	79	490	1600	681	307	350
17....	48	99	50	....	45	22	102	800	1550	650	289	312
18....	46	34	55	....	45	32	136	1270	2080	605	250	330
19....	46	48	55	....	45	45	144	1260	2130	591	262	321
20....	46	61	50	....	45	44	141	1410	1840	605	266	280
21....	44	61	50	....	36	46	124	1520	1880	605	270	203
22....	42	59	50	....	36	45	116	1920	1480	634	250	136
23....	46	58	50	....	36	39	119	1940	1500	634	246	127
24....	46	56	50	....	36	39	174	1440	1800	484	235	138
25....	45	54	50	....	36	41	203	1300	1870	375	231	156
26....	41	52	50	....	36	42	242	1480	1890	325	242	184
27....	41	50	50	....	36	41	293	1400	1960	360	262	165
28....	37	48	50	....	36	42	335	1400	1820	605	250	138
29....	45	42	50	....	45	262	1420	1930	598	246	127	
30....	46	45	50	....	48	206	1120	1690	665	238	124	
31....	39	....	50	....	51	....	1090	....	509	242	....
Total	1590	1441	1495	....	1228	1054	3665	26382	51260	24436	93585	7727
Mean.	51.3	48.0	48.2	45	43.9	34.0	122	851	1710	788	309	258
Max..	72	99	....	....	....	....	335	1940	2130	1360	471	418
Min..	37	29	....	....	....	....	52	220	1180	325	231	124
Acre-ft.	3150	2860	2960	2770	2440	2090	7260	52300	102000	48500	19000	15400

Discharge of Cache La Poudre River at Mouth of Canon for Year Ending Sept. 30, 1928.
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....	141	65	46	....	....	50	74	253	3100	1740	564	301
2....	136	61	51	....	....	50	77	335	2850	1570	506	335
3....	122	44	52	....	....	50	88	412	2710	1400	494	406
4....	109	65	....	....	....	50	90	384	2050	1380	412	418
5....	111	63	....	....	....	50	77	362	1680	1530	395	384
6....	124	65	....	....	....	54	72	379	1690	1660	395	384
7....	119	63	....	....	....	54	66	452	1950	1500	368	429
8....	109	65	....	....	....	54	52	551	1960	1310	335	341
9....	99	61	....	....	....	54	49	846	1990	1210	316	330
10....	99	57	....	....	....	54	57	944	1660	1290	292	316
11....	97	57	....	....	....	58	63	1000	1730	1160	292	193
12....	85	56	....	....	....	58	59	708	1640	1080	278	164
13....	70	51	....	....	....	58	65	738	1470	1080	282	144
14....	88	52	....	....	....	58	54	664	1400	1160	257	126
15....	81	49	....	....	....	58	54	686	1350	1100	257	114
16....	79	37	....	....	....	62	63	649	1430	1070	240	115
17....	79	51	....	....	....	62	63	649	1650	1250	261	107
18....	81	51	....	....	....	62	70	649	1590	1100	257	107
19....	79	51	....	....	....	62	90	678	1290	1090	233	104
20....	77	54	45	....	....	62	114	693	1290	1100	213	102
21....	77	52	....	....	....	65	133	738	1210	978	261	97
22....	70	48	....	....	....	72	127	878	1380	919	306	97
23....	63	42	....	....	....	88	109	1100	1560	831	301	96
24....	66	31	....	....	....	99	109	1390	1560	831	311	102
25....	59	35	....	....	....	92	106	1760	1690	686	296	102
26....	51	57	....	....	....	88	162	2030	1860	627	261	100
27....	57	49	....	....	....	92	136	2210	1810	599	248	99
28....	57	49	48	....	....	92	174	3040	2160	754	301	95
29....	63	51	....	....	....	90	213	3240	2060	846	306	96
30....	68	42	....	....	....	90	230	3310	2000	716	261	102
31....	63	....	....	....	....	74	....	3360	....	664	292	....
Total	2679	1574	....	....	....	2062	2896	35088	53770	34231	9791	5906
Mean.	86.4	51.5	50	46	47	66.5	96.5	1130	1790	1100	316	197
Max..	141	65	....	....	....	99	230	3360	3100	1740	564	429
Min..	51	31	....	....	....	49	253	1210	627	213	95	
Acre-ft.	5310	3060	3070	2830	2700	4090	5740	69500	107000	67600	19400	11700

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

Discharge of Cache La Poudre River Near Mouth for Year Ending Sept. 30, 1927.
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 . . .	198	136	110	107	78	90	112	70	28	46	150	18
2 . . .	202	136	109	104	83	101	109	66	26	43	139	17
3 . . .	204	134	107	101	85	102	104	59	49	62	127	20
4 . . .	196	129	114	106	86	101	106	58	57	68	117	18
5 . . .	186	126	110	107	88	106	104	56	75	55	119	20
6 . . .	134	131	106	101	86	120	98	30	65	27	107	17
7 . . .	119	124	107	101	86	120	93	23	53	19	114	34
8 . . .	143	114	110	104	86	107	90	24	42	19	107	52
9 . . .	150	114	106	104	83	102	82	43	27	34	99	25
10 . . .	146	112	102	104	77	102	74	52	19	62	80	29
11 . . .	141	110	114	104	85	104	110	40	25	49	64	29
12 . . .	132	109	94	102	91	98	159	21	51	22	37	29
13 . . .	134	112	88	91	90	106	163	15	94	60	29	18
14 . . .	131	114	104	90	82	104	161	15	71	156	26	18
15 . . .	127	110	102	99	85	102	169	6	68	132	39	20
16 . . .	134	114	102	99	54	99	184	4	73	131	20	21
17 . . .	136	109	101	94	94	94	196	8	61	122	63	25
18 . . .	131	110	98	96	85	96	163	8	56	77	30	29
19 . . .	124	114	98	93	91	93	159	10	112	44	15	24
20 . . .	110	120	99	90	91	90	129	39	156	54	17	29
21 . . .	104	114	101	80	91	93	110	19	121	60	18	34
22 . . .	102	107	101	93	91	101	110	10	140	64	18	35
23 . . .	106	107	102	93	91	99	117	17	79	61	24	52
24 . . .	98	106	104	85	96	98	115	17	40	64	28	77
25 . . .	91	104	106	78	94	101	110	22	20	51	24	91
26 . . .	101	101	104	80	93	106	99	29	11	44	22	112
27 . . .	126	104	106	72	94	109	93	25	20	43	22	120
28 . . .	144	109	107	72	90	114	83	29	15	44	22	129
29 . . .	152	109	107	75	....	115	82	32	66	276	20	134
30 . . .	154	109	102	74	....	117	80	21	97	276	18	129
31 . . .	141	....	102	72	....	122	....	21	....	182	16	....
Total	4297	3448	3223	2871	2466	3212	3563	889	1817	2447	1731	1405
Mean	139	115	104	92.6	88.1	104	119	28.7	60.6	78.9	55.8	46.8
Max.	204	136	114	107	96	122	196	70	156	276	150	134
Min.	91	101	88	72	77	90	74	4	11	19	15	17
Acre-ft.	8550	6840	6400	5690	4890	6400	7080	1760	3610	4850	3420	2780

Discharge of Cache La Poudre at Mouth for Year Ending Sept. 30, 1928.
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 . . .	124	140	118	87	90	75	72	22	912	1280	93	22
2 . . .	148	138	118	87	90	74	68	25	702	1030	104	20
3 . . .	146	132	122	93	92	76	68	34	1180	801	134	28
4 . . .	144	130	118	94	94	74	71	46	1570	695	126	50
5 . . .	140	132	118	88	94	74	72	43	864	375	126	50
6 . . .	138	130	114	93	93	76	67	39	405	196	112	40
7 . . .	146	126	104	98	93	78	61	37	179	177	76	21
8 . . .	156	130	106	99	92	80	57	28	196	189	48	22
9 . . .	138	128	106	98	93	83	54	22	136	189	34	22
10 . . .	148	122	112	98	93	87	54	35	298	159	26	21
11 . . .	146	128	108	99	96	82	58	104	227	144	24	18
12 . . .	140	130	110	96	93	82	55	393	184	126	22	21
13 . . .	134	132	111	94	90	81	52	140	105	108	19	20
14 . . .	132	130	110	93	88	82	51	106	54	159	20	22
15 . . .	134	130	104	96	86	44	306	46	152	23	22	22
16 . . .	136	130	110	92	90	87	41	315	42	142	30	27
17 . . .	140	130	106	96	96	88	42	150	62	154	34	28
18 . . .	146	130	94	104	99	82	47	106	144	134	30	26
19 . . .	140	136	104	102	90	81	37	105	117	200	23	27
20 . . .	138	128	105	102	87	82	25	102	102	295	18	30
21 . . .	138	132	99	104	86	82	34	105	106	458	18	30
22 . . .	142	136	98	102	84	82	58	207	102	312	18	47
23 . . .	140	136	100	104	78	82	63	212	99	321	18	62
24 . . .	138	130	94	96	74	81	50	68	124	295	14	74
25 . . .	138	126	88	90	76	75	15	54	94	272	14	47
26 . . .	138	124	92	84	81	74	49	205	70	175	15	32
27 . . .	134	120	96	80	76	71	18	542	60	179	15	32
28 . . .	136	118	96	82	75	74	38	687	99	170	15	32
29 . . .	140	122	90	81	78	71	36	1130	725	178	15	30
30 . . .	138	126	92	82	....	74	35	1100	1120	315	15	30
31 . . .	140	....	86	84	....	74	....	1000	122	18	....	....
Total	4336	3882	3229	2892	2557	2456	1552	7468	10124	9802	1297	953
Mean	140	129	104	93.3	88.2	79.2	51.7	241	337	316	41.8	31.8
Max.	156	140	122	104	99	88	72	1130	1570	1280	134	74
Min.	124	118	86	80	74	71	25	22	42	108	14	18
Acre-ft.	8610	7680	6400	5740	5070	4870	3080	14800	20100	19400	2570	1890

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

STATE ENGINEER, COLORADO

119

Discharge of North Platte River Near Walden for Year Ending Sept. 30, 1927.
Drainage Area, 446 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	45	56	...	...	...	...	200	1200	589	860	196	88
2	51	59	...	...	...	...	210	1300	643	576	182	80
3	54	61	...	...	...	...	220	1270	697	562	204	80
4	60	59	...	...	...	...	320	1210	740	408	207	75
5	66	...	...	...	...	...	780	1150	815	328	174	78
6	64	...	...	...	...	...	1020	1130	895	270	194	79
7	62	...	...	...	...	...	1660	1420	1050	200	179	78
8	60	...	...	...	...	...	1660	1450	1250	350	177	79
9	61	...	...	...	...	...	500	1110	1240	194	124	82
10	71	...	...	...	...	...	359	1230	1270	159	114	82
11	78	...	...	...	...	...	350	1430	1060	142	106	84
12	78	...	...	...	...	...	345	1590	1160	124	102	85
13	72	...	...	...	...	...	340	1560	1450	106	96	82
14	64	...	...	...	...	...	350	1330	1360	108	101	82
15	58	...	...	...	...	...	390	1230	1200	128	102	82
16	56	...	...	...	...	...	440	1230	1010	154	96	79
17	55	...	...	...	...	...	510	1240	860	174	96	84
18	51	...	...	...	...	...	580	1080	900	218	101	96
19	47	...	...	...	...	...	785	584	1010	177	97	126
20	47	...	...	...	...	...	980	760	980	159	102	142
21	47	...	...	...	...	...	1030	790	1000	161	98	134
22	46	...	...	...	...	...	995	745	1020	177	94	122
23	48	...	...	...	...	...	1000	706	1010	210	104	111
24	50	...	...	...	...	...	1100	625	1040	238	94	113
25	50	...	...	...	...	...	...	557	...	223	94	...
26	51	...	...	...	...	...	22574	34927	31201	8235	4180	2699
27	52	...	...	...	...	...	752	1130	1040	266	135	90.0
28	52	...	...	...	...	...	...	1590	1450	860	207	142
29	55	...	...	...	...	...	...	557	589	106	94	74
30	60	...	...	...	...	...	44700	69500	61900	16400	8300	5360
31	58	...	...	...	...	...	...	...	...	...	...	...
Total	1769	...	...	...	...	...	...	...	...	...	...	...
Mean.	57.1	55	...	...	...	...	...	...	...	...	...	...
Max..	78	...	...	...	...	...	...	...	...	...	...	...
Min..	45	...	...	...	...	...	...	...	...	...	...	...
Acre-ft.	3510	3270	...	...	...	...	...	...	...	...	...	...

Discharge of North Platte River Near Walden for Year Ending Sept. 30, 1928.
Drainage Area, 446 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	126	120	...	...	...	...	420	940	1910	503	159	79
2	134	104	...	...	...	...	420	1120	1700	451	170	78
3	130	122	...	...	...	...	420	1230	1670	408	165	75
4	132	113	...	...	...	...	420	1150	1460	338	160	70
5	135	111	...	...	...	...	420	1090	1040	306	155	63
6	132	104	...	...	...	...	340	1060	815	276	145	60
7	122	104	...	...	...	...	310	1160	815	243	144	61
8	111	101	...	...	...	...	280	1300	965	199	144	62
9	104	...	...	...	...	...	250	1450	990	174	142	65
10	94	...	...	...	...	...	204	1640	1020	165	140	70
11	84	...	...	...	...	...	204	1580	1040	163	135	73
12	85	...	...	...	...	...	200	1520	915	152	125	72
13	90	...	...	...	...	...	200	1230	765	136	117	70
14	82	...	...	...	...	...	210	1260	602	144	110	74
15	85	...	...	...	...	...	220	1150	602	196	105	75
16	84	...	...	...	...	...	240	915	700	210	100	71
17	86	...	...	...	...	...	270	760	840	215	95	65
18	96	...	...	...	...	...	300	692	1040	218	95	62
19	97	...	...	...	...	...	290	670	865	235	90	60
20	96	...	...	...	...	...	290	670	580	226	85	58
21	97	...	...	...	...	...	290	715	475	212	85	60
22	99	...	...	...	...	...	300	800	500	226	82	65
23	92	...	...	...	...	...	340	940	602	235	80	60
24	84	...	...	...	...	...	420	1180	670	252	80	52
25	82	...	...	...	...	...	740	1400	670	226	80	48
26	84	...	...	...	...	...	602	1550	715	200	80	48
27	84	...	...	...	...	...	715	1640	765	200	75	47
28	86	...	...	...	...	...	915	1700	765	190	74	46
29	126	...	...	...	...	...	940	1700	670	184	75	48
30	119	...	...	...	...	...	915	1770	562	177	78	48
31	117	...	...	...	...	...	...	1840	...	170	85	...
Total	3175	...	...	...	...	...	12085	37822	26728	7230	3455	1885
Mean.	102	...	...	...	...	...	403	1220	891	233	111	62.8
Max..	135	...	...	...	...	...	940	1840	1910	503	170	79
Min..	82	...	...	...	...	...	200	670	475	136	74	48
Acre-ft.	6270	...	...	...	...	...	24000	75000	53000	14300	6820	3740

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

Discharge of North Platte River Near Northgate for Year Ending Sept. 30, 1927.
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....	116	129	....	....	....	....	....	2250	1020	2030	534	235
2....	129	....	....	....	....	....	....	2320	998	1310	474	228
3....	140	....	....	....	....	....	....	2430	1030	1040	486	222
4....	164	....	....	....	....	....	....	2280	1070	1030	515	215
5....	183	....	....	....	....	....	....	2040	1170	1230	521	208
6....	186	....	....	....	....	....	....	1850	1280	1150	491	202
7....	183	....	....	....	....	....	....	1730	1310	865	497	196
8....	173	....	....	....	....	....	....	2100	1420	712	486	196
9....	179	....	....	....	....	....	....	2000	1670	624	446	196
10....	190	....	....	....	....	....	....	1800	1990	829	402	200
11....	190	....	....	....	....	....	....	1840	2160	704	375	200
12....	183	....	....	....	....	....	....	1940	2380	584	355	193
13....	173	....	....	....	....	....	....	2040	2350	540	330	193
14....	164	....	....	....	....	....	....	1960	2300	497	335	200
15....	157	....	....	....	....	....	....	2000	2350	429	325	217
16....	154	....	....	....	....	....	....	2010	2250	385	320	210
17....	148	....	....	....	....	....	....	2180	2300	360	310	196
18....	145	....	....	....	....	....	....	2480	2400	350	295	179
19....	145	....	....	....	....	....	....	2710	2480	350	273	167
20....	142	....	....	....	....	....	....	2540	2640	360	269	151
21....	142	....	....	....	....	....	....	2350	2250	375	269	151
22....	140	....	....	....	....	....	....	2360	1970	400	257	154
23....	137	....	....	....	....	....	....	736	2430	1630	425	253
24....	134	....	....	....	....	....	....	874	2380	1440	450	238
25....	132	....	....	....	....	....	....	1270	1930	1520	491	234
26....	132	....	....	....	....	....	....	1760	1600	1610	474	253
27....	129	....	....	....	....	....	....	2070	1540	1620	463	261
28....	126	....	....	....	....	....	....	2220	1450	1760	474	261
29....	127	....	....	....	....	....	....	2270	1360	2010	591	254
30....	128	....	....	....	....	....	....	2120	1210	2250	631	248
31....	128	....	....	....	....	....	....	1090	....	578	242	....
Total	4699	....	....	....	....	....	....	62200	54628	20736	10809	6664
Mean.	152	125	100	120	150	220	1300	2010	1820	669	349	222
Max.	190	....	....	....	....	....	....	2710	2640	2030	534	412
Min.	116	....	....	....	....	....	....	1090	998	350	234	151
Acre-ft.	9350	7440	6150	7380	8330	13500	77400	124000	108000	41100	21500	13200

Discharge of North Platte River Near Northgate for Year Ending Sept. 30, 1928.
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....	300	....	....	....	....	....	....	1660	4810	1110	463	185
2....	325	....	....	....	....	....	....	1970	4850	1060	440	190
3....	335	....	....	....	....	....	....	2330	4900	1070	434	200
4....	340	....	....	....	....	....	....	1960	4060	1010	412	176
5....	338	....	....	....	....	....	....	1760	2870	903	446	165
6....	335	....	....	....	....	....	....	1660	2180	865	451	160
7....	335	....	....	....	....	....	....	1790	2030	820	446	158
8....	295	....	....	....	....	....	....	2060	2080	743	440	157
9....	277	....	....	....	....	....	....	2430	2100	660	424	156
10....	257	....	....	....	....	....	....	2820	2460	624	390	153
11....	242	....	....	....	....	....	....	2840	2400	604	355	151
12....	224	....	....	....	....	....	....	2680	2130	584	335	142
13....	220	....	....	....	....	....	....	2490	1790	578	345	140
14....	214	....	....	....	....	....	....	2660	1570	578	340	135
15....	216	....	....	....	....	....	....	2660	1420	667	330	129
16....	217	....	....	....	....	....	....	2250	1550	720	325	127
17....	217	....	....	....	....	....	....	1780	2220	720	315	125
18....	217	....	....	....	....	....	....	1480	2430	784	315	123
19....	217	....	....	....	....	....	922	1390	1890	784	310	122
20....	217	....	....	....	....	....	870	1370	1420	793	295	120
21....	217	....	....	....	....	....	840	1380	1220	784	277	116
22....	214	....	....	....	....	....	775	1440	1190	743	270	113
23....	214	....	....	....	....	....	740	1660	1180	725	250	110
24....	207	....	....	....	....	....	775	1960	1250	701	230	106
25....	200	....	....	....	....	....	1000	2410	1260	689	245	116
26....	200	....	....	....	....	....	1480	2890	1410	624	235	113
27....	200	....	....	....	....	....	1520	3500	1410	604	215	113
28....	210	....	....	....	....	....	1930	4190	1400	578	203	118
29....	285	....	....	....	....	....	2120	4270	1310	578	195	118
30....	340	....	....	....	....	....	1920	4310	1230	552	188	118
31....	360	....	....	....	....	....	4630	....	528	....	....	....
Total	7985	....	....	....	....	....	....	74680	64020	22783	10119	4155
Mean.	258	....	....	....	....	....	....	2410	2130	735	326	138
Max.	360	....	....	....	....	....	....	4630	4900	1110	463	200
Min.	200	....	....	....	....	....	....	1370	1180	528	188	106
Acre-ft.	15900	....	....	....	....	....	....	148000	127000	45200	20000	8210

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

Discharge of Big Grizzly Creek near Walden for Year Ending Sept. 30, 1927.
Drainage Area, 181 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	14	...	...	...	...	...	...	480	219	160	48	20
2	18	...	...	...	...	...	...	520	226	121	42	18
3	21	...	...	...	...	...	...	570	231	95	45	16
4	27	...	...	...	...	...	...	560	237	85	48	15
5	30	...	...	...	...	...	...	550	252	86	48	14
6	30	...	...	...	...	...	...	500	258	81	47	18
7	30	...	...	...	...	...	...	480	272	58	43	21
8	30	...	...	...	...	...	...	610	286	39	47	21
9	29	...	...	...	...	...	...	670	303	36	54	19
10	28	...	...	...	...	...	...	600	328	63	60	20
11	23	...	...	...	...	...	...	480	320	51	47	18
12	20	...	...	...	...	...	...	520	284	38	40	16
13	19	...	...	...	...	...	...	470	296	30	38	16
14	17	...	...	...	...	...	...	480	282	26	34	17
15	17	...	...	...	...	...	...	480	280	22	30	18
16	17	...	...	...	...	...	...	500	309	18	30	17
17	14	...	...	...	...	...	...	560	239	16	32	18
18	13	...	...	...	...	...	...	620	250	14	30	16
19	13	...	...	...	...	...	...	660	282	12	28	14
20	13	...	...	...	...	...	...	560	274	12	26	13
21	13	...	...	...	...	...	...	500	246	12	23	11
22	13	...	...	...	...	...	...	532	224	20	23	10
23	14	...	...	...	...	...	...	518	186	26	23	12
24	13	...	...	...	...	...	...	454	159	28	27	14
25	12	...	...	...	...	...	...	374	137	31	26	19
26	12	...	...	...	...	...	...	356	120	26	27	27
27	13	...	...	...	...	...	...	363	116	27	29	32
28	13	...	...	...	...	...	...	300	104	39	30	30
29	16	...	...	...	...	...	...	270	134	45	28	23
30	17	...	...	...	...	...	...	241	156	51	22	24
31	17	...	...	...	...	...	...	220	...	55	22	...
Total	576	...	...	...	...	...	...	14998	7016	1423	1097	548
Mean.	18.6	...	...	...	...	...	...	350	484	234	45.9	35.4
Max..	30	...	...	...	...	...	...	...	328	160	60	32
Min...	12	...	...	...	...	...	...	220	104	12	22	10
Acre-ft.	1140	...	...	...	...	...	...	20800	30200	13900	2820	2180
												1090

Discharge of Big Grizzly Creek near Walden for Year Ending Sept. 30, 1928.
Drainage Area, 181 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	28	36	...	...	...	...	...	412	494	84	44	26
2	28	55	...	...	...	...	...	458	482	70	42	24
3	30	51	...	...	...	...	...	590	470	54	40	25
4	26	46	...	...	...	...	...	542	506	46	43	25
5	22	48	...	...	...	...	...	519	424	43	44	25
6	21	46	...	...	...	...	...	482	345	42	45	24
7	22	...	...	...	...	...	...	542	282	40	45	23
8	22	...	...	...	...	...	...	614	292	24	43	23
9	22	...	...	...	...	...	...	662	302	22	42	21
10	21	...	...	...	...	...	...	712	302	23	34	19
11	20	...	...	...	...	...	...	700	324	22	33	22
12	22	...	...	...	...	...	...	600	313	19	36	25
13	20	...	...	...	...	...	...	494	282	19	37	26
14	19	...	...	...	...	...	...	506	239	19	35	25
15	20	...	...	...	...	...	...	530	228	18	33	26
16	19	...	...	...	...	...	...	458	208	19	33	24
17	19	...	...	...	...	...	...	401	199	25	34	24
18	19	...	...	...	...	...	...	367	292	26	37	24
19	20	...	...	...	...	...	...	367	356	26	34	23
20	19	...	...	...	...	...	...	345	262	27	31	23
21	19	...	...	...	...	...	...	345	204	35	30	24
22	20	...	...	...	...	...	143	356	156	41	29	26
23	19	...	...	...	...	...	156	378	143	39	29	24
24	19	...	...	...	...	...	208	436	117	46	28	22
25	19	...	...	...	...	...	252	482	117	51	29	17
26	22	...	...	...	...	...	208	494	114	56	28	17
27	22	...	...	...	...	...	252	494	112	60	27	17
28	24	...	...	...	...	...	334	482	111	56	27	18
29	31	...	...	...	...	...	390	482	104	54	27	18
30	36	...	...	...	...	...	412	494	96	49	25	18
31	35	...	...	...	...	...	...	494	...	46	24	...
Total	705	...	...	...	...	...	...	15237	7876	1201	1068	677
Mean.	22.7	...	...	...	...	...	...	492	263	38.7	34.5	22.6
Max..	36	...	...	...	...	...	...	712	506	84	45	26
Min...	19	...	...	...	...	...	...	345	96	18	24	17
Acre-ft.	1400	...	...	...	...	...	...	30300	15600	2380	2120	1340

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

Discharge of Roaring Fork near Walden for Year Ending Sept. 30, 1927.
Drainage Area, 84 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	20	20	32	.....	.....	80	332	126	335	94	44	44
2....	22	20	30	.....	.....	80	346	153	233	109	43	43
3....	22	23	27	.....	.....	80	270	167	213	116	43	43
4....	22	19	28	.....	.....	80	262	161	244	105	40	40
5....	25	19	25	.....	.....	80	242	182	376	90	40	40
6....	23	20	25	.....	.....	150	224	201	271	88	41	41
7....	20	19	.....	.....	.....	150	244	251	189	99	43	43
8....	22	18	.....	.....	.....	150	284	376	162	87	40	40
9....	25	19	.....	.....	.....	150	222	475	215	80	41	41
10....	29	23	.....	.....	.....	159	193	486	274	70	43	43
11....	30	25	.....	.....	.....	142	182	498	175	67	42	42
12....	27	25	.....	.....	.....	106	178	427	148	69	41	41
13....	26	23	.....	.....	.....	88	165	362	136	66	43	43
14....	25	21	.....	.....	.....	87	182	353	126	57	43	43
15....	25	18	.....	.....	.....	77	207	420	110	53	43	43
16....	29	18	.....	.....	.....	64	277	364	97	56	43	43
17....	25	24	.....	.....	.....	76	362	321	90	53	40	40
18....	25	22	.....	.....	.....	88	400	510	78	46	36	36
19....	23	22	.....	.....	.....	108	299	588	67	48	33	33
20....	23	20	.....	.....	.....	96	248	496	61	53	34	34
21....	22	20	.....	.....	.....	94	242	449	70	50	36	36
22....	22	20	.....	.....	.....	110	255	352	85	49	36	36
23....	23	20	.....	.....	.....	124	246	321	101	50	43	43
24....	23	20	.....	.....	.....	157	197	402	105	57	48	48
25....	22	23	.....	.....	.....	214	138	430	78	59	61	61
26....	21	25	.....	.....	.....	273	155	455	77	61	61	61
27....	20	24	.....	.....	.....	321	155	490	81	69	59	59
28....	19	24	.....	.....	.....	337	167	523	83	61	57	57
29....	20	32	.....	.....	.....	319	157	449	96	50	56	56
30....	20	32	.....	.....	.....	317	124	502	120	50	59	59
31....	22	.....	.....	.....	.....	114	.....	107	49	.....	.....	.....
Total	722	658	.....	.....	.....	4357	7069	11290	4603	2111	1332	1332
Mean	23.3	21.9	.....	.....	.....	145	228	376	148	68.1	44.4	44.4
Max.	30	32	.....	.....	.....	337	400	588	335	116	61	61
Min.	19	18	.....	.....	.....	64	114	126	61	46	33	33
Acre-ft.	1430	1300	.....	.....	.....	8630	14000	22400	9100	4190	2640	2640

Discharge of Roaring Fork near Walden for Year Ending Sept. 30, 1928.
Drainage Area, 84 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	54	48	.....	.....	.....	34	166	520	211	88	45	45
2....	52	37	.....	.....	.....	34	206	562	215	112	48	48
3....	51	43	.....	.....	.....	34	170	529	194	105	42	42
4....	50	38	.....	.....	.....	34	144	357	168	99	35	35
5....	49	36	.....	.....	.....	32	150	253	156	107	34	34
6....	48	32	.....	.....	.....	32	168	226	148	87	32	32
7....	47	33	.....	.....	.....	32	204	271	132	90	31	31
8....	45	38	.....	.....	.....	30	226	338	112	87	32	32
9....	40	36	.....	.....	.....	30	299	311	96	80	35	35
10....	36	.....	.....	.....	.....	30	330	328	90	80	35	35
11....	35	.....	.....	.....	.....	30	335	306	90	85	42	42
12....	35	.....	.....	.....	.....	29	251	264	80	80	41	41
13....	33	.....	.....	.....	.....	38	233	217	80	76	39	39
14....	36	.....	.....	.....	.....	43	267	183	100	74	47	47
15....	29	.....	.....	.....	.....	44	175	185	134	76	50	50
16....	27	.....	.....	.....	.....	38	128	239	128	66	42	42
17....	26	.....	.....	.....	.....	64	80	330	130	64	40	40
18....	27	.....	.....	.....	.....	114	66	318	138	64	37	37
19....	29	.....	.....	.....	.....	87	62	183	154	60	32	32
20....	32	.....	.....	.....	.....	87	71	134	140	57	30	30
21....	32	.....	.....	.....	.....	96	87	124	132	54	33	33
22....	32	.....	.....	.....	.....	85	138	181	136	53	36	36
23....	32	.....	.....	.....	.....	96	224	224	138	50	31	31
24....	25	.....	.....	.....	.....	140	290	258	136	48	28	28
25....	30	.....	.....	.....	.....	154	382	278	120	53	21	21
26....	35	.....	.....	.....	.....	154	452	302	103	46	22	22
27....	36	.....	.....	.....	.....	192	470	335	105	48	22	22
28....	36	.....	.....	.....	.....	226	490	330	103	46	23	23
29....	56	.....	.....	.....	.....	185	510	278	92	42	23	23
30....	45	.....	.....	.....	.....	154	550	239	90	39	22	22
31....	45	.....	.....	.....	.....	540	.....	90	37	.....	.....	.....
Total	1179	.....	.....	.....	.....	2378	7864	8603	3941	2153	1030	1030
Mean	38.0	.....	.....	.....	.....	79.3	254	287	127	69.5	34.3	34.3
Max.	56	.....	.....	.....	.....	226	550	562	215	112	50	50
Min.	25	.....	.....	.....	.....	29	62	124	80	37	21	21
Acre-ft.	2340	.....	.....	.....	.....	4720	15600	17100	7810	4270	2040	2040

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

Discharge of North Fork of North Platte River near Walden for Year Ending Sept. 30, 1927.
Drainage Area, 168 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	25	26	...	...	...	...	441	262	57	346	170	66
2	33	27	...	...	...	...	454	262	67	223	175	66
3	35	28	...	...	...	...	474	245	82	204	187	69
4	36	23	...	...	...	...	464	225	92	262	184	64
5	37	37	...	...	...	...	497	200	113	365	172	67
6	37	41	...	...	...	...	467	190	120	288	170	64
7	33	40	...	...	...	...	441	215	134	223	166	62
8	29	34	...	...	...	...	414	230	166	199	155	59
9	31	32	...	...	...	...	398	220	199	207	138	64
10	30	36	...	...	...	...	350	220	225	333	118	66
11	27	34	...	...	...	...	320	210	270	254	109	62
12	26	36	...	...	...	...	275	202	294	199	113	58
13	26	37	...	...	...	...	235	202	243	180	111	62
14	25	...	...	...	...	...	190	236	262	182	104	61
15	26	...	...	...	...	...	150	225	281	161	104	58
16	27	...	...	...	...	...	144	246	300	140	107	55
17	27	...	...	...	...	...	148	254	257	126	97	57
18	26	...	...	...	...	...	130	249	303	117	92	55
19	26	...	...	...	...	...	120	168	375	113	97	53
20	27	...	...	...	...	...	130	155	375	130	106	52
21	25	...	...	...	...	...	132	182	324	194	95	50
22	26	...	...	...	...	...	128	189	273	228	89	53
23	26	...	...	...	...	...	117	163	246	230	92	69
24	27	...	...	...	...	...	125	117	257	246	92	74
25	26	...	...	...	...	...	145	86	327	184	83	95
26	26	...	...	...	...	...	170	90	346	163	88	102
27	26	...	...	...	...	...	190	76	375	184	100	88
28	26	...	...	...	...	...	207	74	451	194	88	71
29	27	...	...	...	...	...	238	77	494	257	78	70
30	28	...	...	...	...	...	294	70	494	236	77	76
31	25	...	...	...	...	...	61	...	197	71	...	
Total	877	...	...	...	...	...	7988	5601	7802	6565	3628	1965
Mean.	28.3	35	...	...	...	...	266	181	260	212	117	65.6
Max..	37	...	...	...	...	...	497	262	494	365	187	102
Min...	25	...	...	...	...	...	117	61	57	113	71	50
Acre-ft.	1740	2080	...	...	...	...	15800	11100	15500	13000	7190	3900

Discharge of North Fork of North Platte River near Walden for Year Ending Sept. 30, 1928.
Drainage Area, 168 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	84	80	...	...	...	...	223	445	236	153	112	
2	88	...	...	...	...	...	258	436	234	178	110	
3	86	...	...	...	...	...	200	464	226	165	106	
4	99	...	...	...	...	...	172	417	210	153	108	
5	83	...	...	...	...	...	168	287	221	141	106	
6	78	...	...	...	...	...	180	236	215	123	106	
7	83	...	...	...	...	...	205	242	208	123	104	
8	77	...	...	...	...	...	223	261	190	119	110	
9	74	...	...	...	...	...	302	261	165	112	110	
10	67	...	...	...	...	...	272	270	152	106	100	
11	64	...	...	...	...	...	275	284	155	108	83	
12	58	...	...	...	...	...	250	253	158	108	77	
13	63	...	...	...	...	...	223	234	170	110	72	
14	63	...	...	...	...	...	344	198	175	110	74	
15	64	...	...	...	...	...	247	204	228	112	80	
16	66	...	...	...	...	...	172	225	210	117	62	
17	63	...	...	...	...	...	117	260	234	121	62	
18	63	...	...	...	...	...	81	210	208	119	58	
19	62	...	...	...	...	...	92	165	213	114	55	
20	56	...	...	...	...	...	98	140	261	110	55	
21	53	...	...	...	...	...	102	132	218	106	55	
22	57	...	...	...	...	...	287	110	150	208	104	58
23	57	...	...	...	...	...	290	139	160	234	100	48
24	53	...	...	...	...	...	305	146	198	242	100	36
25	51	...	...	...	...	...	308	188	244	208	106	31
26	52	...	...	...	...	...	284	242	293	178	108	32
27	51	...	...	...	...	...	311	278	322	192	108	32
28	57	...	...	...	...	...	356	338	296	180	110	34
29	92	...	...	...	...	...	287	374	267	178	108	34
30	82	...	...	...	...	...	223	374	239	168	104	32
31	82	...	...	...	...	...	405	...	162	104	...	
Total	2128	...	...	...	...	...	6798	7803	6237	3660	2142	
Mean.	68.6	...	...	...	...	...	219	260	201	118	71.4	
Max..	99	...	...	...	...	...	405	464	242	178	112	
Min...	51	...	...	...	...	...	81	132	152	100	31	
Acre-ft.	4220	...	...	...	...	...	13500	15500	12400	7260	4250	

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

Discharge of Illinois Creek at Walden for Year Ending Sept. 30, 1927.
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	10	...	...	...	...	...	180	261	133	169	31	13
2	11	...	...	...	...	...	180	238	128	161	27	12
3	14	...	...	...	...	...	180	247	120	128	24	9
4	14	...	...	...	...	...	180	229	123	120	33	10
5	14	...	...	...	...	...	180	218	163	110	30	10
6	22	...	...	...	...	...	198	212	144	44	25	9
7	20	...	...	...	...	...	232	189	139	25	20	12
8	18	...	...	...	...	...	256	195	106	21	25	10
9	23	...	...	...	...	...	316	206	136	16	33	9
10	25	...	...	...	...	...	316	282	161	9	27	10
11	21	...	...	...	...	...	285	297	203	38	24	9
12	23	...	...	...	...	...	279	329	250	35	21	9
13	18	...	...	...	...	...	279	364	273	32	18	12
14	20	...	...	...	...	...	144	322	261	30	16	8
15	16	...	...	...	...	...	133	261	270	23	15	5
16	15	...	...	...	...	...	120	232	256	21	16	5
17	16	...	...	...	...	...	108	238	244	20	18	4
18	15	...	...	...	...	...	108	273	256	16	16	3
19	18	...	...	...	...	...	106	319	232	9	13	9
20	15	...	...	...	...	...	98	364	195	9	15	10
21	12	...	...	...	...	...	70	383	166	13	16	9
22	13	...	...	...	...	...	78	364	166	16	12	3
23	12	...	...	...	...	...	87	379	155	15	10	10
24	15	...	...	...	...	...	136	390	116	12	9	17
25	13	...	...	...	...	...	232	379	80	13	12	26
26	12	...	...	...	...	...	364	285	77	21	13	40
27	13	...	...	...	...	...	405	232	72	19	15	42
28	12	...	...	...	...	...	446	218	77	14	15	31
29	15	...	...	...	...	...	394	200	120	31	16	30
30	15	...	...	...	...	...	285	152	163	30	14	30
31	14	...	...	...	...	...	144	...	36	15	...	...
Total	494	...	...	...	...	...	6375	8402	4985	1256	594	416
Mean	15.9	...	...	...	...	...	213	271	166	40.5	19.2	13.9
Max.	25	...	...	...	...	...	446	390	273	169	33	42
Min.	10	...	...	...	...	...	70	144	72	9	9	3
Acre-ft.	978	...	...	...	...	...	12700	16700	9880	2490	1180	827

Discharge of Illinois Creek at Walden for Year Ending Sept. 30, 1928.
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	27	...	...	...	...	...	80	250	500	77	23	2.2
2	25	...	...	...	...	...	80	264	540	64	37	2.6
3	25	...	...	...	...	...	80	276	540	63	31	2.6
4	23	...	...	...	...	...	75	279	520	61	35	3.0
5	20	...	...	...	...	...	75	215	480	50	25	2.6
6	18	...	...	...	...	...	75	209	386	41	23	2.6
7	23	...	...	...	...	...	75	183	221	35	25	2.2
8	26	...	...	...	...	...	70	229	189	31	22	1.0
9	25	...	...	...	...	...	70	267	175	25	18	1.0
10	16	...	...	...	...	...	70	297	186	27	16	1.4
11	16	...	...	...	...	...	70	285	238	25	18	1.4
12	9	...	...	...	...	...	70	332	215	21	16	1.0
13	10	...	...	...	...	...	70	350	198	20	15	2.0
14	16	...	...	...	...	...	70	350	175	16	12	4.2
15	15	...	...	...	...	...	75	386	150	18	10	4.2
16	15	...	...	...	...	...	80	405	131	16	7.8	3.0
17	10	...	...	...	...	...	74	214	108	14	5.4	3.0
18	10	...	...	...	...	...	69	206	180	72	3.0	2.6
19	12	...	...	...	...	...	92	192	297	235	7.8	2.6
20	12	...	...	...	...	...	163	166	291	241	6.6	1.8
21	13	...	...	...	...	...	180	169	169	50	3.0	.8
22	15	...	...	...	...	...	200	189	120	47	2.6	.6
23	13	...	...	...	...	...	218	247	101	44	2.6	4.2
24	12	...	...	...	...	...	310	285	64	37	1.4	5.4
25	12	...	...	...	...	...	500	350	61	30	1.0	4.2
26	13	...	...	...	...	...	500	368	57	27	1.8	3.0
27	12	...	...	...	...	...	461	442	51	25	2.6	3.0
28	10	...	...	...	...	...	520	480	51	16	2.2	2.6
29	10	...	...	...	...	...	500	500	77	18	1.4	2.6
30	12	...	...	...	...	...	350	540	78	23	2.6	2.2
31	8	...	...	...	...	...	520	...	22	2.2	...	...
Total	483	...	...	...	...	...	5322	9475	6549	1491	380	75.6
Mean	15.6	...	...	...	...	...	177	306	218	48.1	12.3	2.52
Max.	27	...	...	...	...	...	520	540	540	241	37	5.4
Min.	8	...	...	...	...	...	69	166	51	14	1	.6
Acre-ft.	959	...	...	...	...	...	10500	18800	13000	2960	756	150

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

Discharge of Michigan River near Walden for Year Ending Sept. 30, 1927.
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....	22	15	....	....	....	....	....	326	214	262	58	27
2....	23	15	....	....	....	....	....	390	197	180	57	26
3....	26	....	....	....	....	....	....	425	190	148	58	25
4....	32	....	....	....	....	....	....	381	230	142	60	24
5....	35	....	....	....	....	....	....	312	220	136	66	25
6....	34	....	....	....	....	....	....	281	218	116	58	25
7....	34	....	....	....	....	....	....	281	258	50	62	25
8....	36	....	....	....	....	....	....	334	326	49	61	26
9....	41	....	....	....	....	....	....	262	371	30	68	28
10....	41	....	....	....	....	....	....	222	395	40	60	27
11....	40	....	....	....	....	....	....	292	386	60	50	26
12....	39	....	....	....	....	....	....	317	371	60	45	26
13....	36	....	....	....	....	....	....	317	400	58	42	27
14....	35	....	....	....	....	....	....	312	415	58	39	28
15....	31	....	....	....	....	....	....	312	456	55	38	27
16....	31	....	....	....	....	....	....	334	352	48	39	26
17....	30	....	....	....	....	....	....	352	300	43	42	23
18....	30	....	....	....	....	....	....	381	352	40	38	21
19....	29	....	....	....	....	....	....	445	343	35	34	20
20....	29	....	....	....	....	....	....	42	435	301	38	19
21....	30	....	....	....	....	....	....	42	435	301	42	18
22....	29	....	....	....	....	....	....	42	478	211	45	40
23....	28	....	....	....	....	....	....	42	522	200	46	38
24....	28	....	....	....	....	....	....	53	488	200	48	38
25....	24	....	....	....	....	....	....	81	381	214	48	36
26....	28	....	....	....	....	....	....	133	360	218	40	39
27....	26	....	....	....	....	....	....	211	343	258	35	43
28....	26	....	....	....	....	....	....	239	330	296	46	39
29....	23	....	....	....	....	....	....	239	317	300	62	34
30....	22	....	....	....	....	....	....	269	285	330	66	29
31....	18	....	....	....	....	....	....	239	....	68	29	....
Total	936	....	....	....	....	....	....	10889	8829	2185	1425	898
Mean.	30.2	....	....	....	....	....	....	70	351	294	70.5	46.0
Max..	41	....	....	....	....	....	....	....	522	456	262	68
Min...	18	....	....	....	....	....	....	....	222	190	30	29
Acre-ft.	1860	....	....	....	....	....	....	4170	21600	17500	4330	2830
												1780

Discharge of Michigan River at Walden for Year Ending Sept. 30, 1928.
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....	43	46	....	....	....	....	....	220	760	250	127	26
2....	45	46	....	....	....	....	....	230	772	228	127	26
3....	45	....	....	....	....	....	....	235	818	211	133	22
4....	45	....	....	....	....	....	....	240	710	184	130	18
5....	50	....	....	....	....	....	....	220	554	174	127	18
6....	48	....	....	....	....	....	....	200	510	155	122	16
7....	50	....	....	....	....	....	....	170	450	142	119	15
8....	42	....	....	....	....	....	....	200	400	122	81	15
9....	40	....	....	....	....	....	....	230	350	113	77	17
10....	38	....	....	....	....	....	....	269	370	113	70	18
11....	36	....	....	....	....	....	....	317	390	112	64	20
12....	34	....	....	....	....	....	....	339	370	112	58	21
13....	29	....	....	....	....	....	....	277	343	112	57	20
14....	30	....	....	....	....	....	....	321	304	120	52	20
15....	30	....	....	....	....	....	....	339	262	130	38	19
16....	30	....	....	....	....	....	....	281	218	140	38	18
17....	30	....	....	....	....	....	....	254	222	152	40	16
18....	30	....	....	....	....	....	....	218	357	208	40	15
19....	30	....	....	....	....	....	....	208	450	220	35	15
20....	30	....	....	....	....	....	....	222	334	240	31	16
21....	30	....	....	....	....	....	....	222	243	200	31	18
22....	30	....	....	....	....	....	....	254	197	170	26	18
23....	29	....	....	....	....	....	....	296	174	160	25	15
24....	29	....	....	....	....	....	....	343	167	150	25	13
25....	28	....	....	....	....	....	....	381	164	136	26	13
26....	28	....	....	....	....	....	....	456	171	116	24	14
27....	31	....	....	....	....	....	....	572	228	103	24	15
28....	35	....	....	....	....	....	....	662	285	93	25	15
29....	45	....	....	....	....	....	....	704	273	105	24	16
30....	46	....	....	....	....	....	....	740	254	105	26	17
31....	40	....	....	....	....	....	....	792	....	108	26	....
Total	1129	....	....	....	....	....	....	10412	11105	4684	1848	525
Mean.	36.4	....	....	....	....	....	....	336	370	151	59.6	17.5
Max..	50	....	....	....	....	....	....	792	818	250	133	26
Min...	28	....	....	....	....	....	....	170	164	93	24	13
Acre-ft.	2240	....	....	....	....	....	....	20700	22000	9280	3660	1040

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

Discharge of Laramie River near Glendevey for Year Ending Sept. 30, 1927.
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...	33	30	...	...	...	...	25	77	214	150	67	40
2...	34	25	...	...	...	...	25	97	206	142	69	39
3...	36	30	...	...	...	...	25	100	214	136	77	40
4...	38	31	...	...	...	...	25	95	214	140	65	44
5...	42	31	...	...	...	...	25	89	245	153	66	54
6...	41	30	...	...	...	...	25	88	232	127	66	51
7...	40	30	...	...	...	...	25	133	265	109	74	46
8...	41	31	...	...	...	...	25	136	315	102	77	40
9...	45	26	...	...	...	...	25	86	349	109	84	38
10...	53	27	...	...	...	...	25	99	315	123	64	38
11...	46	30	...	...	...	...	28	99	327	107	59	37
12...	40	30	...	...	...	...	28	97	327	91	62	37
13...	36	30	...	...	...	...	32	102	282	85	65	42
14...	35	26	...	...	...	...	54	140	278	81	67	49
15...	35	30	...	...	...	...	34	161	378	75	82	42
16...	34	28	...	...	...	...	37	232	271	73	66	38
17...	34	31	...	...	...	...	36	383	245	70	51	37
18...	33	33	...	...	...	...	34	392	312	67	46	35
19...	33	34	...	...	...	...	32	315	304	67	48	32
20...	32	32	...	...	...	...	32	357	278	68	55	30
21...	33	18	...	...	...	...	26	106	254	84	56	29
22...	31	22	...	...	...	...	26	430	212	76	56	30
23...	32	26	...	...	...	...	28	340	203	74	61	40
24...	30	22	...	...	...	...	30	271	242	70	53	40
25...	31	22	...	...	...	...	38	265	265	66	50	59
26...	30	22	...	...	...	...	51	300	271	66	61	59
27...	30	22	...	...	...	...	63	282	296	85	59	53
28...	30	22	...	...	...	...	69	285	293	109	53	47
29...	31	22	...	...	...	...	67	271	239	102	49	43
30...	26	22	...	...	...	...	68	223	212	99	47	42
31...	26	...	...	...	...	...	217	...	77	45	...	...
Total	1081	815	...	...	...	...	1043	6568	8049	2983	1900	1251
Mean...	34.9	27.2	...	...	...	...	34.8	212	268	96.2	61.3	41.7
Max...	53	34	...	...	...	...	69	430	378	153	84	59
Min...	26	18	...	...	...	...	77	203	66	45	29	29
Acre-ft.	2150	1620	...	...	...	...	2070	13000	15900	5920	3770	2480

Discharge of Laramie River near Glendevey for Year Ending Sept. 30, 1928.
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...	51	41	...	...	...	...	35	86	786	278	67	38
2...	48	33	...	...	...	...	38	140	756	251	72	37
3...	48	40	...	...	...	...	39	129	714	214	67	31
4...	51	40	...	...	...	...	35	121	620	187	66	27
5...	52	...	...	...	...	...	34	111	530	180	63	25
6...	50	...	...	...	...	...	30	119	455	175	61	21
7...	45	...	...	...	...	...	33	155	415	168	57	20
8...	40	...	...	...	...	...	31	209	410	150	55	22
9...	38	...	...	...	...	...	30	261	383	140	53	22
10...	34	...	...	...	...	...	26	271	388	142	52	20
11...	30	...	...	...	...	...	27	226	392	142	52	25
12...	31	...	...	...	...	...	23	209	331	133	51	25
13...	36	...	...	...	...	...	26	217	278	131	49	23
14...	34	...	...	...	...	...	26	203	248	133	49	23
15...	33	...	...	...	...	...	28	182	223	127	47	23
16...	33	...	...	...	...	...	27	175	261	121	45	22
17...	33	...	...	...	...	...	23	173	340	148	44	22
18...	33	...	...	...	...	...	22	178	361	127	42	21
19...	34	...	...	...	...	...	27	190	258	113	40	22
20...	34	...	...	...	...	...	30	214	223	111	35	24
21...	34	...	...	...	...	...	30	254	212	103	35	26
22...	34	...	...	...	...	...	31	336	239	100	34	26
23...	35	...	...	...	...	...	36	420	261	123	34	25
24...	33	...	...	...	...	...	48	460	271	113	33	24
25...	33	...	...	...	...	...	56	560	282	99	34	22
26...	33	...	...	...	...	...	57	666	282	86	37	20
27...	32	...	...	...	...	...	63	738	254	84	37	19
28...	32	...	...	...	...	...	70	750	261	81	33	20
29...	39	...	...	...	...	...	69	774	271	81	30	25
30...	42	...	...	...	...	...	74	864	275	81	27	22
31...	53	...	...	...	...	...	858	...	73	30	...	...
Total	1189	...	...	...	...	...	1124	10249	10980	4195	1431	722
Mean...	38.4	...	...	...	...	...	37.5	331	366	135	46.2	24.1
Max...	53	...	...	...	...	...	74	864	786	278	72	38
Min...	30	...	...	...	...	...	22	86	212	73	27	19
Acre-ft.	2360	...	...	...	...	...	2230	20400	21800	8300	2840	1430

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

Discharge of Laramie River Near Jelm, Wyo., for Year Ending Sept. 30, 1927.
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	65	63	.....	.....	.....	50	167	586	366	146	54	
2	68	54	.....	.....	.....	50	208	586	318	134	53	
3	72	61	.....	.....	.....	50	219	599	300	140	56	
4	72	63	.....	.....	.....	50	215	580	300	126	58	
5	70	84	.....	.....	.....	50	212	627	322	126	59	
6	76	58	.....	.....	.....	60	200	661	270	121	59	
7	78	58	.....	.....	.....	70	258	706	234	128	54	
8	76	51	.....	.....	.....	82	346	796	223	126	50	
9	82	50	.....	.....	.....	69	262	867	238	151	52	
0	95	84	.....	.....	.....	69	250	840	313	121	54	
1	84	61	.....	.....	.....	69	258	858	242	116	49	
2	74	54	.....	.....	.....	65	270	912	200	114	41	
3	63	53	.....	.....	.....	59	283	752	183	116	44	
4	61	54	.....	.....	.....	56	360	698	173	106	54	
5	63	56	.....	.....	.....	53	427	970	160	111	50	
6	61	51	.....	.....	.....	54	566	737	151	118	42	
7	58	40	.....	.....	.....	55	822	661	143	95	40	
8	58	40	.....	.....	.....	56	990	737	131	84	38	
9	56	38	.....	.....	.....	58	805	737	128	80	38	
0	56	35	.....	.....	.....	60	849	683	134	88	40	
1	60	40	.....	.....	.....	61	921	627	180	95	40	
2	58	40	.....	.....	.....	62	1010	547	193	84	42	
3	56	40	.....	.....	.....	69	858	476	170	106	46	
4	58	40	.....	.....	.....	67	661	495	170	93	74	
5	51	40	.....	.....	.....	78	627	521	140	71	116	
6	53	40	.....	.....	.....	104	675	482	134	76	134	
7	53	40	.....	.....	.....	131	668	502	163	88	108	
8	56	40	.....	.....	.....	154	706	514	262	74	104	
9	58	40	.....	.....	.....	148	706	508	270	71	88	
0	51	40	.....	.....	.....	154	606	476	234	64	84	
1	74	.....	.....	.....	.....	593	.....	176	59	.....	.....
Total	2016	1508	.....	.....	.....	2213	15998	19741	6621	3228	1851	
Mean.	65.0	50.3	35	30	30	73.8	516	658	214	104	61.7	
Max..	95	84	.....	.....	.....	154	1010	970	366	151	134	
Min..	51	35	.....	.....	.....	50	167	476	128	59	38	
Acre-ft.	4000	2990	2150	1840	1670	2460	4390	31700	39200	13200	6400	3670

Discharge of Laramie River Near Jelm, Wyo., for Year Ending Sept. 30, 1928.
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	91	.....	.....	.....	.....	90	210	1980	552	137	66	
2	88	.....	.....	.....	.....	88	315	1800	528	137	73	
3	80	.....	.....	.....	.....	85	305	1870	462	145	64	
4	84	.....	.....	.....	.....	77	254	1420	434	137	59	
5	97	.....	.....	.....	.....	71	241	1180	428	132	55	
6	97	.....	.....	.....	.....	58	233	1010	412	124	51	
7	93	.....	.....	.....	.....	59	290	976	390	119	49	
8	84	.....	.....	.....	.....	79	395	986	346	107	50	
9	78	.....	.....	.....	.....	81	596	898	320	95	50	
10	76	.....	.....	.....	.....	83	705	889	300	93	50	
11	71	.....	.....	.....	.....	71	691	946	305	93	55	
12	62	.....	.....	.....	.....	70	635	810	281	91	58	
13	64	.....	.....	.....	.....	68	670	737	272	87	51	
14	67	.....	.....	.....	.....	70	635	713	300	85	49	
15	78	.....	.....	.....	.....	73	602	635	290	81	51	
16	78	.....	.....	.....	.....	73	576	691	258	77	51	
17	76	.....	.....	.....	.....	83	546	810	320	77	48	
18	74	.....	.....	.....	.....	85	583	836	258	75	43	
19	71	.....	.....	.....	.....	75	602	691	241	70	42	
20	69	.....	.....	.....	.....	73	649	596	229	64	43	
21	65	.....	.....	.....	.....	81	729	546	214	61	54	
22	67	.....	.....	.....	.....	77	908	583	218	59	54	
23	67	.....	.....	.....	.....	81	1140	590	233	59	49	
24	62	.....	.....	.....	.....	93	1270	564	263	59	45	
25	64	.....	.....	.....	.....	104	1440	596	222	59	44	
26	62	.....	.....	.....	.....	104	1590	622	196	61	43	
27	60	.....	.....	.....	.....	119	1640	596	186	63	40	
28	65	.....	.....	.....	.....	154	1800	616	210	63	41	
29	86	.....	.....	.....	.....	172	1890	609	199	55	46	
30	82	.....	.....	.....	.....	172	1960	590	172	50	46	
31	84	.....	.....	.....	.....	.....	2070	520	154	52	....
Total	2342	.....	.....	.....	.....	2669	26170	26386	9193	2667	1520	
Mean.	75.5	.....	.....	.....	.....	89.0	844	880	297	86.0	50.7	
Max..	97	.....	.....	.....	.....	172	2070	1980	552	145	73	
Min..	60	.....	.....	.....	.....	58	210	546	154	50	40	
Acre-ft.	4640	.....	.....	.....	.....	5300	51900	52400	18300	5290	3020	

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, 1928.

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, 1928.

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, 1928.

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, 1928. 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, 1928. 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, 1928. 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, 1928.

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, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

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

GRAPE CREEK NEAR WESTCLIFFE

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

Records Available—December 1, 1924, to June 30, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with the United States Geological Survey and Southern Colorado Power Company.

ST. CHARLES RIVER AT BURNT HILL 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, 1928.

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, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

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

HUERFANO RIVER AT HUERFANO

Location—In Sec. 2, T. 26 S., R. 66 W.

Records Available—April 1, 1924, to September 30, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

CUCHARAS 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, 1928.

Gage—Vertical staff gage.

Accuracy—Records considered fair.

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

TIMPAS CREEK AT CATLIN SIPHON

Location—In Sec. 18, T. 24 S., R. 56 W., at crossing of Catlin Ditch.

Records Available—March 1, 1923, to September 30, 1927.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Note: Waste water from Catlin Ditch included in estimate.

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, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

PURGATOIRE RIVER NEAR ALFALFA

Location—In Sec. 9, T. 33 S., R. 60 W., at head of canon.

Records Available—March 22, 1905, to September 30, 1907; March 1, 1924, to September 30, 1928.

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, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

PURGATOIRE RIVER NEAR MOUTH

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, 1928.

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 Holly record.

Records Available—October 1, 1922, to November 30, 1928.

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. crosses Cheyenne Creek.

Records Available—January 1, 1924, to September 30, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Note: Some waste water and water from Cheyenne Creek included in this table.

Discharge of Arkansas at Granite for Year Ending Sept. 30, 1927.
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	128	115	119	...	...	74	...	107	471	1060	1400	365
2	130	117	112	...	...	74	...	132	487	1080	1430	439
3	130	123	112	...	...	74	...	132	558	1080	1300	444
4	130	110	117	59	...	74	...	123	848	1080	1240	356
5	130	105	119	...	...	95	...	119	848	1090	1240	333
6	139	114	119	...	...	...	...	123	802	1050	1170	342
7	124	123	124	...	...	...	...	128	879	1190	1120	409
8	124	112	128	...	...	...	...	143	910	1300	1060	487
9	128	107	117	...	...	95	...	135	832	1300	1060	658
10	126	110	110	...	...	...	...	143	832	1390	1300	460
11	123	107	...	...	...	...	...	141	685	1420	1180	404
12	112	112	...	...	...	...	...	126	617	1410	1340	380
13	107	121	...	...	...	...	...	117	598	1430	1510	342
14	108	115	...	...	...	...	...	108	631	1440	1430	320
15	110	119	80	...	...	90	...	110	658	1480	1290	306
16	115	108	...	...	...	...	...	115	742	1110	1160	287
17	119	110	...	...	...	...	...	114	856	1330	1150	268
18	117	92	...	...	...	...	...	121	1020	1380	1140	320
19	112	114	...	...	...	...	...	132	1000	1370	1050	365
20	137	117	...	...	...	...	...	152	1020	1310	871	380
21	174	119	...	...	...	...	...	95	146	1090	1280	772
22	174	114	...	...	...	...	...	98	135	1170	1220	742
23	174	110	...	...	...	...	...	100	146	1160	1190	434
24	150	114	...	...	...	...	...	116	160	1110	1330	389
25	110	122	60	...	...	...	...	120	182	1090	1380	565
26	105	122	...	...	...	...	...	144	230	1130	840	735
27	110	134	...	...	...	...	...	130	287	1110	1160	728
28	110	123	...	...	...	...	...	134	294	1120	1750	638
29	115	112	...	...	...	...	...	136	294	1120	1820	534
30	115	115	...	...	...	...	...	139	414	1059	1600	471
31	114	...	...	...	...	...	...	117	...	1020	...	404
Total	3900	3436	2637	...	...	3173	4809	27464	38900	30853	12128	9425
Mean.	126	115	85.1	65	72	102	160	886	1300	995	391	314
Max.	174	...	...	...	...	...	...	414	1170	1820	1510	658
Min.	105	...	...	...	...	...	...	107	471	840	389	195
Acre-ft.	7750	6840	5230	4000	4000	6270	9520	54500	77400	61200	24000	18700

Discharge of Arkansas at Granite for Year Ending Sept. 30, 1928.
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	240	177	137	72	75	91	120	416	1420	1260	502	777
2	221	157	134	81	76	91	128	520	1440	1330	520	565
3	224	162	131	84	78	91	133	620	1380	1260	527	552
4	224	164	130	79	80	93	128	747	1110	1180	552	514
5	218	167	128	84	79	89	109	716	952	1100	592	300
6	209	164	127	78	77	100	109	732	952	1060	592	268
7	206	167	109	77	75	104	111	770	1060	1090	572	243
8	206	160	104	74	71	100	99	641	1060	1020	556	226
9	209	157	103	73	77	100	83	747	1040	920	109	226
10	203	152	102	76	75	107	94	770	992	888	375	230
11	200	155	97	79	75	126	97	663	944	896	356	230
12	190	150	85	77	73	163	99	394	824	936	173	217
13	190	155	90	80	75	158	97	508	747	1090	810	201
14	174	155	91	79	70	160	88	508	716	1100	816	182
15	177	155	87	77	76	131	111	462	701	1130	754	176
16	177	148	87	78	78	97	140	451	747	1100	816	158
17	172	152	87	78	76	103	145	390	747	1070	864	153
18	164	150	83	74	76	107	201	280	724	928	864	155
19	162	155	75	68	75	101	210	280	686	1000	848	240
20	157	152	75	72	73	109	201	325	671	920	840	288
21	157	148	74	75	71	118	179	316	648	840	832	261
22	160	155	73	73	79	120	164	394	686	800	864	184
23	160	146	79	73	76	115	182	546	724	800	888	171
24	162	135	77	71	75	133	217	762	762	928	163	163
25	162	160	76	71	75	128	243	754	821	840	848	158
26	162	139	77	73	81	118	198	936	856	686	832	150
27	160	148	82	69	80	126	230	1140	936	656	928	148
28	162	143	85	78	80	124	316	1220	1190	578	936	155
29	172	143	87	78	84	103	366	1310	1330	627	1000	150
30	172	140	87	76	...	101	396	1380	1260	613	1080	148
31	169	...	79	74	...	109	...	1440	...	559	1100	...
Total	5721	4611	2938	2351	2214	3520	4988	21168	28129	29039	22804	7509
Mean.	185	154	94.8	75.8	76.3	114	166	683	938	937	736	253
Max.	240	177	135	73	77	...	390	1440	1440	1330	1100	777
Min.	157	135	73	73	73	...	83	280	648	559	356	148
Acre-ft.	11400	9160	5830	4660	4390	7010	9880	42000	55800	57600	45300	15100

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

Discharge of Arkansas at Salida for Year Ending Sept. 30, 1927.
Drainage Area, 1,160 Square Miles. Altitude, 7,038 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	277	293	290	253	233	228	268	645	1630	2340	554	435
2....	280	296	280	256	228	220	268	688	1700	2140	682	356
3....	286	286	286	259	230	217	280	688	1700	2140	682	356
4....	296	293	286	253	230	225	283	1030	1680	2010	574	488
5....	296	280	286	253	230	222	280	1170	1740	2020	507	484
6....	296	286	280	244	233	225	262	1090	1790	1890	498	484
7....	286	280	286	247	228	222	268	1120	1920	1840	526	479
8....	280	280	290	244	230	228	280	1180	2210	1760	609	609
9....	283	277	286	244	225	236	286	1100	2230	1680	834	677
10....	274	277	277	236	225	244	283	1000	2330	2030	731	822
11....	271	277	274	239	222	247	277	960	2370	1900	698	896
12....	274	280	277	236	222	230	271	822	2400	1840	704	909
13....	274	286	274	230	217	230	259	776	2360	2160	645	614
14....	268	280	244	230	215	253	236	817	2340	2030	584	574
15....	271	274	233	236	217	268	230	941	2510	1920	574	559
16....	274	277	230	242	222	262	236	1100	2270	1700	554	609
17....	277	265	230	236	230	228	236	1350	1680	1650	526	650
18....	277	265	239	233	222	236	236	1570	2320	1600	516	661
19....	274	283	239	230	217	244	244	1640	2310	1630	619	640
20....	271	299	244	228	222	225	256	1580	2180	1380	635	614
21....	290	302	236	230	225	225	250	1680	2150	1310	604	599
22....	271	302	233	233	230	236	239	1810	2080	1320	574	526
23....	306	296	233	236	222	244	253	1790	2010	947	599	545
24....	277	312	230	230	217	239	274	1650	2180	682	671	545
25....	283	330	228	228	220	268	283	1610	2270	682	671	569
26....	271	330	233	228	222	306	359	1730	2230	1120	688	619
27....	265	341	233	230	236	274	435	1700	1990	1110	754	635
28....	262	326	233	225	230	283	457	1690	3000	1120	776	624
29....	265	286	233	233	228	286	435	1770	3480	909	799	584
30....	274	283	220	228	228	296	530	1650	3050	788	688	594
31....	265	250	222	222	296	296	1580	640	640	656	656	...
Total	8614	8742	7893	7352	6300	7643	8754	39927	66110	48438	19649	17767
Mean.	278	291	255	237	225	247	292	1290	2200	1560	634	592
Max..	306	341	290	259	236	306	530	1810	3480	2340	834	909
Min..	262	265	220	222	215	217	230	645	1630	640	498	356
Acre-ft.	17100	17300	15700	14600	12500	15200	17400	79300	131000	95900	39000	35200

Discharge of Arkansas at Salida for Year Ending Sept. 30, 1928.
Drainage Area, 1,160 Square Miles. Altitude, 7,038 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	579	422	363	265	258	262	215	571	2930	1870	1100	1040
2....	550	422	382	300	262	258	218	720	2720	2000	1050	835
3....	511	422	406	311	269	269	247	803	2550	1840	1010	766
4....	511	426	386	292	277	265	288	978	2130	1780	1010	730
5....	511	422	356	311	273	254	284	954	1770	1640	978	640
6....	507	414	375	300	265	250	265	931	1730	1610	984	514
7....	511	410	363	296	258	254	265	996	1900	1630	954	478
8....	516	406	348	284	243	250	262	937	2070	1590	902	461
9....	507	410	344	284	269	250	247	1060	2070	1430	782	439
10....	498	402	341	292	258	247	258	1120	1860	1330	766	452
11....	484	402	337	292	258	243	254	1190	1700	1360	615	431
12....	475	390	326	286	254	281	250	745	1520	1400	590	431
13....	479	394	312	296	258	296	247	824	1340	1610	972	431
14....	479	386	316	292	240	303	243	820	1220	1630	1060	338
15....	461	382	302	284	262	315	240	740	1180	1580	1040	322
16....	452	386	299	288	258	273	262	756	1230	1540	1040	330
17....	452	394	302	288	254	258	284	750	1340	1620	1090	311
18....	452	394	286	277	254	250	292	483	1350	1500	1110	292
19....	444	382	259	254	250	247	350	456	1280	1400	1090	322
20....	439	378	259	265	243	247	350	478	1240	1410	1090	406
21....	439	371	265	269	247	254	362	510	1190	1480	1070	448
22....	435	371	262	258	262	265	342	566	1210	1700	1080	406
23....	410	375	283	262	254	262	315	852	1290	1610	1090	358
24....	398	359	277	254	250	250	338	1070	1520	1550	1090	330
25....	406	352	271	254	250	250	362	1310	1700	1580	1060	322
26....	410	356	274	265	254	254	315	1630	1690	1540	1000	319
27....	414	367	293	247	250	232	311	1930	1810	1380	954	315
28....	414	367	306	277	250	243	378	2050	1950	1330	996	311
29....	418	375	309	277	262	232	470	2310	2100	1260	984	315
30....	414	382	309	273	225	487	2760	2090	1210	1060	303	...
31....	422	280	265	225	225	2970	...	1150	1050	...	...	...
Total	14398	11719	9791	8658	7442	7964	9001	34280	51680	47560	30667	13396
Mean.	464	391	316	279	257	257	300	1110	1720	1530	989	447
Max..	579	426	406	311	277	215	487	2970	2930	2000	1110	1040
Min..	398	352	259	247	240	225	215	456	1180	1150	590	292
Acre-ft.	28500	23300	19400	17200	14800	15800	17900	68200	102000	94100	60800	26600

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

Discharge of Arkansas at Canon City for Year Ending Sept. 30, 1927.
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....	214	305	362	310	275	305	522	582	1600	2760	660	568
2....	219	326	352	300	280	326	405	667	1690	2460	682	405
3....	228	331	320	315	275	310	411	704	1750	2340	775	394
4....	237	326	315	331	251	326	428	775	1710	2180	767	394
5....	260	326	320	326	251	310	394	1070	1680	2140	784	468
6....	275	305	336	310	242	300	362	1080	1750	2030	674	468
7....	265	305	331	300	242	300	341	1030	1820	1900	689	445
8....	246	305	336	280	270	305	326	1110	2030	1860	735	457
9....	246	295	336	265	270	320	320	1130	2200	1830	943	588
10....	251	300	315	246	275	373	300	1120	2180	1970	1160	667
11....	255	315	305	280	295	373	290	982	2260	1970	870	750
12....	246	331	315	295	320	326	300	888	2260	1800	834	775
13....	242	331	295	275	310	320	285	826	2440	2070	742	750
14....	242	331	255	280	280	336	275	800	2290	2110	682	602
15....	228	300	295	285	275	373	265	897	2520	2030	638	575
16....	228	295	251	305	280	416	260	991	2700	1800	624	588
17....	246	336	270	285	315	367	255	1230	1940	1670	588	631
18....	255	341	280	270	320	373	237	1450	2260	1640	568	689
19....	246	389	300	265	315	389	237	1680	2460	1630	609	682
20....	242	394	300	280	305	310	242	1600	2350	1450	682	660
21....	237	384	295	305	315	326	251	1640	2290	1320	674	631
22....	280	373	265	300	336	362	237	1850	2160	1430	667	588
23....	290	357	295	295	320	389	232	1870	2110	1310	631	561
24....	275	357	280	280	305	357	242	1760	2060	897	682	575
25....	270	394	223	280	285	373	251	1660	2450	834	660	575
26....	232	405	228	280	285	394	280	1730	2230	962	652	652
27....	223	405	246	295	295	498	384	1830	1890	1160	720	689
28....	214	462	265	295	326	609	462	1790	2580	1360	727	720
29....	219	378	251	285	.....	767	474	1730	3380	1260	784	674
30....	275	357	270	260	.....	826	468	1670	3300	897	750	767
31....	290	.....	315	265	.....	735	.....	1590	.....	735	638	.....
Total	7676	10359	9082	8943	\$113	12394	9736	39732	66340	51805	22291	17999
Mean.	248	345	293	288	290	400	325	1280	2210	1670	719	600
Max..	290	462	362	331	336	826	522	1870	3380	2760	1160	775
Min..	214	295	223	246	242	300	232	582	1600	735	568	394
Acre-ft.	15200	20500	18000	17700	16100	24600	19300	78700	132000	103000	44200	35700

Discharge of Arkansas at Canon City for Year Ending Sept. 30, 1928.
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....	769	413	398	317	356	292	284	422	3930	1840	1040	1170
2....	684	418	418	418	347	288	272	540	3870	1900	1030	894
3....	608	398	479	442	338	300	260	735	3630	1830	1140	693
4....	588	413	479	432	334	313	296	834	3130	1740	1080	661
5....	576	437	442	432	343	317	338	922	2520	1640	1110	654
6....	564	422	458	427	325	296	313	903	2190	1550	1020	468
7....	552	418	453	398	313	300	284	941	2270	1560	960	422
8....	558	418	379	384	288	300	288	1030	2410	1560	856	403
9....	552	418	384	389	296	296	284	1040	2490	1420	769	394
10....	540	408	422	398	296	284	284	1240	2320	1280	668	394
11....	534	408	418	394	300	280	313	1390	2110	1260	630	403
12....	518	403	448	389	330	280	375	1370	1920	1370	600	394
13....	512	389	408	384	325	313	347	960	1700	1460	693	384
14....	523	408	384	398	309	309	292	1020	1480	1560	1020	375
15....	502	394	375	384	317	321	253	990	1370	1500	1010	317
16....	490	375	317	375	325	325	242	894	1340	1480	960	309
17....	490	394	361	366	330	300	242	875	1440	1610	1040	296
18....	479	408	309	356	334	304	249	815	1490	1630	1110	276
19....	474	413	264	352	309	330	246	646	1450	1370	1040	272
20....	463	403	268	356	309	343	280	615	1370	1410	1010	304
21....	448	394	343	370	300	370	284	718	1270	1380	1000	347
22....	442	384	364	370	304	413	284	817	1240	1940	980	361
23....	437	384	398	370	300	389	268	990	1280	1560	990	313
24....	413	375	394	366	288	370	268	1300	1390	1470	1020	292
25....	413	356	361	317	280	347	284	1640	1630	1500	1040	268
26....	418	375	379	347	313	325	292	1890	1690	1440	950	268
27....	403	379	318	361	304	309	249	2460	1720	1270	884	268
28....	398	389	422	366	296	313	246	2610	1780	1260	990	268
29....	422	394	422	384	296	304	352	2870	1960	1150	1010	272
30....	413	422	413	394	.....	284	408	3310	2050	1250	1080	268
31....	413	.....	366	370	.....	284	.....	3720	.....	1150	1150	.....
Total	15596	12010	12144	11836	9105	9799	8677	40537	60440	46340	29880	1240\$
Mean.	503	400	392	382	314	316	289	1310	2010	1490	964	414
Max..	769	437	479	442	356	413	408	3720	3930	1940	1150	1170
Min..	398	356	264	317	280	280	242	422	1240	1150	600	268
Acre-ft.	30900	23800	24100	23500	18100	19400	17200	80600	120000	91600	59300	24600

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

Discharge of Arkansas at Pueblo for Year Ending Sept. 30, 1927.
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....	189	304	323	462	166	250	496	280	1540	2690	454	626
2....	185	304	323	454	166	250	341	416	1570	2200	1170	488
3....	181	298	298	439	173	222	316	416	1600	2050	1970	401
4....	196	316	323	401	173	217	301	454	1520	1940	3880	365
5....	200	310	304	372	177	177	358	680	1460	1780	807	409
6....	217	310	298	365	177	228	298	807	1560	1760	646	432
7....	228	304	298	292	185	250	262	646	1590	1590	1520	334
8....	239	310	310	274	185	250	274	821	1700	1730	1500	330
9....	211	298	323	256	211	239	262	1030	1870	1700	1140	416
10....	170	268	292	262	192	262	239	940	1810	1670	1860	531
11....	159	274	245	280	200	286	245	831	2150	1750	880	617
12....	156	286	274	286	192	310	222	724	2290	1600	819	691
13....	130	298	256	262	196	286	222	626	2410	2000	880	680
14....	143	310	228	304	170	228	211	646	2290	1860	736	531
15....	146	351	256	292	166	245	185	691	2340	1680	646	531
16....	143	379	268	316	177	286	185	782	2580	1750	607	531
17....	159	351	280	351	185	330	170	964	2050	1590	577	558
18....	166	351	292	286	222	268	176	1310	1750	1570	558	607
19....	170	351	298	274	228	262	150	1540	2250	1460	522	636
20....	185	439	298	262	211	292	152	1560	2240	1360	636	636
21....	181	439	330	274	200	286	143	1390	2080	1130	713	568
22....	189	401	323	304	217	304	140	1560	2070	2230	1000	539
23....	217	401	316	351	217	304	127	1730	1910	1930	691	462
24....	234	386	262	323	211	268	133	1680	1840	1110	587	462
25....	250	401	228	286	192	250	133	1480	2020	736	505	531
26....	245	454	256	268	196	262	117	1350	3980	668	447	702
27....	200	447	286	262	196	344	149	1450	2050	1010	548	807
28....	196	447	292	245	217	479	211	1450	2080	1260	996	843
29....	211	479	292	206	....	657	262	1420	2980	1980	1290	770
30....	280	344	316	206	....	807	250	1500	3280	747	1170	1000
31....	280	....	334	196	....	724	....	1500	....	548	782	....
Total	6056	10611	9022	9411	5398	9823	6736	32684	62860	49079	30537	17104
Mean.	195	354	291	304	193	317	225	1050	2100	1580	985	570
Max..	280	479	....	....	228	807	406	1730	3980	2690	3880	1000
Min...	130	268	....	....	166	177	117	280	1460	548	447	330
Acre-ft.	12000	21100	17900	18700	10700	19500	13400	64600	125000	97200	60600	33900

Discharge of Arkansas at Pueblo for Year Ending Sept. 30, 1928.
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....	1030	587	447	298	318	266	254	279	3440	1690	1100	1280
2....	900	558	439	365	292	212	224	331	3340	1590	1110	1200
3....	795	548	496	471	292	224	191	581	3350	1600	1220	870
4....	702	531	514	547	266	254	181	724	3170	1470	1230	823
5....	657	577	479	522	260	254	230	840	2740	1410	1170	766
6....	626	597	439	488	236	236	242	550	2330	1510	1090	626
7....	607	577	447	396	191	207	212	821	2210	1470	1020	483
8....	680	505	379	396	186	218	191	881	2240	1550	910	421
9....	668	471	386	318	196	207	224	830	2330	1480	814	398
10....	636	447	394	292	248	218	207	1060	2300	1330	662	391
11....	636	447	471	298	236	218	196	1410	2160	1260	617	384
12....	627	454	447	298	236	212	218	1550	1990	1310	523	376
13....	597	454	401	331	248	212	266	1060	1720	1330	506	347
14....	558	447	379	318	260	230	236	1140	1550	1460	757	340
15....	522	479	351	272	242	224	181	1190	1360	1410	861	306
16....	505	522	351	279	256	248	170	1010	1240	1420	1020	257
17....	505	539	337	298	260	272	156	930	1260	1340	823	245
18....	522	539	316	312	248	254	165	950	1360	1650	1090	211
19....	522	539	192	312	248	248	165	992	1330	1490	1100	194
20....	531	488	239	338	248	260	134	662	1420	1370	1080	189
21....	539	471	250	352	236	260	196	709	1150	2120	1080	245
22....	568	447	298	352	230	272	218	795	1060	1610	1080	280
23....	597	462	316	396	254	298	230	900	1080	1850	1060	306
24....	548	416	365	352	248	292	218	1150	1120	1690	1070	251
25....	505	439	358	374	242	260	212	1630	1230	1390	1100	211
26....	531	409	344	410	254	266	266	1950	1450	1310	1070	200
27....	496	394	358	457	242	248	248	2420	1480	1260	920	183
28....	496	447	316	433	230	254	181	2790	1490	1210	880	189
29....	558	447	351	403	242	285	138	3000	1490	1230	1020	189
30....	531	514	351	345	....	298	260	3140	1810	1240	1180	189
31....	577	....	351	345	....	272	....	3440	....	1200	1280	....
Total	18772	14752	11562	11388	7145	7709	6210	40015	56300	45250	30443	12350
Mean.	606	492	373	367	246	249	207	1260	1880	1460	982	412
Max..	1030	597	....	547	318	298	266	3440	3440	2120	1280	1280
Min...	496	394	....	272	186	207	134	279	1060	1200	506	183
Acre-ft.	37300	29300	22900	22600	14200	15300	12300	77500	112000	89800	60400	24500

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

Discharge of Arkansas at Nepesta for Year Ending Sept. 30, 1927.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.	197	247	461	479	55	393	488	264	1330	1810	612	1010
2.	207	258	443	479	377	338	369	400	1220	1910	5130	311
3.	224	258	443	461	408	119	182	559	1260	1960	5910	408
4.	235	264	506	297	361	62	197	580	1330	2120	8250	479
5.	258	284	479	162	284	130	393	623	1350	1860	1450	425
6.	258	284	506	134	284	182	385	679	1480	1960	979	506
7.	247	297	538	119	304	284	235	679	1480	1450	1370	443
8.	264	324	527	202	297	331	207	816	1390	1580	6690	290
9.	270	369	479	548	269	290	229	646	1700	1720	4750	187
10.	247	354	506	506	277	270	207	443	1630	1720	1960	270
11.	182	324	538	290	187	253	177	400	1650	1480	750	192
12.	182	385	538	150	207	354	224	346	1790	1450	656	290
13.	192	361	450	187	218	224	224	324	1810	1810	668	361
14.	182	338	450	210	241	79	235	187	2230	1810	1180	318
15.	182	331	400	330	218	162	218	304	1600	948	634	224
16.	177	354	400	370	192	212	187	377	1520	1110	646	488
17.	182	425	400	425	177	311	158	479	1330	1010	948	538
18.	150	377	400	331	98	393	60	690	918	979	548	559
19.	158	443	400	297	167	311	24	918	2310	1110	830	612
20.	142	538	400	167	192	434	28	1060	1790	979	702	591
21.	154	538	400	101	158	461	33	902	1670	1010	902	548
22.	134	470	400	142	224	258	79	933	1500	506	612	538
23.	150	443	400	150	224	354	74	1130	1410	3700	488	538
24.	134	416	400	62	247	346	71	1280	1450	591	434	434
25.	119	393	400	33	261	311	56	1260	1960	331	452	400
26.	134	443	400	16	241	247	61	1220	3290	679	506	634
27.	130	434	400	10	224	304	61	1260	1330	777	470	777
28.	154	470	350	8	377	400	63	1290	1630	1450	338	803
29.	150	580	120	17	....	570	150	1280	2200	3990	2340	803
30.	192	580	517	12	....	657	258	1370	2060	2060	2640	764
31.	235	....	488	19	....	668	....	1450	....	856	5520	....
Total	5822	11582	13539	6714	6872	9708	5333	24149	49618	46726	59365	14741
Mean.	188	386	437	217	245	313	178	779	1650	1510	1920	491
Max..	270	580	....	....	408	668	488	1450	3290	3990	8250	1010
Min..	119	247	....	....	55	62	24	187	918	331	338	187
Acre-ft.	11600	23000	26900	13300	13600	19200	10600	47900	98200	92800	118000	29200

Discharge of Arkansas at Nepesta for Year Ending Sept. 30, 1928.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.	970	543	647	272	245	267	337	376	4990	1460	\$10	531
2.	1030	552	616	192	267	256	319	458	4910	765	765	552
3.	810	552	596	197	313	256	306	578	5300	788	849	344
4.	754	578	596	197	397	267	230	823	5760	1000	1070	552
5.	732	570	540	390	313	289	251	888	4150	940	927	647
6.	688	616	490	370	272	300	331	862	2920	914	862	627
7.	606	596	510	390	283	300	363	363	2190	875	709	534
8.	552	606	440	290	206	294	331	474	2270	888	709	424
9.	552	743	448	300	179	294	363	616	2280	849	441	370
10.	570	667	370	272	192	283	344	765	2690	616	313	356
11.	616	561	383	245	226	256	356	1590	2100	458	356	370
12.	678	552	110	188	267	267	449	1740	1860	458	441	356
13.	678	508	141	184	363	251	466	1090	1790	678	587	370
14.	647	404	356	167	606	267	483	849	1540	743	500	350
15.	596	404	419	171	483	283	319	1030	985	765	927	356
16.	596	397	440	171	356	230	278	836	799	657	383	325
17.	578	183	420	181	300	192	245	1480	914	709	390	300
18.	570	474	400	154	272	184	221	1110	940	823	517	272
19.	570	410	310	163	46	206	197	709	1080	688	606	262
20.	578	458	330	154	71	184	216	578	1230	1060	410	267
21.	616	404	360	188	237	235	175	491	1310	955	344	240
22.	424	363	383	170	272	350	206	458	1090	1720	417	216
23.	319	356	397	150	226	397	226	587	1000	1170	337	267
24.	337	337	483	130	300	370	283	616	914	1960	325	306
25.	350	325	483	120	344	350	251	1120	955	2380	383	363
26.	552	319	483	106	226	313	289	1880	1220	1200	417	325
27.	561	101	483	120	221	313	383	2350	1200	1200	363	289
28.	551	517	483	179	206	356	376	2190	914	1060	230	240
29.	552	572	337	184	211	132	294	2660	1060	1020	272	230
30.	466	647	370	267	....	466	256	3580	940	1150	376	206
31.	501	410	262	164	....	383	1420	....	970	449	....	....
Total	18601	14918	13864	6527	7930	9091	9144	37567	61301	30919	16485	10850
Mean.	600	497	447	211	273	293	305	1210	2040	997	532	362
Max..	1030	743	....	....	606	466	483	4420	5760	2380	1070	647
Min..	319	319	....	....	46	184	175	362	799	458	230	206
Acre-ft.	36900	29600	27500	13000	15700	18000	18100	74400	121000	61300	32700	21500

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

Discharge of Arkansas River at La Junta, Colo., for Year Ending Sept. 30, 1927.
Altitude, 4,052 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	33	115	301	13	25	76	516	52	643	621	184	250
2....	40	141	229	18	12	38	366	58	621	669	366	60
3....	38	158	194	23	14	30	284	50	621	621	6610	50
4....	52	189	184	12	37	68	122	55	669	558	4890	50
5....	50	213	189	21	35	68	93	50	576	656	2560	58
6....	68	229	223	10	18	18	122	93	476	500	307	107
7....	73	256	218	26	32	18	145	133	549	549	162	65
8....	55	245	256	13	40	13	184	261	612	549	4140	48
9....	58	245	301	26	38	19	107	585	576	576	2700	107
10....	42	210	194	33	23	33	79	372	446	612	4940	213
11....	60	208	52	16	23	32	71	390	484	390	879	145
12....	21	278	19	15	14	115	45	245	549	229	879	71
13....	18	318	33	20	14	35	52	180	612	576	267	35
14....	18	330	21	23	199	33	111	204	794	342	150	52
15....	25	342	21	73	90	42	73	111	811	97	208	52
16....	19	342	42	26	58	45	60	93	879	65	122	50
17....	19	324	25	21	23	35	60	55	721	199	97	122
18....	19	318	21	23	22	118	45	93	532	390	55	234
19....	19	240	22	32	30	166	50	366	508	446	65	245
20....	18	150	20	25	21	170	30	621	612	484	37	360
21....	14	87	20	25	65	150	40	540	777	2620	30	384
22....	25	40	26	33	55	162	38	516	1010	788	33	366
23....	40	32	35	28	15	125	38	558	524	3720	35	366
24....	30	50	40	26	25	158	38	621	141	324	145	307
25....	32	261	50	13	38	145	33	603	307	82	199	313
26....	28	223	62	28	50	218	40	576	721	62	204	360
27....	55	234	38	21	48	189	40	524	492	38	162	484 ^a
28....	55	213	23	22	82	218	33	594	384	752	145	150
29....	48	240	15	21	....	229	50	669	621	4930	204	204
30....	40	278	18	22	....	360	52	612	630	1350	170	194
31....	62	....	15	19	....	558	....	630	....	384	1440	....
Total	1174	6539	2907	727	1146	3684	3017	10510	17398	24179	32385	5502
Mean.	37.9	218	93.8	23.5	40.9	119	101	339	597	780	1040	183
Max..	73	342	301	73	199	558	516	669	1010	4930	6610	484
Min..	14	32	15	10	12	13	30	50	141	38	30	35
Acre-ft.	2330	13000	5770	1460	2270	7320	6010	20800	35500	48000	64000	10900

Discharge of Arkansas River at La Junta for Year Ending Sept. 30, 1928.
Altitude, 4,052 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	251	309	199	84	18	84	75	61	3060	354	463	152
2....	196	296	181	57	36	93	59	63	9240	57	442	114
3....	215	286	178	25	55	113	28	188	4050	53	463	124
4....	243	319	211	21	30	139	41	218	5660	286	476	107
5....	239	291	196	18	30	130	42	65	3130	594	319	41
6....	226	324	178	20	31	136	88	154	164	498	334	94
7....	234	339	145	20	25	77	75	171	364	537	449	139
8....	239	319	145	21	37	37	110	218	300	529	349	118
9....	268	319	73	14	84	23	185	273	483	506	410	36
10....	291	309	42	14	133	21	192	349	1520	483	449	22
11....	314	300	110	14	119	34	53	923	2490	463	359	16
12....	300	273	100	8	124	61	30	168	529	513	243	16
13....	309	273	55	8	142	53	34	53	273	449	124	19
14....	300	277	67	14	148	65	57	95	119	442	24	19
15....	282	247	46	9	110	63	51	21	133	449	14	28
16....	339	239	46	10	39	53	17	230	203	442	218	41
17....	329	260	82	10	31	41	17	264	305	537	207	54
18....	339	255	63	11	37	39	69	133	203	470	54	34
19....	324	260	22	12	41	34	44	151	203	422	32	45
20....	309	255	18	15	41	10	36	93	984	498	26	34
21....	314	260	12	12	30	32	48	75	513	463	50	31
22....	344	243	9	9	28	41	63	86	121	585	43	48
23....	334	243	9	7	48	51	48	65	42	498	54	34
24....	314	277	14	8	18	79	59	69	86	713	63	36
25....	282	277	9	11	51	93	39	82	34	309	50	54
26....	255	277	8	11	18	116	34	79	42	277	32	59
27....	277	255	8	14	31	90	42	192	73	405	29	68
28....	296	255	12	10	31	75	46	142	387	387	32	70
29....	296	234	12	16	61	90	50	376	683	506	39	48
30....	393	199	20	14	....	86	51	552	1570	410	39	28
31....	339	20	17	....	110	....	552	....	498	59	....	....
Total	8991	8270	2290	534	1657	2169	1763	6161	36964	13633	5945	1729
Mean.	290	276	73.9	17.2	57.1	70.0	58.8	199	1230	440	192	57.6
Max..	393	339	211	84	148	139	192	552	9240	594	476	152
Min..	196	199	8	7	18	10	17	21	34	53	14	16
Acre-ft.	17800	16400	4540	1060	3280	4300	3500	12200	73200	27100	11800	3430

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

Discharge of Arkansas River at Lamar, Colo., for Year Ending Sept. 30, 1927.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	1	2	5	39	53	10	4	3	2	9	6620	850
2....	1	2	5	46	44	15	4	4	2	4	6490	118
3....	1	2	5	47	29	14	7	3	6	4	8400	47
4....	1	3	4	35	26	7	7	3	6	3	9100	96
5....	1	3	5	28	23	6	5	2	9	3	6900	163
6....	1	3	5	15	24	5	4	4	5	3	5580	70
7....	1	3	6	17	25	5	4	3	10	3	4190	23
8....	1	3	6	11	20	4	5	3	8	6	3530	23
9....	1	3	14	8	20	5	4	3	9	5	6000	25
10....	1	4	28	36	22	4	3	4	8	14	6000	17
11....	1	4	217	10	25	5	4	4	16	14	5840	15
12....	1	5	98	11	25	26	4	4	40	14	2690	14
13....	1	4	56	34	40	115	6	4	14	16	1490	15
14....	1	6	53	48	33	68	8	3	13	7380	1080	13
15....	1	6	51	29	32	4	4	3	16	2510	410	12
16....	1	6	51	59	36	6	4	3	19	534	256	11
17....	1	10	47	128	32	6	4	4	36	112	175	11
18....	1	13	50	194	23	3	4	4	14	32	154	10
19....	2	14	41	177	10	6	7	4	16	23	900	10
20....	2	15	47	159	9	191	4	2	11	22	2000	8
21....	2	64	51	147	9	96	5	2	14	25	900	6
22....	2	129	44	140	9	8	3	2	27	9600	410	4
23....	2	38	50	93	8	7	4	4	32	5050	550	6
24....	2	9	41	140	7	6	3	3	15	5300	700	4
25....	2	4	26	159	7	5	4	4	14	3800	118	6
26....	2	7	31	150	6	5	3	4	9	1100	1200	6
27....	22	12	25	181	7	6	3	4	9	151	400	4
28....	2	5	31	206	6	5	3	3	21	334	100	62
29....	2	6	31	143	...	4	4	2	11	7140	191	22
30....	2	4	31	177	...	5	4	5	11	7920	154	7
31....	2	...	32	147	...	6	...	4	...	7880	256	...
Total	44	389	1187	2824	610	658	132	104	423	59014	82784	1678
Mean.	1.42	13.0	38.3	91.1	21.8	21.2	4.40	3.35	14.1	1900	2670	55.9
Max..	2	129	217	206	53	191	8	5	40	9600	9100	850
Min...	1	2	4	8	6	3	3	2	2	3	100	4
Acre-ft.	87	774	2360	5600	1210	1300	262	206	839	117000	164000	3330

Discharge of Arkansas River at Lamar for Year Ending Sept. 30, 1928.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	7	12	3	75	5	2	2	5	1100	1670	3	512
2....	6	7	3	117	5	2	2	5	8220	608	4	8
3....	5	6	3	185	5	3	4	8	5080	213	3	5
4....	5	4	3	117	5	3	3	6	6870	18	4	7
5....	4	7	3	173	4	3	3	155	7780	10	4	5
6....	4	5	21	164	4	3	3	8	5680	9	92	5
7....	3	4	3	120	4	3	3	6	3310	7	10	5
8....	3	4	3	120	5	3	3	5	2150	7	3	5
9....	3	4	28	150	4	2	2	5	1790	5	3	5
10....	3	3	75	170	3	3	3	5	2380	5	3	5
11....	4	4	117	198	4	2	2	744	2420	7	3	5
12....	4	4	95	207	4	3	3	7030	5500	5	3	4
13....	3	4	221	207	5	2	3	3030	2760	6	3	4
14....	3	5	147	212	4	1	5	2710	1850	7	3	4
15....	4	3	75	221	6	28	6	3280	990	6	3	4
16....	3	4	95	164	110	30	5	2590	584	7	3	5
17....	4	6	191	160	83	9	5	2660	450	5	32	5
18....	3	3	168	122	36	10	5	2760	440	5	45	4
19....	5	5	139	128	24	1	5	1520	584	10	22	4
20....	2	4	99	95	3	4	5	875	524	5	10	3
21....	3	4	139	85	2	2	8	676	2150	3	5	5
22....	3	5	147	102	2	5	5	391	1240	4	3	5
23....	4	4	176	82	6	3	5	304	460	4	3	4
24....	3	5	136	66	3	3	5	382	173	42	3	4
25....	3	5	151	78	4	2	5	312	86	304	3	4
26....	2	5	168	69	13	2	5	193	22	257	4	4
27....	3	5	139	51	3	2	6	220	6	76	2	4
28....	3	5	164	60	2	2	6	356	9	5	4	4
29....	3	4	143	57	3	3	6	296	11	3	3	4
30....	2	4	168	57	...	3	5	186	3190	3	3	4
31....	4	...	168	48	2	2	500	...	3	3	...	...
Total	111	144	3191	3860	360	146	129	31223	67859	3321	292	646
Mean.	3.58	4.80	103	125	12.4	4.71	4.30	1010	2260	107	942	21.5
Max..	7	12	...	110	30	8	7030	8220	1670	92	512	512
Min...	2	3	...	2	1	2	5	6	3	2	3	3
Acre-ft.	220	286	6330	7690	713	290	256	62100	134000	6580	579	1280

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

STATE ENGINEER, COLORADO

139

Discharge of Arkansas River at Holly for Year Ending Sept. 30, 1927.
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	10	100	390	10	27	17	1	1	7420	508
2....	1	2	11	160	255	38	26	13	2	1	9780	532
3....	1	2	10	110	237	93	22	12	2	1	8940	548
4....	1	2	9	130	188	228	24	13	1	1	19830	485
5....	1	2	24	150	125	76	26	13	3	1	12500	287
6....	1	3	24	115	151	51	24	15	3	1	6290	448
7....	1	3	51	104	65	36	20	10	2	1	2590	315
8....	1	3	51	82	87	21	35	12	2	1	2070	222
9....	1	3	109	69	104	29	26	8	1	1	10190	144
10....	1	4	62	36	195	35	26	10	1	1	8780	123
11....	1	3	98	35	76	51	21	7	1	424	12580	118
12....	1	3	340	26	125	219	12	6	4	58	4670	113
13....	1	3	158	24	87	136	13	5	4	12	2460	110
14....	1	5	112	17	58	282	26	5	5	5	5160	2460
15....	2	7	100	54	65	130	19	5	4	2870	1260	71
16....	1	5	92	62	93	87	12	6	5	1360	768	86
17....	1	6	92	120	98	93	11	5	4	460	630	74
18....	1	9	100	150	17	40	16	4	5	246	470	58
19....	1	12	100	170	51	188	18	5	9	76	1410	66
20....	1	14	100	190	40	104	33	2	13	61	3350	59
21....	1	104	90	180	62	158	17	2	13	564	1750	50
22....	1	330	90	180	44	158	19	1	10	7750	1030	48
23....	1	360	90	185	44	54	18	1	6	6280	826	46
24....	1	300	90	180	26	54	21	3	4	6790	691	49
25....	1	104	90	180	12	44	17	1	4	3380	524	42
26....	1	31	90	180	16	31	15	1	3	1800	1540	45
27....	2	47	90	250	8	31	12	1	2	1300	1140	50
28....	1	11	90	424	5	33	18	2	1	1350	923	53
29....	1	12	90	496	....	33	16	1	1	7120	670	86
30....	2	10	90	360	....	33	12	1	1	8940	485	86
31....	1	90	380	....	36	....	3	....	7630	315	....
Total	34	1401	2636	4839	2724	2612	602	190	117	63841	123842	5032
Mean.	1.10	46.7	85.0	156	97.3	84.3	20.1	6.13	3.90	2050	4140	168
Max..	2	360	340	496	390	282	33	17	13	8940	19830	548
Min..	1	1	9	17	5	10	11	1	1	1	315	42
Acre-ft.	68	2780	5230	9590	5400	5180	1200	377	232	12600	255000	10000

Discharge of Arkansas River at Holly for Year Ending Sept. 30, 1928.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	65	60	90	150	132	107	39	31	380	2180	19	136
2....	60	60	86	222	103	107	44	29	9700	955	5	107
3....	59	65	88	260	108	53	38	144	5290	465	10	35
4....	66	66	68	222	157	64	22	170	6450	369	17	34
5....	60	76	76	247	110	76	41	222	6820	101	9	74
6....	59	68	96	239	118	74	64	388	4750	148	20	35
7....	59	73	78	195	103	69	60	123	2690	101	71	34
8....	60	68	71	32	76	58	46	88	1320	69	76	19
9....	48	70	103	247	82	55	53	95	1020	74	38	30
10....	50	76	150	326	111	55	51	95	972	39	29	25
11....	48	66	192	273	119	48	39	170	4050	51	20	32
12....	52	74	170	282	67	64	32	3360	5100	23	23	58
13....	60	63	296	282	104	67	41	2320	2900	9	21	31
14....	52	68	222	287	180	74	30	1590	1680	8	23	4
15....	50	68	150	296	180	71	44	2610	1020	9	25	23
16....	48	63	170	239	180	98	44	1700	940	7	19	23
17....	55	68	264	235	180	123	39	1360	785	10	16	22
18....	52	63	243	199	180	69	29	1960	812	9	12	30
19....	52	68	214	203	180	132	34	1140	668	8	24	32
20....	48	76	174	170	180	164	31	585	668	9	16	5
21....	56	66	214	160	175	140	31	529	1860	9	16	13
22....	59	86	222	177	115	111	50	268	970	9	15	14
23....	55	73	251	157	85	144	21	136	869	9	9	14
24....	53	70	211	141	82	148	24	98	529	9	24	11
25....	54	74	226	153	132	79	24	111	350	9	23	10
26....	59	90	243	144	132	79	24	85	255	107	18	11
27....	55	90	214	126	136	79	28	76	191	107	28	11
28....	56	78	239	135	104	44	25	55	98	76	38	10
29....	56	84	218	132	111	43	25	74	76	67	24	13
30....	55	90	243	132	....	69	29	64	2960	25	24	19
31....	49	....	243	123	....	58	32	....	30	24	....
Total	1710	2160	5525	6186	3722	2622	1102	20208	66173	5101	736	915
Mean.	55.2	72.0	178	200	128	84.6	36.7	652	2210	165	23.7	30.5
Max..	66	90	296	326	180	164	64	3360	9700	2180	76	136
Min..	48	60	68	32	67	43	21	29	76	7	5	4
Acre-ft.	3390	4280	10900	12300	7360	5200	2180	40100	132000	10100	1460	1810

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

Discharge of Grape Creek Near Westcliffe for Year Ending Sept. 30, 1927.
Drainage Area, 346 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	
1....	7.7	22	25	20	18	20	85	19	9.7	7	45	28	
2....	9.3	19	24	20	18	20	68	17	12	44	53	25	
3....	9.3	19	23	20	18	20	85	14	9.7	28	71	25	
4....	9.3	18	22	20	18	20	68	14	8.5	21	62	24	
5....	8.9	16	22	20	19	20	52	13	8.5	18	100	20	
6....	9.3	20	21	23	18	22	45	12	9.7	15	97	20	
7....	9.3	21	21	23	18	22	40	12	13	12	85	20	
8....	8.9	17	21	23	18	22	38	13	18	11	103	19	
9....	9.7	19	21	23	18	22	35	14	16	20	287	24	
10....	9.7	21	21	23	18	22	29	14	12	39	152	22	
11....	9.7	20	20	18	19	21	28	13	10	41	80	20	
12....	9.3	21	19	18	19	21	30	12	35	29	62	28	
13....	10	25	18	18	19	21	33	9.3	126	26	55	39	
14....	10	20	17	18	19	21	36	9.3	62	28	48	69	
15....	9.7	20	15	18	19	21	41	8.5	61	18	47	66	
16....	10	17	14	17	20	20	35	8.9	234	14	57	56	
17....	10	17	13	17	20	20	28	13	114	11	48	51	
18....	10	17	12	17	20	20	25	18	54	8.9	48	69	
19....	11	18	12	17	20	20	26	20	57	10	43	89	
20....	11	19	12	17	20	20	26	19	65	11	62	74	
21....	11	21	13	16	20	25	22	15	87	11	58	62	
22....	10	24	13	16	20	30	19	11	68	11	52	55	
23....	11	24	13	16	20	35	19	9.3	42	20	50	55	
24....	9.7	24	13	16	20	45	18	9.3	31	67	49	53	
25....	9.7	23	13	16	20	50	19	9.3	23	135	43	51	
26....	9.7	16	15	17	22	55	19	8.5	31	55	40	77	
27....	11	20	15	17	22	110	20	5.0	30	45	41	92	
28....	11	19	15	17	22	277	20	4.6	31	68	50	85	
29....	12	28	15	17	...	419	21	4.2	53	226	44	66	
30....	15	26	15	17	...	406	20	5.3	92	184	36	130	
31....	25	...	15	17	...	270	6.9	...	67	32	...	...
Total	327.2	611	528	572	542	2137	1050	361.4	1423.1	1370.9	2100	1534	
Mean.	10.6	20.4	17.0	18.5	19.4	...	68.9	35.0	11.7	47.4	44.2	67.7	51.1
Max..	25	28	25	...	...	419	85	20	234	226	287	130
Min...	7.7	16	12	...	...	20	18	4.2	8.5	8.9	32	19
Acre-ft.	652	1210	1050	1140	1080	4240	2080	719	2820	2720	4160	3040	

Discharge of Grape Creek Near Westcliffe for Year Ending Sept. 30, 1928.
Drainage Area, 346 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	136	31	...	...	...	18	33	27	348	...	...	...
2....	77	26	...	...	...	18	22	37	326	...	...	...
3....	62	24	...	...	...	18	16	77	348	...	...	...
4....	57	25	...	...	...	18	16	127	394	...	...	...
5....	52	25	...	...	...	18	16	122	302	...	...	...
6....	47	25	...	...	...	20	25	61	161	...	...	...
7....	47	25	...	...	...	20	31	48	126	...	...	...
8....	52	23	...	...	...	20	48	51	130	...	...	...
9....	51	23	18	...	...	20	50	65	110	...	...	...
10....	46	21	...	...	...	20	54	115	121	...	...	...
11....	41	19	...	...	19	30	55	279	140	...	...	...
12....	37	20	...	...	...	30	54	285	114	...	...	...
13....	35	22	...	20	...	30	52	153	89	...	...	...
14....	36	21	...	...	...	30	51	138	63	...	...	...
15....	37	20	...	...	...	30	44	190	45	...	...	...
16....	36	25	...	...	...	50	35	100	26	...	...	...
17....	35	21	...	...	...	50	29	76	24	...	...	...
18....	33	21	...	...	...	50	26	76	24	...	...	...
19....	32	23	...	...	...	50	22	82	26	...	...	...
20....	31	24	...	...	...	50	22	86	29	...	...	...
21....	29	22	...	...	...	108	28	260	26	...	...	...
22....	28	20	...	...	...	85	29	163	21	...	...	...
23....	28	20	...	...	...	56	27	130	19	...	...	...
24....	27	21	...	...	...	48	25	144	20	...	...	...
25....	26	21	...	...	...	45	25	160	25	...	...	...
26....	27	20	...	...	...	40	29	169	27	...	...	...
27....	26	20	...	...	...	34	33	192	28	...	...	...
28....	27	20	...	...	...	28	29	246	23	...	...	...
29....	41	20	...	...	...	26	26	288	18	...	...	...
30....	35	20	...	...	...	26	25	323	15	...	...	...
31....	32	...	...	...	...	35	...	355	...	...	...	...
Total	1306	668	...	...	...	1121	977	4625	3168	...	...	...
Mean.	42.1	22.3	18	19	19	36.2	32.6	149	106	...	...	...
Max..	136	31	...	...	...	55	355	394	...	...	...	...
Min...	26	19	...	...	...	16	27	15	...	...	...	...
Acre-ft.	2590	1330	1110	1170	1090	2230	1940	9160	6310	...	...	...

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

Discharge of St. Charles at Burnt Mill for Year Ending Sept. 30, 1927.
Drainage Area, 166 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	
1....	3	6	3	....	....	1	14	15	6	8	67	30
2....	3	6	5	....	....	2	8	12	6	5	104	35
3....	3	5	7	....	....	2	8	9	6	2	200	32
4....	3	5	7	....	....	2	9	9	5	1	1680	30
5....	3	4	6	....	....	2	7	7	4	5	1060	27
6....	3	4	6	....	....	1	6	11	4	6	500	32
7....	3	3	5	....	....	1	5	11	5	8	300	32
8....	3	3	5	....	....	1	5	12	5	14	200	23
9....	3	5	5	....	....	2	5	12	3	26	250	24
10....	2	6	....	....	....	1	4	9	3	34	226	23
11....	3	7	....	....	....	1	3	11	7	36	189	21
12....	2	5	....	....	....	1	5	12	7	45	162	19
13....	2	5	....	....	....	1	6	14	9	243	106	20
14....	3	4	....	....	....	1	6	12	6	51	95	20
15....	3	5	....	....	....	2	7	7	9	14	83	17
16....	3	5	....	....	....	1	6	5	18	14	67	17
17....	3	4	....	....	....	1	6	7	5	16	71	17
18....	2	4	....	....	....	1	7	7	5	143	52	46
19....	2	4	....	....	....	1	11	6	4	52	56	33
20....	2	4	....	....	....	1	11	5	5	14	76	23
21....	3	4	....	....	....	3	7	5	5	11	56	14
22....	4	5	....	....	....	6	7	6	6	11	52	15
23....	4	5	2	6	12	6	5	21	49	15
24....	5	3	2	5	12	7	4	115	71	25
25....	5	4	1	5	15	8	55	61	46	25
26....	4	3	1	6	17	7	237	11	35	33
27....	5	4	1	6	26	6	12	14	35	37
28....	3	4	1	7	20	6	5	26	46	38
29....	3	3	....	....	....	10	11	6	6	876	35	32
30....	5	4	....	....	....	11	21	5	11	366	52	31
31....	5	....	....	....	....	12	....	5	....	115	46	....
Total	100	133	....	....	....	103	286	260	468	2364	6067	786
Mean.	3.23	4.43	....	....	....	3.32	9.53	8.39	15.6	76.3	196	26.2
Max..	5	7	....	....	....	12	26	15	237	876	1680	46
Acre-ft.	199	264	....	....	....	204	567	516	928	4690	12100	1560

Discharge of St. Charles at Burnt Mill for Year Ending Sept. 30, 1928.
Drainage Area, 166 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	33	7	....	....	....	28	195	190	32	22	8	8
2....	26	8	....	....	....	30	220	220	30	17	7	6
3....	22	9	....	....	....	30	175	503	22	58	....	6
4....	26	....	....	....	....	36	190	940	24	12	....	6
5....	22	....	....	....	....	30	190	528	23	12	....	6
6....	16	....	....	....	....	26	190	342	19	18	5	5
7....	16	....	....	....	....	20	215	304	20	18	6	6
8....	18	....	....	....	....	22	220	255	18	16	7	7
9....	16	....	....	....	....	26	215	215	18	15	4	4
10....	20	....	....	....	....	44	249	180	24	12	5	5
11....	14	....	....	....	....	60	589	155	22	9	2	2
12....	13	....	....	....	....	56	447	147	31	8	3	7
13....	15	....	....	....	....	58	432	132	24	7	4	7
14....	18	....	....	....	....	48	670	119	16	8	4	4
15....	17	....	....	....	....	48	670	116	17	8	6	6
16....	17	....	....	....	....	66	652	97	16	7	6	6
17....	21	....	....	....	....	106	520	84	13	10	5	5
18....	20	....	....	....	....	122	447	70	23	14	6	6
19....	19	....	....	....	....	100	528	62	300	10	6	6
20....	18	....	....	....	....	84	503	66	250	10	6	6
21....	18	....	....	....	....	64	486	62	100	8	7	7
22....	19	....	....	....	....	60	439	54	100	8	8	8
23....	15	....	....	....	....	79	394	54	350	4	7	7
24....	15	....	....	....	....	110	342	48	75	8	6	6
25....	15	....	....	....	....	100	349	49	48	6	5	5
26....	12	....	....	....	....	92	342	46	42	3	6	6
27....	11	....	....	....	....	100	324	43	26	3	6	6
28....	11	....	....	....	....	119	298	37	66	4	6	6
29....	10	....	....	....	....	126	291	33	34	4	5	5
30....	10	....	....	....	....	162	266	31	60	3	3	2
31....	10	....	....	....	....	255	....	28	3	....	....	....
Total	533	....	....	....	....	2052	11303	5182	1871	345	174	....
Mean.	17.2	....	....	....	....	68.4	365	173	60.4	11.1	5.80	8
Max..	33	....	....	....	....	162	670	940	....	58	....	8
Min...	10	....	....	....	....	20	175	31	13	3	3	2
Acre-ft.	1060	....	....	....	....	4070	22400	10300	3710	682	345	....

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

Discharge of Huerfano at Mansanarez for Year Ending Sept. 30, 1927.
Drainage Area, 76 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	13	.....	.....	.....	.....	.....	19	38	45	82	34	22
2....	15	.....	.....	.....	.....	.....	19	45	43	64	51	20
3....	16	.....	.....	.....	.....	.....	19	51	43	56	75	23
4....	15	.....	.....	.....	.....	.....	19	59	43	48	54	20
5....	14	.....	.....	.....	.....	.....	19	43	47	50	62	17
6....	13	.....	.....	.....	.....	.....	19	40	45	45	107	17
7....	12	.....	.....	.....	.....	.....	19	45	48	40	64	20
8....	13	.....	.....	.....	.....	.....	19	42	51	36	68	22
9....	16	.....	.....	.....	.....	.....	17	36	44	47	84	28
10....	15	.....	.....	.....	.....	.....	17	36	44	91	86	26
11....	15	.....	.....	.....	.....	.....	17	35	56	68	71	32
12....	15	.....	.....	.....	.....	.....	17	44	61	51	64	27
13....	14	.....	.....	.....	.....	.....	18	47	54	45	56	133
14....	12	.....	.....	.....	.....	.....	18	65	48	40	58	89
15....	12	.....	.....	.....	.....	.....	18	75	80	36	47	71
16....	13	.....	.....	.....	.....	.....	17	83	73	34	45	61
17....	12	.....	.....	.....	.....	.....	17	86	66	32	43	64
18....	12	.....	.....	.....	.....	.....	17	86	73	28	36	71
19....	12	.....	.....	.....	.....	.....	17	80	75	30	33	58
20....	12	.....	.....	.....	.....	.....	17	77	66	38	35	51
21....	13	.....	.....	.....	.....	.....	18	68	59	43	32	50
22....	12	.....	.....	.....	.....	.....	18	71	51	43	28	45
23....	12	.....	.....	.....	.....	.....	18	64	45	42	28	43
24....	12	.....	.....	.....	.....	.....	19	58	45	47	28	43
25....	12	.....	.....	.....	.....	.....	19	51	53	40	25	40
26....	12	.....	.....	.....	.....	.....	19	51	54	38	28	39
27....	11	.....	.....	.....	.....	.....	25	47	62	42	34	36
28....	10	.....	.....	.....	.....	.....	35	47	70	56	33	35
29....	11	.....	.....	.....	.....	.....	31	45	80	54	27	36
30....	12	.....	.....	.....	.....	.....	43	45	104	44	25	38
31....	12	.....	.....	.....	.....	19	45	45	35	24	11	11
Total	400	.....	.....	.....	.....	.....	604	1714	1728	1445	1485	1277
Mean.	12.9	.....	.....	.....	.....	.....	20.1	55.3	57.6	46.6	47.9	42.6
Max..	16	.....	.....	.....	.....	.....	89	104	91	107	133	133
Min..	10	.....	.....	.....	.....	.....	35	43	28	24	17	17
Acre-ft.	793	.....	.....	.....	.....	.....	1200	3400	3430	2870	2950	2530

Discharge of Huerfano at Mansanarez for Year Ending Sept. 30, 1928.
Drainage Area, 76 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	37	.....	.....	.....	.....	.....	18	50	163	56	46	24
2....	32	.....	.....	.....	.....	.....	18	58	166	50	62	26
3....	28	.....	.....	.....	.....	.....	21	56	166	50	124	25
4....	27	.....	.....	.....	.....	.....	18	62	132	48	101	25
5....	26	.....	.....	.....	.....	.....	18	56	118	43	74	24
6....	27	.....	.....	.....	.....	.....	18	64	108	37	54	25
7....	28	.....	.....	.....	.....	.....	18	74	103	35	53	25
8....	31	.....	.....	.....	.....	.....	18	89	101	34	51	37
9....	31	.....	.....	.....	.....	.....	18	106	101	32	45	37
10....	27	.....	.....	.....	.....	.....	18	98	103	31	42	24
11....	25	.....	.....	.....	.....	.....	18	87	98	28	40	22
12....	24	.....	.....	.....	.....	.....	18	78	94	30	45	26
13....	23	.....	.....	.....	.....	.....	18	68	89	31	40	21
14....	23	.....	.....	.....	.....	.....	18	60	80	31	39	19
15....	23	.....	.....	.....	.....	.....	24	56	66	30	39	18
16....	22	.....	.....	.....	.....	.....	20	56	74	31	36	18
17....	21	.....	.....	.....	.....	.....	26	56	76	43	36	17
18....	22	.....	.....	.....	.....	.....	30	58	76	27	34	16
19....	23	.....	.....	.....	.....	.....	26	64	74	32	24	16
20....	23	.....	.....	.....	.....	.....	21	72	70	45	22	16
21....	23	.....	.....	.....	.....	.....	21	78	64	62	26	16
22....	23	.....	.....	.....	.....	.....	20	96	66	62	26	16
23....	22	.....	.....	.....	.....	.....	18	111	70	51	28	16
24....	21	.....	.....	.....	.....	.....	20	121	74	46	30	16
25....	19	.....	.....	.....	.....	.....	21	124	80	37	32	17
26....	20	.....	.....	.....	.....	.....	23	127	68	28	32	17
27....	20	.....	.....	.....	18	27	154	70	23	34	21	21
28....	20	.....	.....	.....	20	27	194	68	23	27	21	21
29....	19	.....	.....	.....	17	32	197	64	60	31	21	21
30....	19	.....	.....	.....	17	40	190	62	68	35	18	18
31....	19	.....	.....	.....	20	.....	175	.....	62	27	11	11
Total	748	.....	.....	.....	.....	.....	654	2925	2744	1266	1335	640
Mean.	24.1	.....	.....	.....	.....	.....	21.8	94.7	91.5	40.8	43.1	21.3
Max..	37	.....	.....	.....	.....	.....	46	197	166	68	124	37
Min..	19	.....	.....	.....	.....	.....	18	50	62	23	22	16
Acre-ft.	1480	.....	.....	.....	.....	.....	1300	5820	5440	2510	2650	1279

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

Discharge of Huerfano at Huerfano for Year Ending Sept. 30, 1927.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	0	24	....	....	....	3	6	0	4	3	64	7
2....	0	28	....	....	....	3	4	0	0	1	210	3
3....	0	33	....	....	....	3	1	3	1	0	16	3
4....	0	36	....	....	....	3	1	0	4	0	1200	0
5....	0	....	....	....	....	3	1	0	6	0	200	1
6....	0	....	....	....	....	3	1	0	24	0	240	1
7....	0	....	....	....	....	4	1	0	28	18	280	0
8....	0	....	....	....	....	4	1	1	1	8	220	1
9....	0	....	....	....	....	4	1	1	0	100	78	1
10....	0	....	....	....	....	3	0	1	0	34	96	1
11....	0	....	....	....	....	8	0	1	0	40	50	1
12....	0	....	....	....	....	6	1	0	20	18	30	1
13....	0	....	....	....	....	5	1	0	5	36	2	5
14....	0	....	....	....	....	16	1	0	3	15	7	70
15....	0	....	....	....	....	4	1	0	24	0	4	20
16....	0	....	....	....	....	3	1	0	24	0	5	10
17....	0	....	....	....	....	6	3	0	1	0	0	8
18....	0	....	....	....	....	4	6	0	1	0	18	25
19....	0	....	....	....	....	4	6	0	1	12	34	50
20....	0	....	....	....	....	22	10	0	1	0	30	25
21....	0	....	....	....	....	23	4	0	1	0	20	12
22....	0	....	....	....	....	33	3	0	2	20	20	10
23....	0	....	....	....	....	33	2	8	1	36	30	10
24....	0	....	....	....	....	23	4	0	1	340	40	8
25....	0	....	....	....	....	18	2	0	1	18	10	15
26....	0	....	....	....	....	10	1	0	2	20	8	25
27....	0	....	....	....	....	10	5	0	4	24	6	15
28....	0	....	....	....	....	30	0	0	0	76	25	10
29....	0	....	....	....	....	18	5	0	3	380	15	8
30....	11	....	....	....	....	15	2	1	5	180	12	20
31....	24	....	....	....	....	12	0	....	10	10	....	....
Total	35	....	....	....	....	336	75	16	168	1389	2980	366
Mean.	1.13	....	....	....	....	10.8	2.50	0.52	5.60	44.8	96.1	12.2
Max.	....	....	....	....	....	....	....	....	....	....	....	....
Min.	....	....	....	....	....	....	....	....	....	....	....	....
Acre-ft.	70	....	....	....	....	664	149	32	333	2750	5910	726

Discharge of Huerfano at Huerfano for Year Ending Sept. 30, 1928.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	15	....	....	....	....	0	10	150	0	12	12	12
2....	12	....	....	....	....	0	25	125	0	10	10	10
3....	10	....	....	....	....	0	15	200	0	40	10	10
4....	10	....	....	....	....	0	10	200	0	50	8	8
5....	8	....	....	....	....	0	8	150	0	20	5	5
6....	8	....	....	....	....	0	4	90	0	12	1	1
7....	8	....	....	....	....	0	2	75	0	10	0	0
8....	8	....	....	....	....	0	3	45	0	3	0	0
9....	8	....	....	....	....	0	2	25	1	3	0	0
10....	8	....	....	....	....	0	15	20	0	2	0	0
11....	4	....	....	....	....	0	22	25	0	2	0	0
12....	1	....	....	....	....	0	12	20	2	8	0	0
13....	1	....	....	....	....	0	25	15	1	15	0	0
14....	5	....	....	....	....	0	38	10	0	3	0	0
15....	10	....	....	....	....	0	7	5	5	0	0	0
16....	8	....	....	....	....	0	3	3	0	10	0	0
17....	5	....	....	....	....	0	1	3	5	50	0	0
18....	2	....	....	....	....	0	1	2	5	40	0	0
19....	2	....	....	....	....	0	2	2	0	20	1	1
20....	2	....	....	....	....	9	12	5	5	5	5	2
21....	8	....	....	....	....	1	40	5	8	8	8	10
22....	5	....	....	....	....	1	50	3	60	5	5	2
23....	2	....	....	....	....	1	40	3	20	5	5	5
24....	5	....	....	....	....	1	45	8	150	20	4	4
25....	5	....	....	....	....	1	35	12	30	20	3	3
26....	5	....	....	....	....	1	75	12	20	15	1	1
27....	5	....	....	....	....	1	175	2	10	10	0	0
28....	5	....	....	....	....	1	225	1	4	8	0	0
29....	8	....	....	....	....	1	275	0	25	5	0	0
30....	20	....	....	....	....	1	8	250	0	90	5	0
31....	20	....	....	....	....	1	229	....	100	12	....	....
Total	223	....	....	....	....	17	1656	1216	541	428	74	74
Mean.	7.19	....	....	....	....	0.57	53.4	40.5	17.4	13.8	2.47	2.47
Max.	....	....	....	....	....	....	....	....	....	....	....	....
Min.	....	....	....	....	....	....	....	....	....	....	....	....
Acre-ft.	442	....	....	....	....	34	3280	2410	1070	848	147	147

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

Discharge of Cucharas at La Veta for Year Ending Sept. 30, 1927.
Drainage Area, 75 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	6	10	...	...	...	3	8	11	25	21	10	7
2	7	12	...	...	...	5	8	11	25	21	10	6
3	6	12	...	...	...	2	10	11	22	18	12	6
4	6	17	...	...	...	2	10	14	22	18	15	6
5	6	9	...	...	...	1	11	19	22	18	10	6
6	5	10	...	...	...	5	12	16	22	18	10	6
7	5	10	...	...	...	2	12	16	17	18	10	6
8	5	7	...	...	...	2	14	17	16	21	22	6
9	4	8	...	...	...	2	14	17	16	18	18	5
10	4	9	...	...	...	2	10	17	22	21	15	5
11	4	9	...	...	...	2	10	21	22	18	11	2
12	4	8	...	...	...	6	8	19	29	18	10	2
13	4	7	...	...	...	8	8	19	29	18	11	2
14	4	6	...	...	...	5	10	16	29	18	11	2
15	4	8	...	...	...	6	14	21	33	15	11	2
16	4	7	...	...	...	2	10	21	33	14	11	2
17	4	7	...	...	...	4	11	23	37	14	11	2
18	4	7	...	...	...	4	11	23	37	12	9	2
19	4	7	...	...	...	2	11	25	37	12	9	2
20	4	7	...	...	...	2	11	25	33	10	9	2
21	4	7	...	...	...	2	9	25	29	10	9	2
22	4	8	...	...	...	5	9	25	29	28	9	2
23	4	8	...	...	...	4	9	25	29	14	9	2
24	3	8	...	...	...	8	9	28	29	15	9	2
25	2	8	...	...	...	2	9	28	29	15	9	4
26	2	6	...	...	...	5	9	25	25	15	9	4
27	3	7	...	...	...	8	12	25	21	12	9	5
28	3	8	...	...	...	8	15	25	25	12	9	5
29	3	8	...	...	...	10	15	25	25	10	9	5
30	3	8	...	...	...	14	15	25	29	10	9	5
31	7	...	...	...	...	8	...	25	...	10	9	...
Total	134	253	...	...	...	141	327	643	798	492	334	115
Mean.	4.32	8.43	...	...	...	4.55	10.9	20.7	26.6	15.9	10.8	3.83
Max..	7	17	...	...	...	14	15	28	37	28	22	7
Min..	3	6	...	...	...	1	8	11	16	10	9	2
Acre-ft.	266	502	...	...	...	280	649	1270	1580	978	664	228

Discharge of Cucharas at La Veta for Year Ending Sept. 30, 1928.
Drainage Area, 75 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	5	62	160	25	21	11	6
2	6	74	160	25	21	11	6
3	3	70	160	19	15	6	5
4	1	64	152	19	16	6	5
5	1	64	146	19	16	6	5
6	4	65	144	19	16	6	5
7	5	78	132	19	16	6	5
8	5	103	120	25	16	6	5
9	5	116	120	25	16	5	5
10	6	111	120	19	15	5	5
11	7	101	120	19	11	5	5
12	5	116	120	19	11	5	5
13	6	91	111	22	11	5	5
14	9	91	101	20	11	5	5
15	9	85	86	20	11	5	5
16	12	103	72	20	11	5	3
17	14	112	67	20	11	3	3
18	16	111	58	20	10	3	3
19	16	116	48	20	10	3	3
20	16	116	44	20	10	3	3
21	14	118	39	21	10	3	3
22	15	127	39	21	10	3	3
23	19	136	39	21	10	3	3
24	21	139	39	21	10	3	3
25	26	169	39	21	6	3	3
26	27	181	31	21	6	3	3
27	30	237	31	21	6	3	3
28	35	270	31	21	6	3	3
29	42	260	27	21	6	3	3
30	41	225	25	21	6	3	3
31	171	...	21	6	3	3
Total	121	3888	2581	645	357	130	...
Mean.	14.0	125	86.0	20.8	11.5	4.33	...
Max..	42	270	160	25	21	6	3
Min..	1	62	25	19	6	3	3
Acre-ft.	833	7690	5120	1280	707	258	...

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

Discharge of Timpanogos Creek at Catlin Syphon for Year Ending Sept. 30, 1927.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.	6	94	....	....	....	24	28	3	6	10	190	24
2.	2	94	....	....	....	4	51	3	5	10	160	13
3.	2	77	....	....	....	35	50	3	4	13	892	29
4.	1	78	....	....	....	94	19	11	6	16	276	70
5.	5	76	....	....	....	4	12	7	11	13	152	56
6.	34	66	....	....	....	1	12	13	11	12	271	26
7.	31	57	....	....	....	1	12	23	5	8	217	16
8.	13	45	....	....	....	1	13	139	4	8	222	10
9.	23	45	....	....	....	1	19	40	4	6	156	16
10.	27	69	....	....	....	1	26	10	4	7	143	25
11.	13	78	....	....	....	46	8	2	510	179	150	26
12.	14	83	....	....	....	18	5	1	96	13	345	27
13.	13	77	....	....	....	5	4	1	90	4	102	26
14.	10	98	....	....	....	49	4	1	81	6	69	22
15.	6	100	....	....	....	34	4	1	87	15	104	23
16.	1	87	....	....	....	33	3	1	276	8	143	24
17.	6	44	....	....	....	26	1	1	102	3	118	18
18.	2	15	....	....	....	4	3	1	86	3	109	190
19.	1	4	....	....	....	10	2	2	60	3	152	44
20.	11	1	....	....	....	23	3	3	81	3	133	40
21.	17	50	....	....	....	46	6	13	77	628	77	39
22.	6	67	....	....	....	32	13	12	69	339	44	39
23.	2	40	....	....	....	10	8	10	55	1530	30	44
24.	4	22	....	....	....	22	13	3	35	105	40	62
25.	13	38	....	....	....	10	4	3	29	83	37	74
26.	8	40	....	....	....	45	4	4	28	30	45	104
27.	9	26	....	....	....	32	1	3	18	50	114	98
28.	3	40	....	....	....	19	2	3	18	1040	59	45
29.	34	31	....	....	....	12	2	9	15	1150	129	16
30.	64	13	....	....	....	31	3	7	14	146	57	11
31.	74	....	....	....	....	44	....	6	59	38	....	....
Total	455	1655	....	....	....	717	335	339	1887	5500	4774	1257
Mean.	14.7	55.2	....	....	....	23.1	11.2	10.9	62.9	177	154	41.9
Max..	74	100	....	....	....	94	51	139	510	1530	892	190
Min...	1	1	....	....	....	1	1	1	4	3	30	10
Acre-ft.	904	3280	....	....	....	1420	666	670	3740	10900	9470	2490

Discharge of Purgatoire River at Trinidad, Colo., for Year Ending Sept. 30, 1927.
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.	9	24	15	9	12	12	14	50	84	105	170	79
2.	9	32	15	9	30	16	11	58	75	98	324	73
3.	12	29	14	13	13	19	10	68	75	88	150	90
4.	16	28	14	17	18	16	9	70	81	81	112	128
5.	14	25	13	19	14	13	8	62	84	73	112	64
6.	13	28	13	12	13	12	8	40	100	66	100	56
7.	12	28	13	17	12	10	6	40	107	81	350	44
8.	9	28	13	9	16	8	6	40	107	95	158	46
9.	11	18	12	9	24	6	6	52	98	86	250	50
10.	12	22	8	9	12	7	9	66	95	84	152	50
11.	11	26	8	8	18	19	10	81	112	93	141	48
12.	11	24	12	10	16	35	11	86	163	68	130	64
13.	11	24	7	12	22	52	17	86	185	129	117	46
14.	9	22	8	8	12	29	22	110	152	77	115	46
15.	9	16	8	26	19	29	18	120	152	58	125	62
16.	8	23	6	16	22	35	16	110	182	52	152	93
17.	9	22	8	12	19	24	16	100	158	41	505	105
18.	8	25	8	13	19	17	20	117	169	40	266	100
19.	9	24	9	12	22	28	32	130	169	35	313	95
20.	7	32	6	12	18	36	29	120	163	36	289	79
21.	6	26	8	11	19	35	26	112	188	35	185	73
22.	8	28	5	19	17	25	18	115	155	190	212	70
23.	8	22	5	11	16	24	16	107	141	185	1990	66
24.	9	16	6	29	12	16	15	77	128	100	448	70
25.	8	17	8	16	11	14	16	77	120	102	133	62
26.	9	12	5	26	12	15	16	70	112	84	112	100
27.	11	12	18	18	12	16	20	75	105	88	93	66
28.	11	19	17	18	12	16	26	73	100	674	128	70
29.	11	14	13	15	....	16	35	75	117	2950	95	66
30.	23	16	3	10	....	13	44	77	120	270	84	64
31.	24	....	3	10	....	13	....	81	....	200	79	....
Total	337	682	301	435	462	626	510	2545	3797	6364	7590	2125
Mean.	10.9	22.7	9.71	14.0	16.5	20.2	17.0	82.1	127	205	245	70.8
Max..	24	32	18	29	30	52	44	130	188	2950	1990	128
Min...	6	12	3	8	11	6	6	40	75	35	79	44
Acre-ft.	670	1350	597	861	916	1240	1010	5050	7560	12600	15100	4210

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

Discharge of Purgatoire River at Trinidad, Colo., for Year Ending Sept. 30, 1928.
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....	60	26	14	17	5	19	22	106	792	78	89	64
2....	55	26	20	17	8	19	22	127	632	71	89	38
3....	50	22	19	19	14	17	20	188	583	58	172	27
4....	46	22	22	19	18	21	21	150	583	67	120	23
5....	42	21	13	20	18	19	25	150	399	69	94	28
6....	46	20	13	21	19	18	33	135	298	73	83	33
7....	42	21	14	18	17	16	39	188	306	62	58	26
8....	42	23	13	19	11	17	34	177	343	48	57	23
9....	44	20	18	15	13	21	31	251	432	48	60	31
10....	44	19	27	22	11	18	48	737	232	42	57	40
11....	46	16	27	24	8	16	52	977	306	40	62	26
12....	44	20	31	15	17	17	52	705	232	41	78	25
13....	42	24	24	32	18	19	55	695	226	106	58	22
14....	48	21	19	36	4	21	50	343	251	87	44	15
15....	42	16	10	26	10	18	57	276	291	92	150	15
16....	46	16	18	27	11	21	60	219	283	66	111	16
17....	47	21	22	20	19	16	64	245	198	57	622	18
18....	41	21	25	11	21	17	64	298	162	89	94	22
19....	40	22	37	13	21	28	57	283	182	78	52	23
20....	41	22	31	11	18	24	60	306	172	162	106	16
21....	40	22	25	10	19	23	57	343	172	78	97	16
22....	42	20	25	15	22	31	64	306	182	100	100	18
23....	41	18	22	17	16	21	73	343	158	103	109	17
24....	36	15	64	12	20	23	57	313	154	135	182	17
25....	31	16	27	12	19	20	62	335	139	198	232	16
26....	26	22	26	14	13	21	69	343	143	150	123	21
27....	26	18	25	24	21	21	64	343	139	80	117	6
28....	25	16	22	27	16	22	67	653	117	87	103	6
29....	26	15	25	30	17	28	87	770	106	80	103	6
30....	26	17	20	17	....	22	106	674	109	92	92	6
31....	26	....	13	11	....	24	....	632	....	85	66	....
Total	1249	598	711	591	444	638	1572	11611	8216	2622	3580	660
Mean.	40.3	19.9	22.9	19.1	15.3	20.6	52.4	375	274	84.6	115	220
Max..	60	26	64	36	22	28	106	977	792	198	232	64
Min... .	25	15	10	10	4	16	20	106	106	40	44	6
Acre-ft.	2480	1180	1410	1170	880	1270	3120	23100	16300	5200	7070	1310

Discharge of Purgatoire River Near Alfalfa, Colo., for Year Ending Sept. 30, 1927.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	12	20	....	....	....	20	5	2	1	1	255	29
2....	12	21	....	....	....	20	6	2	1	1	800	26
3....	12	21	....	....	....	15	7	3	1	1	600	400
4....	12	21	....	....	....	12	9	2	1	1	200	89
5....	12	19	....	....	....	12	8	1	1	1	200	49
6....	12	18	....	....	....	10	8	2	1	1	150	38
7....	12	15	....	....	....	9	8	1	1	6	3780	30
8....	12	10	....	....	....	8	7	1	1	1	300	32
9....	12	8	....	....	....	4	6	1	2	1	200	33
10....	12	12	....	....	....	2	4	2	2	3	164	37
11....	13	16	....	....	....	9	4	1	1	7	330	34
12....	13	16	....	....	....	8	4	2	28	2	128	31
13....	13	16	....	....	....	3.8	7	1	82	336	20	31
14....	13	16	....	....	....	6.8	18	1	14	385	113	35
15....	12	16	....	....	....	38	18	1	13	61	105	31
16....	12	14	....	....	....	20	12	1	76	34	166	27
17....	13	10	....	....	....	16	7	1	18	24	682	31
18....	13	19	....	....	....	16	20	1	4	19	2570	44
19....	13	21	....	....	....	13	32	1	5	14	489	36
20....	13	16	....	....	....	12	18	2	16	9	639	33
21....	13	15	....	....	....	25	10	1	4	72	236	30
22....	12	16	....	....	....	16	4	0	23	285	126	30
23....	12	18	....	....	....	12	3	0	6	200	452	26
24....	13	16	....	....	....	9	3	0	3	175	210	24
25....	13	13	....	....	....	10	4	1	2	214	221	41
26....	13	12	....	....	....	8	3	2	2	69	99	425
27....	13	12	....	....	....	9	3	1	2	44	63	61
28....	13	12	....	....	....	7	3	0	1	614	759	44
29....	15	14	....	....	....	5	2	1	1	1520	156	31
30....	19	15	....	....	....	6	2	1	2	3170	44	27
31....	20	....	....	....	....	5	....	1	....	274	26	....
Total	404	468	....	....	....	462	245	37	315	7553	15823	1835
Mean.	13.0	15.6	20	25	20	14.9	8.17	1.19	10.5	244	493	612
Max..	20	21	....	....	....	68	32	3	82	3170	3780	425
Min... .	12	8	....	....	....	2	2	0	1	1	20	24
Acre-ft.	799	928	1230	1540	1110	916	486	73	625	15000	30300	3640

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

Discharge of Purgatoire River Near Alfalfa, Colo., for Year Ending Sept. 30, 1928.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1 . . .	27	....	....	....	....	....	24	87	284	12	60	16
2 . . .	27	....	....	....	....	....	24	140	864	14	54	16
3 . . .	28	....	....	....	....	....	24	196	2520	14	63	16
4 . . .	28	....	....	....	....	....	24	166	1260	16	44	16
5 . . .	29	....	....	....	....	....	24	65	956	14	32	16
6 . . .	29	....	....	....	....	....	36	44	529	15	30	16
7 . . .	32	....	....	....	....	....	58	55	414	15	24	16
8 . . .	32	....	....	....	....	....	58	40	326	14	22	14
9 . . .	24	....	....	....	....	....	64	37	160	10	18	13
10 . . .	26	....	....	....	....	....	72	34	192	10	14	12
11 . . .	20	16	....	....	....	....	68	34	380	10	16	11
12 . . .	26	....	....	....	....	....	65	34	274	7	17	10
13 . . .	26	....	....	....	....	....	63	34	240	12	15	9
14 . . .	25	....	....	....	....	....	60	540	228	12	12	8
15 . . .	24	....	....	....	....	....	60	362	152	28	68	8
16 . . .	24	....	....	....	....	....	62	108	105	25	321	8
17 . . .	26	....	....	....	....	....	72	194	383	26	383	8
18 . . .	26	....	....	....	....	....	106	164	67	75	352	10
19 . . .	26	....	....	....	....	....	97	124	36	68	42	12
20 . . .	26	....	....	....	....	....	56	86	28	46	130	14
21 . . .	27	....	....	....	....	....	44	56	24	70	174	25
22 . . .	26	....	....	....	....	....	54	43	16	49	176	15
23 . . .	26	....	....	....	....	....	76	31	14	46	186	10
24 . . .	26	....	....	....	....	....	122	24	14	329	186	9
25 . . .	21	....	....	....	....	....	118	96	19	176	94	8
26 . . .	18	....	....	....	....	....	69	7	21	99	40	8
27 . . .	19	....	....	....	....	....	103	6	16	68	26	7
28 . . .	18	....	....	....	....	....	48	122	13	49	23	7
29 . . .	17	....	....	....	....	....	48	97	12	38	19	7
30 . . .	21	....	....	....	....	....	48	68	11	290	16	7
31 . . .	24	....	....	....	....	....	66	....	89	16	....	....
Total	774	....	....	....	....	....	1847	3160	9558	1746	2673	352
Mean.	25.0	16	....	....	....	....	61.6	102	319	56.3	86.2	11.7
Max..	32	....	....	....	....	....	122	540	2520	329	383	25
Min..	17	....	....	....	....	....	24	6	11	7	12	7
Acre-ft.	1540	952	....	....	....	....	3670	6270	19000	3460	5300	696

Discharge of Purgatoire River at Nine Mile Dam for Year Ending Sept. 30, 1927.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1 . . .	7	19	14	30	36	19	9	1	0	0	4680	101
2 . . .	8	23	19	30	26	24	4	0	0	0	2500	68
3 . . .	7	24	15	30	24	24	4	0	0	0	9200	868
4 . . .	7	31	14	30	24	23	3	0	0	0	900	855
5 . . .	6	31	5	33	21	15	3	0	0	0	328	320
6 . . .	6	31	5	31	21	10	2	0	0	0	132	206
7 . . .	8	28	15	36	21	15	2	0	0	0	247	137
8 . . .	7	24	19	36	21	15	6	11	0	0	3510	123
9 . . .	6	26	19	33	31	17	4	101	0	0	1970	68
10 . . .	8	23	31	33	23	15	2	36	0	74	1910	68
11 . . .	7	23	33	28	23	33	3	8	132	71	479	54
12 . . .	8	19	19	25	31	54	2	2	9	8	424	54
13 . . .	5	12	20	25	23	68	3	1	85	2	512	44
14 . . .	8	14	20	25	15	114	21	1	88	1200	270	33
15 . . .	8	14	20	25	21	57	17	1	97	479	159	123
16 . . .	9	10	20	25	23	68	14	0	101	254	295	88
17 . . .	8	8	25	25	23	92	23	0	49	170	1390	64
18 . . .	8	10	25	25	23	57	54	0	110	106	1540	68
19 . . .	9	25	25	23	57	57	0	54	97	3020	71	81
20 . . .	8	26	25	25	21	35	64	0	28	46	768	81
21 . . .	17	24	25	25	21	31	128	0	15	57	1240	61
22 . . .	9	21	25	25	19	36	85	0	19	36	1340	57
23 . . .	8	21	25	25	17	41	64	0	14	1860	810	54
24 . . .	9	21	25	30	17	31	49	0	4	977	1470	51
25 . . .	12	17	25	30	19	19	24	0	5	279	1220	49
26 . . .	9	17	25	30	28	23	15	0	2	254	558	71
27 . . .	15	19	25	30	19	26	6	0	0	395	247	254
28 . . .	14	17	25	41	21	12	2	0	0	336	227	85
29 . . .	12	17	25	33	....	17	1	0	0	1800	904	92
30 . . .	21	17	25	38	....	17	1	0	0	3800	346	51
31 . . .	21	....	25	33	....	12	....	0	0	4130	159	....
Total	295	596	663	915	635	1077	672	162	812	16441	42755	4319
Mean.	9.52	19.9	21.4	29.5	22.7	34.7	22.4	5.23	27.1	530	1380	144
Max..	21	31	33	41	36	114	128	101	132	4130	9200	868
Min..	5	8	5	25	15	10	1	0	0	0	132	33
Acre-ft.	585	1180	1320	1810	1260	2130	1330	322	1610	32600	84800	8570

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

Discharge of Purgatoire River at Nine Mile Dam for Year Ending Sept. 30, 1928.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	39	24	22	23	28	22	7	96	6210	47	99	21
2....	39	24	22	23	29	22	5	72	1330	32	49	13
3....	35	24	22	23	25	22	4	139	1080	23	28	10
4....	35	23	20	23	23	22	4	622	1880	21	77	8
5....	31	23	20	23	22	22	4	301	1080	15	122	8
6....	31	23	19	23	29	22	5	185	1080	14	67	7
7....	29	22	20	23	29	22	10	96	468	14	44	7
8....	29	22	22	23	30	22	11	96	468	14	57	6
9....	29	22	22	23	31	23	16	108	353	14	23	5
10....	29	21	22	23	31	24	29	266	156	11	17	6
11....	28	21	24	23	29	25	23	8250	2170	10	15	6
12....	28	21	24	23	25	22	19	3410	468	10	13	5
13....	28	21	24	23	24	23	15	1080	353	9	8	4
14....	28	21	25	23	28	24	22	850	266	8	8	4
15....	26	21	25	33	22	24	47	558	266	10	7	4
16....	26	18	24	31	25	23	59	468	254	9	8	2
17....	26	20	24	53	27	22	49	468	229	11	32	4
18....	24	19	24	38	36	21	49	353	156	80	388	4
19....	21	19	23	29	31	15	85	204	99	53	102	4
20....	21	19	23	29	38	23	190	156	93	77	93	2
21....	23	21	22	18	41	16	142	266	96	74	39	4
22....	23	22	22	20	31	13	153	204	69	88	29	5
23....	22	22	23	22	43	8	110	204	59	72	18	6
24....	24	22	23	22	32	9	113	266	49	72	16	8
25....	24	22	23	22	55	10	122	266	44	241	13	7
26....	24	22	23	23	26	7	180	204	36	301	13	8
27....	23	22	23	23	28	6	122	204	33	102	47	6
28....	23	22	23	23	19	5	149	156	194	77	28	6
29....	23	22	23	23	19	8	96	122	72	57	19	6
30....	23	22	23	23	....	8	110	204	65	41	13	6
31....	23	....	23	23	....	6	....	266	....	93	17	....
Total	837	647	702	777	857	541	1950	20140	19176	1700	1509	192
Mean.	27.0	21.6	22.6	25.1	29.6	17.5	65.0	650	639	54.8	48.7	6.40
Max..	39	24	25	53	43	25	190	8250	6210	301	388	21
Min...	21	18	19	18	19	5	4	72	33	8	7	2
Acre-ft.	1660	1290	1390	1540	1700	1080	3870	40000	38000	3370	2990	381

Discharge of Purgatoire River Near Las Animas, Colo., for Year Ending Sept. 30, 1927.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	1	26	26	24	25	12	2	3	1	3	6760	358
2....	1	36	11	25	26	21	3	2	1	3	2460	258
3....	1	28	4	5	19	21	3	4	2	2	8730	394
4....	2	27	12	5	26	6	3	3	1	2	600	1020
5....	3	26	28	8	24	5	4	3	1	4	400	836
6....	2	26	52	12	21	3	6	3	2	4	350	478
7....	2	25	26	7	17	10	9	2	2	4	250	309
8....	1	30	36	4	16	9	5	3	2	4	4270	277
9....	1	25	36	3	16	9	4	3	2	4	1600	224
10....	1	28	14	3	24	8	4	2	2	4	2260	197
11....	2	28	9	11	32	8	3	2	54	32	512	192
12....	2	41	5	13	36	14	4	3	88	26	500	138
13....	2	47	3	4	41	13	6	2	27	981	475	140
14....	2	81	17	3	16	8	6	2	14	7820	475	125
15....	2	58	11	6	36	26	6	2	4	5060	200	100
16....	2	73	4	8	32	11	5	2	19	500	134	132
17....	5	73	4	9	25	14	4	2	18	350	211	178
18....	6	52	22	15	25	54	4	1	17	200	322	183
19....	5	47	36	6	22	21	6	1	6	140	5020	173
20....	10	43	26	18	16	31	6	1	6	200	810	173
21....	8	43	34	18	10	24	7	0	10	7100	478	159
22....	10	7	36	17	6	21	5	1	11	1000	1350	164
23....	10	20	77	12	8	18	4	1	5	2730	2520	150
24....	15	7	58	26	2	15	4	1	5	1680	394	154
25....	18	21	47	26	1	12	5	1	4	264	2970	150
26....	19	39	36	30	2	9	4	1	3	322	1130	146
27....	21	52	45	52	2	6	4	1	4	250	478	316
28....	21	26	15	73	2	3	3	1	3	230	351	394
29....	19	52	17	62	....	3	3	1	3	2020	344	224
30....	25	45	19	13	....	3	3	1	3	4860	1220	202
31....	27	....	18	20	....	3	....	1	....	5580	461	....
Total	246	1132	784	538	528	421	135	56	320	41379	48035	7944
Mean.	7.94	37.7	25.3	17.4	18.9	13.6	4.50	1.81	10.7	1330	1550	265
Max..	27	81	77	73	41	54	9	4	88	7820	8730	1020
Min...	1	7	3	3	1	3	3	0	1	2	134	100
Dpth., in.	488	2240	1560	1070	1050	836	268	111	637	81800	95300	15800

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

Discharge of Purgatoire River near Las Animas for Year Ending Sept. 30, 1928.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	145	72	16	12	66	29	4	89	994	152	66	5
2....	162	64	16	12	29	24	5	37	5010	116	107	5
3....	172	69	16	12	35	27	5	110	1960	104	22	5
4....	162	58	16	12	50	30	4	302	1620	58	14	4
5....	162	58	16	12	27	22	6	350	1310	66	284	4
6....	148	48	10	12	14	18	7	331	1030	53	193	4
7....	113	14	12	12	35	18	9	235	750	37	142	4
8....	110	48	16	12	32	8	19	178	504	22	162	3
9....	104	42	18	18	55	4	14	129	447	18	72	3
10....	95	21	20	16	86	4	10	116	566	8	26	2
11....	104	30	17	16	80	5	9	7860	2800	4	16	2
12....	101	4	16	15	83	13	10	6100	720	4	14	2
13....	89	4	16	18	83	16	10	622	425	2	13	2
14....	89	9	16	35	83	5	8	910	335	3	10	2
15....	80	8	16	18	56	5	8	784	290	2	11	2
16....	75	7	15	17	34	6	14	493	250	2	16	2
17....	78	6	15	16	34	8	72	566	210	2	682	2
18....	24	6	15	14	34	10	66	615	140	16	345	5
19....	14	7	14	14	56	9	69	331	80	13	798	5
20....	42	6	14	14	72	6	129	321	78	14	475	4
21....	64	7	14	14	92	5	151	243	80	14	205	5
22....	66	15	14	14	89	5	194	228	65	24	86	5
23....	72	15	13	14	92	5	30	262	64	21	16	5
24....	78	13	13	16	32	3	13	228	60	69	7	4
25....	69	16	13	18	22	4	10	235	56	116	6	5
26....	66	15	13	18	37	4	58	276	48	258	5	5
27....	66	16	12	18	78	5	158	250	42	231	4	6
28....	66	16	12	36	50	8	80	262	58	142	5	6
29....	61	16	12	36	29	8	142	284	840	89	4	6
30....	61	26	12	38	....	5	197	345	805	61	3	6
31....	58	....	12	50	....	4	....	316	....	55	3	...
Total	2796	736	450	579	1565	317	1331	23408	21637	1775	3812	120
Mean.	90.2	24.5	14.5	18.7	54.0	10.2	44.4	755	721	57.3	123	4.00
Max..	172	72	20	50	92	30	158	7860	5010	258	798	6
Min...	14	4	10	12	14	3	4	37	42	2	3	2
Acre-ft.	5550	1460	892	1150	3110	627	2640	46400	42900	3520	7560	238

Discharge of Wildhorse Creek at Holly, Colo., for Year Ending Sept. 30, 1927.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	0	0	30	0	0	0	0	0	0	0	20	0
2....	0	12	28	0	0	24	0	0	0	0	0	16
3....	0	14	32	0	0	24	0	0	0	0	0	3
4....	0	12	30	0	0	9	0	0	0	0	0	16
5....	0	14	14	0	0	6	0	0	0	0	0	36
6....	0	12	12	0	0	5	0	0	0	0	0	2
7....	0	7	0	0	0	24	0	0	0	0	0	0
8....	0	4	0	0	0	6	12	0	0	0	0	0
9....	0	6	7	0	0	3	9	24	0	0	0	9
10....	0	9	0	0	0	0	0	9	0	0	150	0
11....	0	7	0	0	0	0	0	0	0	0	100	3
12....	0	9	0	0	0	0	0	0	0	0	9	0
13....	0	9	0	0	0	0	0	0	0	0	0	0
14....	0	12	0	0	0	0	0	0	0	14	77	0
15....	0	17	0	0	0	0	0	0	0	14	20	0
16....	0	1	0	0	0	0	0	0	0	0	0	0
17....	0	4	0	0	0	0	0	0	0	0	0	0
18....	0	5	0	0	0	0	0	0	0	0	0	0
19....	0	5	0	0	0	0	0	0	0	0	0	0
20....	0	46	0	0	0	0	0	0	0	0	0	0
21....	0	24	0	0	0	0	0	0	0	0	0	2
22....	0	9	0	0	0	0	0	0	0	0	9	2
23....	3	7	0	0	0	0	0	0	0	0	6	1
24....	4	0	0	0	0	0	0	0	0	0	6	2
25....	7	7	0	0	0	0	0	0	0	0	3	1
26....	0	6	0	0	0	5	0	0	0	0	2	1
27....	0	6	0	0	0	5	0	0	0	0	0	0
28....	0	24	0	0	24	0	0	0	0	0	150	0
29....	0	24	0	0	....	0	0	0	0	0	100	0
30....	0	30	0	0	....	0	0	0	0	0	20	0
31....	0	....	0	0	....	0	....	0	....	2	0	0
Total	14	342	153	0	29	101	21	33	37	654	117	0
Mean.	0.45	11.4	4.94	0	1.04	3.26	0.70	1.06	1.23	21.1	3.77	0
Max..	7	46	32	0	24	24	12	24	14	150	36	0
Min...	0	0	0	0	0	0	0	0	0	0	0	0
Acre-ft.	28	678	304	0	58	200	42	65	73	1300	232	0

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

Discharge of Wild Horse Creek at Holly for Year Ending Sept. 30, 1928.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	0	0	0	0	0	0	0	0	0	0	0	0
2....	0	0	0	0	0	0	0	0	0	0	0	0
3....	0	0	0	0	0	5	0	16	0	0	0	0
4....	0	0	22	0	0	5	0	0	8	0	0	0
5....	0	0	20	0	0	5	0	0	43	0	125	0
6....	0	0	26	0	1	0	0	18	43	0	0	0
7....	0	0	14	0	3	0	0	10	46	0	10	0
8....	0	0	12	0	3	0	0	10	60	0	53	0
9....	0	0	10	0	1	0	0	6	98	0	0	0
10....	0	0	10	0	1	0	0	0	48	0	0	0
11....	0	0	8	0	1	0	0	10	116	0	0	0
12....	0	0	6	0	1	0	0	53	89	0	0	0
13....	0	0	7	0	1	0	0	30	8	0	0	0
14....	0	0	6	0	2	0	13	116	6	0	0	0
15....	0	0	6	0	3	0	0	125	6	0	0	0
16....	0	0	0	0	1	0	0	53	6	0	0	0
17....	0	0	8	0	1	0	0	125	48	0	0	0
18....	0	0	8	0	1	0	0	30	89	0	0	0
19....	0	0	6	0	1	0	0	22	60	0	0	0
20....	0	0	0	0	0	0	0	106	48	0	0	0
21....	0	0	0	0	0	0	0	81	34	0	0	0
22....	0	0	0	0	20	0	16	54	34	0	0	0
23....	0	25	0	0	9	0	0	98	60	0	0	0
24....	0	21	0	0	11	0	0	34	98	0	0	0
25....	0	25	0	0	5	0	0	60	30	0	0	0
26....	0	23	0	0	4	0	0	13	13	0	0	0
27....	0	0	0	0	2	0	0	48	4	0	0	0
28....	0	0	0	0	1	0	0	38	1	10	0	0
29....	0	0	0	0	1	0	0	8	0	0	0	0
30....	0	0	0	0	0	0	0	0	0	0	0	0
31....	0	....	0	0	....	0	0	0	0	0	0	....
Total	0	94	169	0	74	15	29	1172	1096	10	188	0
Mean.	0	3.13	5.45	0	2.55	0.48	0.97	37.8	36.5	0.32	6.06	0
Max..	0	25	26	0	20	5	16	125	116	10	125	0
Min..	0	0	0	0	0	0	0	0	0	0	0	0
Acre-ft.	0	186	335	0	147	30	53	3320	2170	20	373	0

Discharge of Holly Drain near Coolidge, Kans., for Year Ending Sept. 30, 1927.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	32	27	42	25	27	26	24	26	30	19	30	16
2....	33	23	42	26	28	25	24	26	41	19	26	16
3....	31	22	41	25	27	24	24	27	38	19	22	16
4....	33	21	40	26	28	25	23	28	32	20	20	16
5....	38	21	40	27	30	24	24	27	37	19	18	15
6....	37	22	29	26	29	24	24	30	39	19	16	16
7....	36	22	32	26	28	23	32	30	43	23	16	18
8....	35	21	32	26	28	28	28	31	40	18	15	20
9....	32	22	35	26	28	41	29	29	32	19	15	17
10....	32	21	33	25	28	28	35	30	32	100	16	16
11....	32	22	31	25	27	25	39	30	32	90	16	16
12....	32	22	30	26	27	26	32	33	36	38	16	16
13....	32	22	29	25	28	26	29	34	28	32	16	16
14....	30	23	27	25	27	29	38	32	26	150	16	16
15....	29	30	27	25	27	30	42	34	29	19	16	18
16....	32	42	26	25	26	27	41	32	39	17	13	18
17....	30	26	25	25	24	26	33	30	32	17	12	18
18....	25	24	27	25	24	38	39	30	29	16	12	17
19....	25	25	27	25	26	64	43	32	34	16	13	17
20....	24	29	27	24	26	25	46	32	32	15	12	17
21....	24	36	27	24	26	25	41	30	25	20	12	17
22....	24	26	27	25	25	24	42	30	35	22	14	17
23....	23	25	26	25	24	24	43	29	35	17	15	17
24....	22	24	25	25	46	24	42	29	34	23	15	18
25....	24	23	26	25	47	23	40	29	32	15	16	20
26....	26	23	26	26	49	24	38	27	24	15	17	25
27....	29	23	26	26	38	24	36	28	22	15	15	30
28....	26	30	26	26	24	30	29	19	90	16	40	
29....	29	42	25	26	....	24	30	29	18	225	17	45
30....	31	42	25	26	....	24	28	30	19	42	19	44
31....	32	....	25	26	....	23	....	30	....	30	17	....
Total	920	781	927	788	824	847	1019	923	944	1199	509	608
Mean.	29.7	26.0	29.9	25.4	29.4	27.3	34.0	29.8	31.5	38.7	16.4	20.3
Max..	38	42	42	27	49	64	46	34	43	....	30	45
Min..	22	21	25	24	24	23	23	26	18	15	12	15
Acre-ft.	1830	1550	1840	1560	1630	1680	2020	1830	1870	2380	1010	1210

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

Discharge of Holly Drain near Coolidge, Kans., for Year Ending Sept. 30, 1928.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	45	39	32	34	27	25	26	29	52	29	55	33
2....	45	46	27	34	27	25	26	35	47	32	57	28
3....	46	45	27	34	27	25	26	33	69	31	52	26
4....	46	40	24	33	27	25	26	39	88	28	53	24
5....	31	38	24	35	26	26	27	34	62	24	82	24
6....	30	36	24	33	25	26	27	56	54	24	51	24
7....	27	42	24	34	26	24	26	52	53	26	52	25
8....	26	43	24	35	29	25	26	56	66	23	52	25
9....	27	38	24	35	27	25	26	51	56	23	50	25
10....	26	39	24	34	26	25	26	52	56	22	44	25
11....	24	38	24	34	26	25	26	72	61	21	44	26
12....	26	34	25	34	26	25	28	49	36	23	42	25
13....	30	36	24	34	26	25	28	56	39	24	40	24
14....	30	48	24	34	25	25	26	76	36	24	39	25
15....	25	36	27	34	26	26	25	51	33	25	36	26
16....	23	31	33	33	27	32	25	50	31	26	34	30
17....	24	36	34	31	26	24	25	49	31	27	33	30
18....	24	32	35	30	26	26	25	54	31	30	33	30
19....	26	34	36	29	26	27	25	58	40	32	35	34
20....	43	43	36	29	25	28	26	56	52	32	31	36
21....	40	41	34	29	24	29	26	57	59	32	30	38,
22....	41	40	35	30	24	30	26	52	51	34	30	37
23....	40	31	34	29	25	29	26	48	53	38	30	36
24....	44	28	34	28	25	28	27	44	50	42	30	31
25....	44	28	35	27	24	28	28	46	44	108	29	24
26....	40	28	35	28	24	26	27	40	50	66	29	22
27....	39	27	37	27	24	27	28	50	54	62	29	24
28....	36	27	36	27	24	26	29	58	38	58	28	24
29....	40	26	36	27	24	27	29	48	34	56	28	24
30....	40	29	36	27	....	27	30	39	29	56	29	24
31....	44	....	34	27	....	26	....	41	....	60	28	....
Total	1072	1079	938	969	744	817	797	1609	1455	1138	1235	829
Mean	34.6	35.9	30.3	31.3	25.7	26.4	26.6	51.9	48.5	36.7	39.8	27.6
Max.	46	48	37	35	29	32	30	76	88	108	82	38
Min.	23	26	24	27	24	24	25	29	29	21	28	22
Acre-ft.	2130	2140	1860	1920	1480	1620	1580	3190	2890	2260	2450	1640

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, 1928.

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, 1928.

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, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered good.

RIO GRANDE RIVER AT MONTE VISTA

Location—In Sec. 33, T. 39 N., R. 7 E., N. M. P. M., where Gunbarrel highway crosses river.

Records Available—May 1, 1926, to September 30, 1928.

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, 1928.

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, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered good.

ALAMOSA RIVER ABOVE TERRACE RESERVOIR

Location—Four miles above Terrace dam in Sec. 8, T. 36 N., R. 6 E.

Records Available—April 25, 1914, to October 31, 1919; October 1, 1923, to September 30, 1927.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with Terrace Irrigation Company.

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, 1928.

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, 1928.

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, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

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, 1928.

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, 1928.

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, 1928.

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, 1928.

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, 1928, 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, 1928.

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, 1928.

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, 1928.

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, 1928.

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, 1928; 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, 1928.

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, 1928.

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, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Discharge of Rio Grande River at Thirty Mile Bridge for Year Ending Sept. 30, 1927.
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	5	25	....	....	....	....	10	386	1460	2840	686	199
2	5	25	....	....	....	....	10	386	1390	2380	671	196
3	5	25	....	....	....	....	19	396	1120	2110	634	199
4	5	25	....	....	....	....	10	401	1130	1810	571	196
5	5	25	....	....	....	....	10	396	1130	1740	558	192
6	5	25	....	....	....	....	10	401	1130	1710	564	199
7	5	25	....	....	....	....	10	332	1040	876	538	202
8	5	25	....	....	....	....	10	232	984	30	468	196
9	5	25	....	....	....	....	10	77	1000	10	463	202
10	5	25	....	....	....	....	10	10	1020	10	439	202
11	5	25	....	....	....	....	10	32	1010	10	422	221
12	5	25	....	....	....	....	10	136	678	11	401	240
13	5	25	....	....	....	....	10	336	480	20	401	240
14	5	25	....	....	....	....	10	332	486	58	391	259
15	5	25	....	....	....	....	10	136	142	96	380	278
16	5	25	....	....	....	....	10	96	84	270	386	267
17	5	25	....	....	....	....	10	23	196	496	380	279
18	5	25	....	....	....	....	10	10	365	564	365	259
19	5	25	....	....	....	....	10	10	538	545	356	255
20	5	25	....	....	....	....	10	9	619	591	360	274
21	5	25	....	....	....	....	10	10	686	591	351	291
22	5	25	....	....	....	....	10	40	726	584	346	309
23	5	25	....	....	....	....	14	356	718	597	346	318
24	5	25	....	....	....	....	309	445	742	758	332	336
25	5	10	....	....	....	....	365	584	774	1000	278	365
26	5	10	....	....	....	....	356	678	791	1000	221	406
27	5	10	....	....	....	....	386	678	1020	984	180	457
28	5	10	....	....	....	....	380	710	2870	966	176	445
29	5	10	....	....	....	....	380	876	5720	1010	176	417
30	5	10	....	....	....	....	401	1040	3820	975	180	406
31	25	....	....	....	....	....	....	1330	....	840	196	....
Total	175	660	....	....	....	....	2811	10884	33779	25482	12216	8304
Mean.	5.65	22.0	10	10	10	10	93.7	351	1130	822	394	277
Max..	25	25	....	....	....	....	401	1330	5720	2840	686	457
Min..	5	10	....	....	....	....	10	9	84	10	176	192
Acre-ft.	347	1310	615	615	555	615	5580	21600	67200	50500	24200	16500

Discharge of Rio Grande River at Thirty Mile Bridge for Year Ending Sept. 30, 1928.
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	380	....	....	....	....	....	62	700	894	855	233	158
2	368	....	....	....	....	....	62	554	1050	810	230	127
3	348	....	....	....	....	....	62	413	1090	804	236	76
4	352	....	....	....	....	....	62	337	887	810	236	59
5	348	....	....	....	....	....	62	310	816	810	261	42
6	329	....	....	....	....	....	62	372	887	748	274	84
7	314	....	....	....	....	....	62	665	968	724	255	149
8	306	....	....	....	....	....	62	613	1010	636	264	184
9	296	....	....	....	....	....	62	514	1010	647	340	333
10	292	....	....	....	....	....	62	500	940	585	348	401
11	292	....	....	....	....	....	261	630	665	591	348	388
12	292	....	....	....	....	....	274	417	676	647	348	271
13	292	....	....	....	....	....	352	329	647	613	340	79
14	292	....	....	....	....	....	356	321	574	585	340	60
15	292	....	....	....	....	....	356	329	544	591	337	63
16	292	....	....	....	....	....	352	321	688	596	321	52
17	372	....	....	....	....	....	310	303	836	608	318	50
18	467	....	....	....	....	....	318	303	1010	574	201	50
19	467	....	....	....	....	....	314	310	996	574	93	48
20	467	....	....	....	....	....	314	333	1070	580	79	58
21	462	....	....	....	....	....	318	453	982	574	87	52
22	458	....	....	....	....	....	318	647	940	580	96	50
23	453	....	....	....	....	....	310	829	1140	574	227	44
24	448	....	....	....	....	....	318	712	1090	554	236	40
25	439	....	....	....	....	....	321	718	1070	529	245	40
26	435	....	....	....	....	....	318	647	1100	401	221	46
27	435	....	....	....	....	....	364	534	1070	348	172	40
28	435	....	....	....	....	....	458	514	1070	356	201	56
29	439	....	....	....	....	....	559	486	1020	352	209	50
30	118	....	....	....	....	....	620	505	954	296	145	42
31	28	....	....	....	....	....	653	....	233	136	....	....
Total	11008	28	28	28	28	28	9079	15272	27694	18185	7377	3192
Mean.	355	28	28	28	28	28	303	493	923	587	238	106
Max..	467	....	....	....	....	....	630	829	1140	855	348	401
Min..	28	....	....	....	....	....	62	303	544	233	79	40
Acre-ft.	21800	1670	1720	1720	1610	1720	18000	30300	54900	36100	14600	6310

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

Discharge of Rio Grande River at Wason for Year Ending Sept. 30, 1927 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	188	179	...	...	...	...	198	1560	2330	6840	1280	451
2	210	172	...	...	...	...	219	1570	2320	5440	1330	439
3	228	167	...	...	...	...	280	1600	2100	4300	1290	432
4	198	170	...	...	...	...	359	1640	2100	3400	1250	432
5	192	167	...	...	...	...	380	1520	2110	2860	1190	445
6	190	173	...	...	...	...	420	1630	2180	2590	1250	663
7	185	181	...	...	...	...	520	1410	2160	2060	1220	586
8	185	170	...	...	...	...	520	1020	2030	1150	1170	801
9	239	158	...	...	...	...	455	840	2050	624	1150	2020
10	243	164	...	...	...	...	340	647	2030	587	1040	2660
11	210	170	...	...	...	...	313	609	2110	587	938	2230
12	195	176	...	...	...	...	255	759	1790	587	924	2590
13	177	181	...	...	...	...	232	1180	1400	587	924	3080
14	174	170	...	...	...	...	206	1740	1290	572	928	2360
15	170	158	...	...	...	...	202	1500	1340	624	928	1790
16	170	140	...	...	92	...	199	1690	996	784	853	1460
17	167	120	...	...	...	...	184	1890	1010	915	836	1240
18	164	100	...	...	...	...	263	1860	1300	942	853	1280
19	162	134	...	...	...	...	239	1770	1580	1150	861	1060
20	159	148	...	...	...	...	271	1580	1590	1150	801	951
21	159	152	...	...	...	...	401	1480	1570	1160	801	888
22	157	156	...	...	...	...	457	1460	1560	1170	801	897
23	157	160	...	...	...	...	523	1550	1560	1150	768	897
24	154	165	...	...	...	...	632	1670	1580	1250	679	888
25	153	162	...	...	...	...	906	1910	1630	1570	686	1050
26	152	160	98	...	...	...	1030	2120	1710	1580	587	1110
27	152	157	...	...	...	...	1190	1880	2970	1620	502	1090
28	150	154	...	...	...	...	1250	1800	5820	1690	536	1000
29	154	151	...	...	...	...	1340	1740	8620	1550	502	978
30	165	148	98	...	...	...	1440	1860	8270	1490	463	987
31	172	...	...	...	...	...	2070	...	1420	457	...	
Total	5531	4763	...	...	...	...	15164	47555	71106	53399	27798	36755
Mean.	178	159	125	98	96	100	505	1530	2370	1720	897	1230
Max..	243	...	...	...	...	...	1440	2120	8620	6840	1330	3080
Min..	150	...	...	...	...	...	609	996	572	457	432	
Acre-ft.	10900	9460	7690	6030	5330	6150	30000	94100	141000	106000	55200	73200

Discharge of Rio Grande River at Wason for Year Ending Sept. 30, 1928 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	1010	322	...	...	...	...	300	1880	2420	1920	718	409
2	961	312	...	...	...	...	280	1840	2380	1730	810	362
3	1070	322	...	...	...	...	240	1300	2340	1720	771	356
4	1090	327	...	...	...	...	190	1130	1940	1770	726	322
5	1080	312	...	...	...	...	150	1100	1800	1830	660	290
6	1050	312	...	...	...	...	180	1170	1870	1790	718	276
7	1010	322	...	...	...	...	160	1560	1950	1720	682	308
8	900	214	...	...	...	...	150	1580	2040	1730	646	322
9	786	214	...	...	130	...	150	1640	2030	1660	726	388
10	764	238	...	...	...	...	140	1540	1270	1700	711	578
11	748	242	...	...	...	...	520	1400	1170	1580	711	612
12	726	218	...	...	...	138	520	1260	1380	1580	718	565
13	779	230	...	...	...	...	520	980	1310	1600	718	388
14	756	234	...	143	...	...	484	820	1220	1550	682	276
15	726	180	...	...	...	...	484	779	1160	1490	696	234
16	711	147	...	...	...	...	598	794	1220	1450	711	242
17	764	162	...	...	...	...	592	794	1440	1570	703	238
18	794	162	...	...	...	...	565	786	1680	1360	660	214
19	786	158	...	...	...	...	572	834	1620	1270	484	214
20	786	158	...	...	...	...	565	926	1720	1270	362	214
21	779	162	155	...	...	...	559	1060	1770	1290	312	214
22	756	158	...	...	...	...	520	1430	1640	1260	362	206
23	741	137	...	...	...	...	572	1620	1870	1220	426	214
24	733	151	...	...	...	...	668	1580	1910	1230	484	214
25	726	162	...	...	...	...	733	1710	1870	1240	527	214
26	718	158	...	...	...	...	682	1960	1870	1140	533	214
27	733	158	...	...	...	...	874	1880	1970	1060	443	214
28	764	158	...	...	...	...	1150	2040	1790	971	388	195
29	741	158	...	...	...	...	1220	2210	1960	926	437	195
30	646	158	...	...	...	...	1400	2280	1970	874	490	195
31	346	...	...	...	...	...	2420	...	750	546	...	
Total	24980	6346	...	...	...	...	15738	44333	52580	44251	18561	8823
Mean.	806	212	155	145	133	150	525	1430	1750	1420	599	294
Max..	1090	327	...	...	...	...	1400	2420	2420	1920	810	612
Min..	346	137	...	...	...	...	779	1160	750	312	195	
Acre-ft.	49600	12600	9530	8920	7650	9220	31200	87900	104000	87900	36800	17500

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

Discharge of Rio Grande River near Del Norte for Year Ending Sept. 30, 1927.
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....	349	288	....	....	....	....	381	2790	3320	9750	1630	833
2....	381	312	....	....	....	....	422	2960	3390	6980	1660	833
3....	450	312	....	....	....	....	538	3190	3170	5860	1680	833
4....	394	248	....	....	....	....	677	3190	3190	5100	1570	824
5....	374	270	....	....	....	....	719	3280	3120	4500	1510	806
6....	381	282	....	....	....	....	797	3050	3240	4080	1660	806
7....	374	294	....	....	....	....	1050	3260	3390	3730	1510	860
8....	368	254	....	....	....	....	1050	2810	3240	2790	1540	1010
9....	450	231	....	....	....	....	842	2150	3300	1940	1510	3320
10....	494	248	....	....	....	....	618	1680	3330	1800	1450	3840
11....	429	265	....	....	....	....	570	1470	3420	1670	1340	2930
12....	401	282	....	....	....	....	464	1480	3350	1490	1320	2620
13....	362	294	....	....	....	....	415	1850	2790	1350	1320	5770
14....	381	248	....	....	....	....	368	2840	2430	1260	1310	4250
15....	318	231	....	....	....	....	355	2960	2620	1250	1310	3170
16....	306	265	....	....	....	....	349	3170	2340	1190	1250	2540
17....	294	242	....	....	....	....	324	3570	2290	1230	1180	2170
18....	282	120	....	....	....	....	349	3780	2570	1480	1160	2080
19....	276	276	....	....	....	....	464	3740	2790	1630	1230	2000
20....	276	288	....	....	....	....	464	3410	2910	1620	1340	1680
21....	270	292	....	....	....	....	602	3190	2650	1610	1230	1560
22....	270	296	....	....	198	....	745	3150	2600	1650	1260	1470
23....	276	310	....	....	....	219	961	2860	2550	1610	1290	1560
24....	259	330	....	....	....	....	1120	2900	2600	1620	1220	1610
25....	254	310	....	....	....	....	1510	3000	2580	1970	1150	1710
26....	248	295	....	....	....	....	1830	3370	2650	1990	1110	1920
27....	248	285	....	....	....	....	2110	3120	3030	2080	1060	1800
28....	237	270	....	....	....	....	2140	3030	5940	2170	1020	1730
29....	257	290	....	222	....	....	2400	2880	12200	2030	961	1680
30....	254	284	161	....	....	....	2570	2860	12600	1870	924	1810
31....	276	....	....	....	....	....	3070	....	1780	869	....	....
Total	10169	8212	....	....	....	....	27204	90060	109620	\$10800	40574	60025
Mean.	328	274	230	190	210	220	907	2910	3650	2620	1310	2000
Max..	494	....	....	....	....	....	2570	3780	12600	9750	1680	5770
Min..	237	....	....	....	....	....	324	1470	2290	1190	869	806
Acre-ft.	20200	16300	14100	11700	11700	13500	54000	179000	217000	161000	80600	119000

Discharge of Rio Grande River near Del Norte for Year Ending Sept. 30, 1928.
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....	1760	570	....	....	....	....	442	3140	4310	2310	1030	810
2....	1570	501	....	....	....	....	590	3400	4180	2410	1150	648
3....	1540	501	....	....	....	....	550	2770	4120	2100	1200	566
4....	1660	501	....	....	....	....	475	2070	3460	2230	1080	455
5....	1670	486	....	....	....	....	379	2060	3110	2230	1020	408
6....	1620	486	....	....	....	....	302	2310	3240	2200	964	391
7....	1510	486	....	....	....	....	350	2930	3310	2100	931	408
8....	1410	471	....	....	....	....	283	3140	3420	2100	860	442
9....	1260	450	....	....	....	....	263	3240	3390	2030	900	455
10....	1190	429	....	....	....	....	283	3130	3140	2030	920	702
11....	1170	429	....	....	....	....	246	2860	2880	1920	870	810
12....	1090	415	....	....	....	....	590	2610	2340	1740	900	730
13....	1200	401	....	....	....	....	590	2070	2260	1790	910	566
14....	1140	415	310	....	....	....	590	1790	2070	1700	870	367
15....	1120	450	....	....	....	....	630	1600	1940	1730	840	326
16....	1130	486	....	....	....	....	675	1570	2060	1700	890	312
17....	1140	501	....	....	....	....	770	1530	2360	1800	880	326
18....	1140	450	....	293	....	....	820	1490	2460	1710	800	294
19....	1300	401	....	....	....	....	870	1540	2520	1700	630	302
20....	1110	387	....	....	....	....	870	1700	2470	1670	513	307
21....	1120	355	....	....	298	....	975	1820	2520	1640	428	340
22....	1090	324	....	....	....	....	870	2320	2490	1610	421	336
23....	1100	312	....	....	....	....	920	2800	2420	1590	452	321
24....	1090	312	....	....	....	....	1090	2820	2490	1540	582	294
25....	1060	324	....	....	....	....	1340	3390	2510	1560	630	294
26....	1050	355	....	....	....	....	1130	3660	2420	1350	740	263
27....	1030	415	630	1410	3760	2510	1200	657	260
28....	1030	415	630	1815	4210	2460	1250	528	271
29....	980	387	408	1940	4330	2170	1230	550	316
30....	878	237	302	2470	4400	2370	1220	598	302
31....	779	326	4520	1130	840
Total	37937	12652	....	....	....	....	24528	84980	83400	54520	24584	12622
Mean.	1220	422	305	295	300	365	818	2740	2780	1760	793	421	
Max..	1760	570	....	....	....	....	2470	4520	4310	2410	1200	810
Min..	779	237	....	....	....	....	246	1490	1940	1130	421	260
Acre-ft.	75000	25100	18800	18100	17300	22400	49000	168000	165000	108000	48300	25000	

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

Discharge of Rio Grande River at Monte Vista for Year Ending Sept. 30, 1927.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1 . . .	10	210	...	...	...	...	336	990	996	8500	164	484
2 . . .	24	232	...	...	...	...	336	1220	1040	6580	164	484
3 . . .	74	210	...	...	...	...	454	1220	900	5370	346	424
4 . . .	86	210	...	...	...	...	516	1260	814	4460	380	368
5 . . .	32	188	...	...	...	...	516	1220	814	3790	283	341
6 . . .	24	188	...	...	...	...	516	857	945	3360	341	314
7 . . .	24	188	...	...	...	...	692	814	1040	2840	288	341
8 . . .	40	232	...	...	...	...	692	654	945	1790	237	368
9 . . .	32	232	...	...	...	...	549	148	990	1070	212	1200
10 . . .	114	232	...	...	...	...	308	114	990	678	212	3520
11 . . .	114	232	...	...	...	...	210	148	1040	374	141	2840
12 . . .	114	232	...	...	...	...	100	188	1450	267	118	2100
13 . . .	86	280	...	...	...	...	74	618	1650	267	141	4460
14 . . .	62	232	...	...	...	...	32	1080	1260	267	99	4780
15 . . .	51	280	...	...	...	...	18	1220	1260	242	80	3440
16 . . .	40	280	...	...	...	...	12	1080	1800	169	65	2520
17 . . .	24	365	...	...	...	...	12	1220	1350	169	50	2240
18 . . .	24	365	...	...	...	...	4	1400	1600	169	50	1910
19 . . .	24	336	...	...	...	...	8	1300	1850	374	50	1850
20 . . .	12	336	...	...	...	...	51	857	1850	267	99	1620
21 . . .	12	336	...	...	...	...	62	549	1700	267	118	1250
22 . . .	10	308	...	...	...	...	40	424	1450	293	99	1350
23 . . .	10	232	...	...	...	...	12	336	1170	402	141	1250
24 . . .	10	232	...	...	...	...	86	424	1080	352	164	1250
25 . . .	10	232	...	...	...	...	280	730	900	442	212	1450
26 . . .	10	232	...	...	...	...	424	990	857	478	288	1560
27 . . .	10	188	...	...	...	...	654	618	1080	454	368	1456
28 . . .	10	168	...	...	...	...	654	516	2610	490	424	1400
29 . . .	10	232	...	...	...	...	730	549	5780	466	484	1400
30 . . .	10	188	...	...	...	...	730	730	12500	330	546	1500
31 . . .	188	...	...	...	...	...	857	...	257	515	...	...
Total	1301	7408	...	...	...	...	9180	24331	53711	45234	6879	49464
Mean.	42	247	...	...	...	...	306	785	1790	1460	222	1650
Max.	188	365	...	...	...	...	730	1400	12500	8500	546	4780
Min.	10	168	...	...	...	...	4	114	814	169	50	314
Acre-ft.	2580	14700	...	...	...	...	18206	48300	107000	89800	13600	98200

Discharge of Rio Grande River at Monte Vista for Year Ending Sept. 30, 1928.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1 . . .	1350	230	...	...	...	...	424	1220	2480	548	38	164
2 . . .	1300	206	...	...	...	...	424	1500	2200	484	29	124
3 . . .	1400	206	...	...	...	...	454	1120	1980	364	230	90
4 . . .	1500	206	...	...	...	...	364	484	1500	336	185	62
5 . . .	1500	254	...	...	...	...	424	281	912	364	90	29
6 . . .	1450	308	...	...	...	...	336	516	794	336	62	29
7 . . .	1400	308	...	...	...	...	336	996	756	254	29	20
8 . . .	1350	336	...	...	...	...	281	996	832	230	14	38
9 . . .	1220	308	...	...	...	...	254	1120	794	230	8	38
10 . . .	1120	364	...	...	...	...	164	954	614	230	8	107
11 . . .	1080	336	...	...	...	...	124	912	548	164	14	230
12 . . .	996	336	...	...	...	...	124	832	394	76	8	206
13 . . .	956	336	...	...	...	...	144	484	424	90	8	144
14 . . .	996	336	...	...	...	...	107	206	424	124	8	50
15 . . .	912	308	...	...	...	...	90	124	424	164	8	14
16 . . .	912	281	...	...	...	...	76	124	548	144	29	14
17 . . .	832	308	...	...	...	...	76	144	720	164	50	8
18 . . .	794	336	...	...	...	...	90	164	720	185	50	8
19 . . .	832	336	...	...	...	...	76	230	684	164	50	8
20 . . .	756	336	...	...	...	...	76	308	614	164	50	8
21 . . .	720	340	...	...	...	...	76	394	639	164	29	8
22 . . .	720	336	...	...	...	...	62	548	548	164	29	14
23 . . .	684	336	...	...	...	...	50	794	484	185	38	14
24 . . .	649	308	...	...	...	...	62	954	649	185	50	8
25 . . .	614	322	...	...	...	...	164	1170	548	164	14	8
26 . . .	581	322	...	...	...	...	185	1550	548	164	50	20
27 . . .	516	322	...	...	...	...	230	1760	649	107	50	29
28 . . .	484	336	...	...	...	...	614	1920	649	90	38	29
29 . . .	484	322	...	...	...	...	872	9480	614	76	20	50
30 . . .	424	322	...	...	...	...	1080	9540	548	76	20	29
31 . . .	364	...	...	...	...	...	...	2540	...	62	144	...
Total	28896	9241	...	...	...	...	7830	29365	24928	6258	1450	1600
Mean.	932	308	...	...	...	...	261	947	808	202	46.8	53.3
Max.	1500	364	...	...	...	...	1080	2540	2480	548	230	230
Min.	364	206	...	...	...	...	50	124	394	62	8	8
Acre-ft.	57300	18300	...	...	...	...	15500	58300	48100	12400	2880	3170

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

Discharge of Rio Grande River at Alamosa for Year Ending Sept. 30, 1927.
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....	15	36	244	....	....	260	452	141	62	10600	62	329
2....	15	51	244	....	....	260	409	228	93	7210	62	329
3....	15	62	260	....	....	244	409	388	128	5560	62	291
4....	15	46	260	....	....	260	452	452	116	4600	60	269
5....	15	46	276	....	....	244	520	368	72	4000	60	254
6....	15	46	276	....	....	244	570	310	62	3350	60	254
7....	15	46	276	....	....	244	649	182	62	2630	60	254
8....	15	62	276	....	....	244	734	141	62	1900	54	234
9....	15	82	276	....	....	244	676	104	72	1160	54	404
10....	15	128	244	....	....	244	520	62	93	705	54	1080
11....	15	168	212	....	....	244	388	35	104	474	54	2300
12....	15	197	197	....	....	260	244	28	212	310	54	2200
13....	15	212	244	....	....	276	141	22	705	276	54	2040
14....	15	228	240	....	....	276	104	16	1240	260	46	3480
15....	15	228	240	....	....	276	82	116	954	182	35	4180
16....	15	228	240	....	....	276	62	182	1120	141	35	3340
17....	15	197	300	....	....	276	54	141	1360	116	28	2580
18....	15	228	300	....	....	276	46	228	1160	104	35	2090
19....	15	276	300	....	....	293	35	329	1240	93	46	1890
20....	15	276	300	....	....	293	28	293	1500	82	35	1790
21....	40	310	300	....	....	293	22	182	1500	72	28	1550
22....	51	348	300	....	....	293	12	128	1320	62	28	1380
23....	51	329	300	....	....	276	8	116	1080	62	28	1300
24....	51	310	300	....	310	276	8	93	856	62	28	1260
25....	51	310	260	187	368	276	8	62	734	62	28	1260
26....	51	310	220	....	348	276	8	62	734	62	72	1380
27....	51	276	200	....	276	310	28	116	705	62	141	1550
28....	51	276	180	....	276	348	72	82	988	62	228	1500
29....	51	260	160	....	....	368	54	28	2250	62	276	1420
30....	46	244	160	....	....	388	62	16	5320	62	310	1460
31....	36	....	157	....	....	430	....	28	....	62	348	....
Total	830	5816	7742	....	....	8768	6857	4679	25904	44475	2325	43698
Mean.	268	194	250	175	280	283	229	151	863	1430	81.5	1460
Max..	51	348	....	....	....	430	734	452	5320	10600	348	4180
Min...	15	36	....	....	....	244	8	16	62	62	28	254
Acre-ft.	1650	11500	15400	10800	15600	17400	13600	9280	51400	87900	5010	86900

Discharge of Rio Grande River at Alamosa for Year Ending Sept. 30, 1928.
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....	1420	548	352	....	....	319	455	362	1950	40	44	28
2....	1420	422	386	....	....	330	479	530	1880	50	44	23
3....	1460	386	....	....	....	362	504	666	1660	56	44	23
4....	1460	386	....	....	....	362	504	432	1480	56	50	23
5....	1460	386	....	....	....	362	455	153	1030	50	50	23
6....	1460	404	....	....	....	362	432	116	610	50	44	23
7....	1460	460	....	....	....	362	319	116	432	50	44	23
8....	1380	502	....	....	....	330	298	278	362	50	44	23
9....	1300	502	....	....	296	319	319	278	298	50	44	23
10....	1180	502	....	....	....	319	319	298	259	50	44	23
11....	1120	525	....	....	....	319	259	298	206	50	44	23
12....	1010	460	....	286	....	330	191	362	191	50	39	39
13....	1010	502	340	....	....	319	177	362	165	44	39	39
14....	1010	502	....	....	....	319	153	240	142	44	39	28
15....	1010	460	....	....	....	319	142	177	132	44	39	22
16....	940	460	....	....	....	319	132	132	100	44	33	18
17....	907	441	....	....	....	298	124	116	85	44	33	18
18....	810	481	....	....	....	298	116	116	85	50	33	18
19....	842	481	....	....	....	319	108	108	93	50	33	18
20....	781	481	....	....	....	341	108	108	78	50	28	18
21....	752	502	....	....	....	362	93	108	70	50	28	18
22....	752	481	....	....	....	362	85	108	70	50	28	18
23....	726	481	....	....	....	385	70	124	70	50	28	18
24....	700	441	....	....	....	408	70	341	50	50	28	18
25....	674	460	....	....	....	408	63	479	44	50	28	18
26....	648	460	....	....	....	432	56	666	44	50	28	18
27....	598	460	....	....	....	504	63	1060	44	50	28	18
28....	598	481	....	....	....	583	56	1230	44	50	28	18
29....	598	460	....	....	....	610	85	1480	44	50	28	18
30....	623	460	....	....	....	504	177	1810	44	50	28	18
31....	623	....	....	....	....	455	....	1920	50	28	....	....
Total	30732	13977	....	....	....	11621	6412	14574	11762	1538	1120	657
Mean.	991	466	335	290	300	375	214	470	392	49.6	36.1	21.9
Max..	1460	548	....	....	....	610	504	1920	1950	56	50	39
Min...	598	386	....	....	....	298	56	108	44	44	28	18
Acre-ft.	60900	27700	26060	17800	17300	23100	12700	28900	23300	3050	2220	1300

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

Discharge of Rio Grande River near Lobatos for Year Ending Sept. 30, 1927.
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....	82	82	365	278	347	449	613	850	1110	9590	212	542
2....	76	84	365	284	347	416	630	1060	1120	7870	212	512
3....	76	90	371	290	347	429	605	1300	1120	9580	190	484
4....	76	140	384	295	347	422	605	1570	1080	8100	190	463
5....	76	144	396	295	359	416	646	1730	1040	6480	185	416
6....	76	136	403	306	396	429	724	1820	1090	5170	194	390
7....	76	148	410	317	484	422	724	1770	1170	4390	203	384
8....	79	159	429	329	558	422	751	1750	1320	3520	203	384
9....	82	163	422	341	550	422	823	1690	1440	2680	237	410
10....	84	172	416	347	542	416	796	1120	1300	1890	242	558
11....	84	208	284	347	580	429	671	832	1320	1330	252	1270
12....	84	257	436	341	588	429	565	716	1710	1090	257	2290
13....	84	278	341	335	565	422	436	646	2440	913	262	2510
14....	87	284	329	527	429	341	726	2760	751	257	3110	
15....	92	232	317	317	605	422	317	980	2560	630	257	3700
16....	95	242	365	317	621	422	284	1360	2700	505	268	3900
17....	95	252	442	312	663	422	237	1990	2840	416	273	3840
18....	95	257	442	306	550	429	222	2390	2780	353	247	3250
19....	90	262	449	300	505	384	212	2800	2800	306	232	2860
20....	87	371	449	306	390	273	198	2990	2980	262	232	2870
21....	87	422	456	317	403	410	180	2580	2980	217	222	2480
22....	82	527	463	341	449	463	163	2230	2760	203	222	2170
23....	79	470	470	353	498	422	151	2160	2520	217	242	1950
24....	76	463	377	341	470	429	136	1850	2170	203	268	1890
25....	76	456	284	341	463	436	155	1530	1820	208	295	1840
26....	73	436	306	341	491	442	203	1490	1570	217	306	1980
27....	76	436	329	491	456	273	1530	1540	208	329	2220	
28....	76	422	306	317	463	477	422	1460	1420	222	416	2270
29....	76	396	273	300	....	505	558	1370	2130	227	498	2200
30....	79	384	273	306	....	535	716	1260	4070	217	550	2050
31....	82	....	278	329	....	573	....	1140	....	212	550	....
Total	2538	8373	11730	9907	13599	13452	13357	48600	59660	64537	8503	55193
Mean.	81.9	279	378	320	486	434	445	1570	1990	2080	274	1840
Max..	95	527	470	353	663	573	823	2990	4070	9580	550	3900
Min..	73	82	273	278	347	273	136	646	1040	203	185	384
Acre-ft.	5040	16600	23200	19700	27000	26700	26500	96500	118000	128000	16800	109000

Discharge of Rio Grande River near Lobatos for Year Ending Sept. 30, 1928.
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....	2020	895	628	362	390	680	732	1020	3960	99	28	62
2....	2150	823	542	376	383	671	724	1400	3820	93	54	65
3....	2090	715	542	396	376	680	750	1770	3480	90	65	70
4....	1980	654	493	410	376	654	741	1720	3000	87	52	90
5....	1950	638	477	446	383	663	732	1230	2550	82	49	84
6....	1990	646	470	431	396	619	706	888	1910	79	47	82
7....	1950	698	462	403	396	610	689	908	1580	76	70	79
8....	1870	769	454	376	403	610	619	1080	1320	62	76	76
9....	1770	796	431	396	403	619	741	1250	1170	49	67	70
10....	1690	769	468	419	376	585	610	1570	1080	38	65	67
11....	1520	769	468	419	431	576	567	1670	945	34	62	67
12....	1430	778	468	419	431	576	493	1770	841	34	62	62
13....	1400	796	477	419	431	576	383	1550	724	32	62	60
14....	1330	796	485	419	362	567	350	1480	637	34	60	67
15....	1320	787	462	462	362	567	350	1300	542	32	57	76
16....	1280	778	446	477	376	593	332	1140	454	30	54	67
17....	1250	742	446	431	383	542	314	1040	396	30	52	60
18....	1210	742	431	362	396	550	277	936	332	28	44	65
19....	1120	742	396	362	403	534	272	898	297	28	47	67
20....	1100	751	362	362	403	534	262	917	257	26	47	65
21....	1060	751	383	362	403	542	262	955	229	24	40	62
22....	1000	733	376	369	403	550	243	975	211	24	40	65
23....	970	715	376	383	403	585	248	975	153	22	52	65
24....	950	715	376	369	417	628	234	1130	131	28	52	65
25....	940	689	383	362	438	645	221	1370	145	26	49	67
26....	922	663	410	362	446	663	234	1810	128	26	52	67
27....	895	654	376	362	454	706	297	2080	125	24	62	65
28....	859	680	396	362	462	786	362	2730	112	24	57	62
29....	877	698	383	362	560	898	500	2970	105	24	54	65
30....	859	698	383	376	....	926	715	3350	105	22	54	65
31....	886	....	376	383	....	804	....	3570	....	22	60	....
Total	49638	22080	13626	12199	11816	19741	13960	47452	30739	1329	1692	2049
Mean.	1280	736	439	394	408	637	465	1530	1020	42.9	54.6	68.3
Max..	2150	895	628	477	560	936	750	3570	3960	99	76	90
Min..	859	638	362	362	534	221	888	105	22	28	60	....
Acre-ft.	84800	13800	27000	24200	24700	39200	27700	94100	61000	2640	3360	4060

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

Discharge of Alamosa River above Terrace Reservoir for Year Ending Sept. 30, 1927.
Drainage Area, 102 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	38	410	540	651	136	68
2	42	472	540	472	136	48
3	42	506	472	378	121	48
4	64	540	506	322	121	48
5	90	540	540	348	121	48
6	90	506	472	273	170	58
7	100	540	378	250	121	68
8	118	440	472	250	106	68
9	93	348	408	250	93	170
10	80	273	408	322	93	170
11	93	250	472	296	93	136
12	80	273	472	296	93	208
13	80	378	540	250	80	506
14	80	540	576	208	68	322
15	80	612	576	170	68	189
16	80	651	540	153	68	153
17	68	772	540	136	68	136
18	80	772	506	136	68	170
19	68	731	472	153	80	189
20	68	651	440	136	93	136
21	80	651	408	136	68	106
22	80	612	408	136	93	106
23	106	576	378	121	80	93
24	136	540	408	153	68	106
25	170	576	408	153	68	189
26	229	612	296	189	80	170
27	250	540	322	229	93	136
28	296	540	651	250	80	121
29	322	472	1290	208	80	121
30	348	440	1190	170	80	121
31	472	.....	136	68	...	...
Total							3554	16266	15629	7331	2855	4198
Mean							118	525	521	236	92.1	140
Max.							348	772	1290	651	170	506
Min.							38	250	296	121	68	48
Acre-ft.							7020	32300	31000	14500	5660	8330

Discharge of Alamosa River below Terrace Reservoir for Year Ending Sept. 30, 1927.
Drainage Area, 120 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	10	.	.	.	.	10	42	409	460	392	286	94
2	10	.	.	.	.	10	42	409	478	392	300	89
3	10	.	.	.	.	10	42	409	496	300	233	84
4	10	.	.	.	.	10	67	426	460	300	118	79
5	10	.	.	.	.	10	90	496	392	182	207	72
6	10	.	.	.	.	10	90	515	496	246	194	67
7	10	.	.	.	.	10	99	553	534	315	148	67
8	10	.	.	.	.	37	118	478	553	272	233	67
9	10	.	.	.	.	37	118	443	553	286	182	60
10	10	.	.	.	.	37	118	345	515	246	148	82
11	10	.	.	.	.	37	99	300	515	259	159	60
12	10	.	.	.	.	37	74	286	330	246	156	60
13	10	.	.	.	.	37	48	330	207	246	153	48
14	10	.	.	.	.	37	32	460	170	246	150	42
15	10	.	.	.	.	37	32	460	108	233	147	37
16	27	.	.	.	.	37	37	553	60	192	144	32
17	14	.	.	.	.	37	37	572	60	138	141	37
18	60	.	.	.	.	37	48	612	159	170	138	37
19	54	.	.	.	.	37	74	633	207	207	138	37
20	42	.	.	.	.	37	74	633	233	207	138	37
21	32	.	.	.	.	37	74	654	286	194	90	37
22	32	.	.	.	.	37	74	553	259	182	138	138
23	37	.	.	.	.	37	67	654	300	194	133	118
24	10	.	.	.	.	37	60	633	315	108	128	108
25	10	.	.	.	.	37	159	633	315	194	124	118
26	10	.	.	.	.	37	246	633	272	220	119	118
27	10	.	.	.	.	37	286	633	360	246	114	108
28	10	.	.	.	.	37	330	612	360	259	109	108
29	10	.	.	.	.	37	360	478	392	286	104	108
30	10	.	.	.	.	37	376	478	409	272	102	108
31	10	.	.	.	.	37	.....	460	220	98	...	...
Total	528	.	.	.	.	958	3413	15743	10254	7450	4772	2257
Mean	17.0	10	10	10	10	30.9	114	508	342	240	154	75.2
Max.	60	.	.	.	.	.....	376	654	553	392	300	138
Min.	...	...	...	...	...	...	32	286	60	138	...	32
Acre-ft.	1050	595	615	615	555	1900	6780	31200	20400	14800	9470	4470

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

Discharge of Alamosa River below Terrace Reservoir for Year Ending Sept. 30, 1928.												
	Drainage Area, 120 Square Miles. Altitude, Feet Above Sea Level.											
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	150	.....	.....	.....	.....	19	363	418	36	162	35	
2....	150	.....	.....	.....	.....	19	418	446	199	162	35	
3....	150	.....	.....	.....	.....	19	199	396	199	162	34	
4....	150	.....	.....	.....	.....	22	202	455	96	162	34	
5....	150	.....	.....	.....	.....	22	264	452	174	162	33	
6....	150	.....	.....	.....	.....	22	285	438	174	150	33	
7....	130	.....	.....	.....	.....	22	321	452	174	150	32	
8....	108	.....	.....	.....	.....	22	363	466	78	150	32	
9....	108	.....	.....	.....	.....	22	410	480	174	150	31	
10....	108	.....	.....	.....	.....	22	410	396	186	150	31	
11....	108	.....	.....	.....	.....	34	382	424	174	150	30	
12....	108	.....	.....	.....	.....	50	311	355	162	150	30	
13....	108	.....	.....	.....	.....	50	264	355	162	150	29	
14....	108	.....	.....	.....	.....	44	264	342	162	150	29	
15....	92	.....	.....	.....	.....	44	264	238	62	150	28	
16....	75	.....	.....	.....	.....	50	251	251	127	150	28	
17....	75	.....	.....	.....	.....	50	238	138	138	146	27	
18....	75	.....	.....	.....	.....	50	238	316	138	144	27	
19....	75	.....	.....	.....	.....	50	238	329	138	142	26	
20....	75	.....	.....	.....	.....	50	238	290	138	96	26	
21....	62	.....	.....	.....	.....	50	238	355	127	60	25	
22....	48	.....	.....	.....	.....	44	238	329	78	58	25	
23....	48	.....	.....	.....	.....	70	238	316	78	56	24	
24....	60	.....	.....	.....	.....	78	238	225	186	54	24	
25....	60	.....	.....	.....	.....	106	251	290	174	52	23	
26....	60	.....	.....	.....	.....	186	264	303	174	50	23	
27....	60	.....	.....	.....	.....	212	264	303	174	60	22	
28....	60	.....	.....	.....	.....	238	285	277	174	38	22	
29....	60	.....	.....	.....	.....	290	311	238	174	44	21	
30....	58	.....	.....	.....	.....	316	342	212	162	36	20	
31....	58	.....	.....	19	.....	390	.....	162	44	.....	.....
Total	2887	.....	.....	.....	.....	2273	8987	10285	4614	3540	839	
Mean.	93.1	58	.....	.....	.....	75.8	290	343	149	114	28.0	
Max.	150	.....	.....	.....	.....	316	418	480	199	162	.....
Min.	48	.....	.....	.....	.....	19	199	138	62	.....	.....
Acre-ft.	5720	3450	.....	.....	.....	4510	17800	20400	9160	7010	1670	

Discharge of La Jara Creek near Capulin for Year Ending Sept. 30, 1927.												
	Drainage Area, 73 Square Miles. Altitude, Feet Above Sea Level.											
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	7	.....	.....	.....	.....	24	150	17	66	17	10	
2....	7	.....	.....	.....	.....	24	141	17	60	17	10	
3....	7	.....	.....	.....	.....	24	150	17	60	17	12	
4....	7	.....	.....	.....	.....	24	150	17	17	20	12	
5....	7	.....	.....	.....	.....	24	150	14	14	20	12	
6....	7	.....	.....	.....	.....	24	132	14	12	32	14	
7....	7	.....	.....	.....	.....	24	123	14	12	20	14	
8....	7	.....	.....	.....	.....	24	114	14	17	17	17	
9....	7	.....	.....	.....	.....	24	88	14	14	17	17	
10....	7	.....	.....	.....	.....	28	73	12	14	17	17	
11....	7	.....	.....	.....	.....	24	60	12	14	12	14	
12....	7	.....	.....	.....	.....	20	66	12	14	12	12	
13....	7	.....	.....	.....	.....	24	66	17	12	12	14	
14....	7	.....	.....	.....	.....	24	73	23	12	12	14	
15....	7	.....	.....	.....	.....	24	73	24	12	12	12	
16....	7	.....	.....	.....	.....	20	66	17	12	12	12	
17....	7	.....	.....	.....	.....	32	73	17	12	12	12	
18....	7	.....	.....	.....	.....	88	73	17	12	10	14	
19....	7	.....	.....	.....	.....	32	66	14	12	17	24	
20....	7	.....	.....	.....	.....	24	54	12	14	17	20	
21....	7	.....	.....	.....	.....	37	54	17	14	14	17	
22....	7	.....	.....	.....	.....	42	48	54	12	12	14	
23....	7	.....	.....	.....	.....	54	42	60	14	10	14	
24....	7	.....	.....	.....	.....	14	42	60	17	17	14	
25....	7	.....	.....	.....	.....	105	37	60	28	14	14	
26....	7	.....	.....	.....	.....	141	32	60	28	12	17	
27....	7	.....	.....	.....	.....	150	28	60	48	12	17	
28....	7	.....	.....	.....	.....	159	28	66	54	12	17	
29....	7	.....	.....	.....	.....	159	21	66	42	12	17	
30....	7	.....	.....	.....	.....	150	24	73	24	12	14	
31....	7	.....	.....	.....	.....	20	.....	17	10	.....	.....
Total	217	.....	.....	.....	.....	1667	2386	896	710	454	438	
Mean.	7.0	.....	.....	.....	.....	55.6	77.0	29.9	22.9	14.6	14.6	
Max.	.....	.....	.....	.....	.....	159	150	73	66	32	24	
Min.	.....	.....	.....	.....	.....	20	20	12	12	10	10	
Acre-ft	430	.....	.....	.....	.....	3310	4730	1780	1410	898	869	

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

Discharge of La Jara Creek near Capulin for Year Ending Sept. 30, 1928.
Drainage Area, 73 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.	14	.	.	.	.	.	27	109	118	10	23	10
2.	14	.	.	.	.	.	41	109	27	10	23	12
3.	14	.	.	.	.	.	31	82	23	10	23	17
4.	12	.	.	.	.	.	27	52	17	27	23	17
5.	12	.	.	.	.	.	20	59	17	47	23	20
6.	12	.	.	.	.	.	20	66	17	66	23	20
7.	12	.	.	.	.	.	17	66	17	74	14	14
8.	12	.	.	.	.	.	20	59	17	82	14	12
9.	12	.	.	.	.	.	17	52	17	91	20	10
10.	12	.	.	.	.	.	14	52	17	100	23	10
11.	12	.	.	.	.	.	14	66	17	74	20	10
12.	12	.	.	.	.	.	14	59	17	82	17	10
13.	12	.	.	.	.	.	14	59	17	82	17	10
14.	12	.	.	.	.	.	14	52	17	74	17	10
15.	12	.	.	.	.	.	14	52	17	66	17	10
16.	12	.	.	.	.	.	23	52	14	52	20	10
17.	12	.	.	.	.	.	66	47	12	52	36	10
18.	12	.	.	.	.	.	66	41	12	52	14	10
19.	12	.	.	.	.	.	52	52	12	52	14	10
20.	12	.	.	.	.	.	52	52	12	59	12	10
21.	12	.	.	.	.	.	41	47	12	52	12	14
22.	12	.	.	.	.	.	31	41	12	47	12	12
23.	14	.	.	.	.	.	41	41	12	41	12	10
24.	14	.	.	.	.	.	52	41	12	27	12	10
25.	14	.	.	.	.	.	66	47	12	27	12	10
26.	14	.	.	.	.	.	52	47	12	23	10	10
27.	14	.	.	.	.	.	66	41	12	17	10	10
28.	14	.	.	.	.	.	74	41	12	20	10	10
29.	17	.	.	.	.	.	118	36	12	17	10	10
30.	17	.	.	.	.	12	100	31	12	17	10	10
31.	17	.	.	.	.	17	...	27	...	17	10	...
Total	405	.	.	.	.	.	1204	1678	554	1467	513	348
Mean	13.1	.	.	.	.	.	40.1	54.1	18.5	47.3	16.6	11.6
Max..	17	.	.	.	.	.	118	109	118	100	36	20
Min...	12	.	.	.	.	.	14	27	12	10	10	10
Acre-ft.	806	.	.	.	.	.	2390	3330	1100	2910	1020	690

Discharge of La Jara Creek at Mouth for Year Ending Sept. 30, 1927,
Drainage Area, Square Miles. Altitude, Feet Above Sea Level

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.	13	13	.	.	.	.	17	15	70	35	85	
2.	13	21	.	.	.	.	17	13	58	35	79	
3.	13	27	.	.	.	.	17	12	53	38	73	
4.	13	29	.	.	.	.	17	8	48	35	68	
5.	13	29	.	.	.	.	17	7	48	31	63	
6.	13	40	.	.	.	.	17	7	50	33	66	
7.	13	46	.	.	.	.	17	7	35	38	63	
8.	13	48	.	.	.	.	17	7	23	43	63	
9.	12	48	.	.	.	.	17	7	17	50	63	
10.	10	50	.	.	.	.	17	7	19	63	66	
11.	10	43	.	.	.	.	17	15	40	66	76	
12.	10	31	.	.	.	.	17	29	58	68	82	
13.	10	27	.	.	.	.	17	43	63	68	79	
14.	10	25	.	.	.	.	17	50	60	70	82	
15.	10	23	.	.	.	.	17	43	58	79	94	
16.	10	30	.	.	.	.	17	68	55	82	88	
17.	12	30	.	.	.	.	17	103	31	73	73	
18.	12	30	.	.	.	.	17	91	29	66	73	
19.	12	30	.	44	.	.	17	91	25	60	73	
20.	10	30	.	.	.	17	17	88	23	53	76	
21.	10	30	.	.	.	.	17	85	19	53	76	
22.	10	20	.	.	.	.	17	88	21	63	73	
23.	10	17	.	.	.	.	19	88	27	68	70	
24.	10	17	.	.	45	.	19	91	25	68	68	
25.	10	17	.	34	.	.	17	68	29	73	70	
26.	10	17	.	.	.	.	15	60	33	85	73	
27.	10	17	.	.	.	.	15	60	31	88	73	
28.	10	17	29	.	.	.	17	55	29	91	73	
29.	12	17	.	.	.	.	17	38	27	94	73	
30.	12	17	.	.	.	.	17	40	27	94	70	
31.	12	.	.	.	17	.	17	29	29	94	...	
Total	348	836	.	.	.	.	527	1384	1160	1957	2204	
Mean.	11.2	27.8	24	32	39	45	17	17.0	46.1	37.4	63.1	73.4
Max..	...	50	...	...	...	...	...	...	103	70	94	94
Min...	...	13	...	...	...	...	7	17	31	63	63	63
Acre-ft.	689	1650	1480	1970	2170	2770	1010	1050	2740	2300	3880	4370

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

Discharge of La Jara Creek at Mouth for Year Ending Sept. 30, 1928.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	67	77	....	....	....	....	62	25	23	8	4	5
2....	70	80	....	....	....	....	62	25	21	8	4	5
3....	89	80	....	....	....	....	54	42	21	6	4	21
4....	89	77	....	....	....	....	52	54	33	6	4	25
5....	92	77	....	....	....	....	47	50	54	6	4	25
6....	101	74	....	....	....	57	44	33	80	5	4	23
7....	101	72	....	....	....	....	37	33	40	5	4	20
8....	101	64	....	....	....	....	42	33	27	4	4	14
9....	98	62	62	....	....	....	57	31	23	4	4	11
10....	95	60	....	....	....	....	42	47	20	4	4	10
11....	98	57	....	35	41	....	33	83	20	4	4	8
12....	98	57	....	....	....	....	29	119	18	4	4	6
13....	98	57	....	....	....	....	31	136	18	2	4	6
14....	98	57	....	....	....	....	35	132	18	2	4	6
15....	101	57	....	....	....	....	31	119	18	2	4	6
16....	101	57	....	....	....	....	31	104	18	2	4	6
17....	92	57	....	....	....	....	27	80	18	2	4	6
18....	77	60	....	....	....	....	35	70	16	4	4	6
19....	74	57	....	....	....	....	35	62	14	2	4	6
20....	72	57	....	....	....	....	23	52	12	4	4	6
21....	72	57	....	....	....	....	23	62	11	2	4	6
22....	70	57	....	....	....	....	23	72	11	4	4	6
23....	72	57	....	....	....	....	25	89	11	4	4	6
24....	72	57	....	....	....	....	25	83	11	4	4	6
25....	72	57	....	....	....	....	25	57	11	4	4	6
26....	72	54	....	....	....	....	25	44	10	4	5	6
27....	70	54	....	....	....	....	21	40	10	4	5	6
28....	67	52	....	....	....	....	18	44	10	4	5	6
29....	67	52	....	....	....	....	18	47	10	4	5	6
30....	70	47	....	....	....	....	18	33	8	4	5	6
31....	74	....	....	....	....	....	25	....	4	5	....	....
Total	2590	1840	....	....	....	....	1030	1926	615	126	130	281
Mean.	83.5	61.3	52	38	42	60	34.3	62.1	20.5	4.06	4.19	9.36
Max..	101	80	....	....	....	....	62	136	80	8	5	25
Min... Acre-ft.	67	47	....	....	....	....	18	25	8	2	4	5
Acre-ft.	5130	3650	3200	2340	2420	3690	2040	3820	1220	250	258	557

Discharge of Trinchera Creek Above Turner Ranch for Year Ending Sept. 30, 1927.
Drainage Area, 45 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	17	17	....	....	....	....	14	40	55	45	21	10
2....	17	17	....	....	....	....	14	40	55	45	21	10
3....	17	17	....	....	....	....	17	45	55	40	17	10
4....	17	....	....	....	....	....	17	50	50	35	17	10
5....	17	....	....	....	....	....	17	50	50	35	17	10
6....	17	....	....	....	....	....	21	50	50	35	21	10
7....	17	....	....	....	....	....	21	50	45	35	21	10
8....	17	....	....	....	....	....	17	50	50	35	21	10
9....	17	....	....	....	....	....	17	45	50	30	21	10
10....	17	....	....	....	....	....	17	50	50	35	21	10
11....	17	....	....	....	....	....	17	50	55	30	21	10
12....	17	....	....	....	....	....	17	50	55	30	17	10
13....	17	....	....	....	....	....	14	55	55	25	17	17
14....	17	....	....	....	....	....	14	60	55	25	17	17
15....	17	....	....	....	....	....	14	66	60	25	17	14
16....	17	....	....	....	....	....	10	72	72	21	17	14
17....	17	....	....	....	....	....	10	78	72	21	17	14
18....	17	....	....	....	....	....	10	84	72	17	17	10
19....	17	....	....	....	....	....	10	90	66	21	14	10
20....	17	17	....	....	....	....	10	90	66	21	14	14
21....	17	....	....	....	....	....	10	84	66	21	14	14
22....	17	....	....	....	....	....	14	78	60	21	14	14
23....	17	....	....	....	....	....	14	72	60	21	14	14
24....	17	....	....	....	....	....	14	72	60	21	14	14
25....	17	....	....	....	....	....	21	72	55	21	14	17
26....	17	....	....	....	....	....	21	66	55	21	14	17
27....	17	....	....	....	....	....	25	66	50	25	14	17
28....	17	....	....	....	....	....	35	66	50	25	14	17
29....	17	....	....	....	....	....	35	60	55	25	14	17
30....	17	....	....	....	....	....	35	55	55	21	14	17
31....	17	....	....	....	....	....	60	....	21	14	....	....
Total	527	....	....	....	....	....	522	1916	1704	849	520	388
Mean.	17	17	....	....	....	....	17.4	61.8	56.8	27.4	16.8	12.9
Max..	17	....	....	....	....	....	35	90	72	45	21	17
Min... Acre-ft.	17	....	....	....	....	....	10	40	45	17	14	10
Acre-ft.	1050	1010	....	....	....	....	1040	3800	3380	1680	1030	768

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

Discharge of Trinchera Creek Above Turner Ranch for Year Ending Sept. 30, 1928.
Drainage Area, 45 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	17	14	....	....	....	....	29	43	235	43	23	18
2....	17	14	....	....	....	....	28	48	222	38	23	16
3....	17	14	....	....	....	....	26	38	196	38	27	16
4....	17	14	....	....	....	....	25	38	159	38	23	16
5....	17	14	....	....	....	....	24	34	148	34	23	16
6....	17	14	....	....	....	....	23	48	138	34	20	16
7....	17	14	....	....	....	....	22	54	128	34	20	16
8....	17	14	....	....	....	....	21	76	128	30	20	16
9....	17	14	....	....	....	....	20	84	110	30	20	16
10....	17	14	....	....	....	....	20	76	110	30	20	16
11....	17	14	....	....	....	....	14	68	101	34	20	16
12....	17	14	....	....	....	....	14	60	93	34	23	16
13....	17	14	....	....	....	....	14	48	93	34	20	16
14....	17	7	....	....	....	....	15	48	84	30	20	16
15....	17	5	....	....	....	....	15	43	76	30	20	14
16....	14	....	....	....	....	....	15	48	76	30	18	14
17....	14	....	....	....	....	....	15	48	68	30	18	14
18....	14	....	....	....	....	....	17	54	68	30	18	14
19....	14	....	....	....	....	....	20	60	68	30	16	14
20....	14	....	....	....	....	....	20	68	68	34	16	14
21....	14	....	....	....	....	....	18	76	68	30	16	14
22....	14	....	....	....	....	....	20	84	68	30	18	14
23....	14	....	....	....	....	....	18	93	60	27	18	14
24....	14	....	....	....	....	....	21	84	54	27	18	14
25....	14	....	....	....	....	....	24	101	54	30	18	14
26....	14	....	....	....	....	....	13	22	148	54	27	16
27....	14	....	....	....	....	....	13	28	183	54	27	16
28....	14	....	....	....	....	....	12	20	196	48	27	18
29....	17	....	....	....	....	....	15	27	248	48	23	18
30....	14	....	....	....	....	....	13	38	248	43	23	18
31....	14	....	....	....	....	....	25	....	261	....	23	18
Total	482	....	....	5	4	....	633	2806	2920	959	600	450
Mean.	15.6	10	7	5	4	9	21.1	90.5	97.3	30.9	19.3	15.0
Max..	17	....	....	....	....	....	38	261	235	43	27	18
Min..	14	....	....	....	....	....	14	34	43	22	16	14
Acre-ft.	959	595	430	307	230	553	1260	5560	5790	1900	1190	892

Discharge of Trinchera Creek Above Mt. Home Reservoir for Year Ending Sept. 30, 1927.
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	6	....	....	....	....	11	15	57	33	14	7
2....	9	6	....	....	....	....	11	18	50	35	18	8
3....	10	7	....	....	....	....	11	18	44	30	19	9
4....	9	5	....	....	....	....	12	18	42	23	17	7
5....	9	5	....	....	....	....	14	16	40	22	17	6
6....	9	6	....	....	....	....	18	14	37	22	20	6
7....	8	6	....	....	....	....	19	16	32	23	16	6
8....	8	5	....	....	....	....	19	29	33	21	15	6
9....	8	4	....	....	....	....	19	30	32	24	17	7
10....	8	6	....	....	....	....	19	22	40	27	18	8
11....	6	7	....	....	....	....	15	21	45	23	16	6
12....	6	5	....	....	....	....	9	20	54	19	17	5
13....	5	5	....	....	....	....	11	24	46	18	16	11
14....	5	3	....	....	....	....	11	32	28	18	18	11
15....	5	3	....	....	....	....	12	37	37	16	18	7
16....	7	6	....	....	....	....	13	42	44	15	18	7
17....	8	7	....	....	....	....	12	52	41	15	18	10
18....	8	5	....	....	....	....	10	50	38	16	18	8
19....	8	4	....	....	....	....	11	71	38	18	18	7
20....	8	3	....	....	....	....	9	71	37	18	21	8
21....	7	3	....	....	....	....	7	73	27	17	19	8
22....	7	3	....	....	....	....	7	67	28	18	18	8
23....	8	4	....	....	....	....	13	60	28	21	17	9
24....	7	4	....	....	....	....	5	56	25	21	18	12
25....	5	4	....	....	....	....	4	56	28	21	15	11
26....	5	5	....	....	....	....	5	56	24	18	15	12
27....	4	5	....	....	....	....	8	54	23	24	15	12
28....	4	5	....	....	....	....	13	52	28	25	11	11
29....	5	5	....	....	....	....	9	50	46	21	8	11
30....	9	5	....	....	....	....	9	46	46	19	6	11
31....	6	....	....	....	....	....	54	....	14	7	....	....
Total	218	147	....	....	....	....	346	1240	1118	655	498	255
Mean.	7.03	4.9	....	....	....	....	11.5	40.0	37.3	21.1	16.1	8.50
Max..	10	....	....	....	....	....	19	73	57	35	21	12
Min..	4	....	....	....	....	....	4	14	23	14	6	5
Acre-ft.	432	292	....	....	....	....	684	2460	2220	1300	990	506

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

Discharge of Trinchera Creek Above Mt. Home Reservoir for Year Ending Sept. 30, 1928.
Drainage Area, 61 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	16	11	....	....	....	....	12	38	222	28	19	14
2....	14	13	....	....	....	....	12	57	217	27	19	11
3....	11	12	....	....	....	....	10	49	195	24	19	9
4....	12	12	....	....	....	....	10	42	169	20	19	8
5....	15	12	....	....	....	....	5	38	138	19	14	9
6....	11	11	....	....	....	....	8	35	130	15	14	9
7....	11	11	....	....	....	....	5	42	120	19	13	9
8....	13	12	....	....	....	....	5	54	118	22	16	10
9....	11	12	....	....	....	....	3	74	118	25	14	8
10....	12	10	....	....	....	....	3	82	110	36	14	10
11....	11	11	....	....	....	....	5	74	101	28	13	8
12....	13	13	....	....	....	....	10	68	88	28	13	8
13....	15	12	....	....	....	....	12	62	99	24	11	7
14....	15	9	....	....	....	....	12	57	68	23	10	7
15....	15	7	....	....	....	....	11	46	62	20	12	8
16....	14	7	....	....	....	....	9	49	55	16	10	8
17....	13	9	....	....	....	....	3	51	52	16	9	7
18....	11	9	....	....	....	....	3	55	54	20	11	7
19....	10	10	....	....	....	....	10	60	59	21	7	7
20....	14	10	....	....	....	....	18	63	60	23	6	7
21....	13	10	....	....	....	....	23	60	52	21	7	8
22....	13	10	....	....	....	....	19	101	52	19	10	10
23....	12	10	....	....	....	....	12	82	46	16	12	8
24....	9	10	....	....	....	....	12	80	49	20	9	7
25....	8	10	....	....	....	....	14	99	48	20	12	7
26....	10	10	....	....	....	....	18	130	49	15	8	8
27....	10	10	....	....	....	....	14	152	49	15	11	8
28....	13	10	....	....	....	....	21	204	42	20	11	8
29....	19	10	....	....	....	....	21	233	35	18	14	7
30....	14	10	....	....	....	....	31	250	30	18	14	5
31....	10	....	....	....	....	....	....	262	....	19	14	5
Total	388	313	....	....	....	....	351	2749	2687	655	385	247
Mean.	12.5	10.4	....	....	....	....	11.7	88.7	89.6	21.1	12.4	8.23
Max..	19	13	....	....	....	....	31	262	222	36	19	14
Min...	8	7	....	....	....	....	3	35	30	15	6	5
Acre-ft.	769	619	....	....	....	....	696	5450	5330	1300	762	490

Discharge of Sangre De Cristo Creek Near Fort Garland for Year Ending Sept. 30, 1927.
Drainage Area, 187 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	4	....	....	....	....	....	37	90	22	16	6	2
2....	5	....	....	....	....	....	40	89	22	14	9	3
3....	7	....	....	....	....	....	54	90	18	12	18	5
4....	6	....	....	....	....	....	58	85	18	11	11	7
5....	6	....	....	....	....	....	64	80	17	10	10	5
6....	6	....	....	....	....	....	68	72	15	10	10	4
7....	6	....	....	....	....	....	68	65	14	9	8	4
8....	5	....	....	....	....	....	48	69	14	9	14	5
9....	7	....	....	....	....	....	48	63	14	9	15	5
10....	7	....	....	....	....	....	46	64	13	31	17	4
11....	6	....	....	....	....	....	46	66	14	28	9	4
12....	5	....	....	....	....	....	46	56	19	19	9	4
13....	6	....	....	....	....	....	46	56	28	20	8	14
14....	5	....	....	....	....	....	41	53	24	17	11	10
15....	6	....	....	....	....	....	41	51	23	14	12	8
16....	6	....	....	....	....	....	40	50	28	12	10	6
17....	6	....	....	....	....	....	40	48	39	10	9	8
18....	6	....	....	....	....	....	39	49	33	8	7	9
19....	6	....	....	....	....	....	38	46	29	8	8	8
20....	7	....	....	....	....	....	39	44	26	8	8	6
21....	7	....	....	....	....	....	39	42	24	9	7	5
22....	7	....	....	....	....	....	43	39	22	14	6	4
23....	8	....	....	....	....	....	44	38	19	21	6	4
24....	8	....	....	....	....	....	44	37	17	20	6	6
25....	9	....	....	....	....	....	78	36	15	17	4	7
26....	8	....	....	....	....	....	78	34	14	17	4	13
27....	8	....	....	....	....	....	86	32	13	11	6	14
28....	9	....	....	....	....	....	90	29	13	12	7	12
29....	7	....	....	....	....	....	91	28	20	15	6	9
30....	7	....	....	....	....	....	90	26	22	9	4	9
31....	7	....	....	....	....	....	....	24	....	6	3	...
Total	202	....	....	....	....	....	1630	1651	609	426	268	204
Mean.	6.52	....	....	....	....	....	54.3	53.3	20.3	13.7	8.65	6.8
Max..	9	....	....	....	....	....	91	90	39	31	18	14
Min...	4	....	....	....	....	....	37	24	13	6	3	2
Acre-ft.	401	....	....	....	....	....	3230	3280	1210	842	532	405

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, 1928.
Drainage Area, 187 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	14	....	....	....	....	....	10	162	132	19	15	8
2....	11	....	....	....	....	....	10	180	130	19	14	6
3....	11	....	....	....	....	....	10	191	128	18	20	6
4....	10	....	....	....	....	....	13	173	128	18	19	6
5....	10	....	....	....	....	....	15	158	117	18	15	4
6....	11	....	....	....	....	....	13	152	102	18	13	3
7....	8	....	....	....	....	....	13	170	96	15	11	1
8....	9	....	....	....	....	....	12	183	89	14	11	1
9....	8	....	....	....	....	....	11	188	85	14	10	1
10....	7	....	....	....	....	....	12	201	83	14	10	1
11....	7	....	....	....	....	....	12	220	80	14	9	1
12....	11	....	....	....	....	....	11	200	80	10	9	1
13....	9	....	....	....	....	....	10	194	80	9	10	1
14....	9	....	....	....	....	....	10	187	78	9	9	1
15....	9	....	....	....	....	....	9	177	69	9	9	1
16....	9	....	....	....	....	....	10	208	64	8	8	1
17....	8	....	....	....	....	....	22	225	55	11	8	1
18....	9	....	....	....	....	....	27	235	49	11	13	1
19....	7	....	....	....	....	....	29	241	48	10	8	1
20....	7	....	....	....	....	....	29	226	46	24	6	1
21....	8	....	....	....	....	....	30	227	42	19	5	4
22....	8	....	....	....	....	....	32	208	38	14	6	3
23....	8	....	....	....	....	....	36	194	36	16	8	3
24....	8	....	....	....	....	....	34	187	34	15	9	2
25....	9	....	....	....	....	....	46	187	30	15	13	2
26....	9	....	....	....	....	....	59	167	29	14	9	2
27....	9	....	....	....	....	....	74	155	28	14	6	2
28....	9	....	....	....	....	....	113	163	24	24	6	2
29....	9	....	....	....	....	....	135	152	24	30	9	2
30....	9	....	....	....	....	....	148	149	21	20	8	2
31....	9	....	....	....	....	....	139	....	18	9	2	
Total	282	....	....	....	....	....	995	5799	2045	481	315	71
Mean.	9.10	....	....	....	....	....	33.2	187	68.2	15.5	10.2	2.37
Max..	14	....	....	....	....	....	148	241	132	30	20	8
Min...	7	....	....	....	....	....	9	139	21	8	5	1
Acre-ft.	560	....	....	....	....	....	1980	11500	4060	953	627	141

Discharge of Ute Creek Near Fort Garland for Year Ending Sept. 30, 1927.
Drainage Area, 32 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	8	5	....	....	....	....	16	61	43	54	34	16
2....	8	....	....	....	....	....	18	66	41	46	46	14
3....	8	....	....	....	....	....	22	65	38	42	60	14
4....	7	....	....	....	....	....	25	64	32	46	44	13
5....	8	....	....	....	....	....	26	63	32	38	41	12
6....	8	....	....	....	....	....	28	53	34	35	78	12
7....	6	....	....	....	....	....	28	58	36	31	54	13
8....	6	....	....	....	....	....	28	70	38	29	58	16
9....	6	....	....	....	....	....	25	64	30	31	69	24
10....	6	....	....	....	....	....	24	54	28	98	63	22
11....	5	....	....	....	....	....	22	52	37	70	46	20
12....	5	....	....	....	....	....	20	46	43	48	48	22
13....	5	....	....	....	....	....	18	46	53	44	44	76
14....	4	....	....	....	....	....	15	58	40	36	41	48
15....	4	5	....	....	....	....	16	68	78	33	38	30
16....	5	6	....	....	....	....	16	75	84	30	33	27
17....	5	....	....	....	....	....	14	84	62	30	30	38
18....	5	....	....	....	....	....	14	81	64	28	27	42
19....	6	....	....	....	....	....	14	80	65	22	26	33
20....	6	....	....	....	....	....	14	72	56	27	26	28
21....	5	....	....	....	....	....	14	69	53	32	25	25
22....	4	....	....	....	....	....	16	70	47	31	23	22
23....	4	....	....	....	....	....	21	62	44	32	22	22
24....	4	....	....	....	....	....	25	55	44	37	22	25
25....	4	....	....	....	....	....	34	52	46	31	20	27
26....	4	....	....	....	....	....	44	53	50	75	21	30
27....	4	....	....	....	....	....	46	46	47	92	25	27
28....	3	....	....	....	....	....	43	46	45	98	24	25
29....	4	....	....	....	....	....	48	43	69	66	20	21
30....	5	6	....	....	....	....	58	40	78	53	18	21
31....	4	....	....	....	....	....	40	....	41	18	....	....
Total	166	....	....	....	....	....	152	1856	1457	1406	1144	765
Mean.	5.35	5.5	....	....	....	....	25.1	59.9	48.6	45.4	36.9	25.5
Max..	8	....	....	....	....	....	58	84	84	98	78	76
Min...	3	....	....	....	....	....	13	10	98	23	18	12
Acre-ft.	329	327	....	....	....	....	1190	3680	2890	2790	2270	1520

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

Discharge of Ute Creek Near Fort Garland for Year Ending Sept. 30, 1928.
Drainage Area, 32 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	23	14	....	....	....	....	12	55	120	34	42	27
2	26	14	....	....	....	....	12	71	116	32	63	23
3	24	12	....	....	....	....	16	61	110	32	93	19
4	20	12	....	....	....	....	17	53	91	30	74	14
5	19	13	....	....	....	....	16	52	72	29	50	15
6	17	13	....	....	....	....	16	53	63	25	41	13
7	17	13	....	....	....	....	11	61	65	30	32	12
8	19	13	....	....	....	....	8	68	67	22	28	12
9	17	12	....	....	....	....	8	77	70	19	26	13
10	17	11	....	....	....	....	8	77	67	18	23	12
11	16	11	....	....	....	....	9	71	60	19	20	12
12	15	12	....	....	....	....	10	63	55	18	17	11
13	15	12	....	....	....	....	8	54	52	21	19	8
14	14	13	....	....	....	....	9	55	48	23	18	7
15	14	11	....	....	....	....	8	50	43	26	19	7
16	14	12	....	....	....	....	7	46	48	21	15	6
17	14	15	....	....	....	....	10	41	49	31	13	5
18	13	13	....	....	....	....	12	42	47	34	13	5
19	12	13	....	....	....	....	13	42	46	28	13	5
20	11	13	....	....	....	....	15	47	44	25	13	5
21	11	13	....	....	....	....	20	49	47	25	13	5
22	12	11	....	....	....	....	19	54	46	25	15	5
23	13	10	....	....	....	....	18	68	43	18	16	6
24	13	10	....	....	....	....	22	68	41	19	17	4
25	13	11	....	....	....	....	27	66	47	17	21	5
26	13	15	....	....	....	....	27	76	47	13	22	5
27	13	15	....	....	....	....	32	99	43	17	20	5
28	14	14	....	....	....	....	39	132	46	23	15	5
29	17	13	....	....	....	....	39	130	41	52	18	5
30	15	10	....	....	....	....	50	129	38	54	19	5
31	13	....	....	....	....	....	121	....	52	29	....	....
Total	484	374	....	....	....	....	518	2131	1772	832	837	281
Mean.	15.6	12.5	....	....	....	....	17.3	68.7	59.1	26.8	27.0	9.4
Max..	26	15	....	....	....	....	50	132	120	54	93	27
Min...	11	10	....	....	....	....	1	41	38	13	13	4
Acre-ft.	959	744	....	....	....	....	1030	4220	3520	1650	1660	559

Discharge of Conejos River Near Mogote for Year Ending Sept. 30, 1927.
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	58	44	....	....	....	....	193	1290	1580	1740	316	189
2	56	52	....	....	....	....	259	1350	1620	1360	352	178
3	67	54	....	....	....	....	306	1430	1510	1200	352	167
4	78	46	....	....	....	....	321	1490	1550	1120	326	163
5	69	38	....	....	....	....	357	1550	1670	1090	316	163
6	69	46	....	....	....	....	421	1480	1770	978	471	163
7	69	46	....	....	....	....	478	1570	1860	900	363	204
8	69	34	....	....	....	....	452	1370	1920	712	363	268
9	73	42	....	....	....	....	358	1070	1750	720	321	433
10	85	44	....	....	....	....	341	872	1790	844	301	458
11	80	42	....	....	....	....	296	799	1910	862	291	368
12	73	42	....	....	....	....	259	826	1780	808	282	478
13	69	54	....	....	....	....	224	968	1600	763	250	1600
14	65	44	....	....	....	....	260	1370	1290	678	246	1380
15	62	50	....	....	....	....	181	1670	1520	599	237	686
16	67	46	....	....	....	....	197	1910	1440	539	212	569
17	71	54	....	....	....	....	167	2120	1390	498	201	518
18	56	24	....	....	33	48	181	2330	1600	505	189	547
19	54	62	....	....	....	....	167	2250	1640	498	278	781
20	54	64	....	....	....	....	178	2040	1490	464	273	525
21	54	66	....	....	....	....	208	1960	1370	458	221	427
22	52	66	....	....	....	....	229	2000	1400	414	212	396
23	54	68	....	....	....	....	326	1800	1270	427	208	427
24	54	70	....	33	....	....	452	1640	1310	458	208	385
25	52	63	....	....	....	....	614	1700	1320	505	212	576
26	50	52	....	....	....	....	772	1790	1280	421	233	584
27	46	48	54	....	....	....	844	1660	1270	554	255	518
28	44	40	....	....	....	....	968	1660	2030	576	246	471
29	48	50	....	....	....	....	1070	1560	3130	484	237	439
30	60	42	....	....	....	174	1450	1460	2940	427	216	464
31	46	....	....	....	....	150	....	1510	....	352	193	....
Total	1904	1493	....	....	....	....	12493	148495	50000	21954	8384	14525
Mean.	61.4	49.8	48	44	34	63	406	1560	1670	708	270	484
Max..	85	....	....	....	....	....	1150	2330	3130	1740	471	1600
Min...	44	....	....	....	....	....	167	799	1270	352	189	163
Acre-ft.	3780	2960	2950	2710	1890	3870	24200	95900	99400	43500	16600	28800

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

STATE ENGINEER, COLORADO

171

Discharge of Conejos River Near Mogote for Year Ending Sept. 30, 1928.
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.	458	156	..	..	..	..	123	1110	2100	433	162	162
2.	414	167	78	..	..	..	147	1260	1900	406	196	137
3.	374	167	..	..	..	..	137	1060	1670	373	210	120
4.	368	163	..	..	..	..	140	793	1340	373	196	120
5.	346	163	..	..	..	..	134	764	1220	360	192	114
6.	331	163	..	64	..	..	112	920	1360	317	179	106
7.	316	170	..	..	..	..	112	1110	1420	276	147	100
8.	291	160	..	..	..	..	103	1200	1420	234	130	90
9.	282	160	..	..	..	..	98	1450	1360	210	120	85
10.	264	150	..	..	..	..	92	1400	1290	188	114	112
11.	246	146	..	..	..	..	106	1260	1220	215	98	106
12.	225	139	..	..	..	..	103	970	930	239	98	95
13.	233	143	..	..	..	53	98	764	841	225	114	87
14.	225	146	..	..	39	..	92	661	802	239	112	80
15.	216	130	..	..	..	..	87	607	755	225	112	73
16.	208	130	..	..	..	..	92	643	870	220	114	64
17.	197	150	..	..	..	..	117	589	940	206	130	61
18.	197	143	..	..	..	..	144	616	910	210	112	57
19.	181	133	..	..	..	..	171	661	910	225	87	57
20.	181	130	..	..	..	..	171	670	831	220	87	55
21.	178	130	..	..	..	..	196	689	841	220	85	63
22.	170	130	..	..	..	..	162	764	802	196	87	64
23.	167	127	..	..	..	..	171	950	793	260	106	63
24.	163	121	..	..	..	..	249	1010	764	234	98	64
25.	156	121	..	..	..	..	360	1220	736	276	137	59
26.	163	130	..	..	..	..	406	1380	708	244	225	55
27.	167	124	..	..	..	..	555	1660	679	188	192	55
28.	170	121	..	..	..	..	679	1730	652	210	158	63
29.	174	124	..	..	..	..	120	764	1920	580	220	162
30.	163	112	..	..	..	..	111	990	2050	469	230	154
31.	170	..	..	..	..	..	110	..	2200	..	188	196
Total	7394	4249	..	..	..	..	6911	34081	31113	7860	4310	2494
Mean.	238	142	72	55	42	65	230	1100	1040	254	139	83.1
Max..	458	170	..	..	..	..	990	2200	2100	433	225	162
Min..	156	112	..	..	..	..	87	589	469	188	85	55
Acre-ft.	14600	8450	4430	3380	2420	4000	13700	67600	61900	15600	8550	4950

Discharge of Conejos River at Mouth Near La Sauses for Year Ending Sept. 30, 1927.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.	19	21	50	57	74	50	60	791	999	2910	19	72
2.	19	21	50	57	67	50	67	994	963	1540	19	61
3.	20	21	50	57	74	60	67	1090	954	1090	19	54
4.	21	21	50	57	78	60	67	1230	892	909	19	53
5.	21	25	50	57	78	60	75	1350	857	750	19	53
6.	21	25	50	57	74	67	93	1500	909	664	19	53
7.	21	25	50	57	74	64	90	1490	963	462	19	53
8.	21	25	50	57	63	57	100	1550	1120	338	19	46
9.	21	25	50	60	70	57	80	1220	1230	264	19	54
10.	21	25	50	60	63	50	64	818	1210	213	39	82
11.	21	25	50	60	63	50	64	625	1160	245	48	154
12.	21	25	47	60	63	50	57	526	1410	217	48	154
13.	21	25	54	60	63	50	57	548	1820	184	48	330
14.	21	25	57	60	63	50	50	731	1900	147	40	1140
15.	21	25	50	60	63	50	50	914	1610	122	39	936
16.	21	25	50	57	70	50	47	1200	1530	81	39	658
17.	25	26	53	57	70	50	47	1760	1640	63	39	592
18.	25	26	50	54	70	50	44	2200	1450	55	39	616
19.	25	36	50	49	70	50	42	2520	1520	47	39	975
20.	25	47	51	70	50	33	2610	1640	31	39	688	
21.	25	47	50	54	70	42	25	2240	1510	31	39	648
22.	25	47	57	78	57	24	2000	1290	31	39	575	
23.	25	50	50	57	70	57	24	1980	1120	23	46	570
24.	25	50	50	57	70	57	33	1680	947	19	54	563
25.	25	50	57	60	70	57	67	1440	841	72	553	
26.	25	57	60	70	57	128	1430	748	19	84	607	
27.	21	50	57	63	67	57	242	1400	716	19	104	712
28.	21	50	50	70	60	57	360	1810	716	19	117	612
29.	25	50	50	67	..	57	473	1250	1460	19	107	585
30.	25	50	57	70	..	64	633	1200	2400	19	97	514
31.	21	..	57	67	..	57	..	1060	..	19	84	..
Total	694	1013	1578	1836	1935	1694	3263	42657	37525	10569	1471	12763
Mean.	22.4	33.8	50.9	59.2	69.1	54.6	105	1380	1250	341	47.5	425
Max..	25	50	57	70	78	67	633	2610	2400	2910	117	1140
Min..	19	21	42	49	60	42	24	526	716	19	19	46
Acre-ft.	1380	2010	3130	3640	3840	3360	6430	84800	74400	21000	2920	23300

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

Discharge of Conejos River at Mouth Near La Sause for Year Ending Sept. 30, 1928.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	524	128	75	76	77	110	110	664	2150	1	5	5
2....	519	128	84	76	77	120	110	832	1890	1	5	7
3....	453	128	84	76	75	113	110	936	1480	1	5	7
4....	429	128	84	78	84	100	100	750	1310	1	5	7
5....	411	128	83	79	86	100	91	424	974	1	5	7
6....	370	128	83	78	86	100	100	424	823	1	5	7
7....	347	128	83	79	86	110	81	563	790	1	5	7
8....	308	128	83	79	75	88	84	718	750	2	5	7
9....	288	117	83	79	85	98	79	815	664	4	5	7
10....	288	117	84	79	75	98	89	936	563	4	5	7
11....	268	117	84	80	73	98	89	1120	424	3	5	5
12....	230	117	84	80	104	86	77	974	383	3	5	5
13....	230	117	84	80	94	86	77	815	268	3	5	7
14....	217	107	84	92	94	77	61	750	204	3	5	7
15....	200	107	86	92	104	71	59	612	204	3	5	7
16....	196	107	87	102	114	94	65	514	148	3	3	7
17....	196	97	86	92	111	89	57	514	85	4	3	11
18....	169	97	85	81	106	89	49	467	75	4	3	14
19....	169	97	83	98	108	98	49	424	88	4	3	14
20....	142	97	82	78	98	98	49	467	56	4	3	16
21....	131	97	82	87	100	89	42	514	33	4	3	18
22....	131	97	81	88	100	89	48	563	14	4	3	18
23....	128	97	80	88	102	89	48	563	8	3	3	18
24....	128	94	80	88	102	89	38	718	8	3	5	18
25....	128	84	79	79	102	98	47	823	6	3	5	18
26....	128	84	80	71	114	98	87	1120	4	3	5	18
27....	128	84	80	81	104	110	120	1310	2	3	5	18
28....	128	84	77	71	106	123	217	1520	1	3	5	18
29....	128	84	76	71	108	116	338	1650	1	3	5	18
30....	128	84	76	77	....	103	462	1880	1	3	5	18
31....	128	....	76	77	....	100	2010	....	....	3	5	....
Total	7368	3217	2538	2532	2750	3027	3033	26390	13407	86	139	345
Mean.	238	107	81.9	81.7	94.8	97.6	101	851	447	2.81	4.48	11.5
Max..	524	128	87	102	114	123	462	2010	2150	4	5	18
Min...	128	84	75	71	73	71	38	424	1	1	3	5
Acre-ft.	14600	6370	5040	5020	5450	6000	6010	52300	26600	173	275	684

Discharge of San Antonio River at Ortiz for Year Ending Sept. 30, 1927.
Drainage Area, 110 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	1	3	....	....	....	18	422	40	10	4	1	1
2....	1	4	....	....	....	40	451	37	12	4	1	1
3....	1	3	....	....	....	50	466	35	9	2	1	1
4....	2	3	....	....	....	83	456	31	9	2	1	1
5....	2	2	....	....	....	86	477	30	10	6	1	1
6....	2	2	....	....	....	104	472	30	10	8	6	3
7....	2	2	....	....	....	186	404	30	10	6	1	1
8....	1	2	....	....	....	112	328	31	10	4	11	12
9....	1	3	....	....	....	86	228	28	10	8	12	6
10....	2	3	....	....	....	92	183	28	6	8	6	6
11....	2	3	....	....	....	94	178	45	13	10	4	4
12....	1	4	....	....	....	81	202	62	8	4	3	3
13....	1	4	....	....	....	85	266	56	6	2	4	4
14....	1	4	....	....	....	86	328	38	11	2	10	6
15....	1	2	....	....	....	74	317	48	6	2	6	6
16....	1	2	....	....	....	24	332	56	4	2	3	3
17....	1	2	....	....	....	28	336	35	1	2	2	3
18....	2	3	....	....	....	40	292	28	1	2	20	20
19....	2	4	....	....	....	32	242	22	1	1	83	19
20....	2	3	....	....	....	56	178	20	4	1	19	19
21....	2	2	....	....	....	83	164	18	6	12	14	14
22....	2	2	....	....	....	100	150	16	20	8	14	14
23....	2	2	....	....	....	153	119	16	9	6	13	13
24....	2	2	....	....	....	199	102	14	35	4	22	22
25....	1	2	....	....	....	238	90	12	15	3	14	14
26....	1	2	....	....	....	281	85	9	10	2	17	17
27....	1	2	....	....	....	313	72	8	11	2	14	14
28....	1	2	....	....	....	324	64	10	19	2	14	14
29....	1	2	....	....	....	356	56	12	19	2	12	12
30....	1	2	....	....	....	382	48	15	10	1	10	10
31....	2	....	....	....	....	42	....	4	1	....	....	....
Total	45	78	....	....	....	3886	7038	860	309	123	337	337
Mean.	1.45	2.60	....	....	....	130	227	28.7	9.97	3.97	11.2	11.2
Max..	2	....	....	....	....	382	477	62	35	12	83	83
Min..	1	....	....	....	....	18	42	8	1	1	1	1
Acre-ft.	89	155	....	....	....	7740	14000	1710	613	244	666	666

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

Discharge of San Antonio River at Ortiz for Year Ending Sept. 30, 1928.
Drainage Area, 110 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	19						54	318	39	1	6	6
2	18						53	311	32	0	6	6
3	16						46	245	29	0	6	4
4	14						44	156	35	0	11	4
5	14						17	146	26	0	10	4
6	13						28	184	19	0	7	4
7	11						30	195	14	0	5	4
8	11						30	192	11	0	4	4
9	9						30	186	10	0	4	4
10	7						30	156	8	0	4	4
11	6						28	156	8	0	4	4
12	6						28	130	9	0	4	4
13	6						19	125	10	0	3	4
14	6						14	120	9	0	3	4
15	4						19	115	8	0	4	4
16	3						17	110	7	0	4	3
17	4						41	105	5	0	4	3
18	3						51	98	4	0	4	3
19	3						57	112	3	0	4	3
20	2						51	117	3	0	4	3
21	2						60	100	3	0	4	3
22	2						39	93	3	7	4	3
23	2						54	94	3	10	8	3
24	2						104	83	2	6	17	0
25	2						137	106	2	10	21	0
26	2						125	87	2	17	10	0
27	2						184	71	2	9	7	0
28	2						213	66	2	51	8	0
29	8						47	242	60	2	19	13
30	14						83	283	55	1	13	8
31	13						59	46	..	8	7	..
Total	226						2128	4138	311	151	..	..
Mean.	7.29						70.9	134	10.4	4.87	6.71	2.93
Max..	19						283	318	39	51	21	6
Min...	2						14	46	1	0	3	0
Acre-ft.	448						4220	8240	619	299	413	174

Discharge of San Antonio River at Mouth for Year Ending Sept. 30, 1927.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	1	5				9	8	721	525	408	4	4
2	1	5					7	820	499	303	3	3
3	1	5					5	901	465	288	3	2
4	1	5					20	964	452	255	2	2
5	1	5					44	1010	460	226	2	2
6	1	5					64	1050	470	200	3	2
7	1	5	6				79	1070	481	172	2	3
8	1	5	5				83	1080	483	155	3	3
9	2	5	5				74	883	455	141	7	9
10	1	5	5				63	673	442	108	4	35
11	2	5	5				71	584	486	94	3	45
12	1	6	6				63	551	592	81	3	44
13	2	6	6				41	634	614	47	2	64
14	2	6	6				36	772	567	28	3	146
15	2	6	6				32	952	515	24	4	114
16	3	6	6				28	1080	586	17	3	79
17	3	6	6			5	21	1150	496	18	3	63
18	3	6	6			6	21	1140	452	21	3	72
19	3	6	6				25	1140	452	20	3	214
20	3	6	6				18	1080	457	15	3	166
21	3	6	3				21	979	437	14	2	119
22	3	6	6				32	943	401	11	7	97
23	3	6	6				53	856	365	9	25	99
24	3	6	6				123	732	329	8	25	146
25	3	6	6				198	704	283	8	21	155
26	3	6	6				261	698	250	9	20	137
27	3	6	6				350	718	237	11	14	130
28	4	6	6		6		468	675	218	9	12	124
29	4	6	6				564	632	288	7	10	106
30	5	6	6				645	589	457	8	8	99
31	4							546	5	6	..	..
Total	73	168					3518	26327	13214	2720	213	2284
Mean.	2.35	5.6	4	5	7	6	117	849	440	87.7	6.87	76.1
Max..	5						645	1150	614	408	25	214
Min...	1						5	546	218	5	2	2
Acre-ft.	144	333	246	307	389	369	6960	52200	26200	5390	422	4530

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

Discharge of San Antonio River at Mouth for Year Ending Sept. 30, 1928.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	75	33	.....	.....	.....	.....	33	682	491	6	5	3
2....	79	33	.....	.....	.....	.....	39	762	452	6	5	3
3....	69	33	.....	.....	.....	.....	42	733	413	5	5	2
4....	59	35	.....	.....	.....	.....	42	491	398	5	5	1
5....	54	39	.....	20	.....	16	41	371	331	5	4	1
6....	48	39	26	.....	.....	.....	40	449	280	5	4	1
7....	45	40	.....	.....	22	.....	39	576	256	5	4	0
8....	43	41	.....	.....	.....	.....	26	599	256	5	4	0
9....	41	40	.....	.....	.....	.....	35	714	244	5	4	1
10....	38	39	.....	.....	.....	.....	32	660	220	5	4	1
11....	35	38	.....	.....	.....	.....	30	688	220	5	4	1
12....	32	37	.....	.....	.....	.....	28	500	188	5	4	0
13....	31	36	.....	.....	.....	.....	28	413	140	5	4	0
14....	31	34	.....	.....	.....	.....	24	368	116	5	4	0
15....	29	33	.....	.....	.....	.....	24	326	94	5	4	0
16....	26	31	.....	.....	.....	.....	21	313	51	5	3	0
17....	27	30	.....	.....	.....	.....	31	321	40	4	3	0
18....	28	28	.....	.....	.....	.....	39	313	31	4	3	0
19....	28	27	.....	.....	.....	.....	37	347	20	4	3	0
20....	27	28	.....	.....	.....	.....	46	398	14	4	3	0
21....	27	28	.....	.....	.....	.....	48	386	12	5	3	0
22....	26	29	.....	.....	.....	.....	44	353	10	6	2	0
23....	25	28	.....	.....	.....	.....	41	383	7	6	2	0
24....	25	28	.....	.....	.....	.....	62	389	8	6	3	0
25....	25	28	.....	.....	.....	.....	110	521	7	6	3	0
26....	26	28	.....	.....	.....	.....	127	533	7	6	3	0
27....	28	28	.....	.....	.....	.....	211	530	6	6	2	0
28....	30	28	.....	.....	.....	.....	344	542	6	6	2	0
29....	31	28	.....	.....	.....	44	503	500	6	6	2	0
30....	33	28	.....	.....	.....	34	570	506	6	6	2	0
31....	33	.....	.....	.....	.....	33	524	.....	6	3	..	..
Total	1154	975	.....	.....	.....	.....	2756	15191	4330	163	105	14
Mean.	37.2	32.5	25	23	20	24	91.9	490	144	5.26	3.39	0.47
Max..	79	41	.....	.....	.....	.....	570	762	491	6	5	3
Min... Acre-ft.	25	27	.....	.....	.....	.....	24	313	6	4	2	0
Acre-ft.	2290	1940	1540	1410	1150	1480	5470	30100	8570	323	208	28

Discharge of Los Pinos Creek near Ortiz for Year Ending Sept. 30, 1927.
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....	17	14	.....	.....	.....	.....	54	911	620	296	47	22
2....	14	14	.....	.....	.....	.....	62	998	560	252	47	22
3....	20	14	.....	.....	.....	.....	70	1070	541	238	47	22
4....	20	14	.....	.....	.....	.....	106	1100	522	196	47	22
5....	17	14	.....	.....	.....	.....	126	1140	503	184	47	22
6....	17	14	.....	.....	.....	.....	137	1140	503	160	47	22
7....	17	14	.....	.....	.....	.....	160	1170	503	137	47	34
8....	17	14	.....	.....	.....	.....	137	976	522	126	47	47
9....	17	14	.....	.....	.....	.....	79	764	484	116	47	79
10....	17	14	.....	.....	.....	.....	79	640	484	126	47	54
11....	17	14	.....	.....	.....	.....	88	600	541	126	47	40
12....	17	14	.....	.....	.....	.....	70	640	580	106	47	28
13....	17	14	.....	.....	.....	.....	79	785	522	126	47	252
14....	17	14	.....	.....	.....	.....	70	998	412	97	47	184
15....	17	14	.....	.....	.....	.....	70	1120	503	79	40	116
16....	17	14	.....	.....	.....	.....	70	1220	448	70	28	88
17....	17	14	.....	.....	.....	.....	62	1300	412	62	28	88
18....	17	10	.....	.....	.....	.....	70	1270	412	62	22	224
19....	17	28	.....	.....	.....	.....	79	1140	395	54	22	252
20....	17	30	.....	.....	.....	.....	106	1070	378	56	62	148
21....	17	32	.....	.....	.....	.....	106	1070	361	58	97	126
22....	17	32	.....	.....	.....	.....	126	954	328	92	40	106
23....	17	34	.....	.....	.....	.....	184	848	312	65	40	106
24....	17	36	.....	.....	.....	.....	252	806	296	125	34	116
25....	17	29	.....	.....	.....	.....	344	806	296	88	40	172
26....	17	23	.....	.....	.....	.....	484	785	280	70	34	160
27....	17	18	.....	.....	.....	.....	580	743	296	88	34	126
28....	17	14	.....	.....	.....	.....	660	701	420	106	40	116
29....	17	16	.....	.....	.....	.....	729	660	484	79	34	106
30....	14	14	.....	.....	.....	.....	785	620	395	54	28	126
31....	14	.....	.....	.....	.....	.....	610	47	28	..	..	..
Total	594	554	.....	.....	.....	.....	6017	28685	13323	3541	1309	3026
Mean.	16.9	18.5	.....	.....	.....	.....	201	925	444	114	42.2	101
Max..	20	....	.....	.....	.....	.....	785	1200	620	296	97	252
Min... Acre-ft.	14	....	.....	.....	.....	.....	54	600	280	..	22	22
Acre-ft.	1040	1100	....	.....	.....	.....	12000	56900	26400	7010	2590	6010

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

Discharge of Los Pinos Creek near Ortiz for Year Ending Sept. 30, 1928.
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.	116	.	.	.	.	.	60	899	606	53	34	24
2.	97	.	.	.	.	.	76	942	541	33	40	20
3.	88	.	.	.	.	.	76	792	488	16	53	20
4.	97	.	.	.	.	.	76	606	411	16	46	20
5.	88	.	.	.	.	.	76	668	376	46	29	20
6.	88	.	.	.	.	.	68	813	376	46	29	16
7.	88	.	.	.	.	.	53	834	376	10	24	16
8.	79	.	.	.	.	.	53	920	341	40	20	16
9.	70	.	.	.	.	.	60	856	341	34	20	16
10.	70	.	.	.	.	.	46	792	293	40	20	20
11.	62	.	.	.	.	.	46	688	249	46	20	16
12.	54	.	.	.	.	.	46	528	208	46	20	16
13.	62	.	.	.	.	.	46	488	195	46	20	16
14.	54	.	.	.	.	.	40	411	171	40	20	16
15.	54	.	.	.	.	.	40	376	159	29	20	13
16.	47	.	.	.	.	.	40	393	159	34	20	16
17.	47	.	.	.	.	.	68	293	148	53	16	16
18.	47	.	.	.	.	.	94	411	136	40	16	16
19.	47	.	.	.	.	.	104	488	125	60	16	16
20.	47	.	.	.	.	.	114	469	125	34	16	16
21.	40	.	.	.	.	.	104	508	114	40	16	20
22.	40	.	.	.	.	.	85	528	104	40	16	20
23.	40	.	.	.	.	.	104	547	94	40	16	16
24.	40	.	.	.	.	.	159	567	85	53	16	16
25.	40	.	.	.	.	.	208	668	85	53	16	16
26.	40	.	.	.	.	.	309	606	76	53	24	16
27.	40	.	.	.	.	.	430	647	68	46	20	16
28.	40	.	.	.	.	.	547	606	68	68	29	16
29.	40	.	.	.	.	.	60	668	647	60	46	29
30.	40	.	.	.	.	.	60	813	688	60	40	24
31.	47	.	.	.	.	.	60	668	40	29	...	...
Total	1849	.	.	.	.	.	4709	19447	6644	1391	734	513
Mean.	59.6	35	18	15	13	30	157	627	221	44.9	23.7	17.1
Max..	116	.	.	.	.	.	813	942	606	68	53	24
Min..	40	.	.	.	.	.	40	376	60	29	16	13
Acre-ft.	3660	2080	1110	922	748	1840	9340	38600	13200	2760	1460	1020

Discharge of Culebra River near San Luis for Year Ending Sept. 30, 1927.
Drainage Area, 260 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.	25	13	255	135	60	53
2.	25	22	219	115	74	53
3.	16	19	236	13	81	53
4.	19	22	236	13	90	48
5.	19	25	236	90	90	42
6.	22	38	172	130	74	38
7.	22	42	172	180	66	38
8.	22	38	172	190	81	38
9.	22	38	158	180	81	38
10.	13	38	158	180	66	38
11.	19	38	144	165	60	38
12.	22	42	132	160	60	38
13.	22	48	60	144	53	38
14.	22	48	60	144	60	38
15.	19	48	60	144	53	38
16.	22	48	53	158	48	33
17.	13	74	53	158	53	33
18.	13	81	53	158	53	33
19.	16	132	60	158	48	42
20.	19	132	53	158	42	42
21.	16	132	66	144	42	48
22.	16	132	81	158	90	42
23.	19	172	132	158	90	38
24.	13	202	187	158	74	42
25.	19	219	187	144	66	38
26.	22	219	195	120	66	38
27.	19	255	230	120	66	42
28.	22	236	240	98	60	42
29.	22	255	250	90	60	38
30.	22	255	170	66	60	38
31.	255	...	48	60	...	...
Total	582	3318	4480	4077	2027	1218
Mean.	19.4	107	149	132	65.4	40.6
Max..	25	255	255	190	90	53
Min..	13	13	53	13	...	33
Acre-ft.	1150	6580	8870	8120	4020	2420

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

Discharge of Culebra River near San Luis for Year Ending Sept. 30, 1923.
Drainage Area, 260 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1..	42	...	...	...	...	23	10	23	237	182	88	35
2..	38	...	...	...	...	23	16	23	182	110	35	35
3..	38	...	...	...	...	23	19	28	237	150	78	30
4..	42	...	...	...	...	23	19	33	256	122	54	21
5..	42	...	...	...	...	23	19	23	256	136	41	21
6..	42	...	...	...	...	23	19	15	256	182	35	21
7..	38	...	...	...	...	23	16	32	256	200	30	17
8..	38	...	...	...	...	23	13	31	256	182	41	17
9..	38	...	...	...	...	23	13	31	256	182	47	17
10..	33	...	...	...	...	23	13	30	256	182	47	17
11..	33	...	...	...	...	23	13	30	256	182	54	17
12..	33	...	...	...	...	23	23	47	256	182	61	17
13..	29	...	...	...	...	23	23	47	256	182	61	17
14..	25	...	...	...	...	23	19	47	256	182	78	17
15..	22	...	...	...	...	23	10	47	277	182	69	17
16..	19	...	...	...	...	23	10	47	256	182	69	17
17..	22	...	...	...	...	23	12	47	298	182	88	17
18..	22	...	...	...	...	23	14	47	298	182	98	17
19..	19	...	...	...	...	23	16	54	298	182	98	17
20..	19	...	...	...	...	23	18	54	298	122	98	17
21..	19	...	...	...	...	23	20	61	320	150	122	17
22..	19	...	...	...	...	23	23	78	320	88	122	17
23..	22	...	...	...	...	23	28	88	298	88	110	17
24..	25	...	...	...	...	23	33	122	256	110	88	17
25..	25	...	...	...	...	19	33	136	256	136	98	17
26..	25	...	...	...	...	19	33	150	237	122	78	11
27..	22	...	...	...	...	19	33	166	237	98	41	8
28..	22	...	...	...	...	19	33	200	237	88	35	7
29..	25	...	...	...	...	16	33	217	217	78	35	7
30..	29	...	...	...	...	13	28	237	182	78	30	7
31..	29	...	...	...	...	19	...	237	...	78	35	...
Total	896	...	...	...	...	676	612	2426	7812	4574	2139	526
Mean..	28.9	23	23	23	23	21.8	20.4	78.2	260	148	69.0	17.5
Max..	42	...	...	...	...	23	33	237	320	200	122	35
Min..	19	...	...	...	...	13	10	15	182	78	30	7
Acre-ft	1780	1370	1410	1410	1320	1340	1210	4810	15500	9100	4240	1040

Discharge of La Garita Creek near La Garita for Year Ending Sept. 30, 1927.
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	3	...	...	...	...	11	36	11	9	9	13
2..	3	4	...	...	...	...	11	32	11	16	14	13
3..	3	4	...	...	...	...	11	22	11	18	13	16
4..	3	4	...	...	...	...	11	22	11	14	9	21
5..	3	4	...	...	...	...	13	25	11	13	11	13
6..	3	4	...	...	...	...	13	22	12	12	12	10
7..	2	5	...	...	...	...	14	19	12	10	10	10
8..	3	5	...	...	...	...	13	18	11	11	10	12
9..	3	6	...	...	...	...	13	18	9	14	11	14
10..	3	7	...	...	...	...	10	16	10	17	12	16
11..	3	6	...	...	...	...	9	15	14	13	10	13
12..	3	8	...	...	...	...	9	13	16	12	12	13
13..	3	8	...	...	...	...	8	16	21	12	11	13
14..	3	8	...	...	...	...	8	19	15	10	9	14
15..	3	10	...	...	...	...	8	18	15	9	9	13
16..	3	10	...	...	...	...	6	21	16	10	9	10
17..	3	10	...	...	...	...	5	19	13	9	9	10
18..	3	10	...	...	...	...	5	22	11	10	8	11
19..	3	10	...	...	...	...	5	21	11	11	9	12
20..	2	9	...	...	...	...	8	17	11	11	13	13
21..	2	...	...	...	...	...	8	18	11	12	9	12
22..	3	...	...	...	...	...	13	18	11	13	10	12
23..	3	...	...	...	...	...	14	17	11	13	11	12
24..	3	...	...	...	...	...	14	16	10	12	12	12
25..	4	...	...	...	...	...	19	16	10	12	12	12
26..	4	...	...	...	...	...	21	17	10	11	12	11
27..	4	...	...	...	...	...	31	14	10	11	16	11
28..	4	...	...	...	...	...	38	13	15	10	14	11
29..	4	...	...	...	...	...	48	14	18	10	12	11
30..	3	...	...	...	...	...	43	13	16	11	12	11
31..	3	...	...	...	...	...	13	...	10	12	...	...
Total	94	7	...	...	...	...	437	580	374	366	342	375
Mean..	3.03	7	...	...	...	...	14.6	18.7	12.5	11.8	11.0	12.5
Max..	4	10	...	...	...	...	48	36	21	18	16	...
Min..	2	3	...	...	...	...	2	13	9	9	8	...
Acre-ft	186	417	...	...	...	...	869	1150	744	726	676	714

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

STATE ENGINEER, COLORADO

177

Discharge of La Garita Creek near La Garita for Year Ending Sept. 30, 1928.
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	43	48	15	19	14	14
2..	12	53	45	14	30	30	30
3..	12	36	43	14	29	21	21
4..	12	24	38	14	22	15	15
5..	12	28	36	15	19	11	11
6..	12	35	36	13	16	11	11
7..	12	38	32	13	15	11	11
8..	12	41	32	13	16	10	10
9..	11	48	30	12	14	9	9
10..	11	44	28	12	13	9	9
11..	8	35	25	12	14	9	9
12..	7	33	25	11	13	9	9
13..	7	26	25	12	12	9	9
14..	8	31	25	12	13	9	9
15..	8	28	24	12	16	9	9
16..	8	33	22	16	16	9	9
17..	18	33	22	13	14	8	8
18..	22	33	21	14	16	9	9
19..	17	38	20	14	16	9	9
20..	12	39	21	25	13	9	9
21..	11	39	19	18	12	9	9
22..	10	46	18	17	12	9	9
23..	14	47	18	14	11	9	9
24..	20	41	18	13	11	9	9
25..	24	48	18	13	11	9	9
26..	14	56	17	13	11	9	9
27..	24	61	18	14	13	9	9
28..	28	69	17	24	14	10	10
29..	29	69	16	24	13	9	9
30..	40	62	16	30	12	9	9
31..	60	.....	32	13	.....	.....	.....
Total	447	1317	773	473	469	321	321
Mean.	14.9	42.5	25.8	15.3	15.1	10.7	10.7
Max..	40	69	48	30	30	30	30
Min..	24	16	11	11	9	9	9
Acre-ft.	887	2610	1540	941	928	637	637

Discharge of Carnero Creek near La Garita for Year Ending Sept. 30, 1927.
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	.....	.....	.....	.....	6	17	14	6	3	6	8
2..	6	.....	.....	.....	.....	6	19	12	6	8	7	8
3..	7	.....	.....	.....	.....	6	18	15	6	8	10	9
4..	7	.....	.....	.....	.....	6	18	14	6	8	8	15
5..	6	.....	.....	.....	.....	8	17	12	6	8	7	12
6..	6	.....	.....	.....	.....	8	18	13	6	8	7	10
7..	6	.....	.....	.....	.....	8	16	13	6	6	6	9
8..	6	.....	.....	.....	.....	8	15	11	6	6	10	11
9..	6	.....	.....	.....	.....	8	18	11	6	9	12	10
10..	7	.....	.....	.....	.....	10	16	12	6	8	10	13
11..	7	.....	.....	.....	.....	10	14	12	6	8	10	12
12..	6	.....	.....	.....	.....	10	13	13	8	6	10	10
13..	6	.....	.....	.....	.....	12	10	12	10	6	9	10
14..	6	3	.....	.....	.....	10	8	12	9	6	9	13
15..	7	4	.....	.....	.....	10	6	11	8	6	14	12
16..	7	4	.....	.....	.....	8	8	11	10	6	12	10
17..	7	4	.....	.....	.....	8	6	11	8	6	10	10
18..	8	4	.....	.....	.....	9	8	10	8	6	9	10
19..	7	4	.....	.....	.....	10	9	12	8	6	10	10
20..	7	4	.....	.....	.....	10	6	10	8	6	11	10
21..	6	.....	.....	.....	.....	12	9	11	7	6	9	10
22..	7	.....	.....	.....	.....	14	8	10	6	8	14	10
23..	7	.....	.....	.....	.....	11	7	9	6	8	14	10
24..	7	.....	.....	.....	.....	14	10	10	6	11	11	10
25..	6	.....	.....	.....	.....	14	9	9	6	9	11	10
26..	6	.....	.....	.....	.....	17	14	8	8	8	13	9
27..	6	.....	.....	.....	.....	19	12	9	9	9	12	10
28..	7	.....	.....	.....	.....	21	8	9	9	10	10	11
29..	6	.....	.....	.....	.....	23	10	8	9	8	10	10
30..	6	.....	.....	.....	.....	20	14	8	8	6	10	11
31..	5	.....	.....	.....	.....	17	.....	7	6	6	9	.....
Total	201	.....	.....	.....	.....	352	361	339	217	228	311	313
Mean.	64.8	4	.....	.....	.....	11.4	12.0	10.9	7.23	7.35	10.0	10.4
Max..	8	.....	.....	.....	.....	23	19	15	10	11	14	15
Min..	5	.....	.....	.....	.....	6	7	6	6	6	6	8
Acre-ft.	398	238	.....	.....	.....	701	714	670	430	452	615	619

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

Discharge of Carnero Creek near La Garita for Year Ending Sept. 30, 1928.
Drainage Area, 117 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	13	.....	.....	.....	.....	.....	15	140	140	9	9	15
2	14	.....	.....	.....	.....	.....	15	120	140	9	24	11
3	15	.....	.....	.....	.....	.....	15	101	120	9	19	11
4	14	.....	.....	.....	.....	.....	15	86	120	9	19	9
5	14	.....	.....	.....	.....	.....	15	86	101	9	15	7
6	14	.....	.....	.....	.....	.....	15	86	70	9	15	9
7	12	.....	.....	.....	.....	.....	9	101	70	9	15	4
8	13	.....	.....	.....	.....	.....	19	120	70	9	11	7
9	12	.....	.....	.....	.....	.....	19	164	58	9	11	7
10	13	.....	.....	.....	.....	.....	19	140	47	9	9	11
11	11	.....	.....	.....	.....	.....	15	120	47	9	7	6
12	11	.....	.....	.....	.....	.....	11	101	47	7	6	4
13	12	.....	.....	.....	.....	.....	7	101	47	7	6	6
14	11	.....	.....	.....	.....	.....	7	101	47	11	4	4
15	11	.....	.....	.....	.....	.....	7	86	38	11	6	4
16	11	.....	.....	.....	.....	.....	15	86	38	9	6	6
17	11	.....	.....	.....	.....	.....	30	101	30	11	6	6
18	13	.....	.....	.....	.....	.....	47	101	30	11	6	6
19	10	.....	.....	.....	.....	.....	47	101	24	9	3	6
20	10	.....	.....	.....	.....	.....	19	101	24	19	4	9
21	11	.....	.....	.....	.....	.....	19	101	24	15	7	9
22	10	.....	.....	.....	.....	.....	15	101	19	9	9	9
23	10	.....	.....	.....	.....	.....	19	101	19	9	9	9
24	9	.....	.....	.....	.....	.....	58	120	19	7	7	9
25	9	.....	.....	.....	.....	.....	86	120	19	9	9	9
26	8	.....	.....	.....	.....	.....	47	164	19	9	11	9
27	8	.....	.....	.....	.....	.....	101	188	15	11	11	9
28	8	.....	.....	.....	.....	.....	101	218	11	19	9	9
29	7	.....	.....	.....	.....	.....	164	188	11	11	9	7
30	7	.....	.....	.....	.....	.....	164	164	11	11	11	7
31	7	.....	.....	.....	.....	.....	.....	140	.....	11	19	.....
Total	339	.....	.....	.....	.....	.....	1135	3748	1475	315	310	234
Mean	10.9	.....	.....	.....	.....	.....	37.8	121	49.2	10.2	10.0	7.8
Max.	15	.....	.....	.....	.....	.....	164	218	140	19	24	15
Min.	7	.....	.....	.....	.....	.....	7	86	11	7	3	4
Acre-ft.	670	.....	.....	.....	.....	.....	2250	7440	2930	627	615	464

Discharge of Saguache Creek near Saguache for Year Ending Sept. 30, 1927.
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	53	.....	.....	.....	.....	.....	73	125	125	206	78	99
2	57	.....	.....	.....	.....	.....	73	132	126	162	111	96
3	62	.....	.....	.....	.....	.....	73	129	121	179	155	90
4	61	.....	.....	.....	.....	.....	73	123	129	174	131	97
5	59	.....	.....	.....	.....	.....	73	131	131	152	116	102
6	57	.....	.....	.....	.....	.....	73	111	128	129	116	102
7	56	.....	.....	.....	.....	.....	73	133	125	122	138	109
8	57	.....	.....	.....	.....	.....	73	142	129	107	193	114
9	66	.....	.....	.....	.....	.....	73	128	132	126	151	113
10	70	.....	.....	.....	.....	.....	73	107	128	152	151	187
11	63	.....	.....	.....	.....	.....	73	104	136	159	120	88
12	60	.....	.....	.....	.....	.....	73	101	154	113	158	68
13	58	.....	.....	.....	.....	.....	73	106	165	84	149	129
14	58	.....	.....	.....	.....	.....	73	122	141	66	121	141
15	59	.....	.....	.....	.....	.....	73	134	163	63	123	122
16	59	.....	.....	.....	.....	.....	73	169	191	64	115	113
17	59	.....	.....	.....	.....	.....	73	190	141	64	99	115
18	57	.....	.....	.....	.....	.....	74	190	133	72	90	128
19	58	.....	.....	.....	.....	.....	78	191	147	75	90	146
20	57	.....	.....	.....	.....	.....	79	172	158	78	105	128
21	59	.....	.....	.....	.....	.....	84	162	137	86	97	114
22	59	.....	.....	.....	.....	.....	95	165	117	100	95	109
23	57	.....	.....	.....	.....	.....	102	147	99	109	97	120
24	55	.....	.....	.....	.....	.....	117	140	100	108	105	133
25	57	.....	.....	.....	.....	.....	131	145	105	111	129	136
26	58	.....	.....	.....	.....	.....	133	165	106	107	146	142
27	59	.....	.....	.....	.....	.....	122	156	125	133	146	142
28	60	.....	.....	.....	.....	.....	115	146	179	142	141	133
29	63	.....	.....	.....	.....	.....	128	136	281	123	127	137
30	68	.....	.....	.....	.....	.....	131	136	310	95	108	159
31	62	.....	.....	.....	.....	.....	127	.....	83	109	.....	.....
Total	1843	.....	.....	.....	.....	.....	2630	4365	4362	3544	3810	3612
Mean	59.5	.....	.....	.....	.....	.....	87.7	141	145	114	123	120
Max.	70	.....	.....	.....	.....	.....	133	191	310	206	158	159
Min.	53	.....	.....	.....	.....	.....	101	99	63	78	68	68
Acre-ft.	3660	.....	.....	.....	.....	.....	5220	8670	8630	7010	7560	7140

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

Discharge of Saguache Creek near Saguache for Year Ending Sept. 30, 1928.
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....	160	68	....	....	....	....	56	525	660	110	80	92
2....	130	68	....	....	....	....	71	549	632	102	110	72
3....	126	67	....	....	....	....	78	468	606	101	123	64
4....	124	67	....	....	....	....	72	182	594	101	98	60
5....	122	63	....	....	....	....	68	152	501	97	91	56
6....	116	64	....	....	....	....	53	200	436	102	83	57
7....	112	64	....	....	....	....	47	317	455	102	77	55
8....	106	59	....	....	....	....	38	348	455	101	72	52
9....	102	59	....	....	....	....	29	408	408	90	70	52
10....	100	59	....	....	....	....	34	475	369	88	66	54
11....	98	58	....	....	....	....	39	419	348	89	61	56
12....	90	54	....	....	....	....	33	285	309	89	63	52
13....	103	56	....	....	....	....	32	216	291	88	66	48
14....	100	56	....	....	....	....	31	230	265	97	62	46
15....	96	56	....	....	....	....	30	178	209	90	62	46
16....	94	53	....	....	....	....	33	171	187	84	65	46
17....	91	53	....	....	....	....	48	164	184	94	64	44
18....	91	53	....	....	....	....	87	162	171	108	64	46
19....	90	53	....	....	....	....	113	196	178	100	58	46
20....	88	53	....	....	....	....	84	184	184	122	58	49
21....	87	52	....	....	....	....	78	194	167	123	57	58
22....	82	52	....	....	....	....	50	227	157	116	57	54
23....	79	51	....	....	....	....	51	312	151	122	56	48
24....	78	50	....	....	....	....	135	340	146	108	54	46
25....	74	50	....	....	....	....	244	382	143	100	51	44
26....	75	50	....	....	....	....	173	466	133	97	60	44
27....	75	50	....	....	....	....	250	564	133	84	56	45
28....	79	50	....	....	....	....	396	573	126	87	51	48
29....	78	50	....	....	....	....	433	603	116	102	51	47
30....	78	46	....	....	....	....	469	641	106	94	51	45
31....	74	....	....	....	....	....	664	....	92	69	....	....
Total	2998	1684	....	....	....	....	3355	10795	8820	3080	2109	1572
Mean.	96.7	56.1	....	....	....	....	112	348	294	99.4	68.0	52.4
Max.	160	68	....	....	....	....	469	664	660	123	123	92
Min.	74	....	....	....	....	....	152	106	84	51	44	....
Acre-ft.	5960	3340	....	....	....	....	6660	21400	17500	6110	4180	3120

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

GREEN RIVER DRAINAGE

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, 1928.

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, 1928. 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 NEAR TRULL

Location—In Sec. 6, T. 6 N., R. 85 W., on Steamboat Springs-Craig highway.

Records Available—May 2, 1904, to August 16, 1906; May 1, 1910, to September 30, 1927.

Gage—Automatic recording gage.

Accuracy—Records considered good.

WILLIAMS RIVER NEAR HAMILTON

Location—In Sec. 21, T. 5 N., R. 91 W., on Craig-Meeker highway.

Records Available—April 29, 1904, to October 31, 1906; April 15, 1910, to September 30, 1927.

Gage—Chain 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, 1928.

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, 1928. 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, 1928; 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 Yampa River at Steamboat Springs for Year Ending Sept. 30, 1927.
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....	110	128	.....	.....	.....	.....	322	2020	2220	1310	216	154
2....	110	128	.....	.....	.....	.....	351	2170	2220	1260	280	157
3....	130	126	.....	.....	.....	.....	430	2120	2170	1130	262	157
4....	141	130	.....	.....	.....	.....	510	2020	2380	1130	246	159
5....	152	134	.....	.....	.....	.....	456	1970	2600	1040	246	157
6....	171	134	.....	.....	.....	.....	482	1920	2820	1080	230	162
7....	176	124	.....	.....	.....	.....	598	1870	3040	1040	202	152
8....	152	130	.....	.....	.....	.....	696	2070	3160	1000	216	157
9....	152	130	.....	.....	.....	.....	841	2320	3160	960	230	162
10....	169	130	.....	.....	.....	.....	1080	1870	2980	920	246	152
11....	171	130	.....	.....	.....	.....	1000	1620	2710	880	216	159
12....	157	134	.....	.....	.....	.....	598	1490	2600	880	216	157
13....	152	130	.....	.....	.....	.....	456	1620	2540	841	210	169
14....	154	134	.....	.....	.....	.....	382	1620	2380	880	194	164
15....	152	134	.....	.....	.....	.....	326	2270	2270	802	197	164
16....	152	132	.....	.....	.....	.....	430	2980	2170	766	197	159
17....	152	130	.....	.....	.....	.....	482	3160	2220	662	189	166
18....	150	130	.....	.....	.....	.....	538	3040	2380	696	184	164
19....	148	130	.....	.....	.....	.....	568	3100	2490	598	181	157
20....	143	130	.....	.....	.....	.....	538	3340	2220	568	181	152
21....	139	130	.....	.....	.....	.....	430	3460	1970	538	186	164
22....	134	130	.....	.....	.....	.....	510	3160	1770	510	197	164
23....	132	130	.....	.....	.....	.....	802	3040	1720	430	216	176
24....	132	130	.....	.....	.....	.....	1130	2880	1720	406	222	186
25....	132	130	.....	.....	.....	.....	1400	2760	1670	382	216	189
26....	130	130	.....	.....	.....	.....	1770	2660	1620	338	210	181
27....	130	130	.....	.....	.....	.....	1820	2540	1620	298	184	176
28....	126	130	.....	.....	.....	.....	2070	2540	1490	298	152	166
29....	130	130	.....	.....	.....	.....	222	1970	2540	1440	262	157
30....	130	130	.....	.....	.....	.....	256	1920	2380	1440	262	157
31....	130	.....	.....	.....	.....	.....	314	.....	2120	230	152	152
Total	4429	3908	.....	.....	.....	.....	24906	74670	67190	22397	6388	4910
Mean.	143	130	125	120	126	180	830	2410	2240	722	206	164
Max..	176	134	.....	.....	.....	314	2070	3460	3160	1310	280	189
Min..	110	124	.....	.....	.....	.....	322	1490	1440	230	152	152
Acre-ft.	8790	7740	7690	7380	6660	11100	49400	148000	133000	44400	12700	9760

Discharge of Yampa River at Steamboat Springs for Year Ending Sept. 30, 1928.
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....	157	202	.....	.....	.....	.....	632	2430	4370	730	159	92
2....	159	201	.....	.....	.....	.....	662	2820	4030	662	162	87
3....	161	201	.....	.....	.....	.....	730	2600	3700	568	164	87
4....	166	200	.....	.....	.....	.....	568	2070	3220	538	169	87
5....	171	200	.....	.....	.....	.....	456	1920	2820	482	202	87
6....	162	199	.....	.....	.....	.....	406	2170	2880	430	176	86
7....	169	199	.....	.....	.....	.....	370	2540	2980	406	171	86
8....	164	198	.....	.....	.....	.....	334	2820	2980	362	166	84
9....	157	197	.....	.....	.....	.....	298	2710	2880	318	159	84
10....	157	191	.....	.....	.....	.....	298	2930	2600	310	157	81
11....	162	197	.....	.....	.....	.....	298	3840	2270	298	154	86
12....	154	189	.....	.....	.....	.....	391	3460	1920	291	152	86
13....	159	202	.....	.....	.....	.....	481	3040	1670	280	143	84
14....	164	197	.....	.....	.....	.....	571	2930	1820	269	141	86
15....	171	186	.....	.....	.....	.....	661	2540	1970	262	139	84
16....	186	186	.....	.....	.....	.....	751	2320	1770	246	130	84
17....	189	189	.....	.....	.....	.....	811	2120	1620	224	130	84
18....	189	189	.....	.....	.....	.....	1080	2120	1620	219	126	86
19....	189	186	.....	.....	.....	.....	1600	2270	1440	213	122	84
20....	186	186	.....	.....	.....	.....	1600	2600	1440	208	122	84
21....	176	189	.....	.....	.....	.....	960	2880	1400	205	110	82
22....	164	189	.....	.....	.....	.....	960	3220	1360	199	101	82
23....	152	189	.....	.....	.....	.....	1100	3400	1490	197	97	82
24....	141	189	.....	.....	.....	.....	1190	3770	1260	192	92	82
25....	111	189	.....	.....	.....	.....	1620	4160	1220	186	89	84
26....	143	189	.....	.....	.....	.....	1190	4300	1220	181	92	84
27....	143	189	.....	.....	.....	.....	1720	4030	1130	181	89	84
28....	152	189	.....	.....	.....	.....	2020	4230	960	176	87	84
29....	189	189	.....	.....	.....	.....	2120	4580	802	164	89	84
30....	164	189	.....	.....	.....	.....	2070	4920	696	159	86	84
31....	202	.....	.....	.....	.....	.....	4650	.....	164	89	.....	.....
Total	5142	5788	.....	.....	.....	.....	27708	96390	61538	9320	4065	2541
Mean.	166	193	155	135	140	310	924	3110	2050	301	131	84.7
Max..	202	202	.....	.....	.....	.....	2120	4920	4370	730	202	92
Min..	141	186	.....	.....	.....	.....	298	1920	696	159	86	81
Acre-ft.	10200	11500	9530	8300	8050	19100	55000	191000	122000	18500	8060	5040

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

Discharge of Yampa River near Maybell for Year Ending Sept. 30, 1927.
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....	277	308	300	....	....	....	1400	7940	5470	4570	760	384
2....	340	296	292	....	....	....	1600	8600	5470	3780	633	368
3....	308	289	292	....	....	....	1800	9080	5650	2950	800	332
4....	304	296	300	....	....	....	2100	8700	5560	2710	650	321
5....	296	300	300	....	....	....	2500	8220	5380	2710	650	325
6....	300	308	308	....	....	....	1500	7940	5650	3520	633	329
7....	304	296	312	....	....	....	2300	7380	6100	2630	601	329
8....	328	308	328	....	....	....	3360	8700	6370	2160	586	344
9....	328	312	328	....	....	....	3440	9080	7380	1880	616	356
10....	300	308	316	....	....	....	3860	6910	7940	1150	616	364
11....	320	300	316	....	....	....	4040	6010	7750	1950	616	368
12....	320	292	340	....	....	....	3610	5470	7380	1750	542	368
13....	328	300	332	....	....	....	2550	5830	7380	1560	504	376
14....	316	304	324	....	....	....	2020	6190	7660	1360	484	368
15....	300	308	350	....	....	498	1880	7560	7750	1240	478	352
16....	300	308	340	....	....	....	1680	8320	6460	1100	456	368
17....	300	300	345	312	....	....	1680	9460	7110	998	446	380
18....	300	292	370	....	....	....	1950	10600	7750	877	440	380
19....	300	308	340	....	....	....	2160	11300	7290	800	424	360
20....	304	300	340	....	....	....	2470	11000	7200	740	411	352
21....	304	296	340	....	....	....	2390	10200	6370	700	402	348
22....	300	324	332	....	....	....	2020	10300	5830	675	398	348
23....	300	316	324	....	....	....	2310	10500	4840	683	389	348
24....	300	304	340	....	....	....	3360	9940	4480	720	380	340
25....	296	304	340	....	....	....	4210	8220	4660	683	384	344
26....	296	300	320	....	....	....	5110	7290	4660	700	393	360
27....	300	308	350	....	....	....	5560	7750	4480	650	393	368
28....	296	304	348	....	....	....	6370	7660	4390	542	406	380
29....	300	324	350	....	....	....	7560	7750	4840	658	424	372
30....	304	340	350	....	....	....	7840	6550	4300	730	424	356
31....	308	....	350	....	....	....	5650	....	720	402	....	....
Total	9477	9153	10217	....	....	....	95670	256100	183550	48496	15741	10688
Mean..	306	305	330	320	310	590	3190	8260	6120	1560	508	356
Max..	340	340	370	....	....	....	7840	11300	7940	4570	800	384
Min..	277	289	....	....	....	....	5470	4300	542	380	321	....
Acre-ft.	18800	18100	20300	19700	17200	36300	190000	508000	364000	95900	31200	21200

Discharge of Yampa River near Maybell for Year Ending Sept. 30, 1928.
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....	380	523	658	....	....	....	1680	7670	11900	3190	601	398
2....	389	542	720	....	....	....	2160	8960	12000	3030	572	393
3....	424	641	....	....	....	....	2950	10500	11300	2790	542	389
4....	446	666	....	....	....	....	3190	9290	10400	2630	542	384
5....	467	658	....	....	....	....	2550	7880	8960	2310	536	380
6....	478	666	....	....	....	....	2160	7780	7250	2240	529	380
7....	510	700	....	....	....	....	2020	8850	6410	2090	529	376
8....	529	720	....	....	....	....	2020	10400	6720	1880	529	376
9....	579	720	....	....	....	....	1820	11400	7460	1750	529	372
10....	594	740	....	....	....	....	1620	12300	6940	1560	516	368
11....	557	760	....	....	....	....	1420	12700	6410	1420	516	368
12....	523	780	....	....	....	....	1490	13100	5780	1420	516	364
13....	523	740	....	....	....	....	1490	13100	5110	1300	504	360
14....	529	740	....	....	....	....	1490	11400	4390	1180	478	356
15....	484	700	....	....	....	....	1490	10300	4120	1130	473	352
16....	484	700	....	....	....	....	1360	8960	3950	1120	462	352
17....	478	700	....	....	....	....	1560	8200	4210	1080	451	352
18....	504	658	....	....	....	....	2240	7560	4570	1040	440	352
19....	516	641	....	....	....	....	2950	7460	4480	1040	451	352
20....	523	666	....	....	....	....	2790	7360	3860	965	451	352
21....	523	666	....	....	....	....	2630	7670	3360	943	440	352
22....	529	641	....	....	....	....	2710	8520	3270	932	424	352
23....	523	658	2240	2550	9180	3520	877	411	348
24....	516	650	2310	3190	9620	3520	800	402	352
25....	504	633	2390	4210	10100	3700	780	389	352
26....	491	641	3110	4750	10700	3610	750	389	348
27....	491	641	2950	4660	11600	3700	683	389	348
28....	491	658	2870	5990	11900	3780	658	384	344
29....	491	675	2870	7360	11600	3780	633	384	344
30....	497	666	2950	7880	11200	3520	616	389	340
31....	491	1750	11600	601	393
Total	15464	20190	....	....	....	....	86380	308860	171980	43438	14561	10756
Mean..	499	673	540	420	520	1440	2880	9960	5730	1400	470	359	
Max..	594	780	....	....	....	....	7880	13100	12000	3190	601	398
Min..	380	523	....	....	....	....	1360	7360	3270	601	384	340
Acre-ft.	30700	40000	33200	25800	29900	88500	171000	612000	341000	86100	28900	21400	

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

TWENTY-FOURTH BIENNIAL REPORT

Discharge of Elk River at Trull for Year Ending Sept. 30, 1927.
Drainage Area, 415 Square Miles. Altitude, 6,650 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.....	95	83	.....	.....	.....	.....	240	2810	2220	1870	180	62
2.....	95	83	.....	.....	.....	.....	260	3020	2220	1600	175	58
3.....	95	83	.....	.....	.....	.....	330	2880	1980	1650	172	53
4.....	96	84	.....	.....	.....	.....	375	2600	2100	2880	195	50
5.....	93	84	.....	.....	.....	.....	345	2400	2280	2950	195	47
6.....	90	85	.....	.....	.....	.....	358	2470	2400	2220	186	46
7.....	95	85	.....	.....	.....	.....	444	2950	2880	1870	162	47
8.....	96	85	.....	.....	.....	.....	572	2740	3240	1650	180	47
9.....	98	85	.....	.....	.....	.....	544	1920	3020	1650	162	46
10....	98	85	.....	.....	.....	.....	630	1540	2950	1540	147	46
11....	100	85	.....	.....	.....	.....	577	1440	2740	1080	126	46
12....	90	85	.....	.....	.....	.....	544	1490	2670	928	116	40
13....	88	85	.....	.....	.....	.....	422	1650	2600	790	105	42
14....	88	84	.....	.....	.....	.....	468	2040	3700	660	94	52
15....	88	85	.....	.....	.....	.....	544	2280	2950	544	94	52
16....	88	70	.....	.....	.....	.....	600	2810	2470	444	101	45
17....	90	80	.....	.....	.....	.....	724	3470	3020	379	86	40
18....	90	80	.....	.....	.....	.....	824	3940	3240	379	75	47
19....	87	80	.....	.....	.....	.....	858	3320	2950	346	71	46
20....	87	80	.....	.....	.....	.....	893	3100	2810	338	72	44
21....	86	80	.....	.....	.....	.....	790	3400	2340	346	68	41
22....	85	80	.....	.....	.....	.....	893	3470	2340	358	64	40
23....	85	80	.....	.....	.....	.....	1200	3020	2810	310	64	58
24....	85	80	.....	.....	.....	.....	1490	2470	2880	350	64	58
25....	85	80	.....	.....	.....	.....	1760	2340	2880	318	60	103
26....	86	80	.....	.....	.....	.....	1870	2220	2740	303	71	112
27....	85	80	.....	.....	.....	.....	1540	2280	2880	258	105	103
28....	84	80	.....	.....	.....	.....	2040	2160	3240	227	86	86
29....	84	80	.....	.....	.....	.....	2220	1980	2540	299	71	94
30....	84	80	.....	.....	.....	.....	2470	1980	2040	210	60	94
31....	84	.....	.....	.....	.....	.....	2040	.....	195	62	.....	.....
Total	2780	2156	.....	.....	.....	.....	27005	78230	81130	28942	3469	1745
Mean.	89.7	81.9	75	68	85	160	900	2520	2700	934	112	58.2
Max..	100	85	.....	.....	.....	.....	2470	3940	3700	2950	195	112
Min..	84	.....	.....	.....	.....	.....	1440	1980	195	60	40	.....
Acre-ft.	5520	4870	4610	4180	4720	9840	53600	155000	161000	57400	6890	3460

Discharge of Williams River at Hamilton for Year Ending Sept. 30, 1927.
Drainage Area, 341 Square Miles. Altitude, 6,400 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.....	62	.....	.....	.....	.....	.....	98	782	586	364	116	72
2.....	62	.....	.....	.....	.....	.....	104	870	586	320	116	67
3.....	62	.....	.....	.....	.....	.....	110	870	586	310	130	67
4.....	52	.....	.....	.....	.....	.....	116	810	586	280	138	62
5.....	52	.....	.....	.....	.....	.....	123	754	614	353	130	62
6.....	52	.....	.....	.....	.....	.....	154	698	614	271	123	62
7.....	52	.....	.....	.....	.....	.....	154	1050	684	226	116	57
8.....	44	.....	.....	.....	.....	.....	162	960	840	202	110	57
9.....	44	.....	.....	.....	.....	.....	154	782	885	202	110	57
10....	44	.....	.....	.....	.....	.....	162	614	555	434	110	57
11....	44	.....	.....	.....	.....	.....	138	614	555	342	104	57
12....	44	.....	.....	.....	.....	.....	123	740	726	262	104	57
13....	44	.....	.....	.....	.....	.....	110	768	670	210	104	57
14....	44	.....	.....	.....	.....	.....	110	900	726	154	98	62
15....	44	.....	.....	.....	.....	.....	110	1060	825	146	82	62
16....	44	.....	.....	.....	.....	.....	104	1370	754	138	82	57
17....	44	.....	.....	.....	.....	.....	104	1530	754	138	77	57
18....	44	.....	.....	.....	.....	.....	104	1650	754	130	77	62
19....	44	.....	.....	.....	.....	.....	110	1460	754	138	72	62
20....	44	.....	.....	.....	.....	.....	116	1570	740	130	72	57
21....	44	.....	.....	.....	.....	.....	123	1460	698	130	72	57
22....	44	.....	.....	.....	.....	.....	130	960	586	123	72	57
23....	44	.....	.....	.....	.....	.....	130	990	544	130	72	57
24....	44	.....	.....	.....	.....	.....	154	900	482	123	72	67
25....	44	.....	.....	.....	.....	.....	218	840	482	123	72	77
26....	44	.....	.....	.....	.....	.....	320	870	494	116	72	110
27....	44	.....	.....	.....	.....	.....	72	410	900	458	92	110
28....	44	.....	.....	.....	.....	.....	87	544	900	530	87	98
29....	44	.....	.....	.....	.....	.....	116	614	754	482	82	104
30....	44	.....	.....	.....	.....	.....	138	642	642	434	162	77
31....	44	.....	.....	.....	.....	.....	104	642	642	130	72	.....
Total	1450	.....	.....	55	50	55	60	192	958	653	6221	2913
Mean.	46.8	60	55	50	55	60	192	958	653	201	94.0	68.4
Max..	62	.....	.....	.....	.....	.....	642	1650	885	434	138	110
Min..	44	.....	.....	.....	.....	.....	98	614	434	116	72	57
Acre-ft.	2880	3570	3380	3070	3050	3690	11400	58900	38900	12400	5780	4070

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

Discharge of Little Snake River at Lily Park for Year Ending Sept. 30, 1927.
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....	270	.....	.....	.....	.....	.....	1600	3200	2390	447	80	48
2....	430	.....	.....	.....	.....	.....	1550	3580	2290	499	98	38
3....	210	.....	.....	.....	.....	.....	1550	3990	1900	586	64	36
4....	146	.....	.....	.....	.....	.....	1500	4050	2140	650	80	28
5....	174	.....	.....	.....	.....	.....	1560	3470	2140	716	80	26
6....	178	.....	.....	.....	.....	.....	1440	3030	2090	750	98	26
7....	136	.....	.....	.....	.....	.....	1380	2810	2140	920	67	25
8....	152	.....	.....	.....	.....	.....	1440	3250	2140	990	44	25
9....	126	.....	.....	.....	.....	.....	1460	3580	2290	1060	36	25
10....	132	.....	.....	.....	.....	.....	1500	2810	2510	990	38	23
11....	144	.....	.....	.....	.....	.....	1540	2590	2700	886	36	23
12....	156	.....	.....	.....	.....	.....	1590	2440	2860	852	36	24
13....	191	.....	.....	.....	.....	.....	1630	2590	2540	886	36	25
14....	136	.....	.....	.....	.....	.....	1680	3580	2920	818	36	64
15....	126	.....	.....	.....	.....	.....	1720	2930	2700	818	38	44
16....	112	.....	.....	.....	.....	.....	1750	4710	2810	818	40	28
17....	156	.....	.....	.....	.....	.....	1810	5490	2590	886	44	26
18....	106	.....	.....	.....	.....	.....	1860	5850	1860	920	44	26
19....	112	.....	.....	.....	.....	.....	1900	4770	1990	1020	50	38
20....	126	.....	.....	.....	.....	.....	1960	5730	1810	1060	50	40
21....	116	.....	.....	.....	.....	.....	1990	5130	1680	650	61	26
22....	178	.....	.....	.....	.....	.....	2040	5430	1500	214	80	25
23....	92	.....	.....	.....	.....	.....	2050	5490	1300	142	32	25
24....	110	.....	.....	.....	.....	.....	2090	5130	1180	142	32	25
25....	106	.....	.....	.....	.....	.....	2090	4050	818	118	33	25
26....	87	.....	.....	.....	.....	.....	2140	3360	683	108	36	44
27....	78	.....	.....	.....	.....	.....	2190	3810	618	98	44	422
28....	74	.....	.....	.....	.....	.....	2240	3690	526	118	50	499
29....	78	.....	.....	.....	.....	.....	2700	3810	556	118	57	338
30....	91	.....	.....	.....	.....	.....	3140	3030	556	142	64	230
31....	78	.....	.....	.....	.....	.....	.....	2490	.....	98	60	...
Total	4407	.....	.....	.....	.....	.....	55070	120870	56257	18520	1644	2297
Mean.	142	.....	.....	.....	.....	.....	1840	2900	1880	597	53.0	76.6
Max..	430	.....	.....	.....	.....	.....	3140	5850	2920	1060	98	499
Min...	74	.....	.....	.....	.....	.....	.....	2440	526	98	32	23
Acre-ft.	8730	.....	.....	.....	.....	.....	109000	240000	112000	36700	3260	4560

Discharge of Little Snake River at Lily Park for Year Ending Sept. 30, 1928.
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....	230	560	230	.....	.....	.....	1460	2950	4210	845	26	19
2....	230	960	198	.....	.....	.....	1860	3650	4070	620	33	7
3....	198	620	302	.....	.....	.....	2530	4490	3650	440	26	19
4....	198	344	.....	.....	.....	.....	2670	4210	3370	230	26	49
5....	168	264	.....	.....	.....	.....	2120	3090	3510	230	19	19
6....	168	264	.....	.....	.....	.....	1860	2950	3230	198	19	19
7....	168	302	.....	.....	.....	.....	1730	3510	3020	168	19	26
8....	168	302	.....	.....	.....	.....	1730	4350	2810	140	19	7
9....	168	344	.....	.....	.....	.....	1560	4910	2740	127	7	19
10....	168	344	.....	.....	.....	.....	1410	5470	2670	90	7	7
11....	168	390	.....	.....	.....	.....	1260	5610	2670	90	19	19
12....	140	390	.....	.....	.....	.....	1310	5890	2600	41	7	19
13....	140	390	.....	.....	.....	.....	1310	5890	2530	33	33	13
14....	140	390	.....	.....	.....	.....	1310	4910	2390	7	7	13
15....	140	390	.....	.....	.....	.....	1310	4490	2120	7	7	7
16....	140	390	.....	.....	.....	.....	1220	4210	1610	7	7	13
17....	140	390	.....	.....	.....	.....	880	3230	1510	7	7	7
18....	140	390	.....	.....	.....	.....	740	2810	1410	7	7	13
19....	168	302	.....	.....	.....	.....	620	2740	1310	19	7	13
20....	154	302	.....	.....	.....	.....	775	2670	960	26	7	19
21....	154	302	.....	.....	.....	.....	740	3930	1220	26	7	19
22....	154	302	.....	.....	.....	.....	740	4070	960	19	7	19
23....	154	344	.....	.....	.....	.....	1860	810	4210	960	7	7
24....	154	323	.....	.....	.....	.....	1990	920	4350	960	7	7
25....	154	302	.....	.....	.....	.....	2060	1130	4350	880	19	7
26....	154	230	.....	.....	.....	.....	2670	1220	4910	740	19	13
27....	140	230	.....	.....	.....	.....	2530	1310	4910	810	33	7
28....	140	264	.....	.....	.....	.....	2390	1730	5050	1040	26	26
29....	390	264	.....	.....	.....	.....	2390	2670	4630	1040	19	7
30....	440	302	.....	.....	.....	.....	2530	3090	4420	1000	19	7
31....	500	.....	.....	.....	.....	.....	1510	.....	4280	33	7	...
Total	5868	10891	.....	.....	.....	.....	44025	131140	62000	3559	386	482
Mean.	189	363	.....	.....	.....	.....	1470	4230	2070	115	12.5	16.1
Max..	500	960	.....	.....	.....	.....	3090	5890	4210	845	33	49
Min...	140	230	.....	.....	.....	.....	620	2670	740	7	7	7
Acre-ft.	11600	21600	.....	.....	.....	.....	87500	260000	123000	7070	769	958

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

Discharge of White River Near Meeker for Year Ending Sept. 30, 1927.
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....	394	387	.....	.....	.....	.....	320	1320	1500	1220	514	435
2....	425	384	.....	.....	.....	.....	335	1500	1560	1100	514	469
3....	434	384	.....	.....	.....	.....	352	1620	1560	1050	497	449
4....	404	384	.....	.....	.....	.....	365	1620	1560	995	508	412
5....	381	387	.....	.....	.....	.....	380	1620	1620	995	503	393
6....	381	390	.....	.....	.....	.....	430	1500	1680	1050	503	393
7....	354	394	.....	.....	.....	.....	450	1800	1800	1100	492	421
8....	413	394	.....	.....	.....	.....	500	1740	2040	1100	503	458
9....	429	394	.....	.....	.....	.....	560	1380	2400	1100	503	458
10....	429	421	.....	.....	.....	.....	640	1270	2470	1050	503	458
11....	408	404	.....	.....	.....	.....	620	1220	2400	840	492	435
12....	408	400	.....	.....	.....	.....	469	1100	2280	840	492	412
13....	387	421	.....	.....	.....	.....	449	1220	2220	771	503	412
14....	381	429	.....	.....	.....	.....	435	1500	2280	771	497	486
15....	384	400	.....	.....	.....	.....	449	1980	2400	771	497	503
16....	387	400	.....	.....	.....	.....	458	2340	2100	771	497	503
17....	381	400	.....	.....	.....	.....	458	2540	2220	725	492	480
18....	378	400	.....	.....	.....	.....	458	2600	2470	618	492	464
19....	374	390	.....	.....	.....	.....	435	2600	2470	618	497	440
20....	387	400	.....	.....	.....	.....	421	2600	2470	699	492	435
21....	381	400	.....	.....	.....	.....	412	2470	2220	699	492	435
22....	384	394	.....	.....	.....	.....	426	2280	1920	656	492	435
23....	384	394	.....	.....	.....	.....	449	1920	1680	618	486	469
24....	384	394	.....	.....	.....	.....	497	1560	1380	547	492	475
25....	387	400	.....	.....	.....	.....	595	1620	1380	514	492	567
26....	390	400	.....	.....	.....	.....	639	1800	1380	514	486	573
27....	394	400	.....	.....	.....	.....	890	1680	1380	514	486	547
28....	397	400	.....	.....	.....	.....	995	1620	1740	527	458	527
29....	394	400	.....	.....	.....	.....	1160	1560	1620	514	458	540
30....	390	400	.....	.....	.....	.....	1220	1380	1620	547	435	547
31....	387	.....	.....	.....	.....	.....	1380	.....	503	421	.....	.....
Total	12221	11945	.....	.....	.....	.....	16327	54340	57820	24337	15189	14031
Mean..	394	398	350	330	340	360	544	1750	1930	785	490	468	
Max..	434	429	.....	.....	.....	.....	1220	2600	2470	1220	514	573
Min... Acre-ft.	374	384	24200	23700	21500	20300	18900	22100	32400	108000	115000	48300	30100
												27800	

Discharge of White River Near Meeker for Year Ending Sept. 30, 1928.
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....	503	514	503	.....	.....	.....	.....	1800	3220	1560	610	742
2....	503	514	486	.....	.....	.....	.....	2400	2990	1440	656	716
3....	503	503	503	.....	.....	.....	.....	1980	2990	1380	673	699
4....	492	492	514	.....	.....	.....	.....	1740	2600	1320	656	699
5....	497	486	547	.....	.....	.....	.....	1860	2340	1270	618	699
6....	514	486	.....	.....	.....	.....	.....	2220	2280	1220	595	699
7....	508	492	.....	.....	.....	.....	.....	2600	2470	1160	603	673
8....	503	503	.....	.....	.....	.....	.....	2990	2660	1100	603	673
9....	503	514	.....	.....	.....	.....	.....	3250	2730	1050	618	699
10....	464	486	.....	.....	.....	.....	.....	3250	2660	940	595	699
11....	458	503	.....	.....	.....	.....	.....	3380	2540	840	595	699
12....	458	514	.....	.....	.....	.....	.....	3120	2220	840	595	699
13....	458	509	.....	.....	.....	.....	.....	2860	1980	840	580	699
14....	435	486	.....	.....	.....	.....	.....	2600	1980	840	580	673
15....	435	503	.....	.....	.....	.....	.....	2280	1980	860	580	673
16....	440	514	.....	.....	.....	.....	.....	2100	1920	940	633	699
17....	449	521	.....	.....	.....	.....	.....	1980	1860	940	725	699
18....	458	486	.....	.....	.....	.....	.....	1920	1800	840	742	699
19....	458	497	.....	.....	.....	.....	.....	1980	1680	762	725	699
20....	458	480	.....	.....	.....	.....	.....	2100	1560	791	708	699
21....	464	480	.....	.....	.....	.....	.....	2160	1440	791	725	699
22....	469	503	.....	.....	.....	.....	.....	2400	1500	771	742	699
23....	475	521	.....	.....	.....	.....	.....	412	2280	1620	762	742
24....	469	514	.....	.....	.....	.....	.....	435	2340	1740	742	656
25....	435	486	.....	.....	.....	.....	.....	567	2540	1740	716	656
26....	426	486	.....	.....	.....	.....	.....	580	2660	1740	665	742
27....	449	492	.....	.....	.....	.....	.....	840	2660	1860	656	742
28....	458	486	.....	.....	.....	.....	.....	1100	2800	1860	656	742
29....	547	503	.....	.....	.....	.....	.....	1160	2920	1860	656	742
30....	547	514	.....	.....	.....	.....	.....	1100	2990	1680	626	742
31....	503	.....	.....	.....	.....	.....	.....	3320	.....	610	742	.....
Total	14739	14988	.....	.....	.....	.....	.....	77480	63600	28584	20835	20552
Mean..	475	500	440	400	360	410	470	2500	2120	922	672	686
Max..	547	521	.....	.....	.....	.....	.....	3380	3220	1560	742	742
Acre-ft.	29200	29800	27100	24600	20700	25200	28000	154900	126000	56700	41300	40800

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

Discharge of White River Near Watson, Utah, for Year Ending Sept. 30, 1927.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.	844	433	402	.	.	700	718	990	1360	1530	618	522
2.	683	450	408	.	.	700	673	1040	1360	1480	588	499
3.	1200	433	405	.	.	750	683	1200	1510	1420	683	490
4.	1780	402	402	.	.	800	648	1360	1310	1260	758	482
5.	588	416	410	.	.	800	618	1360	1310	1260	718	474
6.	588	402	408	.	.	850	578	1360	1310	1260	636	474
7.	798	416	433	.	.	900	518	1360	1310	1200	648	478
8.	536	416	470	.	.	940	478	1310	1420	1090	618	478
9.	536	402	443	.	.	940	490	1530	1530	940	588	478
10.	618	388	408	.	.	940	490	1590	1780	890	588	527
11.	513	396	396	.	.	890	474	1360	1990	940	588	504
12.	536	394	.	.	.	890	508	1200	2130	1200	572	499
13.	562	388	.	.	.	890	499	1040	2130	844	546	1360
14.	490	394	.	.	.	890	462	990	2130	718	541	1420
15.	490	402	.	.	.	1040	433	940	2340	648	527	844
16.	513	399	.	.	.	940	423	1040	2560	618	522	718
17.	450	394	.	.	.	940	419	1260	2340	618	518	648
18.	450	402	.	.	.	890	419	1530	2130	588	508	618
19.	490	394	.	.	.	890	416	1920	2200	588	499	572
20.	470	394	.	.	.	890	408	2340	2270	588	495	572
21.	416	402	.	.	.	890	405	2340	2270	618	486	562
22.	450	408	.	.	.	890	402	2340	2200	618	482	552
23.	513	408	.	.	.	890	391	2410	1990	648	482	562
24.	450	402	.	.	.	890	388	2410	1720	648	474	588
25.	416	402	.	.	.	844	396	2340	1650	618	478	562
26.	433	402	.	.	.	844	433	2130	1590	648	490	562
27.	450	410	.	.	.	798	522	1850	1480	618	504	578
28.	416	405	.	.	.	798	618	1780	1360	618	648	648
29.	416	416	.	.	.	798	758	1650	1360	683	588	618
30.	470	410	.	.	.	758	940	1590	1530	683	588	648
31.	450	.	.	.	.	758	.	1530	.	718	.	536
Total	18015	12180	.	.	.	26628	15618	49090	53370	26798	17515	18537
Mean.	581	406	405	400	550	859	521	1580	1780	864	565	618
Max..	1780	450	.	.	.	1040	940	2410	2560	1530	758	1420
Min..	416	388	.	.	.	388	340	1310	588	474	474	.
Acre-ft.	35700	24200	24900	24600	30500	52800	31000	97200	106000	53100	34700	36800

Discharge of White River Near Watson, Utah, for Year Ending Sept. 30, 1928.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.	648	588	531	.	.	830	1900	2930	1640	708	790	.
2.	618	648	531	.	.	750	2160	3160	1640	790	750	.
3.	588	618	522	.	.	750	2780	3000	1640	722	750	.
4.	588	588	518	.	.	736	2780	2860	1640	708	750	.
5.	572	562	527	.	.	790	2500	2780	1640	722	750	.
6.	567	557	527	.	.	790	2430	2640	1640	736	736	.
7.	567	552	.	.	.	736	2640	2430	1570	715	694	.
8.	567	546	.	.	.	729	2930	2360	1570	701	610	.
9.	567	541	.	.	.	715	3230	2290	1510	715	610	.
10.	562	546	.	.	.	694	3980	2160	1510	694	610	.
11.	552	546	.	.	.	687	4780	2020	1100	680	610	.
12.	546	541	.	.	.	687	3980	1960	910	666	610	.
13.	536	546	.	.	.	694	3980	1830	910	666	610	.
14.	522	546	.	.	.	687	4140	1760	910	680	610	.
15.	536	546	.	.	.	687	3600	1700	955	1000	610	.
16.	541	552	.	.	.	680	3230	1700	955	1830	610	.
17.	531	552	.	.	.	659	3080	1640	955	1210	610	.
18.	527	546	.	.	.	645	3000	1640	955	955	610	.
19.	527	546	.	.	.	659	2780	1640	1000	870	610	.
20.	522	541	.	.	.	673	2710	1510	1100	790	592	.
21.	522	546	.	.	.	729	2710	1510	955	790	592	.
22.	518	541	.	.	.	743	2780	1510	870	750	592	.
23.	522	536	.	.	.	736	2780	1570	870	750	604	.
24.	522	527	.	.	.	729	2860	1570	830	750	610	.
25.	522	527	.	.	.	729	2860	1570	830	750	610	.
26.	518	518	.	.	.	910	830	2930	1570	790	750	610
27.	518	513	.	.	.	910	955	2780	1570	659	750	610
28.	522	513	.	.	.	955	1050	2780	1640	631	750	610
29.	527	518	.	.	.	955	1330	2710	1640	673	750	610
30.	536	527	.	.	.	955	1640	2710	1640	694	750	610
31.	567	.	.	.	.	870	.	2780	.	701	790	.
Total	16978	16474	.	.	.	23749	93290	59800	34253	24880	19190	.
Mean.	548	549	.	.	.	792	3010	1990	1100	803	640	.
Max..	648	648	.	.	.	1640	4780	3160	1640	1830	730	.
Min..	518	513	.	.	.	645	1900	1510	631	666	592	.
Acre-ft.	33700	32700	.	.	.	47100	185000	118000	67600	49400	38100	.

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 30, 1928.

Gage—Chain gage.

Accuracy—Records considered good.

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

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, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with United States Geological Survey and Public Service Company of Colorado.

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, 1928.

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, 1928. 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, 1928.

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, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered good.

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

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, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with 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, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered good.

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

PARACHUTE CREEK AT GRAND VALLEY

Location—In the NW $\frac{1}{4}$ Sec. 12, T. 7 S., R. 96 W., at Aplin Ranch one-half mile northwest of Grand Valley.

Records Available—April 7, 1921, to September 30, 1927.

Gage—Staff gage.

Accuracy—Records considered good.

PLATEAU CREEK NEAR COLBRAN

Location—In Sec. 23, T. 9 S., R. 94 W., on private bridge about seven miles east of Colbran.

Records Available—August 20, 1921, to September 30, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered good.

BUZZARD CREEK NEAR COLBRAN

Location—In Sec. 14, T. 9 S., R. 94 W., on highway bridge seven miles east of Colbran.

Records Available—August 18, 1921, to September 30, 1928.

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, 1928.

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.

GUNNISON RIVER NEAR GUNNISON

Location—At highway bridge in Sec. 3, T. 49 N., R. 1 W., two miles west of Gunnison above the mouth of Tomiehi Creek.

Records Available—November 27, 1910, to November 30, 1914; April 27, 1916, to September 30, 1928.

Gage—Chain gage.

Accuracy—Records considered good.

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

GUNNISON RIVER NEAR GRAND JUNCTION

Location—In NW $\frac{1}{4}$ 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, 1928.

Gages—Vertical staff and slope gages.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with United States Geological Survey and 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, 1928.

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, 1928.

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 September 30, 1928.

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, 1928.

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, 1928.

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.

DALLAS CREEK NEAR RIDGWAY

Location—In Sec. 5, T. 48 S., R. 8 W., at highway bridge, one and one-half mile northwest of Ridgway.

Records Available—March 1, 1922, to October 31, 1927.

Gage—Vertical staff.

Accuracy—Records considered good.

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, 1928. Flow of pipe line included in estimate.

Gage—Staff gage.

Accuracy—Records considered good.

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, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered good.

LOST CANON CREEK NEAR DOLORES

Location—In Sec. 16, T. 37 S., R. 15 W., on D. & R. G. W. R. R. bridge one-half mile south of Dolores.

Records Available—April 1, 1922, to September 30, 1927.

Gage—Staff gage.

Accuracy—Records considered good.

SAN MIGUEL RIVER AT NATURITA

Location—On highway bridge in Naturita.

Records Available—April 26, 1918, to September 30, 1928.

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, 1928.

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, 1927.
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....	163	149	....	....	....	280	1600	2200	1870	683	355
2....	163	115	....	....	....	250	1950	2320	1620	734	338
3....	196	125	....	....	....	400	2100	2320	1540	883	304
4....	239	85	....	....	....	280	1860	1970	1540	655	284
5....	212	219	....	....	....	280	1980	2040	1580	774	292
6....	212	122	....	....	....	370	1830	2020	1530	588	259
7....	215	193	....	....	....	440	2180	2260	1420	717	284
8....	219	231	....	....	....	425	2560	3080	1320	728	275
9....	288	120	....	....	....	435	1860	3450	1290	848	279
10....	292	100	....	....	....	431	1710	3610	1480	768	279
11....	263	150	....	....	110	436	1660	3420	1350	705	267
12....	239	175	....	....	....	436	1630	3330	1170	638	255
13....	223	160	....	....	....	247	1610	3270	1050	610	292
14....	208	148	....	....	....	318	1750	2910	1020	533	288
15....	196	135	....	....	....	243	1860	2980	912	528	284
16....	189	148	90	....	....	247	2480	2580	842	485	259
17....	181	148	....	....	....	223	3380	2430	762	448	251
18....	181	148	....	....	....	288	4130	3150	762	419	243
19....	163	148	....	100	....	364	4170	3270	711	404	219
20....	160	148	....	....	....	374	4130	3010	672	395	227
21....	167	200	....	....	....	212	4130	2880	666	386	204
22....	156	200	....	....	....	310	4450	2380	825	381	212
23....	153	200	....	....	....	446	4310	2200	819	368	247
24....	149	200	....	....	....	422	3750	2350	883	377	251
25....	146	200	....	....	....	606	2980	2660	694	336	346
26....	139	200	....	....	....	797	3150	2530	605	404	381
27....	142	200	....	....	....	1030	2820	3040	605	428	359
28....	146	200	....	....	....	1370	3110	2910	672	433	355
29....	149	200	....	....	....	1430	3080	2940	689	409	359
30....	125	200	....	....	....	1530	2500	2480	900	472	346
31....	129	....	....	....	....	2240	....	768	472	....	....
Total	5803	4967	....	....	....	14930	82950	81990	32567	17059	8594
Mean	187	166	138	100	95	126	498	2680	2730	1050	550	
Max.	292	231	....	....	....	1530	4450	3610	1870	883	381
Min.	125	....	....	....	....	223	1600	1970	605	368	204
Acre-ft.	11500	9880	8480	6150	5280	7750	29600	165000	162000	64600	33800	17000

Discharge of Colorado River at Hot Sulphur Springs for Year Ending Sept. 30, 1928.
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....	330	299	....	....	....	290	1380	6060	3210	710	241
2....	352	257	....	....	....	290	1880	5490	3070	655	261
3....	330	253	....	....	....	290	1880	5490	2800	628	241
4....	291	308	....	....	....	290	1660	4200	2580	600	221
5....	352	343	....	....	....	290	1450	3070	2580	628	211
6....	397	286	....	....	....	280	1730	2680	2400	520	200
7....	374	282	....	....	....	280	1880	2580	2220	470	182
8....	330	265	....	....	....	280	2220	2930	2130	445	189
9....	330	274	....	....	....	280	2800	3070	2040	445	196
10....	330	261	....	....	....	280	2930	2930	1880	445	211
11....	278	245	....	....	....	280	2310	2800	1730	421	221
12....	257	214	....	....	....	280	2580	2680	1660	421	214
13....	257	261	263	....	....	280	2310	2310	1520	397	196
14....	269	269	....	....	130	280	2490	2310	1730	374	193
15....	261	229	....	....	....	280	2130	2130	1590	397	182
16....	245	233	....	....	....	290	1880	2220	1800	397	172
17....	261	245	....	....	....	291	1800	2580	1960	470	153
18....	253	245	....	....	....	291	1730	2930	1520	397	176
19....	265	265	....	....	....	292	1800	2400	1730	374	211
20....	286	278	....	....	....	295	1800	2130	1590	374	233
21....	278	218	....	....	....	300	1960	2040	1380	352	189
22....	278	210	....	....	....	300	2310	2220	1320	352	186
23....	278	210	....	....	....	320	2680	2490	1190	330	179
24....	274	200	....	138	....	400	3520	2400	1060	299	182
25....	253	200	....	....	....	500	4020	2490	1000	304	169
26....	245	200	....	....	....	572	4740	2800	885	295	159
27....	245	200	....	....	....	738	5110	2930	885	304	163
28....	245	200	....	....	....	1190	5490	3520	825	291	176
29....	330	200	....	....	....	1260	5870	3680	825	257	176
30....	308	200	....	....	....	1060	6460	3360	825	245	179
31....	308	....	....	....	....	6660	....	825	237	....	....
Total	9090	7350	....	....	....	12349	89460	90920	52760	12834	5862
Mean	293	245	220	150	130	412	2890	3030	1700	414	195	
Max.	397	343	....	....	....	1260	6660	6060	3210	710	261
Min.	245	....	....	....	....	1380	2040	325	237	153	
Acre-ft.	18000	14600	13500	9220	7480	9840	24500	178000	180000	105000	25500	11600

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

Discharge of Colorado River at Glenwood Springs for Year Ending Sept. 30, 1927.
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....	862	862	1210	584	690	756	1920	6690	10600	9570	3090	2100
2....	928	880	1060	612	735	716	1680	7610	10600	7930	3090	1980
3....	1040	946	966	652	719	710	1800	8570	11000	7300	3500	1860
4....	1040	946	1080	698	720	743	2340	8900	10200	6990	3610	1680
5....	1080	918	1060	793	695	625	2100	8900	9570	7300	3090	1570
6....	1100	880	982	785	695	725	1800	8570	9570	7300	2750	1570
7....	1100	890	1080	751	701	820	1980	8900	10200	6690	2830	1510
8....	1110	1090	1100	844	678	728	2280	9910	11300	8100	3500	1510
9....	1120	899	1080	707	626	838	2280	9910	12800	5810	4070	1510
10....	1210	734	982	757	583	739	2040	8250	14000	6100	4320	1570
11....	1290	782	812	684	581	716	2220	7300	14400	6540	3610	1510
12....	1270	871	694	652	620	730	2160	6990	14000	5530	3190	1510
13....	1200	995	570	730	643	609	1980	7610	13200	4970	3000	1570
14....	1160	1020	573	739	748	157	1740	7610	12400	4570	2830	1620
15....	1080	975	419	706	759	752	1620	8900	12400	4190	2680	1740
16....	985	899	475	691	703	823	1510	10200	12400	3950	2680	1620
17....	1110	890	554	722	723	602	1400	12400	11300	3610	2610	1510
18....	1110	790	632	713	648	840	1330	15200	12000	3400	2410	1570
19....	758	799	631	720	537	743	1380	16500	12800	3190	2280	1460
20....	985	899	782	706	744	602	1620	17000	13200	3090	2220	1510
21....	975	985	590	711	762	667	1740	17400	12400	3090	2100	1340
22....	975	1110	738	736	698	750	1740	11800	11000	3190	2100	1320
23....	975	1100	707	692	744	680	1740	17800	10200	3400	2100	1340
24....	937	1100	583	709	726	740	1920	16500	10200	3500	1980	1400
25....	928	1120	485	642	707	808	2160	14000	10600	3400	2040	1620
26....	908	1110	542	650	693	1010	2610	13200	10600	3000	2040	1740
27....	890	1100	528	698	908	1170	3400	12800	11000	2830	2220	1980
28....	890	1100	564	731	803	1280	4700	12800	11300	3000	2340	1920
29....	853	1040	512	714	....	1330	5390	12400	11300	3190	2410	1800
30....	995	975	506	672	....	1742	5810	11700	10600	3400	2340	1800
31....	908	....	588	640	....	1920	....	10600	....	3400	2160	....
Total	31772	28705	23085	21871	19589	26669	68390	352920	347140	149530	85190	48740
Mean.	1020	957	745	706	700	860	2280	11400	11600	4820	2750	1620
Max.	1290	1120	1210	844	908	1920	5810	17800	14400	9570	4320	2100
Min.	758	734	419	584	537	602	1330	6690	9570	2830	1980	1320
Acre-ft.	62700	56900	45800	43400	38900	52900	136000	701000	690000	296000	169000	96400

Discharge of Colorado River at Glenwood Springs for Year Ending Sept. 30, 1928.
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....	1860	1460	1290	838	929	880	1510	7300	26600	11700	3500	1620
2....	1860	1460	1170	900	940	774	1980	9230	24800	11300	3600	1620
3....	1800	1510	1150	1100	977	790	2610	10200	22600	11000	3450	1620
4....	1800	1460	1210	1110	974	853	2610	8900	20400	10200	3100	1570
5....	1800	1400	975	1140	974	908	2340	7930	17400	9910	3100	1570
6....	1800	1390	790	1100	965	899	2100	8250	14400	9570	2900	1440
7....	1860	1400	750	1040	914	968	1740	9910	13600	8900	2600	1510
8....	1800	1380	750	985	930	899	1290	11300	14100	8250	2340	1360
9....	1740	1390	750	1000	946	918	1260	13200	15200	7610	2160	1360
10....	1680	1340	918	936	775	975	1210	14000	14800	6990	2220	1400
11....	1620	1330	1180	952	735	937	1310	15700	14000	6990	2160	1420
12....	1570	1320	1220	933	727	1600	1340	15200	12800	6390	2100	1430
13....	1510	1290	1210	992	706	975	1380	13600	11300	6390	2100	1120
14....	1510	1280	1160	1020	841	975	1310	13200	9910	6390	1980	1400
15....	1400	1290	1080	1040	686	946	1210	12400	9570	6390	1980	1330
16....	1390	1330	1040	1040	764	918	1170	11000	9570	5960	2040	1300
17....	1380	1310	990	996	831	899	1220	10200	10200	6390	2100	1250
18....	1370	1320	950	978	758	890	1570	9230	11300	7300	2160	1200
19....	1380	1380	860	882	559	899	1860	9230	11300	6390	2100	1210
20....	1340	1370	790	846	650	937	1740	9570	9910	6390	1920	1320
21....	1380	1380	880	935	672	1180	1740	9910	8900	6100	1860	1680
22....	1360	1330	970	786	742	1290	1800	11300	8570	5800	1800	1800
23....	1330	1340	1030	875	782	1510	1800	12800	9230	5100	1740	1680
24....	1320	1290	1050	858	782	1400	2100	14400	9570	5000	1740	1570
25....	1380	1120	880	840	758	1570	2750	16500	10200	4600	1620	1440
26....	1240	980	930	811	790	1860	3190	19100	10600	4320	1570	1400
27....	1250	1210	1020	966	799	2220	3000	20800	11000	4070	1680	1360
28....	1260	1250	1100	964	835	2100	4070	23100	14700	3840	1510	1360
29....	1290	1310	1190	842	890	2340	5670	21800	12000	3720	1860	1400
30....	1310	1380	1060	880	....	1740	6390	25600	12400	3720	1680	1420
31....	1400	....	937	978	....	1370	....	27000	....	3720	1620	....
Total	46990	40000	31280	29563	23631	36760	65270	425160	398230	210700	68290	43460
Mean.	1520	1330	1010	954	815	1190	2180	13750	13300	6800	2200	1450
Max.	1860	1510	1290	1140	977	2340	6390	27000	26600	41700	3600	1800
Min.	1240	980	750	786	559	774	1170	7300	8570	7720	1540	1200
Acre-ft.	93500	79100	62100	58700	46900	73200	130000	812000	791000	118000	135000	86300

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

Discharge of Colorado River Near Palisade for Year Ending Sept. 30, 1927.
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...	1480	1150	1580	...	1250	1760	2620	11400	18600	18200	5140	2780
2...	1230	1230	1700	...	1250	1760	2620	12600	18800	15200	1260	2620
3...	1700	1280	1640	...	1250	1760	2460	14700	19200	13800	7300	2460
4...	1820	1320	1640	...	1250	1940	2620	16000	18600	13100	6880	2320
5...	1480	1420	1480	...	1250	1580	2700	15400	17600	13200	6340	2180
6...	1480	1530	1940	...	1250	1530	2700	14800	17100	12700	5600	2390
7...	1580	1530	2060	...	1250	1580	2780	15400	18000	12000	5960	2180
8...	1700	1480	2120	...	1250	1700	3030	16200	20300	11000	5840	2180
9...	2000	1530	1940	...	1250	1580	3030	16400	24600	10200	6210	2320
10...	1880	1530	1580	...	1250	1370	3030	14100	24500	10200	6880	2360
11...	1820	1420	1420	...	1250	1230	3300	11100	26000	11700	5960	2700
12...	1880	1480	1370	...	1250	1370	2940	10600	25300	10700	5600	3030
13...	1820	1760	1280	...	1250	1480	2620	10700	24500	9580	5360	3580
14...	1760	1760	1230	...	1250	1280	2460	11900	23500	8640	4810	4920
15...	1700	1700	1110	...	1250	1370	2180	14300	24500	7740	4280	3680
16...	1480	1760	1190	...	1480	1420	1940	17600	25000	7160	4080	3390
17...	1480	1700	1150	...	1530	1480	1940	22100	20500	6600	4080	3030
18...	1530	1640	1150	...	1640	1320	1820	27400	21200	5960	3580	2620
19...	1480	1640	1150	...	1280	1230	1880	30100	24000	5480	3120	2860
20...	1370	1640	1150	...	1150	1150	1940	30400	24300	5140	2780	2460
21...	1370	1640	1150	...	1230	1190	2250	29600	23200	5250	2700	2540
22...	1420	1580	1150	...	1420	1480	2320	30400	20500	5360	2540	2220
23...	1320	1640	1150	...	1580	1580	2390	29900	19000	5600	2540	2460
24...	1320	1700	1150	...	1760	1700	2860	27400	18400	5720	2320	2540
25...	1280	1880	1150	...	1880	1580	3120	24500	19000	5360	2120	3980
26...	1320	1940	1150	...	1940	1420	4180	23500	19200	4920	2320	3980
27...	1370	1880	1150	...	1820	1760	5360	23000	20100	4500	3030	3210
28...	1280	2000	1150	...	1760	1820	7160	22300	22800	5360	3980	3120
29...	1230	1820	1150	...	2000	9100	20300	24300	4810	3480	3300	...
30...	1150	1640	1150	...	2180	9580	20300	21400	5600	3300	3210	...
31...	1110	...	1150	...	2460	...	18600	...	5140	3120	...	...
Total	46840	48220	42530	38750	39220	49060	98930	603300	644400	265920	135950	87220
Mean...	1510	1610	1370	1250	1400	1580	3300	19500	21500	8580	4390	2910
Max...	2000	2000	...	...	2460	9580	30400	26000	18200	7300	4920	...
Min...	1110	1150	...	...	1150	1820	10600	17400	4500	2120	2180	...
Acre-ft.	92800	95800	84200	76900	77800	97200	196000	1200000	1280000	528000	270000	173000

Discharge of Colorado River Near Palisade for Year Ending Sept. 30, 1928.
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...	3300	2460	2120	1640	1640	1700	2180	10600	44400	19500	4600	1810
2...	3210	2180	2060	1640	1700	1820	2390	15000	41200	18200	4280	1860
3...	3210	2120	2120	1820	1760	2060	2620	18200	36700	17200	4080	1920
4...	3030	2120	2060	2060	1820	2060	3210	16400	35500	16600	3980	1810
5...	3030	2180	1940	2180	1820	1940	3390	14300	27900	15800	4080	1540
6...	2940	2250	1640	2250	2060	1880	2780	14300	23800	14800	3680	1490
7...	3120	2320	1820	2320	2060	1760	2320	17200	21900	14500	3300	1640
8...	3030	2390	2000	2180	2000	1700	2120	19200	23300	13400	3030	1540
9...	2940	2460	2060	2180	1700	1700	1820	22300	25000	11900	2940	1490
10...	2700	2390	2180	2180	1700	1760	1760	25500	24500	11000	2620	1540
11...	2620	2390	2180	2120	1700	1700	1820	27100	23000	10600	2460	1640
12...	2620	2540	2180	1760	1700	1700	1880	27400	21000	9900	2390	1640
13...	2390	2180	1940	1480	1700	1640	1760	25000	17800	9420	2220	1590
14...	2460	2160	1820	1700	1700	1530	1760	21600	15800	9260	2250	1540
15...	2320	2460	1530	1760	1700	1640	1760	19700	14800	9100	2120	1540
16...	2320	2540	1480	1580	1700	1640	1820	18400	14500	8790	2320	1540
17...	2390	2540	1370	1530	1760	1700	1820	16600	16200	8790	2250	1540
18...	2320	2460	1280	1320	1700	1820	2000	15400	17800	10100	2180	1490
19...	2320	2540	1280	1370	1700	1820	2460	14700	17800	9740	2220	1440
20...	2320	2320	1480	1320	1760	1940	2340	15000	16400	9740	2220	1490
21...	2180	2120	1420	1280	1760	1940	2390	16400	14500	9100	1920	1810
22...	2120	2120	1480	1280	1700	2060	2390	18200	13900	8180	1860	2220
23...	2120	2120	1530	1370	1640	2120	2390	20800	14500	7740	1760	2220
24...	2120	2120	1580	1480	1640	2180	2540	23000	16200	7020	1700	2040
25...	2060	2180	1580	1530	1580	2460	2380	26800	18000	6340	1640	1920
26...	2000	2120	1580	1580	1640	2460	4920	30400	18600	6080	1640	1810
27...	2060	2120	1530	1580	1580	2390	4700	34600	19000	5600	1980	1760
28...	1940	2120	1530	1640	1580	2320	5720	37900	20100	5140	2220	2220
29...	2000	2120	1580	1640	1640	2320	8180	40200	20100	4920	2100	1810
30...	2120	2060	1700	1640	...	2180	9260	42200	19500	4810	2040	1920
31...	2250	...	1640	1640	...	2250	...	44000	...	4920	1860	...
Total	77560	68500	53690	53050	50140	60190	90280	708400	653700	318190	80040	51820
Mean...	2500	2280	1730	1710	1730	1940	3010	22900	21800	10300	2580	1730
Max...	3300	2540	2180	2320	2060	2460	9260	44000	44400	19500	4600	2220
Min...	1940	2060	1280	1280	1580	1530	1760	10600	13900	4810	1640	1440
A-ft.	154000	136000	106000	105000	99500	119000	179000	1410000	1300000	633000	159000	103000

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

Discharge of Colorado River Near Cisco, Utah, for Year Ending Sept. 30, 1927.
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....	3400	2600	3450	2500	2630	3030	6810	29300	28000	36000	8380	5000	
2....	2580	2600	3450	2500	2630	3000	6750	31200	28200	30000	7560	4700	
3....	3650	2600	3450	2500	2630	3060	6470	32700	28800	24900	11000	4500	
4....	4520	2600	3450	2500	2610	4790	7330	33600	28400	22200	9820	4300	
5....	4130	2600	3450	2500	2700	3910	9010	33400	26800	23900	10200	4090	
6....	4110	2600	3390	2500	2900	3790	10500	32300	25800	20700	9360	3920	
7....	3960	2600	3400	2500	3120	3290	10600	30700	26600	19500	9300	5130	
8....	3880	2600	3100	2500	3200	3140	11000	32300	28200	17600	9920	4430	
9....	3790	2600	3400	2500	2850	3240	11100	33000	31200	16100	10500	4700	
10....	3770	2600	3400	2500	2850	3510	10200	29900	33400	15200	11500	9620	
11....	4260	3000	3400	2500	2850	3590	9720	24100	34600	16200	11500	13600	
12....	4320	3000	3400	2500	2850	3370	9560	20600	34200	17400	10500	14300	
13....	4110	3000	3300	2500	2850	3100	8560	19800	34200	16000	9360	21900	
14....	3960	3000	2700	2500	2470	2840	7380	21000	34200	13900	9010	17300	
15....	3810	3000	2700	2500	2600	2750	6920	25300	34000	12600	8040	14100	
16....	3650	3000	2700	2500	2600	2990	6360	29900	36200	11400	7440	11900	
17....	3510	3000	2700	2500	2880	2600	2390	5800	34200	35400	10300	7380	10500
18....	3360	3000	2100	3100	2600	3060	5400	40800	31900	9590	6920	9360	
19....	3220	3000	2200	3100	2600	2830	5200	47300	32800	8660	5990	8220	
20....	3200	3000	2200	3100	2600	2970	6640	48400	34600	8010	5300	8040	
21....	3100	3000	2200	3100	2930	2750	7530	47300	34200	7920	5000	7590	
22....	3050	3000	2360	3100	3050	2510	8410	45900	32100	7920	4800	7300	
23....	3010	3000	2360	3100	3050	2630	9070	45500	29700	8500	4600	7800	
24....	2970	3000	2360	2650	3050	2880	10500	42400	27900	8750	4400	8100	
25....	2930	3000	2360	2600	3050	2930	12600	37500	27400	8780	4200	11200	
26....	2830	3000	2360	2600	3050	2930	14800	31000	27900	8600	4000	10200	
27....	2750	3000	2360	2600	3050	3200	17400	33800	27600	7890	4200	9360	
28....	2700	3000	2360	2600	3160	4130	20100	33400	30700	7440	4500	8940	
29....	2650	3430	2360	2700	.....	4820	24100	32800	39100	8410	5000	8320
30....	2620	3480	2360	2600	.....	5270	27700	31900	42800	8910	6000	7800
31....	2600	.....	2360	2650	.....	5750	.....	29800	.....	9070	5000	.....
Total	106410	86970	87440	82280	79150	105180	313580	1044100	947000	142350	231480	266220	
Mean...	3430	2900	2820	2600	2830	3390	10500	33700	31600	14300	7470	8870	
Max...	4520	.....	.....	.....	.....	5750	27700	48400	42800	36000	11500	21900
Min...	2580	.....	.....	.....	2610	5200	19800	25800	7440	4600	3920	.....
A-ft.	211000	173000	173000	164000	157000	208000	625000	2070000	1880000	879000	452000	528000

Discharge of Colorado River Near Cisco, Utah, for Year Ending Sept. 30, 1928.
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....	7800	7500	4170	3400	3460	3240	7200	27500	62200	25000	6780	3570
2....	8070	5080	3920	3400	3490	3310	7270	32200	62200	24000	6280	3180
3....	7740	4840	3860	3400	3350	3350	7650	41600	57000	22500	6980	3180
4....	7330	4610	3980	3400	3350	3790	8980	42400	51000	20800	6200	3100
5....	7210	4390	3830	3400	3610	4060	8940	33300	43900	19400	6580	2990
6....	7090	4300	3650	3400	4150	3810	7860	28600	35200	18800	6040	2880
7....	7010	4590	3500	3400	4150	3590	6990	29800	30900	17300	5780	2750
8....	6840	4660	3510	3400	3750	3590	6120	33700	30400	16500	5320	2560
9....	6640	4630	3700	3100	3510	3510	5250	37700	32300	15100	4820	2520
10....	6360	4700	3900	3100	3120	3590	5010	43800	34000	13600	4500	2360
11....	6060	4660	4050	3400	3220	3590	4770	46900	33400	12800	3980	2420
12....	5880	4590	4040	3400	3160	3590	5100	46000	31300	12100	3690	2540
13....	5670	4610	4020	3400	3240	3590	5370	41600	28500	11800	3410	2580
14....	5400	4570	3960	3400	3180	3590	5370	36500	25500	11100	3490	2610
15....	5270	4770	3750	3400	2860	3590	5060	31400	22200	11100	3330	2610
16....	5150	4820	3650	3100	3330	3590	1390	31500	20300	10700	3960	2580
17....	5150	4610	3600	3400	3160	3590	4480	30000	20800	10600	4170	2560
18....	5130	4630	3600	3400	3260	3590	5420	29300	23200	11400	3940	2540
19....	5100	4770	3630	3400	3220	3370	6580	27700	26000	13000	3390	2540
20....	4940	4680	3700	3400	3240	3390	7830	26800	24800	12500	3200	2490
21....	4890	4630	3750	3100	3370	3410	8440	28000	22000	12100	2990	2460
22....	4910	4500	3750	3400	3160	3750	8380	29100	20100	11400	2700	2810
23....	4940	4480	3700	3400	3200	4570	8010	31500	20800	10700	2490	3260
24....	4910	4430	3650	3400	3200	5310	8190	34100	23000	9889	2470	3270
25....	4820	4240	3600	3400	3370	5800	10600	36900	21800	9390	2330	3080
26....	4790	4010	3650	3400	3120	6010	13800	10300	26300	8600	2140	2930
27....	4590	3940	3700	3400	3120	7270	14900	15600	26300	8010	2360	2830
28....	4700	3960	3750	3400	3370	8600	18200	51100	27900	7360	3920	4410
29....	5830	4260	3800	3400	3210	9630	21600	55100	27900	6980	3650	3310
30....	4610	4210	3750	3390	.....	8470	21300	58300	27000	6610	3350	3030
31....	5830	.....	3600	3420	.....	7700	.....	59700	.....	6610	3410	.....
Total	180660	138700	116720	105410	96360	142010	262090	117100	911200	407770	128730	85980
Mean...	5830	4620	3770	3400	3340	4580	8710	37800	31400	13200	4150	2870
Max...	8070	7500	4170	.....	4150	9690	24300	59700	62200	25000	6780	4410
Min...	4590	3940	3500	.....	2860	3240	4390	26800	20100	6610	2330	2360
A-ft.	358000	275000	232000	209000	192000	282000	520000	2320000	1870000	812000	255000	171000

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

STATE ENGINEER, COLORADO

197

Discharge of Colorado River at Lee's Ferry, Ariz., for Year Ending Sept. 30, 1927.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	6020	5170	6750	2780	5560	9280	13100	38200	60200	119000	17200	14400
2....	5420	5110	6720	2800	5470	10400	14600	42900	56400	106000	16500	14200
3....	5050	5020	6480	2900	5440	9890	15200	49600	53400	78100	16700	13100
4....	6750	5110	6850	3100	5320	9920	15500	55800	52300	65500	15800	11800
5....	6850	5200	6850	3400	5350	10000	16800	55900	51700	59700	15200	10600
6....	8430	5260	6790	3300	5410	11200	18500	61100	45800	55900	18200	10400
7....	9000	5170	6750	4200	5410	10500	20900	63100	47500	59200	19400	11500
8....	8280	5200	7160	4800	5620	11400	23800	63200	46200	53000	25100	14600
9....	8240	5140	10100	5200	5840	10300	25200	60800	46700	44800	20500	14400
10....	8130	5050	11000	5100	6030	10900	26000	62700	48700	42700	18000	29200
11....	8090	5230	11300	5060	6190	10700	26300	61400	54800	40700	17400	43200
12....	7940	5170	10200	5620	6190	10300	25200	55800	59800	40400	18600	43300
13....	7910	5390	8960	5960	5960	11000	22800	50700	63000	41700	19100	88100
14....	8470	5930	7690	6220	5780	11600	22200	46200	64600	38100	18400	103000
15....	8470	5700	7300	6280	5990	10900	21600	42300	66000	34900	16400	110000
16....	8130	5670	6920	6350	6550	10300	19900	42700	67800	30600	15000	78900
17....	7800	5390	6510	6320	9890	9850	18500	47300	67500	27500	14700	55900
18....	7550	5700	5990	6220	11200	9200	17700	55100	69600	25100	13700	45300
19....	7230	5990	5350	6060	9090	9200	16600	64700	69400	22800	13100	33300
20....	7020	5890	4700	6220	10400	8500	15300	74200	67100	21300	12400	30400
21....	6580	5890	4200	6060	9890	8650	14300	84500	69300	20000	11800	31600
22....	6350	5830	4000	6280	8900	8720	13600	89300	70900	18400	11100	26000
23....	6380	5770	4100	6780	7520	8830	14300	89300	69100	17700	9980	23700
24....	6380	5610	4200	7060	6660	8610	15900	87200	65600	17100	9740	21200
25....	6090	5770	4200	6820	6560	8090	17100	84900	61500	17400	9430	20700
26....	5770	6050	4100	6510	6940	7710	19400	78400	57900	18300	8750	22200
27....	5640	6090	3700	6280	7230	7550	24000	72600	56800	19000	9350	28500
28....	5320	6090	3300	6280	8090	8360	28800	69300	58200	18700	13400	27100
29....	5420	6150	2800	6220	.....	9580	33000	67500	73600	20300	14100	25300
30....	5420	6510	2600	6190	.....	10400	35100	64700	91200	20300	13500	23500
31....	5390	.....	2500	5780	.....	11400	.....	62700	.....	18100	13900	.....
Total	215550	167250	190070	168570	194480	303050	611500194740018366001212600	4666501025400				
Mean.	6950	5580	6130	5440	6950	9780	20400	62800	61200	39100	15100	34200
Max.	9000	6510	11300	7060	11200	11400	35100	89300	91200	119000	25100	110000
Min.	5080	5020	2500	2780	5320	7550	13100	38200	46200	17100	8750	10400
A-ft.	427000	332000	377000	334000	386000	6010001210000386000036400002400000	9280002040000					

Discharge of Colorado River at Lee's Ferry, Ariz., for Year Ending Sept. 30, 1928.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	22400	14300	10000	7310	7080	7390	24100	34900	108000	41500	13600	8540
2....	21500	16300	9770	7540	7340	7200	21200	38900	113000	39900	13500	9160
3....	21100	21200	9680	7410	7510	7420	19300	13800	113000	38300	13900	7780
4....	21100	13900	9730	7040	7650	7740	18200	62200	109000	37200	13800	7300
5....	20400	12900	9370	6600	7900	8620	17800	71500	106000	35700	14600	7750
6....	19500	12600	9240	6570	10400	9060	18300	71400	98800	33900	13600	7190
7....	18400	12500	9460	6980	11200	10600	19000	64200	85600	32300	12500	6650
8....	17500	12400	9500	7310	10000	10900	18100	60500	76300	31200	13100	6350
9....	17000	13400	8990	7650	10600	12000	17100	61100	68800	30100	11800	6060
10....	16800	13800	8190	7790	9820	11600	16400	66300	65800	28700	11200	5780
11....	16800	13000	7680	7860	9110	11300	15500	72400	64400	27000	10900	5710
12....	16300	12300	7180	7790	8540	11100	14300	81200	62900	25100	10300	5530
13....	15500	12000	6260	7750	8190	11000	13200	85700	60600	22900	9860	5230
14....	15000	11600	6140	7750	7610	12300	12900	88200	56600	21900	9860	5000
15....	14500	11600	6380	7820	7580	13200	12600	85900	53800	21000	10100	4780
16....	14000	11500	7540	8150	7650	12700	12300	81500	49500	20700	8980	4650
17....	13600	11500	7700	8480	7480	13100	12100	78500	44600	19800	8390	4780
18....	13200	11600	7200	8780	7440	13100	11600	73200	41600	19200	8210	5000
19....	13000	12300	6600	9460	7210	12700	10900	70600	40500	18800	8320	4950
20....	12600	12000	5400	9160	7110	11700	10300	67900	41900	18600	8460	4890
21....	12300	11600	4800	8540	7010	10700	11300	63500	43500	22100	8680	4860
22....	12100	11400	4200	8000	7080	10100	13200	61200	42600	22400	8180	4970
23....	11800	11100	4100	7650	7080	9820	14900	59100	40200	23000	7680	5000
24....	11600	10800	4310	7440	7340	9920	15800	59000	38400	21500	6920	4750
25....	11400	10700	4850	7340	7340	11100	16800	63900	39100	19800	6850	4650
26....	11200	10600	5530	7080	7310	13200	17000	70700	39500	18400	6750	4650
27....	11100	10500	6230	6950	7140	15800	16900	75700	39900	17700	11000	5030
28....	10800	10300	6350	6750	7080	17500	21800	81500	40400	16900	9940	5530
29....	10800	10000	6350	6690	7040	18700	24500	88600	40800	16000	8210	5620
30....	11100	10300	5960	6820	.....	22300	28600	95000	41800	15100	7230	5620
31....	17100	.....	6570	6850	.....	24600	.....	104000	.....	14100	7400	.....
Total	471500	370000	221760	235320	231840	378470	49600021881001866900	769800	313820	173760		
Mean.	15200	12300	7150	7590	7990	12200	16500	70600	62200	24800	10100	5790
Max.	22400	21200	10000	9460	11200	24600	28600	104000	113000	41500	14600	9160
Min.	10800	10000	4100	6570	7010	7200	10300	34900	38400	14100	6750	4650
A-ft.	935000	732000	440000	467000	460000	750000	982000434000037000001520000	621000	345000			

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

Discharge of Fraser River Near West Portal for Year Ending Sept. 30, 1927.
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....	22	16	10	8	7	7	9	64	146	128	66	36
2....	23	16	10	7	7	7	10	84	140	119	58	31
3....	22	14	9	8	7	7	10	86	138	114	60	32
4....	20	14	9	7	7	7	10	77	138	111	59	34
5....	22	14	11	7	7	7	10	77	138	111	59	34
6....	22	14	11	7	7	7	11	77	138	108	59	34
7....	22	16	11	7	7	7	11	84	140	100	58	36
8....	23	22	11	7	7	7	12	56	142	90	60	38
9....	23	17	11	7	7	8	14	54	154	92	71	39
10....	22	16	11	7	7	8	13	53	170	94	66	40
11....	21	15	11	7	7	7	13	56	182	90	64	40
12....	19	14	11	7	8	7	13	75	180	86	62	43
13....	19	11	10	7	7	8	12	77	172	83	58	51
14....	18	11	10	7	7	8	11	79	168	79	51	53
15....	18	12	10	7	7	8	11	92	170	75	46	49
16....	17	11	10	7	7	9	11	110	156	71	42	48
17....	17	11	10	7	8	8	11	148	162	68	38	49
18....	18	12	9	7	7	8	12	154	158	64	35	39
19....	18	12	9	7	7	7	11	168	158	60	32	38
20....	17	11	8	7	7	8	11	170	148	56	29	37
21....	18	11	8	7	7	9	10	164	152	56	29	36
22....	18	11	8	7	7	10	10	168	156	58	29	35
23....	18	10	8	7	7	9	11	174	162	62	29	35
24....	17	10	9	7	7	8	12	176	178	63	32	34
25....	16	10	8	7	7	8	11	172	178	55	31	34
26....	16	10	8	7	7	9	13	172	184	51	30	33
27....	13	10	8	7	7	9	40	166	170	53	35	30
28....	13	10	8	7	7	9	35	154	176	69	36	28
29....	15	10	8	8	....	10	41	158	166	70	36	28
30....	16	10	8	8	....	9	43	154	148	63	36	25
31....	16	....	8	7	....	9	....	150	....	66	36	....
Total	579	381	291	221	198	249	512	3649	4772	2468	1432	1121
Mean.	18.7	12.7	9.39	7.13	7.07	8.03	17.1	118	159	79.6	46.2	37.4
Max..	23	22	11	8	8	10	43	176	184	128	71	53
Min...	13	10	8	7	7	9	53	138	51	29	28	25
Acre-ft.	1150	756	577	438	393	494	1020	7260	9460	4890	2840	2230

Discharge of Fraser River Near West Portal for Year Ending Sept. 30, 1928.
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....	19	17	20	26	8	8	10	76	308	238	62	36
2....	27	18	20	26	8	8	9	84	300	221	58	38
3....	30	18	21	23	8	8	11	90	263	205	66	34
4....	30	17	21	22	8	9	11	95	224	198	50	32
5....	30	18	22	21	8	9	11	105	187	187	48	28
6....	30	18	22	20	8	8	11	118	179	181	46	26
7....	30	19	22	16	8	8	12	118	196	173	44	22
8....	25	19	20	16	8	8	12	106	214	153	41	20
9....	23	19	22	14	8	8	11	118	214	147	38	20
10....	25	19	21	12	8	8	12	121	209	141	37	21
11....	22	21	21	10	8	8	12	118	207	132	37	22
12....	20	27	21	10	8	8	12	123	187	127	37	22
13....	22	22	20	9	8	9	12	127	175	125	34	22
14....	21	21	20	8	8	9	12	130	167	124	32	22
15....	20	22	20	9	8	9	12	134	159	122	31	26
16....	19	22	20	8	8	9	12	138	179	143	30	18
17....	20	22	20	9	8	9	12	144	209	145	30	18
18....	20	22	20	8	8	10	14	148	212	129	29	18
19....	20	24	20	9	8	10	14	150	185	113	29	18
20....	21	23	20	9	8	11	16	153	175	107	29	19
21....	22	22	21	9	9	11	16	159	185	104	30	21
22....	22	21	22	8	8	11	18	177	212	160	29	19
23....	23	20	22	8	8	9	18	194	207	96	28	20
24....	27	19	22	8	9	9	18	205	205	91	28	20
25....	27	20	22	8	9	9	20	241	205	84	28	20
26....	25	20	22	8	9	9	20	255	214	80	29	20
27....	23	20	22	8	9	9	20	248	233	74	29	20
28....	20	22	22	8	9	10	22	255	248	72	29	21
29....	20	20	22	8	8	10	28	292	273	70	31	17
30....	18	20	22	8	....	10	34	305	248	67	32	17
31....	18	....	22	8	....	10	....	322	....	65	33	....
Total	719	612	654	374	238	281	452	5049	6379	4014	1134	671
Mean.	23.2	20.4	21.1	12.1	8.21	9.06	15.1	163	213	129	36.6	22.4
Max..	30	27	22	26	9	11	34	322	308	238	66	38
Min...	18	17	20	8	8	8	9	76	159	65	28	17
Acre-ft.	1430	1210	1300	744	472	557	898	10000	12700	7930	2250	1330

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

Discharge of Blue River at Dillon for Year Ending Sept. 30, 1927.
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....	53	41	....	....	....	28	151	405	410	176	91	
2....	53	39	....	....	21	28	178	421	332	165	89	
3....	54	38	....	....	....	28	204	421	341	187	87	
4....	56	34	....	....	....	28	214	389	341	190	83	
5....	54	35	....	32	....	28	212	346	337	165	82	
6....	54	36	....	....	....	28	217	346	350	157	78	
7....	56	39	....	....	....	28	259	350	324	155	74	
8....	57	34	....	....	....	30	305	389	301	163	72	
9....	60	38	....	....	....	30	262	421	305	204	72	
10....	61	39	....	....	27	30	209	438	312	214	72	
11....	58	39	....	....	....	32	202	474	309	187	71	
12....	58	39	....	....	....	32	202	462	273	172	71	
13....	57	40	....	....	....	32	207	421	259	157	71	
14....	54	42	....	....	....	32	222	416	253	148	73	
15....	53	42	....	....	....	32	269	416	233	140	75	
16....	53	43	....	....	....	36	332	416	214	137	72	
17....	53	44	....	....	....	36	438	389	209	132	67	
18....	52	42	....	....	....	36	571	410	199	126	67	
19....	51	42	....	....	....	38	586	450	197	120	66	
20....	51	40	....	....	....	38	579	438	192	117	65	
21....	51	39	....	....	....	40	600	405	192	113	63	
22....	50	39	....	....	....	38	615	383	214	109	65	
23....	48	39	....	....	....	38	607	369	225	104	63	
24....	46	39	....	....	....	44	538	373	207	101	62	
25....	46	37	....	....	....	52	480	427	194	96	62	
26....	44	37	....	....	....	70	480	505	180	95	65	
27....	43	37	....	....	....	86	492	579	178	95	69	
28....	43	37	....	....	....	102	486	538	199	96	72	
29....	43	37	....	....	....	120	480	600	212	98	72	
30....	42	37	....	....	....	132	444	505	209	95	71	
31....	42	....	....	....	....	410	....	202	92	....	....
Total	1596	1164	....	....	....	1352	11451	12902	7903	4306	2164	
Mean.	51.5	38.8	35.0	28.0	24	27	45.1	369	430	255	139	72.1
Max..	61	....	....	....	....	....	132	615	600	410	214	91
Min..	42	....	....	....	....	....	151	346	178	92	62	
Acre-ft.	3170	2310	2150	1720	1330	1660	2680	22700	25600	15700	8550	4290

Discharge of Blue River at Dillon for Year Ending Sept. 30, 1928.
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....	71	48	47	....	....	....	....	200	880	529	198	89
2....	71	47	....	....	....	....	....	252	442	500	195	87
3....	67	46	....	....	....	....	....	243	730	474	192	86
4....	66	47	....	....	....	....	....	222	625	462	173	83
5....	67	48	....	....	....	....	....	217	529	449	171	79
6....	67	48	....	....	....	....	....	243	474	436	162	78
7....	67	48	37	....	30	....	....	285	474	430	156	75
8....	67	47	....	....	....	....	....	320	529	414	152	71
9....	65	46	....	....	....	....	....	375	529	408	142	68
10....	63	45	....	27	....	....	....	414	529	397	138	67
11....	61	45	....	....	....	....	....	414	522	391	136	67
12....	59	45	....	....	....	....	....	342	500	380	134	65
13....	55	43	....	....	....	....	....	324	436	370	136	64
14....	55	43	....	....	....	....	....	328	419	332	134	63
15....	56	45	....	....	....	....	....	312	408	312	130	61
16....	57	43	....	....	....	....	....	304	425	292	127	60
17....	56	43	....	....	....	....	....	282	474	312	127	60
18....	55	43	....	....	....	....	....	268	474	308	125	59
19....	55	41	....	....	....	....	....	268	430	289	120	60
20....	54	37	....	....	....	....	....	282	391	308	116	71
21....	53	36	....	....	....	....	....	289	370	282	113	79
22....	53	39	....	....	....	....	....	328	402	278	106	78
23....	53	42	....	....	....	....	....	375	436	275	106	75
24....	52	43	....	....	....	52	474	442	258	105	72	
25....	51	43	....	....	....	....	....	616	494	228	96	68
26....	51	38	....	....	....	....	....	784	522	211	100	66
27....	51	31	....	....	....	....	....	92	856	550	225	94
28....	52	32	....	....	....	....	....	121	856	550	225	94
29....	52	31	....	....	....	....	....	162	922	558	243	92
30....	52	38	....	....	....	....	....	922	....	220	90	64
31....	51	....	....	....	....	....	....	....	....	....	....
Total	1805	1271	33	28	32	36	50	411	501	337	131	70.9
Mean.	58.2	42.4	....	....	....	....	....	922	880	529	198	89
Max..	71	48	....	....	....	....	....	200	370	203	90	59
Acre-ft.	3580	2520	2030	1720	1840	2210	2980	25300	29800	20700	8060	4220

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

Discharge of Roaring Fork at Glenwood Springs for Year Ending Sept. 30, 1927.
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....	535	569	536	505	496	389	485	2700	5090	4030	1600	1040
2....	595	574	525	490	389	389	475	2900	5510	3890	1900	977
3....	680	580	536	500	402	414	480	3110	5090	3820	2180	942
4....	690	580	536	490	402	406	552	3140	4510	3680	1800	924
5....	710	574	525	485	402	398	536	2930	4700	4010	1590	933
6....	714	586	542	485	402	402	542	2740	5160	3740	1590	916
7....	718	592	552	485	406	398	580	3250	5610	3460	1880	899
8....	780	586	542	446	406	393	622	3410	6820	3270	1930	899
9....	841	564	525	437	381	419	592	2680	6960	3210	2220	1000
10....	875	564	480	410	355	419	634	2180	7650	3990	1880	1410
11....	895	569	456	432	398	414	654	1960	6540	3670	1690	1540
12....	850	562	530	151	410	381	628	1880	6320	3090	1850	1390
13....	795	554	461	437	402	389	569	2030	5680	2950	1640	1680
14....	735	547	437	432	402	406	530	2620	5490	2740	1510	1780
15....	730	536	406	423	402	410	520	3160	7260	2460	1480	1540
16....	703	552	451	432	398	393	505	4050	5940	2330	1530	1370
17....	740	515	480	419	393	359	490	5390	5740	2230	1360	1280
18....	735	510	505	414	393	410	495	6820	6320	2120	1240	1240
19....	715	558	542	419	393	402	552	6680	6960	2000	1150	1180
20....	690	547	515	423	389	381	586	6430	6140	2030	1110	1100
21....	655	547	451	437	393	363	574	6600	5580	2120	1080	1040
22....	620	542	500	432	410	406	592	7050	5250	2040	1040	1020
23....	580	542	505	414	398	381	634	6060	5440	2100	1000	1040
24....	530	530	456	385	398	389	793	4900	6010	1880	959	1030
25....	569	552	414	385	402	406	1000	4810	6090	1740	950	1280
26....	569	536	432	402	414	427	1360	5660	6170	1630	995	1340
27....	564	558	456	441	427	456	1750	5270	6990	1640	1190	1260
28....	564	569	456	419	432	485	2020	5370	8280	1680	1280	1200
29....	569	525	414	419	485	2100	5090	6760	1950	1280	1160	1160
30....	574	542	423	398	485	2300	4800	5370	2080	1180	1190	1190
31....	574	500	406	536	4550	1740	1100	...	...	...	...	...
Total	21094	16662	15089	13553	11205	12811	24170	129800	181430	83320	45184	35591
Mean.	680	555	487	437	400	413	806	4190	6050	2690	1460	1190
Max..	895	592	552	505	432	536	2300	7050	8280	4030	2220	1780
Min... Acre-ft.	530	510	406	385	355	359	475	1880	4510	1630	950	890
Acre-ft.	41800	33000	29900	26900	22200	25400	48000	258000	360000	165000	89800	70800

Discharge of Roaring Fork at Glenwood Springs for Year Ending Sept. 30, 1928.
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....	1180	770	616	500	419	419	564	2660	9670	5040	1410	785
2....	1080	732	675	500	441	419	616	3780	8020	4590	1470	778
3....	1080	732	640	500	446	414	668	3410	7110	4380	1440	778
4....	1080	740	604	510	456	398	647	2660	5390	4070	1320	762
5....	1100	732	564	510	456	406	604	2440	4380	4170	1320	732
6....	1100	718	598	500	446	410	586	2820	4270	3880	1240	703
7....	1080	718	592	500	441	410	547	3500	4920	3780	1180	689
8....	1040	710	515	450	410	414	520	3780	5760	3230	1130	668
9....	1000	696	500	480	427	419	495	4480	6010	3060	1100	696
10....	986	696	622	490	427	437	536	1590	5760	3060	1080	696
11....	977	710	610	480	419	427	530	4920	4920	2900	1040	696
12....	933	675	598	480	461	456	525	4070	3970	2820	1030	682
13....	942	675	574	490	446	432	520	3680	3320	2630	995	661
14....	924	703	580	490	385	432	495	3320	3060	2440	959	682
15....	916	689	525	470	456	432	515	2900	2980	2520	865	696
16....	882	682	515	160	446	406	525	2820	3590	2370	890	682
17....	865	696	547	440	437	402	564	2590	4480	2820	865	661
18....	849	703	530	430	419	419	622	2440	4380	2590	833	661
19....	849	696	510	427	427	423	647	2590	3500	2740	825	696
20....	841	696	480	465	427	461	675	2900	3140	2740	793	924
21....	825	689	490	475	427	495	696	2900	3060	2370	778	959
22....	817	696	510	460	456	542	661	3590	3880	2230	762	849
23....	785	675	530	450	432	586	703	3970	4380	2160	748	801
24....	755	604	552	450	427	558	865	4380	5160	1960	725	755
25....	732	610	510	440	427	628	1100	5160	5510	1900	725	718
26....	732	654	500	440	423	668	1080	6270	5640	1780	725	654
27....	725	696	510	430	414	616	1350	7410	6340	1720	959	647
28....	732	689	520	423	423	651	1780	8020	6010	1600	968	718
29....	785	668	530	415	127	564	1810	8660	5640	1600	809	740
30....	748	649	520	410	525	1900	9330	5040	1660	778	696	696
31....	755	500	120	520	520	9670	1480	793	...	...	...	...
Total	28095	20790	17067	14015	12548	14792	23376	135710	114940	86290	30555	21865
Mean.	906	693	551	452	433	477	779	1380	4980	2780	986	729
Max..	1180	770	675	510	461	668	1960	9670	5040	1470	720	959
Min...	725	604	180	410	385	398	495	2440	2980	1480	725	647
Acre-ft.	55700	44200	33900	27800	24900	29300	46400	269000	296000	171000	60600	43400

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

Discharge of Parachute Creek at Grand Valley for Year Ending Sept. 30, 1927.
Drainage Area, 196 Square Miles. Altitude, 5,105 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.	6	14	.	.	.	41	24	302	77	29	1	20
2.	6	14	.	.	.	41	22	340	70	29	0	20
3.	9	14	.	.	.	41	22	351	63	29	0	20
4.	9	14	.	.	.	41	39	313	56	27	0	20
5.	9	14	.	.	.	41	35	284	53	24	0	20
6.	53	14	.	.	.	35	41	284	48	24	2	20
7.	56	14	.	.	.	29	41	284	44	24	3	20
8.	41	13	.	.	.	29	41	284	41	12	3	20
9.	29	14	.	.	.	29	41	262	39	5	3	20
10.	29	14	.	.	.	29	42	242	35	5	4	20
11.	29	14	.	.	.	29	56	222	31	5	4	108
12.	20	14	.	.	.	29	56	204	29	5	4	86
13.	20	14	.	.	.	29	59	182	29	2	4	29
14.	20	14	.	.	.	29	59	160	31	1	6	25
15.	20	14	.	.	.	20	70	155	56	1	14	24
16.	14	14	.	.	.	20	70	150	56	1	17	24
17.	14	14	.	.	.	20	70	144	54	1	22	24
18.	14	14	.	.	.	20	77	139	47	1	3	24
19.	14	14	.	.	.	20	77	134	41	1	5	22
20.	14	14	.	.	.	14	77	130	41	1	5	22
21.	14	14	.	.	.	14	77	125	41	1	5	22
22.	14	14	.	.	.	14	82	121	39	1	5	22
23.	14	14	.	.	.	14	77	116	37	1	5	22
24.	14	14	.	.	.	14	88	116	36	2	5	22
25.	14	14	.	.	.	14	116	112	35	6	5	20
26.	14	14	.	.	.	17	155	108	35	1	5	20
27.	14	14	.	.	.	17	192	104	33	1	6	20
28.	14	14	.	.	.	17	242	102	31	1	20	20
29.	14	14	.	.	.	17	277	96	30	1	20	20
30.	14	14	.	.	.	22	302	88	29	1	20	20
31.	14	.	.	.	.	22	...	82	...	1	20	...
Total	583	419				768	2627	5736	1287	244	216	796
Mean.	18.8	14.0				24.8	87.6	185	42.9	7.87	6.97	26.5
Max..	56	14				41	302	351	77	29	22	108
Min..	6	13				14	22	82	29	1	0	20
Acre-ft.	1160	833				1520	5210	11400	2550	484	429	1580

Discharge of Plateau Creek Near Colbran for Year Ending Sept. 30, 1927.
Drainage Area, 88 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.	20	12	.	.	.	16	27	418	703	182	33	30
2.	23	9	.	.	.	16	28	444	600	167	93	24
3.	29	8	.	.	.	16	31	466	545	144	148	23
4.	25	8	.	.	.	16	37	475	484	141	66	22
5.	24	11	.	.	.	16	37	448	526	148	44	26
6.	29	12	.	.	.	17	45	484	545	121	56	27
7.	91	11	.	.	.	17	55	575	502	103	97	32
8.	137	9	.	.	.	17	54	470	555	92	91	30
9.	106	16	.	.	.	17	55	359	531	93	99	44
10.	81	15	.	.	.	17	62	291	466	131	60	50
11.	55	16	.	.	.	17	60	263	448	89	47	47
12.	38	17	.	.	.	17	42	272	489	89	104	48
13.	33	18	.	.	.	16	36	344	521	79	89	51
14.	30	16	.	.	.	16	33	444	418	70	40	52
15.	27	22	.	.	.	18	33	565	653	61	56	51
16.	24	21	.	.	.	18	31	738	378	54	46	46
17.	22	21	.	.	.	18	29	909	378	46	37	45
18.	21	20	.	.	.	18	30	1030	370	40	33	39
19.	18	20	.	.	.	18	48	1020	348	33	30	27
20.	15	18	.	.	.	17	52	1140	315	38	33	20
21.	12	18	.	.	.	16	53	1140	278	105	27	16
22.	18	18	.	.	.	17	57	1070	230	93	28	18
23.	12	17	.	.	.	17	88	877	197	114	27	18
24.	15	17	.	.	.	17	114	768	204	97	27	18
25.	12	18	.	.	.	18	146	940	192	56	26	32
26.	12	24	.	.	.	19	184	1000	192	51	31	63
27.	12	22	.	.	.	20	209	934	243	60	56	63
28.	12	24	.	.	.	23	255	871	726	69	51	52
29.	16	32	.	.	.	26	298	726	272	101	56	66
30.	18	23	.	.	.	32	359	637	182	63	46	66
31.	12	.	.	.	.	32	...	658	...	40	36	...
Total	999	513	.	.	.	575	2588	20776	12491	2770	1713	1146
Mean.	32.2	17.1	.	.	.	18.5	86.3	670	416	89.4	55.3	38.2
Max..	137	32	.	.	.	32	359	1140	726	182	148	66
Min..	12	8	.	.	.	16	27	263	182	33	26	16
Acre-ft.	1980	1020	.	.	.	1140	5140	41200	24800	5500	3400	2270

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

Discharge of Plateau Creek Near Collbran for Year Ending Sept. 30, 1928.
Drainage Area, 88 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	110	33	....	....	....	18	42	548	590	150	122	24
2....	99	34	....	....	....	18	62	608	608	146	122	16
3....	93	34	....	....	....	18	62	520	563	140	126	12
4....	104	34	....	....	....	22	32	492	478	128	103	11
5....	93	35	....	....	....	22	30	548	450	122	105	10
6....	80	35	....	....	....	22	30	578	464	120	99	11
7....	65	36	....	....	....	22	24	638	464	116	76	12
8....	54	33	....	....	....	22	28	638	481	107	72	12
9....	49	36	....	....	....	18	24	698	436	105	67	11
10....	47	30	....	....	....	22	24	728	396	103	62	8
11....	46	30	....	....	....	18	24	758	356	103	56	10
12....	46	36	....	....	....	22	28	728	356	101	62	8
13....	49	36	....	....	....	22	24	668	356	140	44	10
14....	46	32	....	....	....	22	24	563	325	130	37	12
15....	41	31	....	....	....	22	24	608	299	103	35	10
16....	36	34	....	....	....	22	60	638	292	101	35	9
17....	32	32	....	....	....	22	80	608	292	118	33	9
18....	32	32	....	....	....	22	90	668	330	103	16	8
19....	32	31	....	....	....	22	88	788	356	101	12	12
20....	36	32	....	....	....	22	72	758	344	98	10	28
21....	36	27	....	....	....	22	72	894	292	101	8	19
22....	32	26	....	....	....	24	52	833	268	101	8	17
23....	29	27	....	....	....	28	84	788	268	103	10	14
24....	27	32	....	....	....	24	160	818	244	100	12	12
25....	26	30	....	....	....	24	259	788	220	88	13	13
26....	27	28	....	....	....	36	252	788	208	89	17	14
27....	28	28	....	....	....	32	396	773	208	96	59	18
28....	31	27	....	....	....	62	436	743	196	103	27	45
29....	34	27	....	....	....	32	526	698	180	96	34	25
30....	32	25	....	....	....	38	506	638	169	88	17	21
31....	33	....	....	....	....	36	....	593	....	96	18	...
Total	1525	937	....	....	....	778	3698	21135	10498	3396	1517	441
Mean.	49.2	31.2	....	....	....	25.1	120	682	350	110	48.6	14.7
Max..	110	36	....	....	....	....	....	894	608	150	126	45
Min..	26	25	....	....	....	....	....	492	169	88	8	8
Acre-ft.	3030	1860	....	....	....	1540	7140	41900	20800	6760	2990	875

Discharge of Buzzard Creek near Collbran for Year Ending Sept. 30, 1927.
Drainage Area, 136 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	8	14	....	....	12	48	384	190	103	19	12
2....	8	13	....	....	12	62	398	185	103	14	10
3....	7	....	....	....	12	74	409	151	97	49	8
4....	7	....	....	....	14	110	386	132	99	31	7
5....	7	....	....	....	15	98	358	128	98	27	6
6....	8	....	....	....	15	119	351	137	69	35	8
7....	8	....	....	....	14	156	438	132	39	46	7
8....	8	....	....	....	12	124	406	132	36	38	8
9....	7	....	....	....	12	112	280	137	35	34	11
10....	7	....	....	....	11	113	235	128	60	30	18
11....	7	....	....	....	12	117	235	119	43	21	23
12....	9	....	....	....	12	64	276	138	33	22	19
13....	12	....	....	....	12	51	288	185	31	24	22
14....	11	....	....	....	11	45	344	159	28	18	64
15....	8	....	....	....	11	38	385	300	25	14	40
16....	7	....	....	....	11	41	448	218	24	13	25
17....	7	....	....	....	10	39	510	177	21	12	23
18....	7	....	....	....	11	62	530	143	18	12	25
19....	8	....	....	....	11	89	448	131	13	10	23
20....	11	....	....	....	10	108	420	124	9	8	21
21....	12	....	....	....	10	87	403	114	11	6	17
22....	10	....	....	....	10	107	384	104	19	5	16
23....	12	....	....	....	10	143	297	103	28	5	14
24....	12	....	....	....	10	175	247	102	30	5	14
25....	12	....	....	....	16	209	385	102	21	6	61
26....	13	....	....	....	18	258	266	98	16	7	62
27....	14	....	....	....	29	297	249	97	16	24	56
28....	15	....	....	....	51	311	230	134	23	22	63
29....	14	....	....	....	60	337	197	136	31	24	66
30....	14	....	....	....	59	336	185	106	31	22	64
31....	8	....	....	....	53	....	180	119	15	15	...
Total	290	....	....	....	566	3930	10552	4242	1229	618	813
Mean.	22	9.67	....	....	....	18.3	121	340	141	39.6	19.9	27.1
Max..	15	....	....	....	60	337	530	300	103	49	66
Min..	7	....	....	....	10	38	180	97	9	5	6
Acre-ft.	1350	575	....	....	....	1130	7800	20900	8390	2430	1220	1610

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

STATE ENGINEER, COLORADO

203

Discharge of Buzzard Creek near Collbran for Year Ending Sept. 30, 1928.
Drainage Area, 136 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	29	21	....	....	....	18	92	539	264	19	4	3
2....	24	18	....	....	....	18	118	662	232	17	4	2
3....	21	17	....	....	....	18	117	613	245	16	5	2
4....	18	17	....	....	....	20	69	430	219	15	6	2
5....	17	17	....	....	....	20	61	423	173	15	7	2
6....	17	17	....	....	....	20	57	482	165	16	6	2
7....	17	19	....	....	....	21	44	554	132	17	7	1
8....	18	19	....	....	....	26	53	565	145	18	6	1
9....	16	17	....	....	....	17	41	539	133	17	5	1
10....	14	17	....	....	....	20	40	538	113	11	4	1
11....	13	18	....	....	....	16	44	534	94	8	4	1
12....	13	18	....	....	....	23	58	436	86	7	4	1
13....	13	22	....	....	....	23	46	381	72	7	3	1
14....	12	20	....	....	....	23	40	357	81	8	2	1
15....	12	15	....	....	....	23	41	313	71	7	2	1
16....	12	17	....	....	....	22	118	309	65	7	3	1
17....	10	19	....	....	....	20	144	274	61	7	2	1
18....	7	18	....	....	....	20	163	257	80	8	2	1
19....	4	14	....	....	....	19	153	260	93	9	1	1
20....	10	17	....	....	....	20	134	297	97	9	1	2
21....	11	18	....	....	....	25	134	291	68	9	1	2
22....	11	15	....	....	....	44	106	318	54	3	1	2
23....	11	14	....	....	....	63	147	309	46	6	1	2
24....	11	15	....	....	....	47	215	312	44	8	1	2
25....	11	16	....	....	....	48	253	336	40	7	1	2
26....	11	18	....	....	....	80	278	333	36	6	2	2
27....	11	17	....	....	....	76	364	394	31	6	3	2
28....	13	18	....	....	....	120	400	364	27	6	2	5
29....	18	18	....	....	....	70	450	346	24	3	2	6
30....	20	18	....	....	....	62	434	332	21	4	2	4
31....	19	....	....	....	....	60	....	320	....	4	2	....
Total	444	524	....	....	....	1102	4444	12418	3023	300	96	57
Mean.	14.3	17.5	....	....	....	35.5	148	401	101	9.68	3.10	1.90
Max.	29	22	....	....	....	....	450	662	264	19	7	6
Min.	4	14	....	....	....	16	40	257	21	3	1	1
Acre-ft.	879	1040	....	....	....	2180	8810	24700	6010	595	190	113

Discharge of Taylor River at Almont for Year Ending Sept. 30, 1927.
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....	187	136	123	115	115	139	124	732	1350	990	390	370
2....	200	130	122	115	115	113	118	790	1410	924	514	380
3....	200	130	127	115	115	124	124	892	1290	913	462	380
4....	200	130	140	115	115	130	130	978	1260	840	410	380
5....	196	130	155	115	115	124	127	1010	1290	850	441	381
6....	187	130	155	115	115	118	136	902	1410	770	452	381
7....	183	124	152	115	115	118	152	1140	1560	678	420	381
8....	176	124	133	115	115	121	155	1100	1790	638	420	319
9....	176	124	118	115	115	124	142	732	1810	660	535	356
10....	169	124	113	115	115	130	139	630	1790	902	474	371
11....	162	118	118	115	115	121	136	622	1610	732	371	361
12....	155	118	148	115	115	113	133	660	1540	622	371	314
13....	148	118	111	115	115	113	130	760	1380	585	381	446
14....	148	118	118	115	115	113	124	1010	1350	546	347	395
15....	148	118	74	115	115	118	127	1120	1620	514	361	333
16....	148	118	92	115	115	118	130	1190	1320	491	356	296
17....	148	118	98	115	115	96	121	1120	1300	462	309	300
18....	148	118	102	115	115	94	130	1260	1450	457	282	309
19....	148	118	110	115	115	94	148	1290	1530	452	277	277
20....	148	130	118	115	115	106	155	1410	1300	485	300	264
21....	148	136	110	120	131	86	145	1810	1200	485	286	255
22....	148	136	110	120	142	99	142	1910	1110	546	296	251
23....	142	130	110	120	155	118	180	1720	1080	533	296	268
24....	142	130	110	120	169	116	217	1490	1160	572	282	268
25....	142	130	110	120	145	118	282	1460	1200	497	282	386
26....	142	124	110	120	130	116	347	1610	1200	446	352	420
27....	142	124	110	120	142	118	431	1530	1350	474	410	356
28....	136	124	110	120	142	118	502	1560	1620	508	376	328
29....	136	124	110	120	....	118	526	1480	1820	468	328	314
30....	136	124	110	120	....	133	638	1260	1380	479	340	314
31....	136	....	110	120	....	136	....	1290	....	410	360	....
Total	4925	3756	3637	3620	3456	3603	6092	36468	42480	18929	11531	10154
Mean.	159	125	117	117	123	116	203	1180	1420	611	372	338
Max.	200	136	155	....	169	139	638	1910	1820	990	585	446
Min.	136	118	74	....	....	86	118	622	1080	410	277	251
Acre-ft.	9780	7440	7190	7190	6830	7130	12100	72600	84500	37600	22900	20100

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

Discharge of Taylor River at Almont for Year Ending Sept. 30, 1928.
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	259	172	155	165	152	136	882	2510	944	376	225
2....	305	225	187	155	165	148	127	1000	2320	871	415	225
3....	305	246	200	155	165	148	145	723	2110	800	410	225
4....	305	246	217	155	171	148	158	600	1640	770	352	217
5....	286	255	208	155	170	145	127	622	1480	760	342	217
6....	277	251	183	155	160	142	130	892	1640	723	277	221
7....	259	255	136	155	160	136	130	1070	1860	687	273	200
8....	239	238	142	155	160	142	130	1070	1940	660	277	204
9....	255	225	158	155	160	142	130	1100	1870	640	264	234
10....	282	217	169	155	160	139	116	1020	1720	620	268	259
11....	259	221	169	150	155	124	113	1060	1480	595	277	268
12....	229	191	169	150	155	124	113	850	1340	575	286	234
13....	242	217	169	150	155	118	113	780	1170	550	286	212
14....	251	246	169	150	155	118	113	714	1040	535	296	191
15....	273	200	130	150	155	111	130	669	990	520	296	191
16....	268	234	150	152	150	92	130	732	1170	508	286	187
17....	273	225	150	152	150	84	139	678	1290	638	277	183
18....	282	221	150	152	150	104	152	678	1200	526	282	187
19....	291	208	150	152	150	104	162	705	1040	485	273	200
20....	305	217	150	152	150	113	169	850	934	559	259	191
21....	333	196	150	152	150	121	169	1140	902	615	255	196
22....	314	234	150	152	150	133	169	1450	1060	652	242	191
23....	338	208	150	152	150	139	176	1860	1140	608	229	191
24....	277	200	150	152	148	142	212	2180	1230	485	277	183
25....	242	196	150	152	148	142	204	2060	1260	485	282	183
26....	238	204	150	155	148	139	234	1860	1260	410	309	176
27....	242	208	150	155	148	130	305	2100	1290	395	305	180
28....	273	208	150	155	148	136	520	2320	1160	400	296	196
29....	268	200	150	155	155	133	503	2480	1070	410	264	208
30....	264	183	150	155	130	572	2490	966	479	221	204	
31....	255	150	155	124	124	2570	405	221	221	221	221	221
Total	8573	6634	4978	4750	4506	4003	5727	39205	42082	18290	8973	6179
Mean.	277	221	161	153	155	129	191	1260	1400	590	289	206
Max..	333	259	217	150	155	152	572	2570	2510	944	415	268
Min..	229	183	150	155	150	84	113	600	902	405	221	176
Acre-ft.	17000	13200	9900	9410	8920	7930	11400	77500	83300	36300	17800	12300

Discharge of Gunnison River near Gunnison for Year Ending Sept. 30, 1927.
Drainage Area, 1,010 Square Miles. Altitude, 7,673 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	296	315	265	227	219	185	335	2510	2800	2780	839	539
2....	306	306	265	227	219	185	371	2720	2800	2400	839	487
3....	325	306	257	227	219	185	382	2900	2780	2190	1020	455
4....	335	283	315	227	219	185	487	2900	2720	2170	954	487
5....	325	292	310	227	219	185	455	2780	2840	2200	850	494
6....	325	296	310	227	219	185	455	2550	2960	2060	881	487
7....	345	296	320	227	219	185	466	3030	3400	1910	1160	166
8....	325	257	366	227	219	185	466	2920	3620	1850	1100	472
9....	345	249	270	227	219	185	460	2380	3770	1880	1460	650
10....	382	229	265	227	219	185	466	1830	3840	2090	1020	881
11....	330	241	249	220	198	184	455	1620	3550	1980	930	862
12....	335	335	245	220	198	184	420	1600	3330	1740	1020	873
13....	310	325	245	220	198	184	382	1610	3290	1670	930	1160
14....	315	283	221	220	198	184	387	2740	3180	1620	930	990
15....	315	315	214	220	198	203	376	3030	3550	1450	919	795
16....	310	310	225	220	198	214	365	3510	3330	1270	908	740
17....	310	261	214	220	198	221	376	4060	3010	1140	795	621
18....	315	237	218	220	198	229	387	4500	3050	1160	730	621
19....	325	325	218	220	198	233	414	4740	3470	1120	630	584
20....	310	310	203	220	198	229	455	4500	3200	1140	641	531
21....	306	206	221	221	213	203	426	4800	2780	1220	640	502
22....	301	301	200	221	213	195	466	4800	2860	1260	631	516
23....	301	315	200	221	213	229	555	3950	2780	1280	640	516
24....	296	301	200	221	213	210	700	3290	2740	1320	593	539
25....	301	301	200	221	213	241	730	3180	2860	1220	621	942
26....	292	200	200	221	213	237	1030	3510	2900	1160	751	817
27....	296	296	200	221	213	233	1180	3310	3330	1140	839	773
28....	292	290	200	221	213	237	1500	3290	3810	1130	740	720
29....	274	280	200	221	213	278	1660	3290	3990	1090	680	700
30....	257	270	200	221	213	296	2020	2740	3290	1130	612	710
31....	283	200	221	213	213	320	2800	2800	930	555	555	555
Total	9688	8731	7356	6901	5874	6594	18627	97390	95860	48700	25911	19933
Mean.	313	291	237	223	210	213	621	3110	3200	1570	836	664
Max..	282	335	220	221	213	320	2020	4800	3990	2780	1460	1160
Min..	257	229	200	221	213	335	1600	2720	930	555	455	455
Acre-ft.	19200	17300	14600	13700	11700	13100	37000	193000	190000	96500	51400	39500

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

Discharge of Gunnison near Gunnison for Year Ending Sept. 30, 1928.
Drainage Area, 1,010 Square Miles. Altitude, 7,673 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	718	452	290	262	420	246	376	2810	5030	1820	582	361
2....	668	387	290	262	420	246	404	3210	4080	1740	591	356
3....	668	404	290	262	420	246	416	2420	4080	1590	582	350
4....	698	410	290	262	420	246	376	2160	2310	1590	591	356
5....	628	434	290	262	420	246	345	1980	2610	1520	591	335
6....	618	422	290	262	362	215	330	2070	2420	1440	536	326
7....	591	428	290	262	362	215	302	2810	2310	1310	490	316
8....	600	410	290	262	362	215	274	3210	2310	1240	460	321
9....	563	422	290	262	362	215	274	3630	3010	1120	460	321
10....	554	422	290	252	362	215	279	3420	3010	1120	440	345
11....	527	390	250	244	242	210	274	3010	2420	1050	434	345
12....	497	390	250	244	242	210	270	2610	2610	994	440	326
13....	504	390	250	244	242	210	274	2240	2070	994	434	306
14....	490	390	250	244	242	210	288	2070	1820	935	422	283
15....	474	390	250	244	242	210	302	1980	1740	994	440	283
16....	460	390	200	244	218	208	345	2160	1900	994	428	274
17....	452	390	200	244	218	216	345	1980	1980	1240	416	283
18....	440	390	200	224	218	220	356	1900	1980	994	416	279
19....	446	390	200	244	218	236	350	1900	1660	913	404	283
20....	422	390	200	244	218	252	376	2070	1520	901	404	292
21....	416	376	202	260	218	266	490	2420	1440	770	392	283
22....	404	345	202	260	218	316	497	2810	1740	760	382	288
23....	428	345	202	260	218	345	490	3010	1900	879	376	288
24....	416	345	202	260	218	366	698	3010	1980	802	371	283
25....	404	345	202	260	218	392	913	3210	2420	750	361	279
26....	387	345	202	260	218	490	812	3850	2420	648	376	279
27....	410	345	202	260	218	467	1180	4550	2420	628	482	270
28....	416	345	202	260	218	490	1660	5030	2330	658	460	283
29....	416	345	202	260	218	312	1980	5030	1900	668	404	279
30....	422	345	202	260	....	302	2610	5510	1820	658	371	288
31....	446	....	202	260	...	326	...	5510	...	628	366	...
Total	15583	11572	7372	7920	8172	8558	17886	93580	72740	32348	13902	9161
Mean.	503	386	238	255	282	276	596	3020	2420	1040	448	305
Max..	718	452	....	....	....	490	2610	5510	5030	1820	591	361
Min..	387	....	....	....	....	270	1900	1440	628	361	270	
Acre-ft.	30900	23000	14600	15700	16200	17000	35500	186000	144000	64000	27500	18100

Discharge of Gunnison River and Redlands Power Canal near Grand Junction for Year Ending Sept. 30, 1927.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	1430	1280	1210	898	944	1220	2440	12100	7560	10300	1910	1540
2....	1440	1280	1280	898	944	946	2080	12700	7720	9700	2020	1300
3....	1460	1340	1180	898	944	994	2340	13100	7980	9120	2070	1230
4....	1510	1210	1210	898	944	1180	2460	13000	7440	8600	2120	1100
5....	1390	1250	1210	898	1140	1180	3020	12500	7020	8150	2230	1010
6....	1290	1240	1280	898	1210	1160	3030	11300	7100	7190	2290	1030
7....	1280	1200	1280	898	1160	1110	3380	12000	7720	6370	2350	1130
8....	1320	1210	1350	898	1080	1070	3670	12500	8420	5180	2470	1430
9....	1430	1180	1300	898	1020	1030	3560	11700	9620	4490	2350	1640
10....	1540	1150	1180	898	984	1170	3270	8760	10300	3760	2230	3220
11....	1760	1080	1180	898	908	1240	3080	7340	10400	2940	2180	5050
12....	1680	1130	1190	898	946	1180	3150	7240	10200	2940	1920	5260
13....	1590	1250	1150	898	984	1090	2530	7880	10300	2590	1820	4640
14....	1490	1360	1090	898	1020	1060	2050	9320	9750	2320	1710	5430
15....	1430	1270	1030	898	1000	1080	1840	11500	10100	2320	1630	4880
16....	1420	1210	858	898	1050	1130	1670	13100	12100	2200	1610	4150
17....	1350	1150	878	898	1160	1150	1580	15600	10600	2090	1630	3070
18....	1360	1150	878	1050	1150	1030	1490	17400	10300	1950	1570	3500
19....	1340	1180	878	1120	1000	1150	1470	17700	10700	1850	1410	3320
20....	1280	1250	878	1140	1000	1050	2000	16700	10400	2210	1410	3000
21....	1280	1340	954	1140	1020	1080	2200	15600	9610	2280	1370	2690
22....	1180	1280	954	1140	1060	968	2300	14700	8600	2130	1300	2450
23....	1200	1360	1110	1060	1100	1040	2880	13700	8260	2250	1340	2430
24....	1250	1280	1030	1060	1080	1170	3790	11700	7710	2130	1370	2530
25....	1180	1250	954	1060	1060	1200	5020	10100	7290	1910	1430	3050
26....	1160	1360	868	1060	1080	1300	6800	10300	7190	1760	1540	3710
27....	1150	1320	868	992	1100	1560	8410	10700	6870	1760	1560	3610
28....	939	1270	868	922	1150	1760	9410	10500	7930	1910	1580	3310
29....	1150	1320	868	922	1210	1840	10300	9940	14300	2190	1600	3110
30....	1180	1270	868	922	....	2000	10800	9240	12400	2220	2520	3050
31....	1280	...	868	922	...	2280	...	7880	...	1900	1740	...
Total	41739	37420	32700	29776	29238	38418	112020	367800	275890	118710	56280	86870
Mean.	1350	1250	1050	961	1040	1210	3730	11900	9200	3830	1820	2900
Max..	1760	1360	1350	1140	1210	2280	10800	17700	14300	10300	2520	5430
Min..	939	1080	858	....	....	946	1470	7240	6870	1760	1300	1010
A.-ft.	83000	74400	64600	59100	57800	76200	222000	732000	547000	236000	112000	173000

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

**Discharge of Gunnison River and Redlands Power Canal near Grand Junction for
Year Ending Sept. 30, 1928.**

Day	Drainage Area, 8,020 Square Miles.												Altitude, 4,573 Feet Above Sea Level.
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	
1....	3260	1890	1530	1290	1360	1050	2080	12400	20300	6700	1640	638	638
2....	3260	1920	1390	1400	1340	1160	2230	16900	18700	6000	2670	653	
3....	3110	1770	1490	1420	1300	1230	2440	21400	16400	5540	1820	738	
4....	3040	1680	1530	1440	1210	1270	2350	14600	13500	4820	1770	798	
5....	2950	1720	1410	1520	1300	1390	2310	12300	11300	4240	1680	818	
6....	2820	1660	1370	1470	1320	1320	2330	11800	9350	3920	1680	720	
7....	2650	1660	1250	1350	1270	1390	2080	14000	8980	3680	1680	604	
8....	2540	1660	1200	1340	1210	1420	1890	12200	9860	3440	1600	544	
9....	2440	1670	1180	1310	1140	1420	1620	17700	10500	3300	1440	538	
10....	2340	1700	1390	1280	1140	1410	1480	19700	9860	3080	1150	538	
11....	2240	1700	1540	1280	1140	1470	1560	17700	9730	2860	1030	544	
12....	2120	1700	1570	1320	1120	1430	1520	14900	8860	2660	903	564	
13....	2160	1670	1690	1380	1140	1380	1410	12300	8630	2520	813	578	
14....	1980	1670	1520	1440	1230	1200	1390	11300	8070	2400	903	614	
15....	1980	1700	1170	1420	1230	1190	1300	11100	7110	2470	978	638	
16....	1760	1670	1550	1380	1090	1780	1190	9650	6600	2360	930	640	
17....	2010	1660	1340	1520	1050	1100	1260	10300	6600	2670	880	640	
18....	1860	1610	1320	1550	1160	1090	1980	10500	7430	2810	755	640	
19....	1780	1610	1260	1420	1120	1130	2240	9990	7130	2880	621	670	
20....	1750	1610	1020	1360	1050	1160	2480	9730	6720	2950	550	670	
21....	1710	1610	1030	1320	1180	1270	2640	10300	6620	3090	487	688	
22....	1630	1610	1030	1230	1180	1370	2540	10900	6920	3090	430	688	
23....	1610	1590	1150	1160	1180	1690	2560	12200	7130	2880	422	688	
24....	1540	1550	1270	1140	1140	2230	2960	12300	7770	2670	422	688	
25....	1540	1490	1210	1180	1180	2230	3940	13000	7990	2300	422	865	
26....	1480	1370	1190	1140	1160	1670	5550	15400	8100	2120	422	1110	
27....	1480	1530	1180	1150	1090	3190	6420	16200	7990	2020	577	1140	
28....	1530	1660	1200	1210	1050	3690	9100	18600	8120	1860	766	1050	
29....	1580	1700	1340	1230	1120	4000	9110	19100	7420	1820	818	992	
30....	1840	1660	1280	1340	1200	3330	10000	20100	7220	1820	720	965	
31....	1810	....	1340	1360	....	2280	....	20700	....	1680	638	....
Total	65360	49700	40970	41360	34200	52440	91960	439270	280910	96650	31617	21661	
Mean.	2120	1660	1320	1330	1180	1690	3070	14200	9360	3120	1020	722	
Max..	3260	1920	1690	1550	1360	4000	10000	21400	20300	6700	2670	1140	
Min..	1480	1370	1020	1140	1050	1050	1190	9650	6600	1680	422	538	
Acre-ft.	130000	98800	81200	81800	67900	101000	183000	873000	557000	192000	62700	43000	

Discharge of North Fork of Gunnison River at Paonia for Year Ending Sept. 30, 1927.

Day	Drainage Area, 702 Square Miles.												Altitude, 5,684 Feet Above Sea Level.
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	
1....	6	68	....	....	....	99	331	3670	2040	1220	104	44	
2....	6	64	....	....	....	110	340	4130	1980	1040	119	27	
3....	12	58	....	....	....	131	348	4160	1870	793	259	22	
4....	45	66	....	....	....	125	528	4200	1720	764	134	22	
5....	70	64	....	....	....	125	582	4040	1670	764	104	18	
6....	110	57	....	....	....	125	747	3950	1770	681	238	27	
7....	153	37	....	....	....	122	878	4130	1920	602	410	10	
8....	156	34	....	....	....	128	859	3690	2090	552	388	22	
9....	163	47	....	....	....	137	781	3200	2210	628	322	27	
10....	186	49	....	....	....	140	909	2040	2040	793	280	92	
11....	186	62	....	....	....	119	859	1870	1980	577	301	119	
12....	169	35	....	....	....	97	628	1920	1980	504	322	166	
13....	147	92	....	....	....	87	470	2330	1820	528	280	280	
14....	125	92	....	....	....	99	415	3120	1770	410	219	410	
15....	110	94	....	....	....	116	331	3600	2670	410	259	301	
16....	104	78	....	....	....	104	301	4040	2400	388	219	219	
17....	97	49	....	....	....	104	309	4410	2270	366	200	134	
18....	87	66	....	....	....	116	415	4500	2210	238	119	134	
19....	107	169	....	....	....	110	654	4220	2210	200	80	104	
20....	125	140	....	....	....	102	730	4220	1870	219	92	104	
21....	62	116	....	....	....	104	764	3860	1720	301	70	104	
22....	76	102	....	....	....	134	896	3520	1480	301	60	80	
23....	76	74	....	....	....	153	1240	2670	1260	344	38	80	
24....	72	82	....	....	....	173	1560	2530	1340	301	13	60	
25....	70	140	....	....	....	200	1940	2530	1300	166	13	322	
26....	72	122	....	....	....	255	2490	2670	1220	119	150	322	
27....	70	140	....	....	....	314	2760	2530	1180	134	200	301	
28....	72	150	....	....	....	280	2980	2460	1340	183	104	322	
29....	74	145	....	....	....	305	3070	2330	1570	200	92	322	
30....	80	145	....	....	....	392	3250	2040	1260	183	60	322	
31....	72	....	....	....	....	424	....	1920	....	134	70	....
Total	2960	2687	....	....	....	5030	32365	100600	54160	14043	5319	4517	
Mean.	95.5	89.6	....	....	....	162	1080	3250	1810	453	172	151	
Max..	186	169	....	....	....	424	3250	4500	2670	1220	410	410	
Min..	6	34	....	....	....	87	301	1870	1180	119	13	10	
Acre-ft.	5870	5330	....	....	....	9960	64300	200000	108000	27900	10600	8980	

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

Discharge of North Fork of Gunnison River at Paonia for Year Ending Sept. 30, 1928.
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	333	.....	.....	.....	.....	180	574	4140	3300	1090	92	25
2	344	.....	.....	.....	.....	180	812	5780	2880	1060	87	24
3	238	.....	.....	.....	.....	180	928	5070	2700	996	92	24
4	259	.....	.....	.....	.....	180	765	3590	2190	936	96	22
5	200	.....	.....	.....	.....	180	638	3390	1870	877	92	22
6	219	.....	.....	.....	.....	190	602	3800	1870	820	88	22
7	200	.....	.....	.....	.....	210	528	4000	2000	765	72	22
8	239	.....	.....	.....	.....	240	413	4540	2090	712	60	22
9	200	.....	.....	.....	.....	188	441	4590	2060	660	50	22
10	183	.....	.....	.....	.....	181	465	4440	1760	616	48	22
11	183	.....	.....	.....	.....	165	521	3970	1610	567	47	22
12	166	.....	.....	.....	.....	192	495	3550	1470	528	45	22
13	150	.....	.....	.....	.....	165	424	3210	1390	483	48	22
14	150	.....	.....	.....	.....	162	453	2930	1380	447	45	22
15	119	.....	.....	.....	.....	151	447	2530	1370	407	44	22
16	134	.....	.....	.....	.....	125	638	2650	1330	375	44	22
17	119	.....	.....	.....	.....	138	828	2400	1320	345	45	22
18	92	.....	.....	.....	.....	147	988	2230	1300	310	46	22
19	70	.....	.....	.....	.....	165	1170	2220	1300	275	45	22
20	60	.....	.....	.....	.....	204	1280	2370	1250	242	33	22
21	70	.....	.....	.....	.....	330	1240	2470	1190	200	22	21
22	52	.....	.....	.....	.....	483	1190	2710	1150	212	22	21
23	50	.....	.....	.....	.....	602	1560	2800	1170	184	22	21
24	50	.....	.....	.....	.....	574	2060	3020	1230	177	22	21
25	50	.....	.....	.....	.....	581	2230	3280	1310	184	23	21
26	45	.....	.....	.....	.....	758	2440	3510	1190	177	23	21
27	45	.....	.....	.....	.....	720	3190	3690	1190	169	22	21
28	45	.....	.....	.....	.....	920	3350	3640	1200	165	22	21
29	45	.....	.....	.....	.....	638	3170	3530	1100	122	22	21
30	45	.....	.....	.....	.....	477	3240	3490	1140	122	22	21
31	45	.....	.....	.....	.....	495	.....	3490	.....	104	22	...
Total	4199	.....	.....	.....	.....	10101	37080	107030	48310	14327	1463	657
Mean.	135	.....	.....	.....	.....	326	1240	3450	1610	462	47.2	21.9
Max..	344	.....	.....	.....	.....	920	3240	5780	3300	1090	96	...
Min..	.....	.....	.....	.....	.....	125	413	2220	1100	104	22	21
Acre-ft.	8300	.....	.....	.....	.....	20000	73800	212000	95800	28400	2900	1300

Discharge of Surface Creek at Cedaredge for Year Ending Sept. 30, 1927.
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	11	.....	.....	.....	.....	2	409	76	48	26	14	14
2	19	.....	.....	.....	.....	2	409	103	29	53	20	16
3	20	.....	.....	.....	.....	3	382	86	16	48	16	16
4	19	.....	.....	.....	.....	3	304	80	18	35	12	12
5	12	.....	.....	.....	.....	3	176	62	23	26	11	11
6	8	.....	.....	.....	.....	5	209	74	22	25	15	15
7	8	.....	.....	.....	.....	9	233	83	28	39	18	18
8	8	.....	.....	.....	.....	8	135	88	36	39	11	11
9	8	.....	.....	.....	.....	5	56	112	36	36	32	32
10	6	.....	.....	.....	.....	6	41	109	48	24	39	39
11	5	.....	.....	.....	.....	6	34	106	34	16	24	24
12	5	.....	.....	.....	.....	5	32	100	38	14	29	29
13	3	.....	.....	.....	.....	4	62	115	35	15	56	56
14	3	.....	.....	.....	.....	4	138	88	38	9	55	55
15	2	.....	.....	.....	.....	4	233	126	31	12	29	29
16	2	.....	.....	.....	.....	4	252	68	27	13	17	17
17	2	.....	.....	.....	.....	4	258	62	24	12	20	20
18	2	.....	.....	.....	.....	5	242	48	39	17	10	10
19	2	.....	.....	.....	.....	9	214	41	38	17	6	6
20	2	.....	.....	.....	.....	8	176	18	45	21	5	5
21	2	.....	.....	.....	.....	8	138	15	53	20	5	5
22	2	.....	.....	.....	.....	15	129	13	47	31	5	4
23	3	.....	.....	.....	.....	41	62	10	38	34	5	5
24	3	.....	.....	.....	.....	88	47	15	31	47	6	6
25	3	.....	.....	.....	.....	132	118	45	31	45	11	11
26	3	.....	.....	.....	.....	184	168	64	38	62	6	6
27	3	.....	.....	.....	.....	218	118	78	42	66	5	5
28	3	.....	.....	.....	.....	200	92	223	34	42	4	4
29	3	.....	.....	.....	.....	306	60	132	28	56	4	4
30	3	.....	.....	.....	.....	318	93	83	29	52	4	4
31	2	.....	.....	.....	.....	72	.....	31	39	...	...	...
Total	177	.....	.....	.....	.....	1609	5092	2323	1055	991	494	494
Mean.	5.71	.....	.....	.....	.....	53.6	164	77.4	34.0	32.0	16.5	16.5
Max..	20	.....	.....	.....	.....	318	409	223	53	66	56	56
Min..	2	.....	.....	.....	.....	2	32	10	16	9	4	4
Acre-ft.	351	.....	.....	.....	.....	3190	10100	4610	2090	1970	982	982

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

Discharge of Surface Creek at Cedaredge for Year Ending Sept. 30, 1928.
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....	5	.....	.....	.....	.....	3	6	269	166	46	20	10
2....	5	.....	.....	.....	.....	3	6	392	113	57	18	10
3....	4	.....	.....	.....	.....	3	8	210	132	57	17	8
4....	4	.....	.....	.....	.....	3	6	136	96	45	14	5
5....	4	.....	.....	.....	.....	3	6	177	57	45	17	6
6....	4	.....	.....	.....	.....	3	5	215	50	60	22	4
7....	4	.....	.....	.....	.....	3	6	256	110	52	17	4
8....	4	.....	.....	.....	.....	3	12	281	139	52	20	3
9....	4	.....	.....	.....	.....	3	7	256	93	51	19	4
10....	3	.....	.....	.....	.....	3	5	215	76	50	13	3
11....	3	.....	.....	.....	.....	3	4	181	85	44	17	3
12....	3	.....	.....	.....	.....	3	3	145	89	40	14	3
13....	3	.....	.....	.....	.....	3	3	142	65	48	10	3
14....	3	.....	.....	.....	.....	3	4	105	44	40	12	3
15....	3	.....	.....	.....	.....	3	5	82	52	33	5	3
16....	3	.....	.....	.....	.....	3	5	87	38	28	7	3
17....	3	.....	.....	.....	.....	4	8	82	38	27	27	3
18....	2	.....	.....	.....	.....	4	11	82	45	26	22	3
19....	2	.....	.....	.....	.....	4	16	82	41	25	24	3
20....	2	.....	.....	.....	.....	4	18	98	38	17	28	3
21....	2	.....	.....	.....	.....	5	12	118	38	11	25	3
22....	2	.....	.....	.....	.....	6	13	132	38	16	32	2
23....	2	.....	.....	.....	.....	6	24	132	48	11	30	2
24....	2	.....	.....	.....	.....	5	51	142	48	11	23	2
25....	2	.....	.....	.....	.....	4	58	136	46	13	25	2
26....	2	.....	.....	.....	.....	4	78	139	44	10	22	2
27....	2	.....	.....	.....	.....	4	158	158	45	12	18	2
28....	2	.....	.....	.....	.....	5	177	158	40	13	16	3
29....	2	.....	.....	.....	.....	6	166	176	40	14	14	2
30....	2	.....	.....	.....	.....	8	184	196	42	21	12	2
31....	2	.....	.....	.....	.....	6	...	201	...	22	12	...
Total	91	.....	.....	.....	.....	123	1065	5178	1996	1000	572	109
Mean.	2.94	2.4	2.0	2.4	2.6	3.97	35.5	167	66.5	32.3	18.5	3.63
Max..	5	.....	.....	.....	.....	8	184	392	166	60	32	10
Min..	2	.....	.....	.....	.....	3	3	82	38	10	5	2
Acre-ft.	181	143	123	148	150	244	2110	10300	3960	1990	1140	216

Discharge of Uncompahgre River Below Ouray for Year Ending Sept. 30, 1927.
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....	60	49	44	31	25	26	57	394	500	500	200	135
2....	85	48	44	30	26	27	63	391	492	453	230	124
3....	98	46	44	30	26	26	69	400	450	425	300	115
4....	117	44	44	30	26	26	86	410	446	391	250	115
5....	111	41	40	31	26	26	105	403	446	368	220	115
6....	112	37	41	31	25	28	126	382	468	357	220	197
7....	102	34	38	30	24	29	131	382	543	337	340	193
8....	103	36	36	29	25	31	108	326	620	332	520	308
9....	185	34	30	29	22	32	85	267	645	310	422	1130
10....	127	36	24	28	21	30	78	244	528	400	340	790
11....	110	36	32	28	24	27	76	255	439	430	280	605
12....	103	36	34	28	24	27	63	276	403	400	340	770
13....	96	39	26	28	24	34	58	326	348	340	210	595
14....	93	37	27	28	21	36	53	400	315	300	216	428
15....	85	37	26	28	23	32	48	442	374	260	212	321
16....	79	37	30	28	22	29	47	568	329	240	183	262
17....	74	29	32	27	20	28	48	670	374	220	162	212
18....	73	36	34	26	22	29	69	675	442	210	149	222
19....	69	40	34	27	18	27	78	610	460	200	151	255
20....	65	46	33	28	30	26	72	590	397	200	169	238
21....	64	52	31	26	30	26	78	580	410	200	140	222
22....	63	51	32	27	26	28	110	580	413	201	130	218
23....	59	47	32	26	24	30	141	520	432	225	120	199
24....	55	43	27	24	26	40	187	508	456	269	120	208
25....	53	42	30	26	27	52	238	568	468	225	120	222
26....	51	41	29	26	29	54	267	630	476	208	160	201
27....	48	41	28	26	29	56	298	548	660	203	222	199
28....	49	41	28	26	26	66	337	512	1620	600	205	185
29....	49	42	28	25	....	78	371	460	920	360	185	171
30....	52	42	28	24	....	69	382	453	620	240	160	183
31....	51	....	30	26	....	54	....	472	....	210	144	....
Total	2544	1220	1016	857	697	1129	3932	14242	15499	9614	6820	9168
Mean.	82.1	40.7	32.8	27.6	24.9	36.4	131	459	517	310	220	306
Max..	185	52	44	31	30	78	382	675	1620	600	520	1130
Min..	48	29	24	24	18	26	47	244	315	200	120	115
Acre-ft.	5050	2420	2020	1700	1380	2240	7800	28200	30800	19100	13500	18200

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

Discharge of Uncompahgre River Below Ouray for Year Ending Sept. 30, 1928.
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....	217	112	63	38	41	36	66	379	690	514	176	140
2....	195	99	65	38	44	37	65	382	657	480	201	125
3....	192	110	66	38	42	37	65	326	592	458	162	120
4....	188	112	63	38	39	34	62	252	492	461	152	115
5....	188	101	60	38	37	31	58	272	444	458	144	106
6....	180	104	56	38	37	31	51	376	503	438	134	104
7....	172	104	54	38	29	32	39	412	592	382	132	96
8....	166	99	56	34	32	29	42	507	662	362	125	85
9....	160	84	57	44	35	30	41	572	592	348	125	96
10....	152	76	57	48	37	28	41	478	518	334	120	88
11....	144	81	56	46	38	28	37	452	461	295	128	84
12....	138	74	56	48	37	32	38	391	368	274	170	83
13....	134	71	46	48	29	30	39	360	332	264	138	81
14....	130	73	46	45	32	30	34	305	300	278	124	80
15....	126	74	42	42	35	22	34	281	308	290	121	80
16....	116	91	44	41	31	37	52	278	360	290	118	78
17....	106	93	45	34	32	37	58	257	444	298	112	77
18....	102	81	42	32	31	39	62	259	434	280	106	77
19....	94	73	39	34	30	45	66	266	403	260	104	77
20....	90	71	39	39	31	62	71	286	425	250	102	96
21....	88	71	45	38	31	86	76	313	514	245	100	80
22....	88	70	46	37	35	91	84	394	572	220	100	80
23....	90	68	45	39	35	76	106	425	643	210	99	79
24....	85	65	41	38	32	65	152	485	662	197	94	78
25....	83	66	45	38	31	63	169	600	621	175	117	78
26....	83	70	45	28	32	68	196	718	652	169	102	77
27....	83	70	45	37	33	65	253	744	657	170	112	73
28....	101	68	44	39	34	62	300	754	572	168	110	80
29....	106	66	44	42	35	54	318	714	550	166	108	77
30....	121	63	42	42	....	54	354	738	529	173	106	76
31....	114	....	37	42	....	62	....	759	....	155	145	....
Total	4032	2460	1531	1231	997	1433	3029	13735	15549	9067	3887	2671
Mean.	130	82.0	49.4	39.7	34.4	46.2	101	443	518	292	125	89.0
Max..	217	112	66	48	44	91	354	759	690	514	201	140
Min..	83	63	37	32	29	22	34	252	300	155	94	76
Acre-ft.	7990	4880	3040	2440	1980	2840	6010	27200	30800	18000	7690	5300

Discharge of Uncompahgre River near Colona for Year Ending Sept. 30, 1927.
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....	113	126	115	....	....	143	735	815	1060	350	306	....
2....	113	120	115	....	....	156	730	855	935	425	295	....
3....	190	120	115	....	....	170	755	740	865	498	270	....
4....	223	118	112	....	....	230	735	735	810	415	265	....
5....	211	117	112	....	....	207	670	715	725	370	200	....
6....	223	117	110	....	....	235	605	785	615	371	280	....
7....	227	118	107	....	....	277	714	895	560	590	465	....
8....	227	113	100	....	....	258	545	1040	535	825	505	....
9....	353	100	81	....	....	225	455	1120	535	690	960	....
10....	290	102	....	....	....	230	415	1100	625	560	1190	....
11....	222	107	....	....	....	253	455	900	700	460	890	....
12....	207	112	....	....	....	195	515	835	625	544	970	....
13....	195	116	....	....	....	185	665	775	540	482	990	....
14....	175	115	....	....	....	172	845	575	495	435	780	....
15....	180	105	....	....	....	156	865	885	445	457	580	....
16....	171	115	....	....	....	150	970	760	415	405	500	....
17....	165	94	....	....	....	148	1110	745	400	348	536	....
18....	163	102	....	....	....	152	1240	1000	370	330	510	....
19....	161	117	....	....	....	210	1170	1120	360	328	487	....
20....	150	112	....	....	....	202	1100	980	340	349	430	....
21....	148	112	....	....	....	202	1000	900	340	301	377	....
22....	145	112	....	....	....	243	925	870	350	294	352	....
23....	140	112	....	....	....	325	835	910	365	283	370	....
24....	134	115	....	....	....	430	740	990	405	270	340	....
25....	122	115	....	....	....	545	855	970	335	270	440	....
26....	117	110	....	....	....	170	615	985	935	360	327	425
27....	124	117	....	....	....	151	580	885	1100	365	505	415
28....	124	100	....	....	....	152	640	795	2680	705	495	377
29....	124	107	....	....	....	165	675	755	1960	595	438	358
30....	137	112	....	....	....	170	713	707	1320	460	380	397
31....	124	....	....	....	....	157	....	730	....	395	345	....
Total	5398	3358	....	....	....	8922	24506	30010	16680	13140	15260	....
Mean.	174	112	....	....	....	297	791	1000	538	494	509	....
Max..	353	126	....	....	....	713	1240	2680	1060	825	1190	....
Min..	113	94	....	....	....	143	415	575	340	270	200	....
Acre-ft.	10700	6660	....	....	....	17700	48600	59500	33100	26100	30300	....

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

Discharge of Uncompahgre River near Colona for Year Ending Sept. 30, 1928.
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	410	199	160	...	...	...	210	1190	1710	1120	336	280
2	350	190	170	...	...	...	220	1380	1560	1120	455	230
3	338	191	165	...	...	...	220	980	1380	1060	430	220
4	330	191	...	...	...	...	200	735	1030	1020	375	210
5	322	200	...	...	...	...	187	745	830	980	348	190
6	300	195	...	...	...	...	176	870	840	895	302	185
7	288	200	...	...	...	...	150	1030	1100	860	295	173
8	283	190	...	...	...	...	140	1190	1240	790	270	157
9	268	185	...	...	...	...	132	1460	1180	730	257	170
10	263	185	...	...	...	...	146	1440	995	700	240	160
11	249	178	...	...	...	...	146	1080	935	635	224	158
12	235	175	...	...	...	...	141	895	790	635	342	145
13	235	179	...	...	...	...	141	830	668	607	306	140
14	230	181	...	...	...	...	132	755	626	605	257	140
15	225	179	...	...	...	...	135	670	585	615	235	136
16	224	173	...	...	...	...	158	690	680	615	246	136
17	214	185	...	...	...	...	245	655	845	805	218	136
18	208	179	...	...	...	...	270	690	880	757	190	128
19	205	172	...	...	...	...	302	670	820	678	186	125
20	200	172	...	...	...	...	310	710	820	695	175	140
21	197	172	...	...	...	...	325	745	1010	780	170	143
22	195	170	...	...	...	...	280	865	1220	640	167	131
23	200	165	...	...	...	...	300	935	1350	610	167	131
24	193	138	...	...	...	...	545	955	1420	530	155	125
25	185	153	...	...	...	...	570	1180	1430	605	235	120
26	185	172	...	...	...	...	560	1420	1380	425	222	119
27	185	172	...	...	...	...	785	1740	1480	405	240	117
28	192	170	...	...	...	...	835	1790	1400	380	210	130
29	205	175	...	...	...	...	840	1880	1280	380	201	120
30	197	153	...	...	...	...	1000	1780	1160	393	198	117
31	199	...	...	...	...	...	...	1800	...	350	305	...
Total	7510	5339	...	...	...	...	9795	33755	32644	21420	7957	4612
Mean.	242	178	...	...	...	...	326	1090	1090	691	257	154
Max.	410	200	...	...	...	...	1090	1880	1710	1120	455	280
Min...	185	138	...	...	...	...	132	655	585	350	155	117
Acre-ft.	14900	10600	...	...	...	...	19400	67000	64900	42500	15800	9160

Discharge of Uncompahgre River at Delta for Year Ending Sept. 30, 1927.
Drainage Area, 1110 Square Miles. Altitude, 4970 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	181	390	...	...	...	...	108	459	202	770	284	357
2	215	373	...	...	...	...	71	401	293	493	336	372
3	384	...	...	...	...	...	66	313	273	463	603	382
4	646	...	...	...	...	...	79	263	229	560	656	350
5	573	...	...	...	...	...	164	335	273	537	623	324
6	593	...	...	...	...	...	148	283	309	339	584	338
7	560	...	...	...	...	...	164	309	436	183	1280	574
8	471	...	...	...	...	...	197	687	653	157	1310	550
9	496	...	...	...	...	...	164	864	703	198	1260	805
10	540	...	...	...	...	...	101	573	606	608	882	1540
11	546	...	...	...	...	...	181	447	384	524	521	1110
12	540	...	...	...	...	...	181	546	687	299	603	705
13	514	...	...	...	...	...	126	653	1330	200	628	1380
14	483	...	...	...	...	...	118	694	1030	196	412	1160
15	465	...	...	...	...	...	148	586	1220	160	463	938
16	430	...	...	...	...	...	133	680	1280	147	509	747
17	384	...	...	...	...	...	91	707	775	141	360	550
18	413	...	...	...	...	...	87	728	939	135	275	669
19	384	...	...	...	...	...	81	586	1050	109	209	588
20	256	...	...	...	...	...	68	530	1020	95	282	498
21	335	...	...	...	...	...	68	470	891	98	306	491
22	314	...	...	...	...	...	115	400	653	133	252	453
23	335	...	...	...	...	...	156	335	502	170	231	623
24	309	...	...	...	...	...	206	283	490	202	215	484
25	293	...	...	...	...	...	303	234	442	219	205	742
26	273	...	...	...	...	...	843	356	345	202	225	747
27	268	...	...	...	...	...	395	426	436	183	308	700
28	278	...	...	...	...	...	197	367	243	1280	501	638
29	303	...	...	...	...	...	197	553	234	2530	515	428
30	345	...	...	...	...	...	164	390	229	1690	278	598
31	390	...	...	...	...	...	129	...	234	325	374	684
Total	12617	...	...	...	...	...	5872	14098	22951	9240	15418	20097
Mean.	407	...	...	...	...	...	196	455	765	298	497	670
Max...	646	...	...	...	...	...	843	864	2530	770	1210	1540
Min...	181	...	...	...	...	...	66	229	202	95	905	324
Acre-ft.	25000	...	...	...	...	...	11700	28000	45500	18300	30600	39900

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

Discharge of Uncompahgre River at Delta for Year Ending Sept. 30, 1928.
Drainage Area, 1110 Square Miles. Altitude, 4970 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	752	326	....	....	....	50	46	845	995	257	315	310
2....	710	328	....	....	....	50	48	1240	720	262	374	249
3....	648	303	....	....	....	50	96	1300	535	301	499	239
4....	664	308	....	....	....	50	196	527	307	435	495	257
5....	638	322	....	....	....	50	142	361	200	483	503	262
6....	569	331	....	....	....	57	82	412	192	354	503	262
7....	569	328	....	....	....	57	55	648	244	249	419	257
8....	546	310	....	....	....	57	75	720	408	246	408	249
9....	502	315	....	....	....	57	90	995	558	216	377	231
10....	487	301	....	....	....	57	75	1160	535	188	318	214
11....	463	295	....	....	....	51	60	870	439	176	270	236
12....	401	284	....	....	....	51	52	602	467	188	284	268
13....	335	284	....	....	....	51	55	571	495	211	298	282
14....	310	297	....	....	....	51	46	770	419	228	234	268
15....	333	331	....	....	....	51	89	670	339	246	186	257
16....	470	333	....	....	....	38	86	511	330	262	186	246
17....	362	326	....	....	....	45	75	720	475	745	155	231
18....	324	324	....	....	....	43	80	920	745	845	172	226
19....	322	322	....	....	....	50	72	695	745	770	179	231
20....	322	317	....	....	....	55	88	720	576	625	170	298
21....	303	306	....	....	....	60	110	670	566	695	165	327
22....	275	306	....	....	....	65	169	580	602	670	160	354
23....	286	284	....	....	....	75	112	670	820	544	157	345
24....	292	284	....	....	....	70	148	625	795	419	158	361
25....	297	275	....	....	....	69	368	648	648	354	150	312
26....	288	275	....	....	....	103	279	745	511	327	174	293
27....	271	254	....	....	....	106	500	970	370	265	535	287
28....	282	246	....	....	....	132	519	1210	279	262	236	380
29....	322	240	....	....	....	68	580	995	211	244	198	398
30....	324	240	....	....	....	45	745	970	200	312	203	408
31....	317	....	....	....	....	46	....	1100	....	321	268	....
Total	12989	8995	....	....	....	1860	5133	24440	14726	11700	8749	8538
Mean.	419	300	....	....	....	60	171	788	491	377	282	285
Max..	752	333	....	....	....	132	745	1300	995	845	535	408
Min..	271	240	....	....	....	46	361	192	176	150	214	....
Acre-ft.	25800	17900	....	....	....	3690	10200	48500	29200	23200	17300	17000

Discharge of Dallas Creek near Ridgway for Year Ending Sept. 30, 1927.
Drainage Area, 90 Square Miles. Altitude, 6,980 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	25	27	....	....	....	32	34	95	13	89	122	80
2....	20	27	....	....	....	33	36	71	19	124	157	77
3....	30	35	....	....	....	29	51	71	8	164	140	68
4....	35	31	....	....	....	27	69	63	7	164	98	65
5....	30	30	....	....	....	25	55	51	8	146	91	63
6....	31	30	....	....	....	23	58	31	11	108	98	60
7....	35	32	....	....	....	23	66	18	16	89	129	93
8....	35	30	....	....	....	25	69	18	30	93	239	86
9....	43	29	....	....	....	26	60	23	58	96	129	256
10....	36	32	....	....	....	26	66	32	89	95	114	243
11....	35	29	....	....	....	26	76	42	118	104	108	178
12....	34	31	....	....	....	32	53	46	120	95	118	144
13....	35	32	....	....	....	36	42	38	100	82	106	241
14....	33	30	....	....	....	27	40	28	87	82	95	174
15....	333	331	....	....	....	51	89	670	339	246	186	257
16....	33	30	....	....	....	26	32	30	104	56	87	108
17....	34	29	....	....	....	26	34	18	93	56	87	157
18....	33	29	....	....	....	24	36	20	100	58	80	149
19....	33	29	....	....	....	26	45	12	124	45	80	124
20....	30	28	....	....	....	26	56	10	93	37	84	102
21....	29	27	....	....	....	28	52	8	82	45	80	95
22....	29	27	....	....	....	32	68	4	89	56	77	91
23....	29	27	....	....	....	30	36	4	74	50	79	95
24....	26	27	....	....	....	27	100	3	84	59	77	86
25....	25	27	....	....	....	58	114	3	89	68	68	104
26....	23	27	....	....	....	40	131	8	89	59	104	102
27....	24	27	....	....	....	36	112	5	142	69	129	93
28....	26	27	....	....	....	30	96	4	478	146	157	91
29....	26	30	....	....	....	32	89	3	418	138	129	80
30....	29	29	....	....	....	36	100	3	368	112	95	84
31....	28	....	....	....	....	38	....	5	....	93	87	....
Total	948	875	....	....	....	939	1962	792	3223	2744	3387	3513
Mean.	30.6	29.2	....	....	....	30.3	65.4	25.5	107	88.5	109	117
Max..	43	35	....	....	....	58	131	95	478	164	289	256
Min..	20	27	....	....	....	23	32	3	7	37	68	60
Acre-ft.	1880	1740	....	....	....	1860	3890	1570	6370	5440	6700	6960

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

Discharge of Kannah Creek near Whitewater for Year Ending Sept. 30, 1927.
Drainage Area, 38 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	12	9	11	10	8	10	15	74	119	57	40	34
2....	12	8	11	10	8	10	12	80	126	59	40	34
3....	12	8	11	9	8	10	12	86	117	60	38	34
4....	12	8	11	9	8	9	9	94	117	62	36	33
5....	13	9	11	9	8	9	10	122	112	63	35	31
6....	12	11	12	9	8	9	12	153	106	53	35	31
7....	12	13	10	9	8	9	15	171	100	47	30	31
8....	14	13	12	9	8	9	16	124	95	45	30	31
9....	21	9	10	9	8	9	9	102	91	42	28	34
10....	20	12	10	9	8	9	16	92	85	42	25	40
11....	18	12	10	9	9	9	16	95	81	42	24	40
12....	15	12	10	9	9	9	14	118	78	39	30	42
13....	13	11	8	9	9	9	15	123	356	35	29	40
14....	14	11	10	9	9	9	15	142	220	32	28	45
15....	14	11	11	9	9	9	15	226	158	30	27	36
16....	14	11	11	9	9	9	15	317	96	30	27	30
17....	14	12	11	9	9	9	15	424	87	30	36	28
18....	14	12	11	9	9	9	16	478	78	34	36	24
19....	13	12	11	9	9	9	13	461	75	37	32	23
20....	13	12	11	9	9	9	12	436	73	39	33	23
21....	13	11	8	8	9	9	12	470	69	42	32	24
22....	13	8	9	8	9	9	14	340	60	30	31	23
23....	13	8	10	8	9	8	16	239	51	30	31	30
24....	12	8	10	8	10	10	23	239	48	31	31	37
25....	12	11	10	8	10	10	39	280	48	29	31	41
26....	11	12	10	8	10	10	57	246	46	27	29	42
27....	11	12	10	8	10	11	62	204	68	27	29	38
28....	11	12	10	8	10	11	57	151	207	39	42	29
29....	11	12	10	8	.....	11	57	170	145	46	40	23
30....	11	11	10	8	.....	12	64	145	199	46	40	22
31....	10	.....	10	8	.....	13	.....	119	.....	39	40	...
Total	410	321	320	270	247	297	673	6521	3311	1264	1015	973
Mean..	13.2	10.7	10.3	8.71	8.82	9.58	22.4	210	110	40.8	32.7	32.4
Max..	21	13	12	10	10	13	64	478	356	63	42	45
Min..	10	8	8	8	8	8	74	46	27	24	22	22
Acre-ft.	812	637	633	536	490	589	1330	12900	6550	2510	2010	1930

Discharge of Kannah Creek near Whitewater for Year Ending Sept. 30, 1928.
Drainage Area, 38 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	22	21	11	.....	.....	10	13	108	352	27	24	18
2....	22	20	11	.....	.....	8	14	117	332	27	24	18
3....	22	19	.....	.....	.....	8	12	108	303	26	23	18
4....	22	19	.....	.....	.....	10	13	112	248	25	19	17
5....	26	19	.....	.....	.....	10	13	114	221	25	20	17
6....	31	18	.....	.....	.....	10	13	120	203	30	18	16
7....	30	13	.....	.....	.....	5	11	152	214	33	19	16
8....	26	12	.....	.....	.....	10	13	257	203	32	19	16
9....	25	19	.....	.....	.....	9	14	279	172	31	23	15
10....	24	16	.....	.....	.....	10	15	213	152	31	29	20
11....	22	18	.....	.....	.....	10	13	179	149	43	29	20
12....	22	16	.....	.....	.....	9	13	179	137	43	29	20
13....	24	16	.....	.....	.....	8	13	174	108	43	29	20
14....	30	18	.....	.....	.....	8	13	181	96	43	29	18
15....	22	15	.....	.....	.....	10	15	149	86	48	35	18
16....	18	13	.....	.....	.....	11	15	149	73	35	35	18
17....	18	16	.....	.....	.....	11	15	142	65	53	26	17
18....	18	16	.....	.....	.....	11	19	152	61	53	26	15
19....	18	16	.....	.....	.....	11	16	152	54	69	26	14
20....	18	15	.....	.....	.....	12	16	177	53	53	26	14
21....	16	15	.....	.....	.....	11	16	262	51	41	25	13
22....	18	15	.....	.....	.....	12	10	331	50	42	24	13
23....	17	15	.....	.....	.....	12	19	392	45	39	22	12
24....	18	15	.....	.....	.....	12	20	342	43	40	22	12
25....	37	14	.....	.....	.....	14	21	504	37	39	19	11
26....	37	13	.....	.....	.....	12	32	632	35	38	17	11
27....	37	13	.....	.....	.....	12	88	535	34	38	15	11
28....	38	13	.....	.....	.....	12	50	702	32	38	14	13
29....	36	15	.....	.....	.....	10	68	567	29	38	15	12
30....	32	13	.....	.....	.....	11	80	535	29	37	23	12
31....	33	.....	.....	.....	.....	11	.....	448	25	23	23	...
Total	779	476	.....	.....	.....	320	683	8164	3667	1200	727	465
Mean..	25.1	15.9	9	8	8	10.3	22.8	273	122	38.7	23.5	15.5
Max..	38	21	.....	.....	.....	14	88	702	352	69	35	20
Min..	16	12	.....	.....	.....	5	11	108	29	25	14	11
Acre-ft.	1540	946	553	492	460	623	1360	16800	7260	2380	1440	922

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

Discharge of Dolores River at Dolores for Year Ending Sept. 30, 1927.
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.	1200	2860	1530	2010	252	206	
2.	1430	2250	1600	1570	255	195	
3.	87	1670	3050	1390	1300	265	198	
4.	1390	3050	1260	1180	244	186	
5.	1320	2950	1260	786	252	179	
6.	1290	2540	1320	870	278	211	
7.	1140	2820	1300	708	278	473	
8.	1100	2240	1430	640	391	870	
9.	1060	1740	1640	676	302	2330	
10.	1030	1460	1600	708	252	3450	
11.	1030	1420	1390	708	235	2170	
12.	1069	1420	1670	626	265	2330	
13.	1300	1790	1530	594	238	3920	
14.	1430	2590	1530	504	218	3240	
15.	1670	2500	1260	428	238	3040	
16.	1980	2860	1430	360	211	2850	
17.	1260	3010	1140	332	181	2500	
18.	1220	3580	1260	313	174	2170	
19.	1740	3520	1360	306	167	1710	
20.	1640	3050	1340	291	174	1300	
21.	1640	2810	1120	352	162	960	
22.	1670	2680	978	284	155	708	
23.	1670	2240	909	328	150	594	
24.	1740	1980	881	320	144	662	
25.	2150	1980	826	328	150	786	
26.	2320	2960	834	328	224	747	
27.	2120	2030	1460	348	438	708	
28.	2410	1920	4170	336	414	662	
29.	394	2770	1700	5200	328	356	626	
30.	2820	1530	2500	302	291	626	
31.	1470	....	....	268	249	....
Total	48270	74100	47118	18432	7603	40615	
Mean.	165	1610	2390	1570	595	245	1350	
Max..	2820	3580	5200	2010	438	3920	
Min..	1020	1420	826	268	144	179	
Acre-ft.	10100	95800	147000	93400	36600	15100	80300

Discharge of Dolores River at Dolores for Year Ending Sept. 30, 1928.
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.	626	295	160	....	....	110	537	2400	2900	592	178	108
2.	594	271	150	....	....	124	578	3210	2520	530	161	102
3.	550	258	150	....	....	172	641	2650	2190	485	178	88
4.	562	268	140	....	....	171	592	1880	1790	450	195	80
5.	539	288	140	....	....	184	505	1770	1610	427	195	72
6.	488	291	100	....	....	171	473	1930	1790	427	178	67
7.	462	302	75	....	....	171	427	2100	1920	400	146	66
8.	438	309	52	....	....	188	378	2140	2040	363	132	66
9.	404	309	....	....	....	171	373	2830	1980	343	120	66
10.	386	295	....	....	....	171	405	2550	1790	323	120	83
11.	364	298	....	....	....	171	410	2010	1610	291	120	85
12.	340	320	....	....	....	155	416	1680	1390	277	122	80
13.	309	310	....	....	....	155	373	1560	1180	314	127	63
14.	298	300	....	....	76	141	358	1390	1040	277	120	68
15.	291	284	....	....	....	141	348	1280	960	300	120	67
16.	281	302	....	....	....	141	405	1560	1040	309	122	66
17.	271	280	....	....	....	127	564	1390	1000	333	115	62
18.	255	260	....	....	....	127	705	1350	1050	323	108	57
19.	244	240	....	76	....	115	810	1340	960	300	104	54
20.	227	219	....	....	....	171	840	1340	904	277	98	55
21.	222	211	....	....	....	225	864	1340	960	277	88	60
22.	224	211	....	....	....	267	735	1280	976	277	88	64
23.	224	203	....	88	....	291	888	1280	968	233	85	62
24.	222	174	....	....	....	363	1130	1280	920	214	80	56
25.	219	169	....	....	....	389	1300	1500	856	195	72	50
26.	222	211	....	....	....	416	1200	1920	802	178	96	50
27.	222	211	....	....	....	473	1440	1980	802	161	108	50
28.	235	200	....	....	....	544	1500	2140	742	161	108	55
29.	284	200	....	....	....	505	1540	2400	690	161	108	60
30.	278	170	....	....	....	520	1900	2520	634	161	104	60
31.	281	....	....	....	....	530	....	2890	....	161	115	....
Total	10562	7659	....	....	....	7550	22635	58900	40014	9520	3811	2027
Mean.	341	255	75	75	80	244	754	1900	1330	307	123	67.6
Max..	626	320	....	....	....	544	1900	3210	2900	592	195	108
Min..	219	....	....	....	....	348	1280	634	161	72	50	....
Acre-ft.	21000	15200	4610	4610	4600	15000	44900	117000	79100	18900	7560	4020

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

Discharge of Lost Canon Creek near Dolores for Year Ending Sept. 30, 1927.
Drainage Area, 81 Square Miles. Altitude, 6,943 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.	182	474	4	10	1	1	1
2.	280	474	3	4	1	2	2
3.	216	320	3	4	0	2	2
4.	426	320	2	2	0	0	2
5.	364	193	2	2	0	3	3
6.	458	193	2	2	0	0	4
7.	522	102	1	1	0	0	4
8.	320	95	1	1	0	12	12
9.	267	102	1	0	0	76	76
10.	241	95	1	2	0	125	125
11.	228	102	2	2	0	109	109
12.	216	102	2	2	0	35	35
13.	182	182	2	2	0	8	8
14.	88	102	2	1	0	4	4
15.	38	109	3	1	0	2	2
16.	18	172	2	1	0	2	2
17.	32	134	2	0	0	2	2
18.	29	117	2	0	0	2	2
19.	50	109	2	0	0	2	2
20.	216	95	1	0	0	2	2
21.	267	82	1	0	0	1	1
22.	293	42	0	0	0	1	1
23.	334	16	0	0	0	1	1
24.	364	14	0	0	0	0	0
25.	573	14	0	42	0	0	0
26.	590	14	0	4	0	0	0
27.	573	10	5	2	0	0	0
28.	573	6	76	2	0	0	0
29.	67	556	4	76	1	0	0
30.	474	4	35	1	0	0	0
31.	4	1	0	0	0	0	0
Total	8970	3802	233	90	2	402	402
Mean.	299	123	7.77	2.90	.065	125	125
Max..	590	474	76	42	0	0	0
Min..	18	4	0	0	0	0	0
Acre-ft.	17800	7560	462	178	4	797	797

Discharge of San Miguel River at Naturita for Year Ending Sept. 30, 1927.
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.	84	123	118	.	.	101	316	1290	936	1130	289	377
2.	89	126	.	.	.	121	524	1300	856	909	306	355
3.	120	123	.	.	.	134	708	1300	778	830	420	330
4.	136	125	.	.	.	141	737	1310	742	783	449	334
5.	149	120	.	.	.	136	830	1360	693	732	355	348
6.	151	114	.	.	.	121	958	1190	768	636	428	370
7.	151	116	.	.	.	116	866	1250	804	586	515	510
8.	168	111	.	.	.	114	851	1140	882	655	627	793
9.	192	102	.	.	.	123	814	952	947	664	546	1600
10.	202	99	.	.	.	114	757	888	952	550	471	1870
11.	170	106	.	.	.	101	773	1010	804	600	416	1420
12.	166	109	.	.	.	99	742	1000	882	632	433	1230
13.	175	113	.	.	.	108	441	915	877	493	462	1630
14.	162	109	.	.	.	114	359	1100	762	445	408	1420
15.	155	164	.	.	.	116	355	1140	830	385	416	1110
16.	143	109	.	.	.	109	320	1300	888	359	404	866
17.	139	102	.	.	.	96	309	1370	737	316	359	778
18.	143	96	.	.	.	109	366	1550	893	289	320	824
19.	141	123	.	.	.	104	595	1540	989	267	334	898
20.	139	102	.	.	.	92	595	1450	936	289	348	752
21.	134	76	.	.	.	89	669	1310	893	344	312	674
22.	134	66	.	.	.	108	872	1250	835	351	286	609
23.	130	62	.	.	.	113	1080	1110	840	420	283	609
24.	128	81	.	.	.	125	1220	1000	851	397	276	669
25.	123	101	.	.	.	145	1280	1010	866	351	261	778
26.	120	118	.	.	.	170	1320	1130	866	344	356	773
27.	118	123	.	.	.	205	1280	1070	1060	351	618	688
28.	120	121	.	.	.	238	1260	995	2610	420	679	650
29.	125	113	.	.	.	302	1220	909	2210	366	618	623
30.	126	121	.	.	.	309	1230	840	1450	320	484	622
31.	118	...	.	.	.	246	814	814	309	433	...	...
Total	4351	3214	.	.	.	4319	23647	35793	29447	15523	12911	24520
Mean.	140	107	105	100	105	139	788	1150	982	501	416	817
Max..	202	126	.	.	.	309	1320	1550	2610	1130	679	1870
Min..	84	62	.	.	.	89	309	814	693	267	261	330
Acre-ft.	8610	6370	6460	6150	5830	8550	46900	70700	58400	30800	25600	48600

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

Discharge of San Miguel River at Naturita for Year Ending Sept. 30, 1928.
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....	451	258	....	....	....	....	....	1300	1720	772	214	145
2....	420	234	....	....	....	....	....	1680	1560	754	291	122
3....	391	237	....	....	....	....	....	1420	1460	696	271	112
4....	382	228	....	....	....	....	....	1200	1180	640	228	105
5....	362	228	....	....	....	....	....	980	911	701	206	100
6....	342	....	....	....	....	....	....	1020	991	619	178	98
7....	327	....	....	....	....	....	....	1360	1100	587	161	93
8....	312	....	....	....	....	....	....	1480	1220	511	149	88
9....	305	....	....	....	....	....	....	1620	1270	478	136	86
10....	295	....	....	....	....	....	285	1620	1120	442	130	94
11....	291	....	....	....	....	....	....	1480	970	403	124	93
12....	288	....	....	....	....	....	....	1340	859	391	175	80
13....	298	....	....	....	....	....	....	1310	797	387	246	71
14....	288	....	....	....	....	....	....	1400	701	416	201	70
15....	281	....	....	....	....	....	....	1260	624	374	152	68
16....	274	....	....	....	....	....	....	1160	673	399	152	67
17....	264	....	....	....	....	....	....	1180	748	438	141	64
18....	264	....	....	....	....	....	....	1130	859	447	130	63
19....	258	....	....	....	....	....	....	1030	736	412	122	61
20....	249	....	....	....	....	....	....	998	701	438	114	63
21....	243	....	....	....	....	....	....	984	742	438	109	68
22....	243	....	....	....	....	....	....	984	866	408	114	62
23....	240	....	....	....	....	....	....	984	991	374	103	59
24....	231	....	....	....	....	....	....	998	1030	350	96	55
25....	231	....	....	....	....	....	....	1100	984	298	93	54
26....	234	....	....	....	....	....	....	1200	937	264	217	55
27....	237	....	....	....	....	....	....	1280	1050	261	214	53
28....	252	....	....	....	....	....	....	1340	970	246	136	58
29....	278	....	....	....	....	....	....	1440	891	231	118	64
30....	258	....	....	....	....	....	....	1500	797	234	114	57
31....	255	....	....	....	....	....	....	1700	....	223	128	....
Total	9044	....	....	....	....	....	....	39478	29458	13632	4963	2328
Mean.	292	....	....	....	....	....	....	400	1270	982	440	160
Max..	451	....	....	....	....	....	....	1700	1720	772	291	145
Min...	231	....	....	....	....	....	....	984	624	223	93	53
Acre-ft.	18000	....	....	....	....	....	....	23800	78100	58400	27100	9840

Discharge of Paria River at Lee's Ferry, Ariz., for Year Ending Sept. 30, 1927.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	39	21	19	11	16	103	12	3	2	19	34	16
2....	14	23	19	11	15	64	12	2	2	14	38	12
3....	14	22	20	9	21	59	13	2	2	10	410	10
4....	14	20	18	9	22	192	15	2	2	8	209	19
5....	13	22	19	10	20	114	16	2	2	6	38	19
6....	12	20	21	11	19	75	10	2	2	6	145	19
7....	12	16	23	10	16	75	9	1	2	4	680	256
8....	12	15	34	9	16	73	7	2	2	4	163	24
9....	12	15	28	10	15	80	5	2	2	3	176	12
10....	12	15	26	10	14	71	5	2	3	55	38	10
11....	12	14	27	25	15	71	5	2	3	8	27	8
12....	14	15	19	30	14	67	5	2	4	6	25	2490
13....	14	236	26	36	13	66	4	2	5	310	20	6750
14....	14	114	24	34	12	59	5	2	25	11	18	1590
15....	15	24	25	32	27	62	4	2	6	2	13	420
16....	14	21	25	30	247	54	5	2	4	1	10	44
17....	14	20	26	33	406	50	5	2	4	1	10	272
18....	16	14	13	32	89	45	6	2	4	1	9	157
19....	16	15	17	31	32	28	5	2	3	1	11	55
20....	14	14	12	31	25	20	5	3	3	1	6	12
21....	15	14	14	30	17	32	5	2	3	1	8	6
22....	15	14	12	27	20	26	5	2	2	1	9	1
23....	16	14	1	30	89	26	5	2	2	1	8	272
24....	16	13	9	18	44	26	4	2	2	1	8	54
25....	16	12	11	15	44	26	4	2	1	1	7	40
26....	16	12	12	22	66	24	4	2	2	490	2	40
27....	17	12	14	21	69	21	4	2	189	247	1	38
28....	17	195	14	21	119	19	3	2	26	114	1	25
29....	18	73	12	21	....	18	3	2	201	48	15	23
30....	18	33	12	18	....	18	3	2	24	38	80	19
31....	19	....	10	17	....	13	....	2	....	39	19	....
Total	480	1068	562	654	1522	1677	193	63	536	1452	2238	12713
Mean.	15.5	35.6	18.1	21.1	54.4	54.1	6.4	2.0	17.9	46.8	72.2	424
Max..	39	236	34	36	406	192	16	3	201	490	680	6750
Min...	12	12	1	9	12	13	3	1	1	1	1	1
Acre-ft.	953	2120	1110	1300	3020	3330	*381	123	1070	2880	4440	25200

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

Discharge of Paria River at Lee's Ferry, Ariz., for Year Ending Sept. 30, 1923.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	15	13	12	24	18	16	11	3	2	2	59	8
2....	14	12	14	14	15	18	11	3	2	2	50	6
3....	16	11	13	18	17	28	10	3	2	2	29	5
4....	15	103	16	13	32	59	10	3	2	2	29	6
5....	16	52	19	13	163	37	18	3	2	2	13	5
6....	13	37	19	16	163	29	10	3	2	2	8	5
7....	13	31	19	15	52	27	8	3	2	2	6	4
8....	11	23	19	14	43	36	8	4	2	2	6	4
9....	12	20	20	24	31	27	8	2	2	2	5	5
10....	11	18	19	22	23	24	8	3	3	2	4	4
11....	12	17	14	17	16	19	8	4	2	3	4	5
12....	12	17	14	22	20	19	8	6	3	3	4	5
13....	14	16	23	22	16	19	8	61	3	3	94	5
14....	10	20	20	22	13	19	9	29	3	3	36	5
15....	12	20	22	18	13	148	6	10	3	3	63	6
16....	13	20	22	10	13	80	6	6	2	694	37	8
17....	13	24	24	19	37	4	5	2	94	63	7	
18....	12	19	20	24	17	19	4	5	2	31	22	9
19....	14	22	14	20	23	17	4	4	2	16	10	10
20....	14	24	14	17	19	15	4	4	3	11	8	
21....	14	19	14	19	19	17	4	12	2	7	6	
22....	15	24	12	14	27	16	4	7	2	6	5	5
23....	16	22	10	19	19	16	4	8	2	23	5	6
24....	16	24	8	22	14	15	4	4	2	23	5	
25....	12	23	15	19	15	17	4	4	2	9	50	5
26....	14	20	22	19	16	17	4	26	1	6	934	5
27....	12	19	20	19	14	417	4	17	1	4	257	5
28....	19	20	9	17	15	15	4	14	1	4	39	6
29....	19	19	43	19	15	14	3	8	2	4	18	8
30....	26	12	13	20	...	14	3	4	2	4	13	6
31....	22	...	48	22	...	13	...	3	...	8	10	...
Total	447	721	571	578	880	1264	201	271	63	979	1942	178
Mean.	14.4	24.0	18.4	18.6	30.3	40.8	6.70	8.74	2.10	31.6	62.6	5.93
Max..	26	103	48	24	163	417	18	61	3	694	934	10
Min..	10	11	8	10	13	13	3	2	1	2	4	4
Acre-ft.	885	1430	1130	1140	1740	2510	399	537	125	1940	3850	353

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, 1928. 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 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, 1928.

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 September 30, 1928.

Gage—Vertical staff.

Accuracy—Records considered good.

Co-operation—Records furnished by the State Engineer of New Mexico.

PIEDRA RIVER AT ARBOLES

Location—In Sec. 16, T. 32 N., R. 5 W., one-half mile above mouth.

Records Available—June 19, 1895, to September 30, 1899; August 21, 1910, to June 30, 1927.

Gage—Automatic recording gage.

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, 1928. 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, 1928.

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, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Station maintained in co-operation with the State Engineer of New Mexico.

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, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Co-operation—Complete record furnished by the Western Colorado Power Company.

HERMOSA CREEK NEAR HERMOSA

Location—In Sec. 34, T. 37 N., R. 9 W., one mile above Hermosa.

Records Available—April 18, 1920, to September 30, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered good.

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, 1928.

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, 1928.

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, 1928.

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, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

CHERRY CREEK NEAR RED MESA

Location—In Sec. 7, T. 33 N., R. 13 W., at mouth.

Records Available—March 21 to September 30, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered good.

LONG HOLLOW NEAR RED MESA

Location—In Sec. 32, T. 33 N., R. 13 W., at mouth of Long Hollow.

Records Available—March 20 to September 30, 1928.

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, 1928.

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, 1928.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

Discharge of San Juan River at Rosa, N. M., for Year Ending Sept. 30, 1927.
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	375				251	581	2660	6300	3680	8600	775	564
2	410				249	591	2140	6200	3470	4130	780	532
3	477				248	601	1280	6480	3600	3880	760	508
4	445				246	612	5660	5410	3470	3810	810	490
5	405				245	622	4740	5500	3360	3520	780	504
6	400				243	632	4430	5120	3440	2900	874	483
7	390				243	667	1700	5700	3480	2520	874	610
8	363				243	795	4100	5610	3830	2330	830	624
9	372				243	857	2920	4780	4000	2350	795	3600
10	500				240	857	2560	3910	4320	2940	765	4190
11	415				225	745	2560	3080	4280	2780	735	2920
12	359				234	612	2220	3080	4030	2410	708	3850
13	350	228			228	604	2180	3310	4260	1980	680	8880
14	332	264			231	616	1750	4920	3500	1710	680	5840
15	314				231	628	1710	5410	3960	1510	612	3440
16	291				273	641	1830	6080	4320	1340	592	2390
17	277				312	653	2000	5560	3550	1200	532	2210
18	270				306	665	2180	5870	3790	1070	500	2640
19	264				333	677	2270	5570	3920	1070	539	3160
20	258	264			318	690	2500	4860	3720	940	770	1770
21	249	238			333	658	2800	5060	3360	841	576	1480
22	240	246			381	690	3080	5250	3140	740	522	1320
23	243	261			420	852	3370	4810	2930	694	536	1380
24	243	267			402	1130	5090	4730	2930	662	514	1420
25	243	280			438	1530	5570	4640	2930	765	542	2560
26	246	277			452	1900	5980	4980	3020	662	576	2500
27	249	267			560	2020	5740	4600	4920	667	780	1930
28	255	319			570	2220	5490	4300	9710	973	810	1700
29	261				2480	6320	4000	13500	934	760	1500	
30	284				2960	6170	3700	11000	880	703	1520	
31	291			252	2960	...	3550	...	790	604	...	
Total	10071				8698	32750	110000	152750	133420	61598	21314	66605
Mean.	325	260	255	250	311	1060	3670	4930	4450	1990	688	9220
Max..	500				570	2960	6320	6480	13500	8600	874	8880
Min...	240				225	581	1710	3080	2930	662	500	483
Acre-ft.	20000	15500	15700	15400	17300	65200	218000	303000	265000	122000	42300	132000

Discharge of San Juan River at Rosa, N. M., for Year Ending Sept. 30, 1928.
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	1650	628	321	...	510	1440	3770	4740	672	375	648	
2	1430	620	327	...	480	1690	4430	4180	594	360	588	
3	1290	581	342	...	937	1740	5100	3920	515	576	465	
4	1240	588	360	...	846	1460	3780	3060	480	430	417	
5	1160	636	330	...	741	1380	2980	2860	440	405	369	
6	1080	703	315	...	702	1210	3040	2980	395	365	321	
7	1000	1020	300	...	784	1110	3560	2920	355	336	272	
8	934	836	285	...	666	972	3460	2880	316	336	264	
9	874	765	270	...	725	783	3940	2800	292	300	238	
10	825	721	285	...	784	937	3960	2470	256	300	245	
11	770	717	227	...	734	1020	3640	2350	221	332	280	
12	698	640	263	...	888	979	2910	1910	249	288	284	
13	667	592	345	...	784	965	2610	1610	345	288	234	
14	636	576	339	...	690	937	2320	1400	385	288	208	
15	612	546	336	...	311	552	832	1980	1220	395	276	208
16	580	526	333	...	316	430	860	1930	1340	450	264	190
17	572	507	330	...	292	440	1040	1810	1530	435	252	173
18	560	488	327	...	264	515	1210	1660	1650	455	240	155
19	536	469	324	...	268	535	1380	1700	1560	455	228	138
20	518	469	221	...	272	748	1390	1740	1460	425	215	130
21	497	458	318	...	280	1150	1400	1750	1480	480	202	126
22	480	455	315	...	312	1560	1320	1980	1460	435	202	126
23	466	448	312	...	288	1710	1320	2360	1450	636	241	124
24	448	417	309	...	268	1420	1500	2600	1360	515	304	120
25	434	387	306	...	256	1290	1840	3000	1260	460	264	117
26	434	399	303	...	249	1660	1740	3260	1220	495	666	122
27	438	408	300	...	260	2060	2020	3560	1140	440	660	130
28	455	405	300	...	284	2110	2400	3760	1000	420	530	136
29	620	405	300	...	410	1690	2420	4260	880	576	435	145
30	560	390	300	...	1310	3150	4430	769	696	420	151	
31	518	300	...	...	1150	...	4800	...	420	748	...	
Total	22982	16803	9843	...	30541	42445	96080	60859	13703	11126	7124	
Mean.	741	560	318	300	294	985	1410	3100	2030	439	359	237
Max..	1650	1020	363	...	2110	3150	5100	4740	696	748	648	
Min...	434	387	300	...	430	783	1660	769	221	202	117	
Acre-ft.	45600	33300	19600	18400	16900	60600	83900	191000	121000	27200	22100	14100

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

Discharge of San Juan River Near Bluff, Utah, for Year Ending Sept. 30, 1927.
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....	2320	5120	11700	7710	36600	1850	1620
2....	2500	4690	12100	7520	20300	1670	1440	
3....	1770	4400	12600	7820	14300	1620	1260	
4....	4050	5410	12900	7860	11400	1840	1110	
5....	1770	6800	13200	7350	9530	1790	1110	
6....	2500	8670	13200	7120	9150	1980	1040	
7....	1620	8550	12600	7080	7980	3310	5020	
8....	1350	8950	11500	7270	6650	2530	7500	
9....	1230	9030	11700	7690	6170	2560	15800	
10....	1440	7690	9880	8930	6310	2010	32900	
11....	1870	6170	7350	9270	7880	2140	28900	
12....	2360	5580	5920	9050	8070	3250	29400	
13....	2420	5210	5240	8470	5960	2340	25500	
14....	1870	4310	5190	8610	5620	2040	36400	
15....	1500	3600	6830	7840	4370	1880	25800	
16....	1440	3030	9880	7200	3780	1580	17600	
17....	1820	2730	11700	8650	3280	1530	14500	
18....	1590	2500	13800	7670	2840	1390	10300	
19....	1440	1340	2710	15200	7180	2550	1270	11500	
20....	1040	1210	2710	16000	8210	2280	1110	14400	
21....	870	1250	3110	14900	8670	2110	970	8670	
22....	870	1290	3630	13200	7500	1910	1190	6620	
23....	840	1050	4530	12700	6740	1840	1270	5780	
24....	935	1000	5190	12400	6310	2000	900	5530	
25....	1040	1120	6580	11000	5970	2080	870	6580	
26....	1000	1620	8470	10100	5990	2820	1720	9980	
27....	1000	2660	10300	10400	6220	2800	3820	9980	
28....	1820	3250	11000	10800	19800	4690	3380	7310	.....
29....	3680	10900	10100	24000	3000	3750	6490	.....
30....	4040	11200	9310	51100	2790	2500	6040	.....
31....	4500	.....	8130	.....	2380	1920	.....	.....
Total	10855	64030	182770	341530	300800	203440	61980	356080	.....
Mean.	2070	6090	11000	10000	6560	2000	11900	.....	.....
Max..	4500	11200	16000	51100	36600	3820	36400	.....	.....
Min... Acre-ft.	1000	2500	5190	5970	1840	870	1040	403000	123000	708000

Discharge of San Juan River Near Bluff, Utah, for Year Ending Sept. 30, 1928.
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....	6010	4130	1400	950	998	1210	2640	1390	11600	2720	980	1180
2....	5900	2460	1370	950	998	1240	2520	6340	11800	2430	830	1140
3....	5620	2270	1290	950	1010	1540	2800	9220	10700	2290	1940	1580
4....	5160	2120	1200	780	1200	1580	3270	10500	9650	2050	1610	1270
5....	4820	1910	1190	970	4400	2360	3480	9230	8240	1880	893	1020
6....	4660	1960	1190	1030	3120	2460	3130	7030	6400	1730	1100	900
7....	4420	2550	1070	1030	3340	2030	2800	6060	5980	1680	893	760
8....	4270	4350	950	1030	2600	1860	2580	6940	6400	1580	795	695
9....	3960	3390	828	1060	2030	1780	2370	8240	6760	1440	747	695
10....	3720	2670	798	984	1650	1860	2240	8430	6760	1350	656	662
11....	3570	2330	762	1020	1460	1860	2050	10100	6320	1240	582	546
12....	3380	2280	1020	1010	1250	1900	2080	9650	5390	1160	1180	582
13....	3280	2190	1080	1120	1170	1830	2420	8240	4920	1190	1580	528
14....	3130	2120	1200	1050	1270	2190	2400	7120	3980	952	1280	534
15....	2650	2010	1150	1650	1270	2770	2340	5890	3380	865	760	594
16....	2650	1950	750	1130	1140	2050	2110	5000	2880	865	747	540
17....	2650	1910	750	1170	968	1680	1910	4400	2420	980	774	472
18....	2650	1760	750	1000	975	1390	1740	4260	2560	844	650	472
19....	2650	1680	750	1000	960	1100	1860	1120	3120	893	612	444
20....	2650	1720	750	1000	975	1100	2350	3980	3580	1450	482	450
21....	2180	1700	750	1000	998	1210	2600	3910	3180	1580	482	411
22....	2050	1640	732	1000	1280	1480	2700	3980	2940	1650	428	411
23....	1950	1550	756	844	1270	2220	2680	3980	3120	2290	499	400
24....	1880	1520	640	837	1200	2930	2610	3440	1490	669	406	.....
25....	1850	1520	691	865	1030	3130	2350	5620	3600	1710	450	416
26....	1740	1470	870	844	1020	2920	2140	5800	3500	1350	320	395
27....	1690	1360	949	870	1040	2800	3060	6940	3390	1020	1000	528
28....	1640	1380	928	870	1050	3410	3060	8240	3160	980	850	1410
29....	1750	1400	1210	870	1040	3920	3410	8630	3250	823	980	1050
30....	1830	1460	1210	960	.....	3920	4310	9860	3060	802	970	886
31....	2180	.....	1120	938	.....	3130	.....	11200	.....	1220	2020	.....
Total	98540	62760	30104	30122	12722	66920	78310	211700	155420	14504	27759	21377
Mean.	3180	2090	971	972	1470	2160	2610	6830	5180	1440	895	713
Max..	6010	4350	1400	1176	4400	5920	4310	11200	11800	2720	2020	1580
Min... A-ft.	1640	1360	640	837	960	1100	1740	3910	2420	802	320	395

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

Discharge of Navajo River at Edith for Year Ending Sept. 30, 1927.
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...	46	36	...	...	...	77	403	777	261	777	98	106
2...	46	36	...	...	...	77	403	777	261	683	98	106
3...	46	36	...	...	...	77	403	777	337	403	98	106
4...	46	36	...	...	...	77	403	777	337	317	98	106
5...	46	36	...	...	...	77	823	777	337	317	98	106
6...	46	36	...	...	...	77	823	777	337	317	98	106
7...	46	36	...	...	...	66	823	777	337	278	153	200
8...	46	36	...	...	...	66	823	870	337	278	153	200
9...	46	26	...	...	...	66	823	450	337	278	106	200
10...	46	36	...	...	...	66	164	450	337	278	91	520
11...	46	36	...	...	...	66	164	450	337	278	91	520
12...	46	36	...	...	...	66	164	637	337	278	91	940
13...	46	36	...	...	...	66	164	637	358	245	91	683
14...	46	36	...	...	...	66	164	637	380	245	91	200
15...	46	36	...	...	...	47	164	777	380	245	91	543
16...	46	36	...	...	...	47	164	777	380	245	91	403
17...	46	36	...	...	...	47	164	777	380	245	91	403
18...	46	36	...	...	...	47	164	777	380	245	91	450
19...	46	36	...	...	...	47	164	777	380	187	91	278
20...	46	36	...	...	...	47	164	777	380	175	142	200
21...	46	36	...	...	...	47	164	707	380	164	142	187
22...	46	36	...	...	...	47	164	707	380	164	106	187
23...	46	36	...	...	...	47	164	707	380	164	106	187
24...	46	36	...	...	...	47	450	566	380	164	106	187
25...	46	36	...	...	...	84	450	566	380	164	106	187
26...	46	36	...	...	...	84	777	566	380	164	106	261
27...	46	36	...	...	...	84	777	566	496	164	106	261
28...	46	36	...	...	...	278	777	566	496	142	106	229
29...	46	36	...	...	...	403	777	317	1150	98	106	214
30...	46	36	...	...	...	403	777	317	963	98	106	214
31...	36	...	...	...	...	403	...	590	...	98	106	...
Total	1416	1080	...	...	...	3199	13431	20407	12295	7937	3261	8490
Mean...	45.7	36.0	...	...	...	103	454	658	410	256	105	283
Max...	46	36	...	...	...	403	777	870	1150	777	153	940
Min...	36	36	...	...	...	47	164	317	261	98	91	106
Acre-ft.	2810	2140	...	...	...	6330	27000	40500	24400	15700	6460	16800

Discharge of Navajo River at Edith for Year Ending Sept. 30, 1928.
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...	200	91	84	...	...	131	385	341	107	81	50	50
2...	200	91	84	...	...	131	439	341	107	81	50	50
3...	200	91	84	...	...	131	444	341	107	81	50	50
4...	123	91	71	...	...	131	399	341	107	81	50	50
5...	123	91	71	...	...	131	404	341	107	70	50	50
6...	106	123	71	...	...	131	409	341	107	70	22	22
7...	106	214	71	...	...	115	465	341	107	65	22	22
8...	106	214	71	...	...	115	471	341	70	60	16	16
9...	106	91	71	...	...	115	450	341	70	60	22	22
10...	106	91	71	...	...	115	482	207	70	60	22	22
11...	106	91	71	...	...	123	487	207	70	60	22	22
12...	106	91	71	...	...	123	460	207	70	60	22	22
13...	106	91	71	...	...	123	487	207	70	60	22	22
14...	106	91	56	...	...	123	487	207	70	60	22	22
15...	106	84	56	...	...	123	487	207	70	60	22	22
16...	106	84	56	...	...	123	487	207	70	60	22	22
17...	106	77	56	...	...	123	487	207	70	60	22	22
18...	106	77	56	...	...	123	487	207	70	60	22	22
19...	106	77	56	...	...	150	487	207	70	60	22	22
20...	77	84	56	...	...	150	341	207	70	60	22	22
21...	77	84	56	...	...	150	341	207	70	60	22	22
22...	77	84	56	...	...	150	341	207	123	60	22	22
23...	77	84	56	...	...	150	487	207	123	60	22	22
24...	77	84	56	...	...	194	487	207	123	60	22	22
25...	77	84	56	...	...	194	487	107	123	60	22	22
26...	77	84	56	...	...	194	487	107	81	50	22	22
27...	77	84	56	...	...	253	487	107	81	50	22	22
28...	77	84	56	...	...	273	487	107	81	50	22	22
29...	77	84	56	...	...	260	487	107	81	50	22	22
30...	91	84	56	...	...	404	341	107	81	50	22	22
31...	91	...	56	...	...	...	341	...	81	50	...	...
Total	3282	2875	1970	...	...	4752	13818	6810	2744	1909	794	794
Mean...	106	95.8	63.5	56	65	110	158	446	227	88.5	61.6	26.5
Max...	200	214	84	...	...	...	487	341	123	81	50	50
Min...	77	77	56	...	...	...	341	107	70	50	16	16
Acre-ft.	6510	5700	3900	3440	3740	6760	9400	27400	13500	5440	3790	1580

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

Discharge of Piedra River at Arboles for Year Ending Sept. 30, 1927.												
Drainage Area, 650 Square Miles. Altitude, 6,000 Feet Above Sea Level.												
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	1320	....	....	....
2	1260	....	....	....
3	1150	....	1190	....	....
4	1310	....	....
5	1100	....	....
6	118	....	....	72	74	....	....	....	1160	....	....
7	1260	....	....
8	1300	....	....
9	1400	....	....
10	80	....	....	....	....	....	....	1420	....	....
11	955	1440	....	....
12	990	1460	....
13	133	....	....	75	96	....	....	1320	1470	....	....
14	127	92	....	77	....	....	....	....	1970	1470	....
15	127	....	....	....	....	....	....	....	2110	1480	....
16	98	....	....	....	....	....	240	2500	1480	....	....
17	2810	1490	....
18	2890	1480	....
19	92	....	....	....	....	....	....	2680	1540	....
20	2280	1260	....
21	85	....	....	....	....	....	....	1940	1080	....
22	1740	965	....
23	1250	....	1440	905	....
24	1430	900	....
25	87	....	....	....	....	....	....	....	1730	1940	....
26	1920	2290	....
27	80	440	....	....	1760	2640	....
28	1620	3000	....
29	1470	1500	....
30	2300	1420	1000	....
31	110	....	80	75	....	....	....	....	....	1350	....
Total	6950	5950	5040	4610	4530	15700	73800	112000	86300	....	43510	....
Mean.	113	100	82	75	78	255	1240	1820	1450	....	....	....
Max..
Min...
Acre-ft.	6950	5950	5040	4610	4530	15700	73800	112000	86300	....	....	....

Discharge of Pine River Near Bayfield for Year Ending Sept. 30, 1928.												
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	236	124	....	....	205	1050	1860	460	173	317	....
2	233	124	....	....	210	1300	1530	430	177	238	....
3	241	124	....	....	222	1090	1110	407	184	205	....
4	241	....	....	....	215	839	1110	391	170	177	....
5	241	....	....	....	198	866	1180	388	166	155	....
6	249	....	....	....	190	1040	1180	359	155	142	....
7	258	....	....	....	202	1280	1140	347	144	134	....
8	252	....	....	....	173	1220	1100	326	136	119	....
9	244	....	....	....	166	1460	1080	302	126	124	....
10	235	....	....	....	170	1360	1050	281	119	170	....
11	225	....	....	....	170	1180	951	238	116	170	....
12	217	....	....	....	177	945	828	270	118	155	....
13	215	....	....	....	175	812	710	302	122	138	....
14	212	....	....	....	170	710	710	302	122	128	....
15	195	....	....	....	166	660	685	299	148	124	....
16	195	....	....	....	170	695	660	290	142	119	....
17	195	....	....	....	195	650	660	266	128	114	....
18	192	....	....	....	215	636	735	260	124	111	....
19	193	....	....	....	244	636	636	260	116	106	....
20	193	....	....	....	252	660	590	264	108	105	....
21	190	....	....	....	263	670	660	258	103	105	....
22	188	....	....	....	249	812	700	258	100	98	....
23	177	....	....	....	258	992	720	255	106	95	....
24	175	....	....	....	305	992	670	233	98	91	....
25	179	....	....	....	375	1080	641	235	114	88	....
26	225	181	....	....	362	1270	599	220	153	87	....
27	220	168	....	....	458	1280	612	200	157	94	....
28	232	146	....	....	568	1610	568	200	146	111	....
29	242	130	....	....	586	1860	526	205	138	105	....
30	225	136	....	....	188	828	1900	495	215	148	98
31	230	....	....	....	193	....	2050	....	200	388	....
Total	6133	....	....	....	....	8136	32643	25696	8921	4445	4023	....
Mean.	300	204	100	90	88	135	271	1050	856	288	143	134
Max..	258	....	....	....	828	2050	1860	460	388	317	....
Min...	130	....	....	....	166	626	495	200	98	87	....
Acre-ft.	18400	12100	6150	5530	5060	8300	16100	64600	51000	17700	3790	7970

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

Discharge of Pine River at Ignacio for Year Ending Sept. 30, 1927.
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....	30	66	24	95	87	95	520	1930	1230	2570	17	87
2....	60	68	21	94	81	102	597	1930	1220	1960	13	64
3....	120	89	17	94	87	125	692	2070	1080	1350	30	41
4....	77	89	30	93	95	160	799	2100	980	1290	18	35
5....	66	66	104	93	95	137	699	2200	964	1030	55	35
6....	71	57	137	92	93	129	868	1860	1050	1060	226	31
7....	81	55	142	92	83	142	947	2010	1050	980	222	90
8....	95	50	127	91	83	142	860	1680	1230	868	202	923
9....	137	48	64	91	82	184	734	1030	1320	792	144	2390
10....	202	46	50	90	81	166	665	875	1260	727	144	2760
11....	190	50	44	90	87	155	621	763	1010	628	144	1880
12....	149	59	83	89	91	122	520	792	908	567	166	1860
13....	139	87	100	89	91	122	470	1010	883	476	152	2810
14....	108	71	100	88	85	127	404	1740	739	414	117	1720
15....	129	53	87	88	89	125	390	1920	964	341	108	1700
16....	160	60	79	87	89	123	385	2360	980	258	100	1260
17....	132	66	87	87	81	121	367	2620	770	199	60	1020
18....	120	73	111	86	71	119	354	2680	852	172	31	989
19....	122	83	125	86	91	117	385	2620	989	102	14	770
20....	117	89	113	85	81	116	381	2390	891	60	18	665
21....	100	104	100	85	89	115	424	2160	837	60	15	573
22....	100	102	100	84	89	126	543	2270	829	11	13	593
23....	98	102	99	84	91	138	665	1880	720	23	11	613
24....	93	100	99	83	89	161	844	1680	672	24	11	633
25....	79	104	98	83	95	200	1040	1660	628	21	9	653
26....	79	91	98	82	106	296	1320	1910	640	13	11	634
27....	77	69	97	82	111	376	1460	1730	1500	135	18	567
28....	76	54	97	81	120	434	1440	1560	3900	289	111	514
29....	76	38	96	83	....	476	1660	1390	4360	236	175	481
30....	83	23	96	81	....	640	1740	1220	3700	108	132	514
31....	69	....	95	81	....	591	....	1040	....	25	110	....
Total	3235	2112	2720	2709	2513	6188	22794	55080	38166	16789	2602	26905
Mean.	104	70.4	87.7	87.4	89.7	200	760	1780	1270	542	83.9	897
Max..	202	104	142	95	120	640	1740	2680	4360	2570	226	2810
Min..	30	23	17	81	71	95	354	763	628	11	9	31
Acre-ft.	6400	4190	5390	5370	4980	12300	45200	109000	75600	33300	5160	53400

Discharge of Pine River at Ignacio for Year Ending Sept. 30, 1928.
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....	492	155	172	159	....	135	316	920	1260	60	36	179
2....	460	163	172	....	....	132	301	1100	1180	60	36	120
3....	449	172	172	....	....	179	352	1040	1100	54	36	93
4....	439	181	169	....	....	168	341	760	1020	30	36	69
5....	444	178	169	....	....	168	316	678	940	27	36	52
6....	439	181	169	....	....	159	286	839	857	27	33	43
7....	414	212	168	....	....	172	259	1060	902	27	31	37
8....	390	190	168	....	....	159	246	995	821	27	33	26
9....	367	184	168	....	....	132	172	210	1260	752	25	24
10....	363	184	168	....	....	147	175	242	1260	632	22	33
11....	337	182	167	....	....	126	179	245	1100	507	18	47
12....	312	178	167	....	....	129	183	250	857	363	15	43
13....	304	169	167	....	....	138	156	255	727	277	15	30
14....	284	184	167	....	....	135	138	260	610	198	15	27
15....	273	196	167	....	....	117	138	265	462	117	14	36
16....	261	190	166	....	....	120	150	270	462	123	16	26
17....	251	190	166	....	....	117	144	275	431	190	17	33
18....	243	187	166	....	....	114	153	281	385	226	17	34
19....	229	212	165	....	....	114	165	306	385	153	18	34
20....	215	212	165	....	....	112	190	326	407	126	21	24
21....	206	199	165	....	....	114	238	311	407	53	22	19
22....	196	193	164	....	....	123	301	306	443	172	44	19
23....	175	192	164	....	....	112	326	281	603	230	49	30
24....	160	184	164	....	....	117	291	281	662	230	46	30
25....	132	181	162	....	....	112	291	331	735	202	34	33
26....	129	175	162	....	....	114	352	390	875	162	34	18
27....	122	187	161	....	....	114	413	450	902	179	33	19
28....	125	190	161	....	....	123	449	507	1120	159	33	23
29....	139	187	161	....	....	138	352	500	1510	135	31	29
30....	134	178	160	....	....	....	306	702	1420	87	32	41
31....	129	....	160	....	....	....	301	....	1340	....	34	144
Total	8613	5566	5142	....	....	6835	9661	25755	13453	917	1155	1193
Mean.	278	186	166	140	130	221	322	831	448	29.6	37.3	39.8
Max..	492	212	172	....	....	449	....	1510	....	60	144	179
Min..	122	155	160	....	....	132	....	385	87	14	29	18
Acre-ft.	17100	11100	10200	8610	7480	13600	19200	51100	26700	1820	2290	2370

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

TWENTY-FOURTH BIENNIAL REPORT

Discharge of Animas River at Durango for Year Ending Sept. 30, 1927.
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	279	291	263	215	195	287	791	2840	2440	4420	568	...
2	271	291	271	215	194	303	819	3000	2620	2760	610	...
3	267	283	279	215	193	318	826	3100	2420	2320	658	...
4	267	279	279	215	192	318	875	3010	2330	2110	610	...
5	267	279	275	214	191	322	1040	3240	2220	1970	574	...
6	296	279	275	214	193	322	1230	3270	2320	1830	622	...
7	331	275	259	213	195	322	1270	3350	2410	1670	604	1240
8	450	271	255	213	197	326	1350	2660	2880	1510	714	2200
9	664	271	254	212	198	326	1410	1980	2940	1420	714	4220
10	592	259	252	211	200	326	1470	1650	2880	1350	682	13100
11	544	259	250	211	202	322	1520	1470	2260	1240	634	7550
12	489	259	248	210	204	322	1620	1410	2070	1230	670	4680
13	445	259	246	209	206	322	1630	1320	1890	1150	721	11400
14	415	259	244	208	212	331	1730	2290	1660	1060	640	8740
15	400	259	242	207	227	341	1860	2600	1770	959	610	...
16	375	259	241	206	231	341	1920	3020	1860	889	604	...
17	375	275	239	206	231	341	1910	3510	1680	812	550	...
18	370	247	237	205	243	375	1840	3880	2110	756	515	...
19	365	247	235	204	247	390	1730	3920	2400	700	455	...
20	350	243	233	204	255	405	1730	3570	2220	700	505	...
21	350	239	231	203	259	425	1850	3220	2010	700	515	...
22	326	239	229	202	259	425	2020	3140	1960	670	490	...
23	326	235	227	202	263	445	2060	2920	1920	694	465	...
24	326	231	225	201	255	477	2180	2480	2000	749	440	...
25	318	231	224	200	259	505	2290	2720	2070	721	445	...
26	308	223	222	199	267	515	2430	3130	2120	694	495	...
27	304	219	220	198	267	562	2500	3020	2790	707	784	...
28	304	219	218	197	279	628	2630	2810	14400	721	875	...
29	296	219	216	197	...	652	2740	2530	22000	742	780	...
30	291	235	215	196	...	694	2760	2270	6600	658	650	...
31	291	...	215	195	...	742	...	2270	...	604	560	...
Total	11252	7415	7519	6397	6314	12735	52031	85700	103250	38516	18759	...
Mean.	363	247	242	206	226	411	1730	2760	3440	1240	605	2900
Max..	664	291	279	215	279	742	2760	3920	22000	4420	875	...
Min..	267	219	215	195	191	287	791	1320	1660	604	440	...
Acre-ft.	22300	14700	14900	12700	12600	25300	103000	170000	205000	76200	37200	173000

Discharge of Animas River at Durango for Year Ending Sept. 30, 1928.
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	930	504	360	...	264	283	528	2970	4220	1700	547	522
2	930	493	352	...	276	283	566	2830	3760	1540	597	464
3	930	481	365	...	283	307	623	2520	3210	1430	636	411
4	900	475	352	...	288	307	610	1900	2330	1380	591	388
5	930	475	352	...	288	298	541	1740	2030	1400	610	369
6	930	508	336	...	286	298	516	1960	2390	1290	516	348
7	907	541	317	...	286	298	481	2440	2650	1260	487	340
8	907	528	300	...	286	294	458	2400	2790	1180	458	336
9	877	516	278	...	283	294	422	2990	2930	1110	406	340
10	839	510	300	...	283	304	453	3210	2460	1080	406	383
11	795	499	310	...	283	301	448	2580	2150	946	406	397
12	752	492	340	...	271	298	458	2210	1700	930	458	383
13	717	487	255	...	271	304	455	1910	1410	930	481	348
14	690	481	285	...	258	301	432	1640	1220	922	453	328
15	662	470	250	...	258	291	427	1430	1140	907	442	328
16	642	458	250	...	262	291	422	1380	1330	892	422	320
17	642	458	250	...	260	288	475	1350	1700	892	401	310
18	642	448	250	...	266	291	547	1280	1920	994	397	310
19	623	442	250	...	260	291	616	1300	1640	900	383	304
20	617	432	248	...	264	301	636	1380	1550	915	360	288
21	610	427	260	...	264	317	656	1430	1760	978	348	288
22	610	422	285	...	276	365	616	1640	2090	869	344	294
23	610	416	290	...	264	422	610	1950	2330	787	332	288
24	604	401	270	...	269	437	710	1980	2270	745	320	288
25	597	383	265	...	262	437	884	2270	2270	710	332	288
26	578	383	265	...	252	448	862	2650	2110	662	374	281
27	566	378	265	...	252	504	1020	2930	2270	623	356	278
28	547	378	270	...	271	559	1280	3280	2030	623	369	288
29	535	369	270	...	283	510	1300	3670	1920	610	383	298
30	535	369	270	...	...	475	1720	3880	1760	597	360	288
31	516	...	270	...	...	493	...	4100	...	572	475	...
Total	22170	13624	8980	...	7869	10890	19770	71200	65340	30374	13450	10091
Mean.	715	454	290	275	271	351	659	2300	2180	980	434	336
Max..	930	541	365	...	288	559	1720	4100	4220	1700	636	522
Min..	516	369	...	292	282	283	422	1280	1140	572	320	278
Acre-ft.	44000	27000	17800	16900	15600	21600	39200	141000	130000	60300	26700	20000

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

Discharge of Cascade Creek Near Tacoma for Year Ending Sept. 30, 1927.
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....	12	10	8.4	7.1	7.1	7.1	13	148	283	205	33	62
2....	16	8.5	8.9	7.1	7.1	7.1	14	163	249	156	47	42
3....	16	9.5	8.4	7.1	7.1	7.1	14	169	233	140	38	40
4....	16	10	8.9	7.1	7.1	7.1	15	183	147	136	33	39
5....	15	9.6	9.6	7.1	7.1	7.1	22	159	230	125	34	36
6....	19	9.6	9.3	7.1	7.1	7.1	29	176	223	118	34	42
7....	18	9.0	8.9	7.1	7.1	7.1	29	152	244	110	38	69
8....	22	8.4	8.4	7.1	7.1	7.1	26	130	302	101	58	223
9....	44	6.5	8.0	7.1	7.1	7.1	20	92	393	86	45	910
10....	39	8.0	7.5	7.1	7.1	7.1	18	75	391	76	45	935
11....	30	7.9	7.5	7.1	7.1	7.1	16	74	178	89	42	390
12....	27	9.0	7.1	7.1	7.1	7.1	14	107	162	105	41	1000
13....	25	8.5	7.1	7.1	7.1	7.1	14	124	159	102	41	935
14....	22	7.9	7.1	7.1	7.1	7.1	14	168	148	105	35	510
15....	22	6.7	7.1	7.1	7.1	7.1	14	241	179	96	41	279
16....	20	5.8	7.1	7.1	7.1	7.1	14	346	168	72	33	223
17....	18	5.0	7.1	7.1	7.1	7.1	14	408	172	60	27	168
18....	18	5.4	7.1	7.1	7.1	7.1	12	424	175	50	24	164
19....	17	7.5	7.1	7.1	7.1	7.1	12	348	194	47	36	154
20....	17	8.0	7.1	7.1	7.1	7.1	13	301	178	40	40	96
21....	15	8.2	7.1	7.1	7.1	7.1	13	374	176	40	30	90
22....	14	8.9	7.1	7.1	7.1	7.1	16	308	171	46	28	105
23....	12	9.3	7.1	7.1	7.1	7.1	22	257	175	65	27	116
24....	13	9.3	7.1	7.1	7.1	7.1	40	250	175	56	30	116
25....	12	8.6	7.1	7.1	7.1	7.1	66	318	196	50	31	142
26....	13	9.1	7.1	7.1	7.1	7.1	78	384	222	55	79	117
27....	12	8.9	7.1	7.1	7.1	7.1	86	348	408	50	104	117
28....	11	8.9	7.1	7.1	7.1	7.1	103	272	1110	45	105	117
29....	11	8.9	7.1	7.1	....	8.8	118	258	665	45	40	109
30....	13	8.9	7.1	7.1	....	12	131	210	239	40	49	101
31....	13	....	7.1	7.1	....	13	272	....	36	53	....	....
Total	572	249.8	235.8	220.1	198.8	232.6	1010	7239	7950	2547	1331	7447
Mean	18.5	8.33	7.61	7.10	7.10	7.50	33.7	234	265	82.2	42.9	248
Max..	44	10	9.6	7.1	7.1	13	131	424	1110	205	105	1000
Min..	11	5	7.1	7.1	7.1	7.1	12	74	147	36	24	36
Acre-ft.	1140	496	468	437	394	461	2010	14400	15800	5050	2640	14800

Discharge of Cascade Creek Near Tacoma for Year Ending Sept. 30, 1928.
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....	82	18	10	....	....	....	8.2	118	336	118	28	18
2....	66	19	11	....	....	....	8.7	133	279	110	60	15
3....	65	20	10	....	....	....	8.2	112	236	95	43	14
4....	62	20	11	....	....	....	8.2	93	159	94	40	13
5....	62	20	10	....	....	....	8.2	103	168	96	33	12
6....	60	20	9.3	....	....	....	8.2	116	237	89	29	12
7....	56	19	9.3	....	....	....	8.2	112	246	82	28	11
8....	50	18	9.3	....	....	....	8.2	162	247	87	27	11
9....	50	19	9.3	....	....	....	8.7	200	204	68	26	17
10....	47	18	9.3	....	....	....	9.3	140	189	66	21	20
11....	42	17	9.3	....	....	....	9.3	129	148	63	22	19
12....	38	18	9.3	....	....	....	9.3	118	111	64	28	15
13....	38	18	9.3	....	....	....	9.3	95	90	69	24	14
14....	36	17	8.2	....	....	....	9.3	78	87	67	24	12
15....	33	20	8.2	....	....	....	9.3	69	102	65	26	11
16....	32	21	8.2	....	....	....	10	68	135	65	22	10
17....	28	20	8.2	....	....	....	12	62	169	95	20	10
18....	28	18	8.2	....	....	....	12	62	154	89	18	10
19....	27	18	8.2	....	....	....	13	62	144	72	17	10
20....	26	17	8.2	....	....	....	14	88	150	98	16	11
21....	24	17	8.2	....	....	....	16	71	178	81	15	11
22....	22	17	8.2	....	....	....	18	94	189	66	15	10
23....	21	17	8.2	....	....	....	22	106	186	62	15	9.0
24....	19	16	8.2	....	....	....	40	114	181	43	14	9.0
25....	18	16	8.2	....	....	....	43	156	166	40	16	9.0
26....	18	14	8.2	....	....	....	46	201	168	38	16	9.0
27....	18	14	8.2	....	....	....	56	206	153	33	18	9.6
28....	18	13	8.2	....	....	....	62	276	154	31	19	12
29....	18	13	8.2	....	....	....	72	316	137	37	17	11
30....	18	12	8.2	....	....	....	99	329	127	40	18	10
31....	18	....	8.2	....	....	....	350	....	32	26	....	....
Total	1140	524	274.0	....	....	....	665.6	4339	5230	2155	741	364.6
Mean	36.8	17.5	8.84	8.2	8.2	8.2	22.2	140	174	69.5	23.9	12.2
Max..	82	21	11	....	....	....	99	350	336	118	60	20
Min..	18	12	8.2	....	....	....	8.2	62	87	31	14	9
Acre-ft.	2260	1040	544	504	472	504	1320	8610	10400	4270	1470	726

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

Discharge of Hermosa Creek at Hermosa for Year Ending Sept. 30, 1927.
Drainage Area, 168 Square Miles. Altitude, 6,700 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	590	340	416	73	87
2	620	340	376	75	86
3	850	349	332	77	83
4	730	345	280	75	82
5	780	332	256	73	93
6	670	332	225	87	94
7	910	340	193	78	169
8	570	358	199	89	234
9	420	367	199	85	628
10	360	349	196	86	775
11	340	314	174	82	628
12	358	314	165	98	1390
13	437	298	152	82	2110
14	578	264	145	81	1470
15	614	306	132	82	1260
16	674	303	120	78	1210
17	710	280	113	71	1160
18	760	289	111	70	1120
19	722	303	110	86	1040
20	662	280	104	72	960
21	614	248	99	73	850
22	590	222	111	65	820
23	585	203	102	62	820
24	578	193	100	63	790
25	533	185	100	72	760
26	490	179	100	86	700
27	437	289	109	109	640
28	437	735	98	105	565
29	416	722	87	108	540
30	396	522	78	97	491
31	365	.....	73	91	.....
Total	17796	9901	5055	2511	21655
Mean.	574	330	163	81	722
Max..	735	416	109	2110	.....
Min..	179	73	62	82	.....
Acre-ft.	35200	19600	10000	4980	43000

Discharge of Hermosa Creek at Hermosa for Year Ending Sept. 30, 1928.
Drainage Area, 168 Square Miles. Altitude, 6,700 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	78	45	.....	.....	.....	194	516	430	101	44	32
2	72	.....	.....	.....	.....	217	516	380	95	53	36
3	72	.....	.....	.....	.....	235	430	344	89	48	30
4	78	.....	.....	.....	.....	214	380	321	83	48	29
5	83	.....	.....	.....	.....	194	404	299	83	48	27
6	83	.....	.....	.....	.....	181	430	288	78	40	26
7	93	.....	.....	.....	.....	162	486	288	78	36	24
8	93	.....	.....	.....	.....	147	516	288	72	36	27
9	95	.....	.....	.....	.....	147	594	268	72	36	29
10	95	.....	.....	.....	.....	150	562	218	67	36	32
11	83	.....	.....	.....	.....	150	472	230	67	36	29
12	78	.....	.....	.....	.....	154	417	203	67	48	29
13	78	.....	.....	.....	.....	147	380	186	72	40	26
14	78	11	.....	.....	.....	136	344	178	62	40	23
15	78	.....	.....	.....	.....	133	332	170	67	35	23
16	83	.....	.....	.....	.....	144	321	186	78	36	23
17	83	.....	.....	.....	.....	178	310	186	78	36	23
18	83	.....	.....	.....	.....	212	299	178	72	32	23
19	78	.....	.....	.....	.....	248	292	170	62	32	23
20	78	48	.....	.....	.....	248	299	173	58	29	23
21	78	70	.....	.....	.....	239	310	170	58	29	23
22	78	.....	.....	.....	.....	221	332	162	58	29	23
23	78	.....	.....	.....	.....	234	368	162	58	29	22
24	78	60	.....	.....	.....	147	292	368	154	53	26
25	78	.....	.....	.....	.....	143	321	392	140	53	26
26	72	.....	.....	.....	.....	144	299	404	133	48	22
27	72	66	.....	.....	.....	154	344	404	126	44	22
28	78	66	.....	.....	.....	203	404	430	120	44	22
29	83	58	.....	.....	.....	178	186	458	114	48	22
30	83	50	.....	.....	.....	165	516	458	107	58	32
31	83	.....	.....	.....	.....	167	.....	458	44	32	.....
Total	2350	.....	.....	.....	.....	6947	12682	6402	2067	1158	762
Mean.	175	78.3	45	42	45	90	232	409	213	66.7	37.4	25.4
Max..	95	.....	.....	.....	203	516	594	130	101	53	36
Min..	50	.....	.....	.....	.....	133	292	107	44	26	32
Acre-ft.	10800	4660	2770	2580	2590	5530	13800	25100	12700	4100	2300	1510

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

Discharge of Lightner Creek Near Durango for Year Ending Sept. 30, 1927.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.	61	7	3
2.	38	7	3	
3.	31	6	3	
4.	23	5	3	
5.	19	5	3	
6.	16	5	4	
7.	13	8	7	
8.	13	7	15	
9.	14	7	59	
10.	11	7	132	
11.	8	6	80	
12.	7	8	186	
13.	5	8	206	
14.	5	8	104	
15.	5	8	59	
16.	7	8	46	
17.	7	8	38	
18.	8	5	59	
19.	8	5	65	
20.	8	5	50	
21.	8	4	37	
22.	7	4	34	
23.	7	3	30	
24.	7	3	31	
25.	6	3	70	
26.	7	3	55	
27.	6	3	43	
28.	11	3	35	
29.	10	3	30	
30.	9	3	27	
31.	7	4	...	
Total									392	171	1517	
Mean.									12.6	5.52	50.5	
Max..									61	8	206	
Min..									5	3	3	
Acre-ft.									775	339	3010	

Discharge of Lightner Creek at Durango for Year Ending Sept. 30, 1928.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.	27	12	8	.	.	13	76	76	48	8	2	5
2.	27	12	6	.	.	13	76	87	40	8	2	5
3.	25	10	6	.	.	21	76	87	34	6	2	5
4.	23	10	6	.	.	22	76	66	27	6	3	5
5.	22	10	6	.	.	21	66	66	27	6	2	3
6.	20	11	4	.	.	22	66	66	27	6	2	3
7.	19	14	4	.	.	25	56	66	27	5	2	3
8.	17	14	6	.	.	27	56	66	22	5	2	3
9.	17	13	6	.	.	40	48	76	22	5	2	3
10.	16	13	7	.	.	40	40	76	22	5	2	3
11.	16	13	7	.	.	48	48	66	18	5	2	3
12.	14	14	7	.	.	48	48	66	18	5	2	3
13.	14	13	7	.	.	40	40	56	15	5	2	3
14.	14	12	8	.	.	34	40	48	15	5	2	3
15.	14	12	7	.	.	27	40	40	12	5	3	3
16.	13	12	7	.	.	27	40	48	12	3	3	3
17.	12	12	6	.	.	34	40	48	12	3	3	3
18.	11	12	6	.	5	9	40	48	10	3	3	3
19.	11	10	6	5	.	40	56	48	10	3	5	3
20.	11	10	5	.	.	66	56	40	8	3	2	3
21.	11	10	5	.	.	87	56	48	8	2	2	3
22.	10	10	5	.	.	98	48	56	8	3	3	3
23.	9	10	5	.	.	110	48	48	8	2	2	3
24.	9	10	5	.	.	98	56	48	8	2	2	3
25.	10	8	5	.	.	98	56	48	8	2	2	3
26.	10	8	5	.	.	110	56	56	8	2	5	3
27.	10	8	5	.	.	110	56	56	6	2	3	3
28.	10	8	5	.	.	98	66	56	6	2	5	3
29.	10	8	5	.	15	87	66	56	6	3	5	3
30.	9	8	5	.	.	76	76	56	8	2	5	3
31.	9	....	5	.	.	76	48	...	2	5	...	
Total	450	327	180	.	.	1696	1676	1816	500	124	87	98
Mean.	14.5	10.9	5.81	5.0	9.0	54.7	55.9	58.6	16.7	400	2.81	3.27
Max..	27	14	....	....	....	110	76	87	48	8	5	5
Min..	9	8	....	....	....	13	40	40	6	2	2	3
Acre-ft.	892	649	357	307	518	3360	3330	3600	994	246	172	195

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

Discharge of Florida River near Durango for Year Ending Sept. 30, 1927.
Drainage Area, 96 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	129	470	451	573	49	58
2....	136	496	465	458	72	54
3....	147	680	409	415	66	52
4....	159	582	366	346	85	52
5....	172	630	332	314	136	58
6....	180	537	332	302	136	58
7....	190	733	332	259	114	190
8....	185	432	398	255	104	650
9....	147	336	427	234	104	2010
10....	136	285	361	224	85	2940
11....	127	266	314	187	78	930
12....	98	285	314	205	106	1280
13....	80	403	306	167	104	1280
14....	77	660	293	147	80	600
15....	69	777	392	129	78	479
16....	64	799	332	110	80	361
17....	61	969	336	98	67	293
18....	62	995	356	93	60	248
19....	77	846	366	85	56	199
20....	100	700	327	80	61	172
21....	125	711	285	77	54	147
22....	147	711	263	69	58	140
23....	205	564	248	72	54	133
24....	278	564	238	67	49	129
25....	351	620	230	64	49	205
26....	351	700	238	62	56	199
27....	351	620	620	55	69	185
28....	366	528	1650	120	93	172
29....	432	479	1940	74	94	154
30....	450	444	1230	61	80	164
31....	444	444	49	69	69	...
Total	5452	18266	14151	5451	2446	13586
Mean.	182	589	472	176	78.9	453
Max..	450	995	1940	573	136	2940
Min... Acre-ft.	61	266	230	49	49	52
	10800	36200	28100	10800	4850	27000

Discharge of Florida River near Durango for Year Ending Sept. 30, 1928.
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....	129	56	.....	.....	.....	.....	76	296	626	94	40	56
2....	129	49	.....	.....	.....	.....	80	372	568	92	40	44
3....	129	49	39	.....	.....	.....	88	313	522	83	38	39
4....	129	48	.....	.....	.....	.....	83	245	360	75	35	35
5....	127	54	.....	.....	.....	.....	75	251	340	69	32	32
6....	120	58	.....	.....	.....	.....	72	303	360	64	29	29
7....	118	55	.....	.....	.....	.....	69	360	400	62	29	27
8....	116	50	.....	.....	.....	.....	66	364	460	57	26	26
9....	116	49	.....	.....	.....	.....	62	428	478	53	26	27
10....	114	44	.....	.....	.....	.....	63	412	420	48	26	35
11....	108	44	.....	.....	.....	.....	65	342	360	47	25	37
12....	94	41	.....	.....	.....	.....	64	296	300	47	24	33
13....	91	44	.....	.....	.....	.....	62	264	240	47	24	30
14....	87	49	.....	.....	.....	.....	63	227	174	47	28	27
15....	87	46	.....	.....	.....	.....	62	203	165	46	44	27
16....	84	44	.....	.....	.....	.....	60	206	214	45	38	24
17....	77	44	.....	.....	.....	.....	64	201	239	41	31	23
18....	74	44	.....	.....	.....	.....	69	191	236	40	27	22
19....	69	44	.....	.....	.....	.....	76	184	211	40	24	20
20....	62	44	.....	.....	.....	.....	78	179	198	40	24	20
21....	61	42	.....	.....	.....	.....	84	174	224	41	24	22
22....	60	42	.....	.....	.....	.....	80	186	219	41	22	22
23....	56	42	.....	.....	.....	.....	74	227	221	45	21	22
24....	54	42	.....	.....	.....	.....	83	260	193	42	20	20
25....	49	42	.....	.....	.....	.....	98	320	179	41	21	20
26....	49	40	.....	.....	.....	.....	94	396	163	42	32	20
27....	45	40	.....	.....	.....	.....	110	457	148	40	34	22
28....	49	40	.....	.....	.....	.....	144	568	131	39	32	17
29....	60	40	.....	.....	.....	.....	156	676	110	40	30	16
30....	52	40	.....	.....	.....	.....	219	666	101	46	33	15
31....	56	.....	.....	.....	.....	.....	666	444	42	72	72	...
Total	2651	1366	.....	.....	.....	.....	2539	10233	8560	1596	951	808
Mean.	85.5	45.5	30	28	27	36	84.6	330	285	51.5	30.7	26.9
Max..	129	58	.....	.....	.....	.....	219	676	626	94	72	55
Min... Acre-ft.	45	40	.....	.....	.....	.....	60	174	101	39	20	15
	5260	2710	1840	1720	1550	2210	5030	20300	17000	3170	1890	1600

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

Discharge of La Plata River at Hesperus for Year Ending Sept. 30, 1927.
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....	18	18	19	....	....	....	20	363	142	187	20	12
2....	20	18	19	....	....	....	21	350	139	155	22	14
3....	20	17	19	....	....	....	40	390	124	132	18	13
4....	20	16	19	....	....	....	65	407	115	110	18	14
5....	20	15	20	....	....	....	85	376	115	95	18	14
6....	22	15	23	....	....	....	114	272	122	86	18	16
7....	25	15	21	....	....	....	110	316	127	76	35	33
8....	27	15	21	....	....	....	110	195	152	70	21	92
9....	31	15	21	....	....	....	110	138	155	64	20	488
10....	31	15	29	....	....	....	110	112	134	101	18	480
11....	31	15	20	....	....	....	95	92	97	76	18	191
12....	32	16	20	....	....	....	80	116	92	66	18	508
13....	33	16	....	....	....	....	65	184	76	61	17	481
14....	34	16	....	....	....	....	48	346	63	54	16	231
15....	36	15	....	....	....	....	50	386	84	44	17	138
16....	38	15	....	....	....	....	50	408	84	40	15	100
17....	38	15	....	....	....	....	50	483	103	40	13	88
18....	29	15	....	....	....	....	55	474	127	36	13	80
19....	27	15	....	....	....	....	60	386	124	33	13	78
20....	26	15	....	....	....	....	70	308	117	29	13	64
21....	24	15	....	....	....	....	90	280	115	27	15	57
22....	22	15	....	....	....	....	110	260	97	25	13	51
23....	20	15	....	....	....	....	152	210	88	27	18	44
24....	20	15	....	....	....	....	198	200	88	28	13	43
25....	20	15	....	....	....	....	276	231	86	25	13	65
26....	20	15	....	....	....	....	342	231	97	24	13	62
27....	20	16	....	....	....	....	300	210	280	23	14	60
28....	20	18	....	....	....	....	300	193	934	27	14	69
29....	20	18	....	....	....	....	368	155	636	23	14	58
30....	19	19	....	....	....	....	381	127	313	21	12	62
31....	19	....	....	....	....	....	129	....	21	12	....	...
Total	782	473	....	....	....	....	3925	8328	5026	1826	512	3706
Mean.	25.2	15.8	15.9	15.4	15.0	20.7	131	269	168	58.9	16.5	124
Max..	38	19	....	....	....	....	381	483	934	187	35	508
Min...	15	....	....	....	....	....	92	63	21	12	12	12
Acre-ft.	1550	940	978	947	833	1270	7800	16500	10000	3620	1010	7380

Discharge of La Plata River at Hesperus for Year Ending Sept. 30, 1928.
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....	51	19	20	....	....	....	71	193	248	59	8	14
2....	48	18	19	....	....	....	87	218	208	52	8	13
3....	40	17	19	....	....	....	93	161	161	50	7	10
4....	38	17	19	....	....	....	83	128	110	50	8	10
5....	37	18	18	....	....	....	71	133	108	33	7	10
6....	35	20	13	....	....	....	62	169	123	12	7	9
7....	32	22	7	....	....	....	45	200	138	10	7	8
8....	30	20	8	....	....	....	33	200	138	13	7	7
9....	30	21	8	....	....	....	40	256	128	12	7	10
10....	29	21	8	....	....	....	48	214	108	17	8	10
11....	28	24	9	....	....	....	52	153	81	23	9	9
12....	27	24	9	....	....	....	52	121	42	20	10	9
13....	25	24	9	....	....	11	48	110	37	21	11	7
14....	24	25	9	....	....	....	40	93	29	19	13	7
15....	24	23	9	....	....	....	37	87	22	17	15	7
16....	24	22	9	....	....	....	42	89	29	17	12	6
17....	24	22	9	....	....	....	48	83	43	16	11	6
18....	22	18	9	....	12	....	52	81	48	12	12	6
19....	22	20	9	....	....	....	59	85	40	12	11	6
20....	20	20	9	....	....	....	66	91	32	23	10	6
21....	19	20	9.2	....	....	....	70	112	36	15	9	5
22....	19	20	9	....	....	....	66	158	42	16	10	5
23....	18	20	9	5.2	....	39	64	178	52	14	9	5
24....	18	20	8	....	....	....	62	166	57	12	9	5
25....	19	19	8	....	....	....	45	85	184	75	9	12
26....	19	22	8	....	....	....	75	85	196	71	8	12
27....	18	22	8	....	....	81	103	228	70	7	11	6
28....	20	22	7	....	....	....	121	268	64	9	12	7
29....	21	21	7	....	9	....	133	307	61	17	12	5
30....	19	20	7	....	....	....	163	294	59	15	13	4
31....	19	....	7	....	....	....	64	....	303	10	15	...
Total	819	621	316	....	....	2081	5259	2456	620	312	222	...
Mean.	26.4	20.7	10.2	7.0	10.0	29.0	69.4	170	81.9	20.0	10.1	7.4
Max..	51	....	....	....	....	....	163	307	248	59	15	14
Min...	18	....	....	....	....	....	33	81	22	7	7	4
Acre-ft.	1620	1230	627	430	575	1780	4130	10500	4870	1230	621	440

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

Discharge of La Plata River at State Line for Year Ending Sept. 30, 1927.
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....	14	17	18	....	....	....	92	260	92	193	11	10
2....	14	17	18	....	....	....	110	243	97	146	18	10
3....	38	17	18	....	....	....	116	254	84	113	23	8
4....	22	18	18	....	....	....	205	221	78	78	16	6
5....	18	17	26	....	....	....	205	205	74	98	16	7
6....	16	16	26	....	....	....	213	140	77	73	16	11
7....	16	17	26	....	....	....	223	134	80	47	31	30
8....	15	17	30	....	....	....	208	118	97	38	34	54
9....	15	18	31	....	....	....	181	92	92	28	28	161
10....	15	17	31	....	....	....	156	84	87	256	21	348
11....	15	17	27	....	....	....	148	58	60	71	16	221
12....	15	18	27	....	....	....	125	50	63	42	16	339
13....	15	22	27	....	....	....	111	45	19	32	14	594
14....	12	20	27	....	....	....	97	58	7	29	14	387
15....	13	18	27	....	....	....	86	103	5	21	12	221
16....	15	18	25	....	....	....	80	138	22	16	11	148
17....	15	19	23	....	....	....	80	172	12	16	6	120
18....	16	19	22	....	....	....	70	193	4	16	7	106
19....	17	19	22	....	....	....	84	158	3	16	5	134
20....	17	18	21	....	....	27	92	100	6	14	5	97
21....	18	18	21	....	....	....	95	63	3	8	6	81
22....	18	18	20	....	....	....	110	46	1	7	8	68
23....	18	18	20	....	....	....	134	34	2	11	7	59
24....	17	18	20	....	....	....	181	20	2	16	965	58
25....	17	20	20	....	....	....	257	17	7	11	363	158
26....	17	18	20	....	....	....	300	29	16	47	11	105
27....	18	25	19	....	....	....	291	33	51	25	16	70
28....	18	22	18	....	....	....	257	33	562	18	22	64
29....	18	19	18	....	....	97	260	46	754	14	14	56
30....	18	18	18	....	....	....	265	56	324	12	12	59
31....	17	....	18	....	....	....	68	....	9	10	....	....
Total	527	553	702	....	....	....	4832	3271	2781	1521	1757	3790
Mean.	17.0	18.4	22.6	21.1	35.6	58.0	161	106	92.7	19.2	56.7	126
Max..	38	25	....	....	....	....	300	260	754	256	965	594
Min... Acre-ft.	12	16	....	....	....	....	70	17	1	7	5	6
Acre-ft.	1050	1090	1390	1300	1980	3570	9580	6520	5520	3030	3490	7500

Discharge of La Plata River at Colorado-New Mexico Line for Year Ending Sept. 30, 1928.
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....	59	40	22	....	....	....	36	117	17	83	38	12
2....	53	39	24	....	....	....	34	124	64	89	34	8
3....	51	33	24	....	....	....	47	130	64	70	32	4
4....	50	32	18	....	....	....	45	120	43	64	31	5
5....	49	32	21	....	....	....	41	110	32	72	25	6
6....	48	44	....	....	....	....	38	114	23	84	7	5
7....	46	44	....	....	....	....	40	101	28	90	1	5
8....	45	38	....	....	....	....	44	86	25	94	1	5
9....	45	34	....	....	....	....	51	82	38	90	1	4
10....	42	28	....	....	....	....	53	87	35	69	1	3
11....	38	28	....	....	....	....	49	82	87	70	1	3
12....	36	28	....	....	....	33	56	87	91	41	1	3
13....	32	27	....	....	....	....	53	89	82	6	4	2
14....	32	26	....	....	....	....	55	79	87	1	3	0
15....	31	26	....	....	....	....	48	71	96	1	6	0
16....	26	25	....	....	....	....	44	64	98	1	4	0
17....	25	26	....	....	....	....	42	62	98	1	1	1
18....	25	28	....	....	....	....	48	59	94	2	8	1
19....	26	26	....	....	....	....	51	51	94	2	8	1
20....	28	22	....	....	....	....	68	47	76	0	15	1
21....	28	22	20	....	....	....	97	48	20	0	8	1
22....	24	22	....	....	....	....	112	46	16	0	8	1
23....	23	21	....	11	....	....	122	14	11	0	10	2
24....	22	21	....	....	....	....	108	44	10	0	8	2
25....	23	21	....	....	....	....	119	46	8	15	8	3
26....	21	22	....	....	....	....	163	44	5	39	7	3
27....	21	22	....	....	....	....	186	42	5	44	3	3
28....	24	22	....	....	....	....	168	38	9	45	2	3
29....	30	24	....	....	....	34	130	36	34	41	1	5
30....	31	23	....	....	....	....	114	37	38	39	8	4
31....	30	....	....	....	....	....	117	....	83	5	18	....
Total	1064	846	....	....	....	....	2379	2187	1511	1153	285	137
Mean.	34.3	28.2	21	15	30	76.7	72.9	49.7	38.1	9.19	4.42	3.12
Max..	59	44	....	....	....	....	186	130	98	89	38	12
Min... Acre-ft.	21	21	....	....	....	....	34	36	5	0	1	0
Acre-ft.	2110	1680	1290	922	1730	4720	4340	3060	2280	565	272	186

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

Discharge of Cherry Creek at Mouth near Red Mesa for Year Ending Sept. 30, 1928.
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.	42	49	18	4	2	8
2.	42	54	20	1	1	3
3.	43	57	16	4	2	2
4.	43	43	15	4	2	2
5.	40	36	10	1	2	2
6.	36	10	1	2	2	2
7.	36	8	1	2	1	1
8.	40	8	1	2	1	1
9.	40	6	1	2	1	1
10.	40	5	1	2	1	1
11.	37	4	1	2	2	1
12.	43	3	1	2	1	1
13.	36	2	1	2	1	1
14.	42	2	1	2	1	1
15.	32	2	1	3	1	1
16.	32	2	1	3	1	1
17.	31	2	1	3	1	1
18.	26	1	2	3	1	1
19.	36	23	1	2	3	1
20.	40	20	1	2	3	1
21.	50	40	16	1	2	1
22.	57	38	16	1	3	1
23.	64	39	16	1	3	1
24.	54	42	16	1	3	1
25.	54	43	16	3	2	1
26.	77	43	16	5	2	1
27.	96	43	16	5	2	1
28.	79	42	17	4	1	1
29.	55	45	17	5	2	1
30.	44	50	16	5	2	1
31.	40	16	1	2	5	1
Total	937	170	63	72	43	
Mean.	30.2	5.67	2.03	2.32	1.43	
Max.	57	20	4	5	8	
Min.	16	1	1	1	1	
Acre-ft.	1860	337	125	143	85	

Discharge of Long Hollow near Red Mesa for Year Ending Sept. 30, 1928.
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.	18	4.3	6.4	9.5	3.9	6.7
2.	16	9.5	6.7	9.5	3.7	5.8
3.	12	11	9.5	8.7	3.9	4.3
4.	14	7.3	12	8.7	4.9	4.9
5.	14	7.3	12	6.7	4.9	4.3
6.	13	7.3	12	2.3	4.3	4.1
7.	13	6.7	11	2.3	3.9	4.3
8.	14	6.7	10	2.1	3.9	4.9
9.	14	6.4	10	2.0	3.9	5.8
10.	12	7.3	11	1.4	4.3	5.2
11.	10	8.0	10	1.1	5.2	4.9
12.	10	13	7.0	1.0	5.8	4.9
13.	11	14	4.1	1.0	6.1	4.6
14.	11	12	3.3	1.2	6.4	5.2
15.	11	13	3.5	1.8	9.1	5.5
16.	10	14	3.3	2.1	5.8	6.4
17.	9.9	13	3.5	4.6	5.5	6.1
18.	10	11	3.5	5.8	6.1	6.4
19.	9.1	14	3.3	5.5	5.5	7.0
20.	29	9.1	12	3.3	7.0	4.9
21.	29	9.9	7.3	2.9	9.1	6.7
22.	25	9.1	4.1	2.9	9.5	4.3
23.	29	8.8	5.8	3.3	9.5	7.3
24.	27	7.3	5.8	4.6	9.1	4.3
25.	37	6.4	4.9	7.3	8.0	7.3
26.	50	5.8	5.8	7.7	7.3	7.3
27.	35	5.8	5.8	8.0	4.3	7.3
28.	25	6.4	5.8	8.0	3.7	7.3
29.	14	20	5.8	8.4	3.7	4.9
30.	19	5.2	5.8	9.1	6.7	7.3
31.	19	5.8	5.8	4.9	7.3	7.3
Total	311.6	260.5	207.6	160.8	162.2	181.0
Mean.	23	10.4	8.40	6.92	5.19	6.03
Max.	18	14	12	9.5	9.1	7.3
Min.	5.2	4.1	2.9	1.0	3.7	4.1
Acre-ft.	1410	619	516	412	319	322

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

Discharge of Mancos River near Towaoc for Year Ending Sept. 30, 1927.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	10	3	5	....	....	43	176	462	94	500	4	8
2....	10	4	5	....	....	43	163	384	84	400	4	8
3....	10	4	6	....	....	43	191	408	84	300	4	8
4....	10	4	6	....	....	94	223	408	75	200	4	8
5....	8	4	6	....	....	100	276	408	75	150	5	8
6....	5	4	6	....	....	70	316	360	75	115	4	334
7....	5	4	8	....	....	70	384	360	66	104	5	29
8....	5	3	14	....	....	75	384	316	66	84	3	158
9....	4	4	10	....	....	75	296	296	66	94	4	233
10....	6	4	7	....	....	75	258	240	75	58	11	288
11....	6	4	6	....	....	75	258	223	75	203	11	158
12....	7	4	5	....	....	75	258	223	75	92	8	251
13....	6	8	4	....	....	75	276	240	84	64	16	451
14....	6	5	5	....	....	75	276	276	84	49	13	233
15....	5	5	....	....	....	80	296	338	75	42	13	145
16....	6	4	....	....	....	80	256	360	138	28	19	100
17....	6	4	....	....	....	80	316	384	104	19	12	98
18....	5	3	....	....	....	80	316	408	94	16	12	79
19....	5	3	....	....	....	80	338	408	104	11	10	79
20....	5	4	....	....	....	80	338	338	104	9	9	66
21....	4	4	....	....	....	80	360	276	84	7	10	56
22....	4	4	....	....	....	84	360	223	75	4	8	49
23....	4	4	....	....	....	84	384	191	58	4	9	39
24....	4	4	....	....	....	84	384	163	50	3	8	39
25....	3	3	....	....	....	94	384	150	50	8	8	33
26....	4	3	....	....	....	119	408	150	43	12	21	60
27....	4	3	....	....	....	126	408	138	36	22	14	64
28....	4	3	....	....	....	138	408	126	60	10	14	52
29....	4	3	....	....	....	150	408	115	1000	6	10	52
30....	4	5	....	....	....	150	384	115	900	6	10	60
31....	4	....	....	....	....	191	....	104	....	5	10	....
Total	173	118	....	....	....	2768	9523	8591	4053	2625	293	3266
Mean.	5.58	3.93	....	....	....	89.3	317	277	135	84.7	9.45	109
Max.	....	8	....	....	....	191	408	462	....	....	21	451
Min.	3	3	....	....	....	43	163	104	36	3	3	8
Acre-ft.	343	234	....	....	....	5490	18900	17000	8030	5210	581	6490

Discharge of Mancos River at Towaoc for Year Ending Sept. 30, 1928.
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....	56	....	....	....	....	86	107	411	267	0	0	18
2....	76	....	....	....	....	67	159	438	208	0	0	6
3....	58	....	....	....	....	96	246	524	144	0	0	5
4....	52	....	....	....	....	131	227	334	96	0	0	4
5....	50	....	....	....	....	86	144	267	58	0	0	2
6....	50	....	....	....	....	76	118	288	50	0	0	2
7....	50	16	....	....	....	96	96	334	50	0	0	2
8....	50	....	....	....	....	96	86	359	42	0	0	2
9....	56	....	....	....	....	96	76	438	42	0	0	2
10....	....	....	....	....	....	86	76	438	28	0	0	6
11....	....	....	....	....	....	76	76	334	23	0	80	4
12....	....	....	....	....	....	76	76	334	18	0	120	3
13....	....	....	....	....	....	67	86	246	15	0	25	2
14....	....	....	....	....	....	67	76	246	15	0	58	2
15....	....	....	....	....	....	58	67	208	12	0	5	2
16....	....	....	....	....	....	58	58	174	10	0	2	2
17....	....	....	11	....	....	58	67	191	10	0	1	2
18....	....	....	....	....	....	58	96	174	8	0	0	2
19....	....	....	....	....	....	67	96	144	8	2	0	2
20....	....	....	....	....	....	76	107	144	6	12	0	2
21....	....	....	....	....	....	107	96	144	5	5	0	2
22....	49	....	....	....	....	144	107	131	3	2	6	1
23....	....	....	....	....	23	159	96	144	3	0	3	2
24....	....	....	....	....	28	131	107	174	1	0	1	2
25....	....	....	....	....	28	118	131	191	1	0	0	2
26....	....	....	....	....	28	144	144	208	0	0	12	1
27....	....	....	....	42	159	159	191	0	0	0	10	1
28....	....	....	76	171	....	208	208	0	0	0	2	5
29....	....	....	....	....	131	227	237	0	0	0	5	4
30....	....	....	....	....	118	311	246	0	0	0	42	2
31....	....	....	....	....	86	....	267	....	0	58	....
Total	....	....	....	....	3048	3726	8121	1123	21	430	94	
Mean.	55	50	20	13	20	98.3	124	262	37.4	0.68	13.9	3.13
Max.	....	....	....	....	....	174	311	524	267	12	120	10
Min.	....	....	....	....	....	58	58	131	0	0	0	1
Acre-ft.	3380	2980	1230	799	1150	6040	73880	16100	2230	42	855	186

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

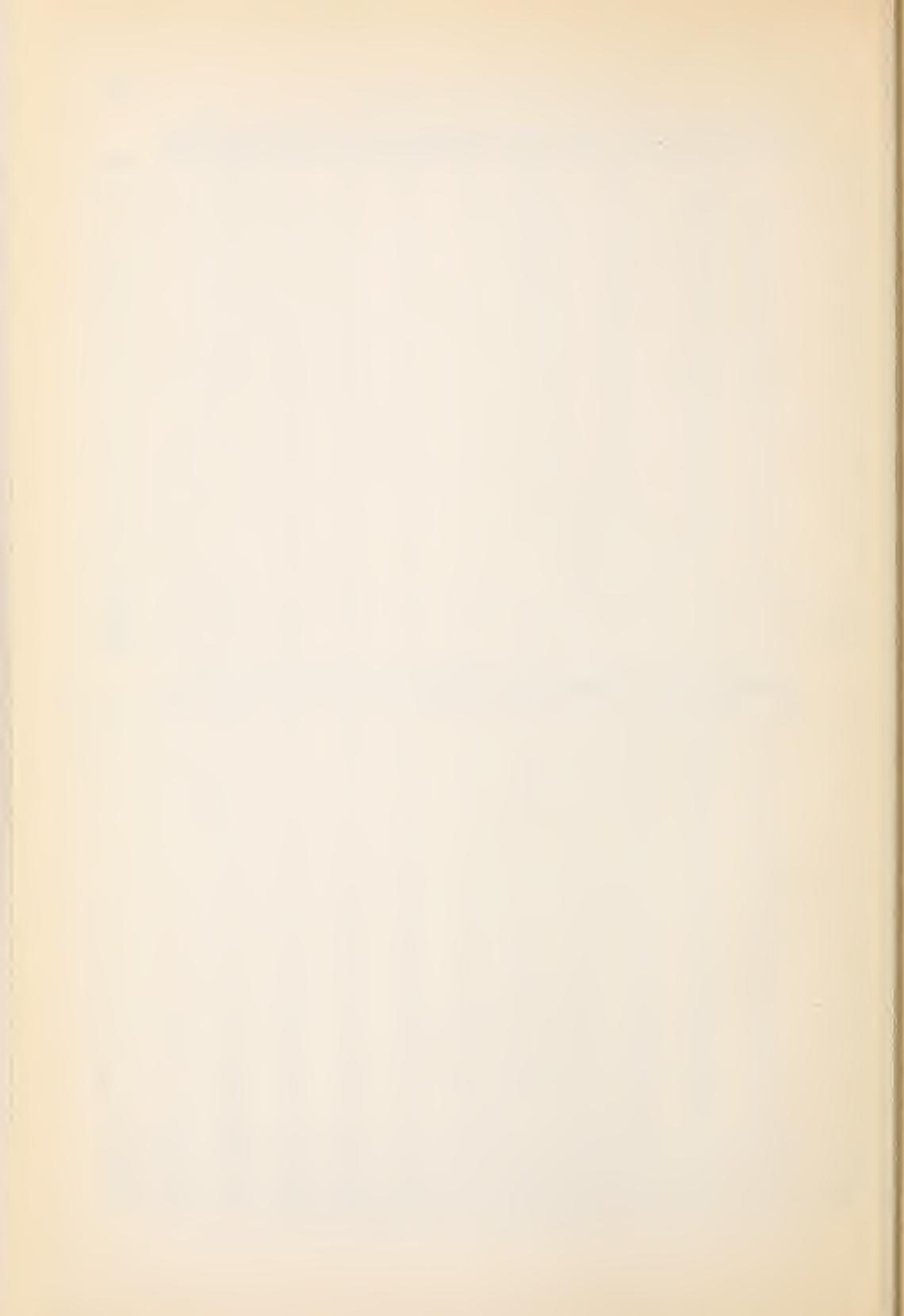
Discharge of McElmo Creek near Cortez for Year Ending Sept. 30, 1927.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	13	20	1	1	214	51	28	62	85	127	24	62
2....	13	20	1	1	222	51	28	64	100	127	27	54
3....	13	20	2	2	230	33	30	65	100	127	24	51
4....	16	28	4	2	238	38	30	67	120	127	32	51
5....	18	28	8	1	264	38	28	67	145	144	31	51
6....	20	39	8	0	358	38	38	67	100	144	31	59
7....	20	33	8	0	296	51	47	73	86	144	36	188
8....	20	20	5	1	296	38	48	98	86	144	39	770
9....	22	22	5	0	327	38	44	98	86	127	30	1480
10....	30	26	8	4	327	51	46	76	86	490	26	358
11....	30	30	8	2	240	51	44	67	86	240	22	86
12....	46	42	8	1	98	51	48	63	98	144	62	560
13....	36	46	6	0	51	51	51	59	144	127	50	358
14....	26	50	6	1	51	51	48	55	127	110	39	100
15....	42	54	5	1	51	51	51	51	490	110	37	85
16....	54	39	4	3	51	51	53	51	296	110	34	70
17....	67	26	4	1	51	51	43	59	166	98	34	70
18....	77	24	3	1	51	51	42	59	144	76	31	70
19....	87	26	2	2	44	51	44	62	166	65	28	70
20....	54	36	2	6	44	59	48	62	166	62	30	110
21....	30	50	5	8	44	44	50	76	166	61	26	76
22....	26	46	8	8	38	51	50	86	166	82	33	67
23....	22	39	4	8	51	44	52	98	166	88	26	67
24....	24	33	4	14	38	38	52	67	144	80	24	144
25....	24	33	2	18	38	59	54	67	127	71	50	423
26....	24	42	2	58	38	67	54	59	110	41	360	240
27....	24	33	1	62	38	76	56	59	240	78	150	110
28....	24	18	1	128	38	51	58	60	1200	69	86	76
29....	20	9	1	168	....	44	58	65	268	34	76	67
30....	20	2	0	190	....	41	60	70	127	38	91	166
31....	20	....	0	206	....	33	....	75	....	33	71	....
Total	962	934	126	901	3827	1493	1383	2107	5591	3518	1660	6139
Mean	31.0	31.1	4.06	29.1	137	48.2	46.1	68.0	186	113	53.5	205
Max.	87	54	8	206	358	76	....	98	1200	490	....	1480
Min.	13	2	0	0	38	33	....	86	33	22	....	51
Acre-ft.	1910	1850	250	1790	7610	2960	2740	4180	11100	6950	3290	12200

Discharge of McElmo Creek near Cortez for Year Ending Sept. 30, 1928.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	107	164	28	40	40	67	40	53	68	67	17	6
2....	82	126	28	46	40	74	40	60	68	67	36	4
3....	74	116	28	34	67	90	40	67	76	60	20	3
4....	74	98	28	34	126	82	34	67	76	61	35	2
5....	67	95	19	34	110	60	34	60	76	61	24	2
6....	67	82	19	34	80	60	34	46	61	48	24	2
7....	67	70	28	35	70	53	34	67	63	35	24	2
8....	67	70	24	35	60	53	28	90	56	29	16	3
9....	74	67	20	35	46	46	28	90	63	29	10	3
10....	82	64	25	35	67	46	34	98	63	24	10	3
11....	82	63	25	34	82	40	34	98	78	24	1b	3
12....	82	61	30	34	67	46	28	98	85	25	12	3
13....	82	60	34	34	40	40	34	116	85	21	10	3
14....	74	56	28	34	60	60	28	116	95	20	9	3
15....	82	53	25	40	45	67	28	107	87	16	7	3
16....	82	53	25	40	40	67	28	98	79	10	6	2
17....	82	53	25	28	40	53	28	98	79	10	5	2
18....	82	60	25	19	40	46	34	82	103	12	4	2
19....	79	60	25	19	40	46	34	90	103	16	3	2
20....	78	53	20	19	40	53	40	98	87	53	3	2
21....	76	53	20	24	34	60	40	98	96	53	2	2
22....	76	53	20	28	34	53	40	90	105	27	3	2
23....	70	40	20	34	34	28	40	90	105	39	18	3
24....	64	30	20	24	34	28	40	98	96	33	14	2
25....	64	28	25	24	40	34	40	98	105	23	11	2
26....	67	34	30	28	40	34	46	126	96	22	9	2
27....	64	34	35	34	46	34	34	116	90	32	7	2
28....	67	28	46	34	53	34	34	107	82	32	3	2
29....	93	28	28	40	67	34	53	98	67	38	3	2
30....	85	28	24	40	....	40	60	82	67	25	3	3
31....	76	....	40	40	....	40	....	74	....	17	3	....
Total	2368	1830	817	1013	1583	1568	1089	2776	2460	1029	366	77
Mean	76.4	62.7	264	32.7	54.6	50.6	36.3	89.5	82.0	33.2	11.8	2.57
Max.	107	164	46	46	126	90	60	126	105	67	36	6
Min.	64	28	19	34	28	28	28	46	56	10	2	2
Acre-ft.	4700	3730	1620	2010	3140	3110	2160	5500	4880	2040	726	153

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



CHAPTER XV

**ANNUAL REPORTS
OF
IRRIGATION DIVISION
ENGINEERS
FOR
1927-1928**

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER
OF IRRIGATION DIVISION NO. 1 FOR 1927

December 1, 1927.

Mr. M. C. Hinderlader,
State Engineer.
Denver, Colo.

Dear Sir:

I herewith submit a report for Irrigation Division No. 1 for the year 1927.

The prediction in April that the South Platte River would have a 40 per cent greater seasonal flow than normal has now been reduced to a runoff of 80 per cent of the mean annual discharge.

No floods in the South Platte River during the season, and the maximum amount of water passing from District No. 1 to No. 64, was reported as an average of 1,679 second-feet during the week ending April 23rd.

More snow fell during March than during the months of January and February combined, and was the second wettest March in the history of the state.

The precipitation during May was reported as 1.14 inches below normal.

June broke all records for rain during the past forty years, and saved the small grain and made almost certain a new sugar beet crop record.

The mild weather conditions that have prevailed this fall have materially increased the sugar content of the beets, estimated as 1 per cent a week; and has an important bearing on the profits of the sugar company, as the cost of grinding poor beets is the same as that for grinding good ones.

The first use of water for direct irrigation was reported from Districts Nos. 1 and 64, during the week ending April 2nd, for beet planting.

All water commissioners reported excess moisture, rain or snow, during the week ending April 16th.

The first demand for water to supply shortage for direct irrigation was received May 7th from District No. 2 for 400 second-feet to supply appropriations prior to January 1, 1880, and the South Platte River was reported "dry" below the Fulton, Brantner, Platteville, Hewes and Cook, and Lower Platte and Beaver ditches. This shortage was supplied by the rain of May 8th.

On May 14th District No. 1 reported using water to irrigate beets up, on account of high winds drying up the ground. Orders were sent to Districts Nos. 2 to 9 and 23, to shut down all ditches and reservoirs of later date than May 31, 1907, to supply Riverside Irrigation District.

On May 17th District No. 2 reported shortage of 200 second-feet prior to January 1, 1879. Orders were sent to Districts Nos. 7, 8, 9 and 23 to stop all storage and to shut down all ditches of later date than January 1, 1879, also phone to No. 8 to only shut out 200 second-feet from Highline Canal.

On May 18th, District No. 1 made demand for 512 second-feet for direct irrigation prior to January 1, 1889. Orders were sent to Districts Nos. 3, 4, 5 and 6 to stop all storage in reservoirs. All of the water was at once diverted by their own ditches for direct irrigation.

On May 22nd, the Highline Canal of date January 18, 1879, was shut down to supply prior appropriations in District No. 2.

On May 30th, 300 second-feet were discharged from Lake Cheesman to the credit of Antero Reservoir for the Highline Canal.

On July 21st District No. 2 was short 70 second-feet for 1866 appropriations. This was low-water mark for the season in that district.

On September 30th, by request, permission was given to District No. 3, to store water in reservoirs senior to January 1, 1889.

On October 10th orders were sent to Districts Nos. 1 to 7 to store in decreed reservoirs of date prior to January 1, 1905, any water not needed for direct irrigation.

On October 25th orders were sent to Districts Nos. 2 to 7 to store in any decreed reservoir, as all demands below Denver for direct irrigation were supplied.

Highline Canal stopped diversion for direct irrigation on October 31st.

On November 3rd order was sent to District No. 9 to store in decreed reservoirs of date prior to January 1, 1886, as Barr Reservoir was not demanding water for her 1885 appropriation.

Barr Reservoir on November 19th was reported supplied as to its 1885 appropriation.

On November 22nd permission was given to store water in Antero, Cheesman and Marston Reservoirs.

Irrigation officials should be prohibited from drinking intoxicating liquor, not only on but off duty, inasmuch as it is a violation of the laws of the state. A second arrest for being intoxicated should automatically remove him from office.

Query: Is it true that "In this day and generation, the idea that forests either decrease or increase the quantity of rain that falls from the clouds is not worthy to be entertained by rational, intelligent men?"

Respectfully submitted,

F. COGSWELL,
Irrigation Division Engineer,
Irrigation District No. 1.

IRRIGATION DIVISION NO. 1

IRRIGATION DIVISION NO. 1

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL CROP REPORTS FOR THE IRRIGATION SEASON OF 1927

(1)	(2)	(3)	(4)	(5)	(6)	(7)
CROPS IRRIGATED FROM CANALS IN ACRES						
District	Total No. of Acres that can be irrigated (see note)	Alfalfa	Natural Grasses	Cereals	Orchards	Market Gardens
1	197,324	44,575	24,285	30,870	120	....
2	254,836	47,242	16,567	65,175	607	4,918
3	389,140	84,675	5,450	68,480	2,258	2,921
4	141,430	44,705	295	65,830	2,145	4,875
5	103,773	22,874	3,082	49,590	597	305
6	200,000	33,440	62,630	54,470	769	548
7	117,190	37,260	1,899	42,286	3,752	14,727
8	119,816	18,395	1,518	20,127	1,063	1,727
9	25,316	8,604	3,410	9,927	112	75
23		No Annual Report received.				
47		No Annual Report received.				
48	8,176	....	5,972	....	....	....
64	223,029	34,975	31,747	44,539	125	316
65	6,970	1,577	131	574	45	14
Totals	1,787,000	378,322	156,986	452,168	11,593	30,426
						53,381

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.

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL CROP REPORTS FOR THE IRRIGATED SEASON OF 1927

(8)	(9)	(10)	(11)	(12)	(13)	(14)
CROPS IRRIGATED FROM CANALS IN ACRES						
District	Sugar Beets	Beans	Peas	Cabbage	Lettuce	Other Crops
1	32,895	6,225	100	13	....	15,593
2	37,844	17,087	586	3,045	....	4,487
3	55,057	3,840	1,406	2,768	....	7,574
4	11,890	1,960	1,165	1,145	....	2,690
5	10,630	450	900	235	....	2,290
6	14,400	1,025	806	461	....	1,650
7	2,007	325	334	1,288	138	512
8	1,808	470	....	....	....	1,390
9	326	32	....	....	....	22,497
23		No Annual Report received.				
47		No Annual Report received.				
48 . . . . .	....	....	....	....	....	5,972
64	32,533	451	....	....	....	10,218
65	109	....	....	....	....	724
Totals	199,499	31,865	5,297	8,955	138	47,128
						1,375,758

IRRIGATION DIVISION NO. 1

A SUMMARY OF THE ANNUAL REPORTS OF THE WATER COMMISSIONERS FOR 1927 IS AS FOLLOWS:

If we take Districts 1 to 9, both inclusive, and District No. 64, covering the South Platte River and its tributaries from Platte Canon to the Colorado-Nebraska line, a distance of 250 miles, we have the following table:

District	(1) Total No. of Acres that can be irrigated	(2) Amount of Reservoir water used for irrigation in acre-feet (See Note)	(3) No. of Acre- Feet diverted by ditches dur- ing season from natural streams for irrigation	(4) Total number of acres irrigated
1	197,324	173,850	296,664	157,468
2	254,836	97,550	273,466	205,591
3	389,140	103,081	306,738	268,140
4	141,130	23,174	123,172	141,420
5	103,773	24,225	76,312	91,019
6	200,000	27,201	127,310	170,834
7	117,190	7,681	142,334	104,773
8	119,816	11,747	103,291	47,621
Marston Lake not included. Used by Denver Water Co. for domestic purposes.				
9	25,316	9,656	29,892	22,497
64	223,029	130,533	171,367	157,063
Totals . . .		1,771,854	608,098	1,650,546
1,366,426				

Marston Lake, capacity 19,795 Acre-Feet. Storage on May 1, 16,482 Acre-Feet.
Storage on Nov. 1, 12,151 Acre-Feet.

NOTE: "Amount of Reservoir Water Used" in Column (2) represents the Acre-Feet of water in the reservoirs on May 1st, plus the amount diverted from the rivers for storage from May 1st to November 1st, plus the amount of reservoir water diverted from other districts; minus the acre-feet of water reported in the reservoirs on November 1st, minus the amount of reservoir water sent to other districts.

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER
OF IRRIGATION DIVISION NO. 2 FOR 1927

Pueblo, November 24, 1927.

M. C. Hinderliser,
State Engineer,
Denver, Colo.

Dear Sir:

I herewith submit to you my annual report for the irrigation season of 1927. The snowfall in the mountains was above the average. It amounted to a water content of 6.37 inches. The average water content of the snowfall for the past fourteen years amounts to 4.15 inches. The runoff from the snowfall supplies most of the irrigation water during the month of June as well as most of the storage water captured in that month.

The spring season was cold, dry and windy. It was very unfavorable for starting and growing of crops. Under many of the ditches the small grain crop was a failure and under others that had a fair water supply it was far below the average.

The first cutting of alfalfa was short but the second and third cuttings were good and on the whole the crop was but little below the average.

During the summer months there was an abundance of rains which were of great aid to growing crops. Below I give a tabulation showing the amount of rainfall for each month with the average rainfall for the month shown below:

	Nov.	Oct.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
	1926	1926	1927									
Average	.07	.07	.72	.23	.90	1.18	.07	.95	1.89	1.86	2.50	1.15
Average	.037	.037	.46	.35	.47	.86	1.43	1.68	1.47	1.97	1.57	.61

This statement shows that during the months of June, July and August there was a good rainfall. Considerable excess water was stored in reservoir for use next season. The summer rainfall was a relief from the effects of a drouth that had continued throughout the spring months. The rainfall was short 1.49 inches on June 1st. All crops responded to the rainfall. One of the best corn crops was grown in the Arkansas Valley. Melons received too much moisture so that the flavor was damaged. In places the leaf rust affected the sugar beets.

The amount of water in storage on May 1st was 115,890 acre-feet, this included the amount stored for domestic and manufacturing purposes. The amount in storage on November 1st was 194,650 acre-feet, which will be carried over for use next season. Reports of the amount of reservoir water used during the past season give a total of 92,869 acre-feet of water applied to crops. Much

more would have been used if it had been available. Reservoir water is being appreciated more each year.

Some new development work to increase the storage supply of water is contemplated but it will take some time to mature plans and arrange for money with which to build.

Another transmountain diversion is in the process of construction over Fremont Pass. It will be completed during the 1928 season. This will require another installation of a self-register and a system of daily reports and will add to the work of this office. The duties of looking after the transmountain diversions and reservoir runs and exchanges between reservoirs and ditches is a considerable part of the work of this office. Each reservoir and transmountain diversion require separate accounting and system of daily reports. The system is getting more complicated each year and greater attention must be given these duties to avoid errors and to see that the rights of others are not injured.

We have continued to operate the river and the various ditches with the aid of the self-registers which give universal satisfaction and are a great aid to the Water Commissioners.

Several new Venturi flumes have been installed during the past year. This new measuring device has many advantages over the weir and old style rating flume. We are urging the installation of new Venturi flumes at every opportunity. I am firmly convinced that each ditch, whether large or small, should be equipped with a Venturi flume, in fact, should be required to install one, as the cost per acre or per farmer is less for a large ditch than for a small ditch.

At the last annual meeting of the Water Commissioners of Irrigation Division No. 2 held in my office on September 8th a resolution was passed that it was the opinion of those present that all ditches should be equipped with Venturi flumes.

Accurate measurement of water is a great aid to the Water Commissioners in the discharge of their duties and prevents ill-feeling and disputes.

The acreage in alfalfa is reported as 209,830; cereals 122,928 acres. The sugar beet acreage is reported at 2,517 greater than last year. All acreages with the exception of sugar beets are reported slightly less than a year ago.

The variety of crops grown is the same as grown for the past several years. Head lettuce, cauliflower and peas are netting the farmers good returns in the mountains, while alfalfa, cereals, melons, seed crops and sugar beets are the staple crops in the valleys.

In conclusion I desire to thank all those connected with the service for their hearty co-operation in the discharge of their duties assigned to them.

Yours truly,

C. W. BEACH.

IRRIGATION DIVISION NO. 2

District of Columbia										District of Columbia									
Alfalfa					Cereals					Market Gardens					Sugar Beets				
(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	
0	8,189	2,673	2,458	189	379	..	102	..	235	4,038	18,773	..	..	\$ 4,660.00	\$ 1,105.00	\$ 4,660.00	\$ 1,105.00	
1	6,394	8,124	..	59	46	528	13	251	..	2,831	..	22,126	\$ 1,505.00	..	..	..	..	1,395.00
2	8,610	1,981	5,943	5,945	380	43	..	289	338	1,686	23,059	..	..	..	..	..	..	..
3	1,599	11,695	1,738	45	15	42	..	126	115	437	15,802	..	..	617.00	..	..	..	..
4	45,140	16,570	17,795	1,181	1,260	..	8,100	..	4,720	27,755	120,701	22,497.00	..	32,848.00	..	..	..	1,300.00
5	4,460	3,368	2,508	31	25	10	110	..	21	35	10,385	..	..	..	..	..	..	2,305.00
6	19,126	7,979	8,856	511	1	10	716	..	2,289	2,252	41,840	16,740.00	..	6,130.00	..	..	..	4,580.00
7	65,506	3,988	54,897	510	879	130	10,673	85	3,487	28,991	172,013	32,490.00	..	47,970.00	..	..	..	47,000.00
8	3,555	359	720	..	..	..	..	..	..	..	..	..	4,647	..	..	..	..	..
9	15,965	5,437	4,555	68	254	..	133	60	2,095	3,505	32,072	3,320.00	..	14,435.00	..	..	..	26,054.00
7	31,286	2,062	19,604	203	243	1	2,329	..	214	3,863	59,805	16,190.00	..	24,620.96	..	..	..	2,800.00
Totals	.....	209,830	64,186	122,928	8,742	3,432	764	22,176	8,110	18,271	72,552	521,223	\$ 92,742.00	\$ 131,280.96	\$ 86,539.00	\$ 86,539.00	\$ 86,539.00	\$ 86,539.00

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER
OF IRRIGATION DIVISION NO. 3 FOR 1927

Alamosa, November 26, 1927.

Mr. M. C. Hinderliser,
State Engineer,
Denver, Colo.

Dear Sir:

As provided by statute I am herewith submitting my annual report of Irrigation Division No. 3 for the fiscal year ending November 30, 1927.

The heavy rains that fell during the first part of July caused considerable damage from overflowing land along the Rio Grande and Conejos Rivers, but gave an opportunity to store considerable amount of water in the reservoirs.

The present season has been a very successful one for the farmer, while the price of potatoes is low the large yields per acre show good returns.

Attached hereto is a tabulated statement of the Water Commissioners' annual ditch and reservoir reports. You will notice that I have not followed the old form of giving the length of ditches and laterals, also have not attempted to give cost of superintendence, repairs and improvements. I have omitted these for the reason that some districts make no report and others only partial ones.

Respectfully submitted,

E. S. COUNSELOR,
Irrigation Division Engineer,
Division No. 3.

IRRIGATION DIVISION NO. 3

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL
DITCH REPORTS FOR THE IRRIGATION SEASON OF 1927.

District Number	Amount of Appropriations in Second Feet Reported	First Day Water Diverted from Natural Streams for Irrigation	Last Day Water Diverted from Natural Streams for Irrigation	Max. No. Days Water Diverted from Natural Streams for Irrigation
20.....	5,893.73	Apr. 1	Oct. 1	153
21.....	1,619.93	Mar. 15	Nov. 1	221
22.....	3,439.50	Apr. 15	Nov. 1	214
24.....	408.33	Mar. 3	Nov. 6	248
25.....	860.69	Apr. 1	Oct. 30	183
26.....	527.75	Apr. 1	Nov. 1	214
27.....	101.60	Mar. 25	Oct. 15	202
35.....	665.09	Apr. 1	Oct. 30	214
13,516.62				

District Number	Amt. 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	34,168	471,535	389,103
21	17,096	64,089	108,941
22	45,000	231,710	129,807
24	29,904	28,992	24,038
25 .....	....	86,780	75,710
26 .....	....	48,445	47,997
27 .....	....	....	5,720
35	4,265.3	59,082.7	61,834
Totals	130,433.3	990,633.7	843,150

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL
DITCH REPORTS FOR THE IRRIGATION SEASON
OF 1927—Continued

District Number	Alfalfa	Peas	Beans	Natural Grasses
20	53,467	51,646	5	75,640
21	10,579	5,482	375	26,192
22	15,785	11,970	468	42,759
24	6,992	10,797	590	2,985
25	2,485	300	....	26,650
26	3,150	....	....	39,929
27	603	360	2	5,595
35	3,214	2,140	94	7,267
Totals	96,275	82,695	1,534	225,017

District Number	Cereals	Orchards	Market Gardens	Potatoes
20	50,692	1	1,584	40,049
21	7,664	....	124	2,508
22	20,059	....	178	1,601
24	8,488	78	1,062	233
25	2,610	....	....	171
26	987	....	....	....
27	....	(No report)	....	226
35	1,823	....	371	70
Totals	92,323	79	3,319	44,558

District Number	Lettuce	Sweet Clover	Other Crops	Total Irrigated In Acres
20	2,473	16,063	160,948	452,568
21	....	....	3,060	55,934
22	1,375	9,600	3,068	106,863
24	720	....	1,258	33,203
25	....	....	30,000	62,216
26	40	....	3,696	47,802
27	....	....	699	5,435
35	229	342	....	15,550
Totals	4,837	26,005	202,729	779,671

NOTE: Garden Peas, Cabbage, Cauliflower and Spinach reported under "Market Garden," and about 300 acres of Sugar Beets are reported under the heading of "Other Crops."

	April	May	June	July	August	September	October	November
Rio Grande	42,061	17,292	41,950	46,873	33,249	19,220	43,878	32,143
Santa Maria	11,541	13,114	19,820	25,139	22,114	11,892	15,202	19,796
Terrace	3,226	3,413	3,228	12,270	10,068	7,155	11,925	10,267
La Jara . . . . .	....	2,244	1,970	1,183	981	957	1,281	1,116
Mountain Home	6,547	7,133	6,682	6,397	5,800	4,505	4,341	5,049
Smith	5,336	5,336	4,171	3,514	3,424	2,601	2,805	3,210
Sanches	10,000	10,369	9,720	7,939	4,274	5,280	8,429	10,369
East Dale No. 1	250	348	980	600	350	....	....	200

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER
OF IRRIGATION DIVISION NO. 4 FOR THE YEAR 1927

Montrose, November 28, 1927.

State Engineer,
Capitol Building,
Denver, Colo.

Dear Sir:

This being the end of another fiscal year, herewith is submitted for your consideration my annual report for the season of 1927.

During the months of December, January, February and March, the irrigation division engineer of this division worked in the office of the State Engineer while recovering from a recent injury.

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 of April and May we had an excessive amount of high, steady winds, 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 to fill the reservoirs, as well as for direct irrigation, in various portions of the division, and for a time it seemed as though it would be impossible to get sufficient storage water. However, during the latter part of June and for a considerable part of the summer, the runoff was very heavy and we had an abundance of water not only to fill the reservoirs but also for direct irrigation.

Excessive rains and cloudbursts during the latter part of July and early part of August did considerable damage in Ouray and La Plata Counties to ditches, headgates and rating stations. On the Grand Mesa watershed we lost two reservoirs, the Ryan and Youngs Creek No. 1. The failure of these two reservoirs caused considerable damage to Youngs Creek and also to the county roads and bridges. The cause of the failure was inadequate overflows. It was necessary to remove stop-logs from the overflows of several reservoirs in order to limit the storage to safe amounts.

On the morning of July 14th the Water Commissioner of District No. 40 notified this office that the Fruit Growers Reservoir was in a dangerous condition. This reservoir is located some 35 miles from Montrose, in Delta County, just above the town of Austin, and much damage to life and property would result from the failure of the dam. Upon arrival at the reservoir some time about daylight, we found that the dam had sloughed off on the lower side for a distance of about 100 feet in length and to a

depth of some 10 or 15 feet. Owing to the amount of water running into the reservoir, it was impossible for a time to lower the head, though both headgates were wide open. Men were put to work cutting a channel at the north end of the dam. The head was finally lowered enough to relieve the dam so that no damage resulted from the sloughing off mentioned above.

The State Engineer came over some time later and outlined the necessary repairs to be made before the irrigation season next year.

The State Engineer also examined a large number of reservoirs on the Grand Mesa watershed and also in the southwestern part of the state, and ordered a considerable amount of work done on the various reservoirs. However, owing to the excessive rains during the month of September, it was practically impossible to do as much work as outlined by your office. The Surface Creek Ditch and Reservoir Company was able, however, to raise and strengthen the dam on Barren Lake, spending about \$3,000 for this purpose. We were detailed by the State Engineer to supervise this work, which we did.

The crops generally throughout the division were not up to the usual standard. The potato crop in the Uncompahgre and Grand Valleys was almost a failure, and during the haying season that crop was considerably damaged by heavy rains. An order, issued by the United States Department of Agriculture, compelled the apple growers to wash their apples before marketing. This order was a great hardship to the apple growers and resulted in a considerable amount of expense and loss.

About four years ago it was necessary to arrest and prosecute a water user in Delta County for the unlawful taking of water and disregarding the orders of water officials. This offender was convicted in the county court of Delta County, which conviction was sustained by the Supreme Court of the state. About two years ago a writ of execution was issued against the offender, but up to the present time the sheriff of Delta County has failed to serve the writ of execution—consequently this offender has escaped punishment for his unlawful acts.

The last General Assembly passed a law providing for a special deputy water commissioner to carry out the provision of the La Plata River compact. The La Plata River compact is an agreement between the states of Colorado and New Mexico relative to the distribution of water from the La Plata River. During the two previous years there was considerable friction between the two states over the enforcement of this compact. Mr. J. R. Williams was appointed special deputy state engineer and had charge of the enforcement of the terms of the compact for this year, and I am glad to report that he was very successful indeed, and very little friction resulted.

We have installed considerable more Venturi flumes during the season, and the results obtained from the use of these flumes are very gratifying. We consider this the best measuring device that we have ever used. The use of the Venturi flume does away

with a vast amount of ditch rating, and consequently gives more time for hydrographic work.

During the season the Division Engineer traveled on an average of about 1,500 miles per month. He kept up 12 rating stations and did some work on four others outside of his division, making in all about 80 stream measurements.

Mr. J. H. Baily, chief hydrographer, made several trips over the district in the interest of the hydrographic work.

RECOMMENDATIONS

A statute should be enacted providing for the appointment of two assignable Water Commissioners in each irrigation division.

We think that the Uncompahgre River should be handled by one water commissioner rather than two, for the following reasons: First. It would be less expensive. Second. There is no just reason why this should not be one district, instead of being divided at the county line between Montrose and Ouray Counties, as it is at present. One commissioner could handle the entire stream much more satisfactorily than two. This would also conserve considerable water for both districts.

In the field books, commencing with page 68, the space is for reservoir statistics. The capacities should be given in acre feet and not in cubic feet. Under the second column, the heading "Amount delivered in cubic feet," should be "Amount delivered in cubic feet per second." Under this heading "Quantity of water in reservoir," instead of "Amount in cubic feet," it should be "Amount in acre feet." Also, in the Water Commissioners' Reservoir Report blanks, column 7 should be "Capacity in acre feet." Column 8 should be "Quantity of water in reservoir in acre feet." Column 9 should be "Quantity of water in reservoir in acre feet." Column 14 should read "Average daily amount of water carried from reservoir in cubic feet per second during the season."

In closing, we wish to thank the State Engineer and the office force for their kindness and co-operation.

Attached hereto please find tabulated statement of Water Commissioners' Annual Ditch and Reservoir Reports.

Very respectfully submitted,

H. C. GETTY,
Irrigation Division Engineer,
Division No. 4.

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL
DITCH REPORTS, 1927

District Number	Ditches Reported	Number of Priorities	Amt. of Appropriation Cubic Ft. Per Sec.	Capacity of Canals and Ditches Cubic Ft. Per Second	Length of Canals or Ditches In Miles	First Day Water Was Used	Last Day Water Was Used
28...	230	254	620	2,798	241	April 1	Sept. 1
30...	168	224	579	730	240	Jan. 1	Dec. 31
33...	40	49	654	397	73	April 5	Oct. 27
34...	72	52	1,501	1,685	142	June 1	Oct. 15
40...	306	297	2,042	3,097	743	April 1	Oct. 8
41...	32	26	2,180	3,436	305	April 1	Nov. 11
42...	235	228	4,379	5,165	540	Jan. 1	Dec. 31
60...	120	129	594	704	308	April 1	Nov. 15
61...	28	35	71	92	40	Mar. 1	Dec. 1
68...	148	145	656	760	218	April 5	Oct. 1
69...	11	13	21	46	19	May 1	Sept. 10
Totals	1,390	1,452	13,297	18,910	2,869		

District Number	Average Number Days Water Was Used	Average Daily Amount in Second-Foot	Number Acre-Feet Used	Number Acres Can Be Irrigated	Alfalfa	Natural Grasses
28.....	87	583	101,114	31,356	270	30,808
30.....	71	365	78,233	53,891	11,653	6,355
33.....	70	157	31,980	33,245	10,433	.....
34.....	99	411	121,260	87,090	31,283	1,345
40.....	124	1,665	443,838	219,783	69,474	26,854
41.....	188	1,438	606,001	254,450	22,310	1,065
42.....	104	1,628	590,437	196,096	49,064	14,022
60.....	82	352	90,028	59,910	20,766	588
61.....	131	29	6,133	4,595	2,272	18
68.....	50	350	43,558	28,641	4,312	7,580
69.....	66	16	2,430	1,122	643	65
Totals .	98	6,994	2,115,012	970,179	222,480	88,700

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL
DITCH REPORTS, 1927.

District Number	Orchard	Market Gardening	Potatoes	Cereals	Sugar Beets	Other Crops
28.....	...	...	44	314	...	...
30.....	655	80	619	9,953	274	25
33.....	176	25	378	6,660	...	265
34.....	5,126	...	2,623	34,211	...	7,065
40.....	16,236	965	4,183	26,809	5,663	7,569
41.....	4,540	3,240	12,255	24,440	9,455	8,040
42.....	12,069	175	1,528	5,879	2,227	18,438
60.....	401	50	384	5,545	...	...
61.....	55	21	...	625	...	470
68.....	33	27	310	2,945	6	12
69.....	17	...	...	41	...	...
Totals	39,308	4,583	22,324	117,422	17,625	41,884

District Number	Total Acres Irrigated	Superintendence	Repairs	Improvements
28.....	31,436	.....	.....	.....
30.....	29,614	\$ 4,910.00	\$ 20,179.00	\$ 6,065.00
33.....	17,937	625.00	300.00	1,100.00
34.....	81,653	.....	4,745.00	.....
40.....	157,753	4,919.00	48,581.00	2,357.00
41.....	85,345	27,475.00	19,525.00	15,950.00
42.....	103,402	30,167.00	71,850.50	13,308.00
60.....	27,734	2,070.00	135.15	200.00
61.....	3,461	972.00	1,130.00	175.00
68.....	15,225	59.75	6,472.78	208.17
69.....	766	.....	529.00	.....
Totals	554,326	\$ 71,197.75	\$ 173,447.43	\$ 39,363.17

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL
RESERVOIR REPORT, 1927

District Number	Number in District	Area of High Water Line, Acres	Capacity in Cubic Feet	Quantity of Water in Reservoir May 1	Quantity of Water in Reservoir Nov. 1, Cu. Feet	First Day Water Was Used
30..... 3	899	1,089,290,535	230,690,640	1,026,683,460	Jan. 1	
34..... 7	1,227	56,728,550	56,125,900	29,092,820	Apr. 1	
40..... 105	3,239	1,691,729,392	1,672,648,592	364,022,702	June 4	
42..... 57	2,037	743,325,779	15,246,417	16,247,880	Mar. 24	
60..... 2	320	223,748,000	140,000,000	160,000,000	.....
61..... 1	170	.....	.....	.....	Apr. 21
Totals 175	7,892	3,804,822,256	2,114,711,549	1,596,046,862		

District Number	Last Day Water Was Used	Average Number Days Water Was Used	Average Daily Amt. in Sec. Feet	Number Acre-Feet Carried	Superintendence	Repairs	Improvements
30..... Dec. 31	183	61	31,710	.....	\$2,000.00	\$45,000.00	
34..... Oct. 30	160	46	15,000	\$2,525.00	1,000.00	.....
40..... Sept. 28	43	521	31,646	4,775.00	1,450.00	1,700.00	
42..... Sept. 30	33	124	8,307	.....	.....	.....
60..... .....	...	...	.....	.....	.....	.....
61..... Sept. 10	56	33	5,404	942.00	875.00	175.00	
Totals .....	...	...	92,067	\$8,242.00	\$5,325.00	\$46,875.00	

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER
FOR IRRIGATION DIVISION NO. 5 FOR 1927

Glenwood Springs, November 28, 1927.

Mr. M. C. Hinderlader,
State Engineer,
Denver, Colo.

Dear Sir:

In accordance with law and custom, I herewith submit for your consideration the report of my work as Irrigation Division Engineer for Irrigation Division No. 5 for the season of 1927.

The snowfall last winter was heavier than usual, and it was therefore predicted that the water supply for the summer would be exceptionally abundant and also that roads and bridges would suffer great damage following the spring thaws.

While the season has been especially favorable from the standpoint of water supply for irrigation, the expected devastation to roads and bridges from high water early in the spring did not materialize, due partly to the fact that there was more wind than usual in the higher reaches, cutting away the snowbanks at a lively rate early in the season, but carrying away the moisture by evaporation instead of the ordinary run-off which usually follows heavy snow precipitation.

Another element which entered into the matter was the fact that at the time of the 1926 late snowfall there was but little or no frost in the ground, and therefore there was no excessive run-off during the spring of 1927, the snow entering the ground, resulting in a sustained flow of the streams throughout the year. This was a very welcome condition, relieving county commissioners and road overseers of much anticipated trouble as to washouts and impassable roads, but providing a water supply that for volume and steadiness was above the ordinary, thus making glad the hearts of the farmers and water commissioners.

Frequent and rather copious rains during July and August were welcomed by those with short water rights, enabling them to produce crops rather above the average, while those possessing early decrees would have been glad if the clouds had not been so generous, for in many cases the rains followed heavy irrigations, causing the grain to fall, making it very difficult to harvest and save the crop. For the same reason the hay harvest was interfered with to a considerable extent in some localities.

Also, as a result of the more than average moisture, potatoes, though averaging well as to yield, were not as smooth as usual and there is more than the average percentage of culls from sorting.

While grain and potato yields have been good, the hay yield throughout the district is below the average. While the farmers are somewhat disappointed at the prices prevailing for field crops, this

is offset by the splendid returns from their livestock shipments, beef cattle bringing especially attractive prices.

While I have had more calls this summer from various portions of the district than I had expected, in view of the better than ordinary supply of water, there have been no complaints of a really serious nature, and I have been able to make amicable adjustment of nearly all difficulties.

The use of Venturi flumes, installed in a small way during the season of 1926, I believe, has been the means of keeping down or minimizing trouble and dissatisfaction. I am very well pleased with this device, and so are the water users who have given it a trial. This year I invaded District No. 37 with the first Venturi ever seen in that district, a five-foot size, and the result is so satisfactory that I expect to install perhaps twenty more flumes in that district in the spring.

While there has been practically no new irrigation development in the division this year, I think I can detect in the farmers a greater appreciation of the value of their water rights and likewise a greater disposition to provide the necessary equipment for their ditches, and I am sure they are showing a kindlier feeling toward the water officials and the laws under which the water is distributed.

I have had more trouble than usual this year in securing pay for the services of water commissioners and deputies, which leads me renew my oft expressed opinion that all water commissioners and deputies should be paid from state funds, entirely independent of the counties in which they work. The rate of pay is also inadequate, in view of the fact that there is no provision for allowance for car hire and incidental expenses, and in further view of the fact that the average water commissioner of today accomplishes at least three times as much in service as was possible in the days before the advent of the automobile and the improved roads of today.

There has been considerable contention throughout the division the past few years as to the value or damage to the irrigation system of beavers. Some contend that they are of great value to the farmers, while others are just as positive that they are an unmitigated nuisance. Mr. John Moore, commissioner of District No. 70, maintains that the beavers have been of a very great benefit to him and to the irrigators in his district by making possible a more steady water supply. Farmers, however, whose ditches are often interfered with by these industrious animals, do not all agree with the commissioner in this opinion. I should like to know what has been the experience of other engineers with these animals.

Thankful for the hearty co-operation of your office during the year, I am,

Yours truly,

A. J. DICKSON,
Division Engineer.

IRRIGATION DIVISION NO. 5

TABULATED STATEMENT OF WATER COMMISSIONER'S ANNUAL REPORTS, 1927.

District No.	Average Daily Amt. of Water During Season (Cu. Ft. per Sec.) from Natural Stream	Amount of Appropriation, Cu. Ft. per Sec.	Capacity Canals (Cu. Ft. per Sec.)	Length of Main Ditches Miles	First Day Water Used from Natural Stream	Last Day Water Used from Natural Stream	No. of Days Water Carried from Natural Stream
37	1,168	985	302	May 15	Oct. 1	135	
38	611.82	270.86	178	Mar. 15	Oct. 31	121	
39	513	699	202	Apr. 1	Nov. 5	145	
45	745.9	51	Apr. 15	Oct. 7	78		
52	136.31	218.7	Apr. 14	Sept. 20	57.5		
53	301.14	341.78	Mar. 2	Sept. 15	95.64		
70	147.23	107.5		Oct. 31	185		
Totals	3,623	3079.5	1247.3				

District No.	Avg. of Acre-Feet Used by Canal for Season from Natural Stream	Total No. of Acres that can be Irrigated	Alfalfa	Natural Grasses	Cereals
37	490	124,637	13,522	3,234	2,987
38	563.7	174,694	17,910	767	4,835
39	326.5	83,450	10,452	1,804	2,722
45	295.85	55,395	15,797	3,062	4,923
52	127.2	13,876	1,753	1,956	269
53	273.4	42,517	4,632	5,677	611
70	163	61,557	5,945	145	1,058
Totals	2,240	556,126	70,011	16,645	17,405

District No.	Orchards	Market Gardens	Potatoes	Sugar Beets	Beans	Peas
37			1,211			
38	676	79	3,698			
39	839	117	1,402			
45	1		798			
52	158		55			
53	65		387			
70			264			
Totals	1,746	199	7,815	877	93	36

District No.	Other Crops	Total Irrigated	Sugar-bean Production	Improvements
37		1,225	22,330	\$22,662
38		70	23,792	
39		330	18,889	\$5,041
45		109	26,030	10,021
52		9	4,046	\$9,065
53		347	10,581	
70		196	7,708	
Totals		2,586	113,376	\$7,049
				\$36,721
				\$9,210

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER
OF IRRIGATION DIVISION NO. 6 FOR 1927

Steamboat Springs, November 30, 1927.

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

Dear Sir:

I herewith submit my annual report together with Water Commissioner's annual ditch and reservoir reports for Irrigation Division No. 6, for the fiscal year ending November 30, 1927.

The past year has been peculiar in respect to its association with agriculture in general throughout this district. Both temperature and precipitation were adverse for good results during the growing season with some of the crops, but this was very minute compared to the bad effects caused by too much moisture during the harvesting of all crops.

During the month of April and the first part of May there was considerable snow fall and the weather remained cold. During the later part of May and all through June the precipitation was light with comparatively warm weather. The first week in July it started raining and continued with very short intervals of warm and dry weather periods between rains. It commenced snowing early in October and with the exception of about two weeks of dry weather the later part of October there was either rain or snow nearly continuous throughout October and November. Too much rain damaged the head-lettuce and the grain did not ripen readily. The first snow of the season caught about 90 per cent of the grain uncut. Some loss occurred through matting of the grain in the fields. The most serious damage is to the quality of the wheat caused by continued wetting and freezing since the harvest. It is hard to determine the exact amount of loss as up to the present time there is only about two-thirds of the threshing completed and a continuation of wet and unfavorable weather. The regrettable part of this condition is the fact that there was an exceptionally heavy yield this season on all crops. The season was profitable in a measure to the dry land farmers. Much rain during the summer caused a heavy growth of grain in the western portion which sometimes suffers from a lack of moisture. The western section also was more fortunate with their harvesting. Wheat in the vicinity of Hayden is reported to be averaging around thirty bushels to the acre. This is exceeded in the eastern portion along the base of the mountains. The acreage of potatoes is somewhat under the average this year. The yield runs high but in some sections the quality is reduced by having too much water.

District No. 58 includes nearly all the head-lettuce area in this division and through the failure of the Water Commissioner

to make report on this district, figures cannot be given on this crop. There was, however, more acreage planted this year than formerly, possibly around about 1,200 acres additional. The yield and quality was below the average on account of weather conditions. The number of cars shipped out was less, this was due to some extent on account of low prices.

Samples of sugar beets raised in the vicinity of Steamboat and Hayden were analyzed at the Longmont sugar factory and showed a sugar content of 16.6, 16.8 and 16.5 per cent. This showing is remarkable because the beets were planted late and dug early and had not the advantage they should to store up the sugar.

The soil here has proven ideal for volume of crop, and the climatic conditions, that is, hot days and cool nights, are favorable to stimulate the storage of sugar in the beets. This, combined with plenty of water and available acreage, should make the raising of beets very profitable, if at the same time there is means of disposing of such crop.

The demand for irrigation water has been generally less this year. The water officials, however, have been kept busy and a good progress has been made along the lines of repairs and installation of headgates and new measuring devices. Especially so in Districts 43 and 44.

It is a difficult matter to make the owners of a ditch see any necessity for these structures when such ditch has been running water for the past thirty years without any.

Headgates and measuring devices are gradually being placed and it is hoped that thereby it will not be too long a time until comprehensive and complete water commissioner's reports and records can be furnished from this division. Aside from a number of small weirs, water commissioner of District No. 44, reports the installation of Venturi flumes on the following ditches:

Craig Ditch—Two-foot concrete flume.

Tipton Ditch—Two-foot lumber flume.

Morin Ditch—Two-foot lumber flume.

He further reports a number started but will be completed too late to enclose with this report, such as the Norvell Ditch, the Deep Cut Ditch, the Jimipa Tunnel Ditch and Maybell Ditch. Water Commissioner District No. 43 reports the installation of six additional weirs in his district this season.

On October 7th and 8th, this year, there was held at Steamboat Springs, a Northwestern Colorado Agricultural Economic Conference made by the extension service of the Agricultural College at the request of the Moffat Tunnel League, included in this conference were Routt, Moffat and Grand Counties. Representative ranchers, farmers, business and professional men were in attendance to discuss agricultural development best suited for this region.

The conference was divided into a number of committees

chosen to discuss the various problems such as dairy, hogs, cattle, sheep, poultry, irrigation, range, forage, potatoes, grain, truck crop, seed crop, rodent pests, etc. Work of the committees included a study of the development during the past twenty years. The present status of the agricultural industry and finally an outline for the future.

A local chairman was named for each of the committees and a secretary was furnished for each committee by the extension service, each of whom was an expert in the line that their committee represented.

A report made at this conference that might be of interest to our department is that of the irrigation committee—L. M. Chambers, chairman, and R. L. Parshall, secretary.

"Under present marketing and transportation facilities and crops grown, no large irrigation development should be encouraged, because of excessive costs due to general topography. Extensive irrigation of bench lands under present economic conditions, now largely cropped without irrigation, would entail ditches of considerable length, subject to relatively high operating cost; steep sloping fields would require constant attention in application; numerous laterals and structures would be required in distribution. Pumping for irrigation is only feasible where conditions are most favorable. Investment exceeding \$25.00 per acre for irrigation under present economic limitations is not warranted. However, should the railroad be extended to Salt Lake City, the advantages will be sufficiently improved to warrant the expenditure of double this amount per acre."

"Extension and improvements to present ditch systems will provide for more than 50,000 acres. In most localities under present irrigation demands there is an excess water supply."

"In certain localities where shortage in water is likely to occur small storage reservoirs should be provided to assure a supplemental supply."

"Advantage in the consolidation of small ditches in a common carrier is questionable at this time. Continuous application of water to hay meadows does not produce best results. More conservative use of water is urged to prevent injury to land and promote increase of yield. Leveling of fields, where possible, is recommended as a means of more uniform distribution of water and better yield of crop."

"Restrictions in use to conserve the supply in the majority of the irrigated area is not warranted. Improvement of headworks and control of diversion is needed, and the best use of water in the present irrigated areas should be studied."

"Water commissioners should be paid a nominal salary during the 'off season' period, and be required to meet with the division engineer, spring and fall, to discuss administration problems."

"The importance of administration of water and more complete irrigation records should be impressed upon the minds of

the Board of County Commissioners, creating a closer co-operation between the county commissioners' bodies and the water commissioners."

No disputes of any serious nature have arisen this season.

Several minor difficulties between water users have been appealed to the division engineer, included among them were the Piggatt and Watson-Thompson Ditches in District No. 43, and the Clapp and other ditches on Fortification Creek, District No. 44, both of which were referred to your office for your opinion. These, together with all others, have been satisfactorily disposed of and so far as I know there is none of these old scores hanging over for the coming season.

In this connection I might add that taking the water users as a whole, you will not find a better or more law-abiding class to deal with in any irrigated section.

The local attorneys are to be complimented in their advice and counsel to the water users when they are consulted with, over some grievance by a water user.

This combination, together with, I presume, a comparatively low valuation to a water right, there are a very few water cases that reach the courts.

Included with and part of this report is an irrigation map of Irrigation Division No. 6. All available data in connection with water supply and irrigation is shown thereon. This includes all adjudicated ditches, reservoirs and present irrigated area under adjudicated ditches and reservoirs. Area that can be brought under irrigation under present ditches by an enlargement or extension thereof in most cases. Also, the area covered by known principal proposed projects, irrigation districts, etc., showing the source of supply where same is known.

There are 1,128 appropriations out of 300 different streams comprising the White, Yampa and Snake Rivers and their tributaries, with a short section of the Green River. There are 84 small decreed reservoirs with a total storage capacity of 8,353 acre-feet.

Taking the data on this map, there are at present an average of about 140,000 acres irrigated under the decreed ditches. There is water adjudicated to these ditches for 204,605 acres, and a total of about 221,000 acres that can be irrigated under present systems. These records show that there could be about 81,000 acres more brought under irrigation under the present system of ditches and reservoirs with the necessary enlargement and extensions.

Due to the lack of data on the water commissioner's reports in the past, it cannot be determined from figures as to an increase or decrease of the acreage irrigated during the past twenty years; it, however, appears from an observation and study in the field and what records that are included in the water commissioner's reports that during the past fifteen years there has been a decrease in the irrigated land under a number of the

older ditches, but this decrease is offset and the acreage increased to a small extent by new ditches and adjudication coming in during this time.

Whole ranches in some instances have abandoned irrigation, due, I presume, to several different causes. In some cases neglect of structures and canals, reservoirs, etc., have rendered the systems practically useless until extensive repairs are made. Low prices for the produce and marketing conditions have discouraged any expenditures in maintaining their systems. In some instances it may be neglect and carelessness. In other cases a careless use of water has rendered the land non-productive until some effort is made to reclaim the same.

The average amount of water being diverted at the present time for irrigation is about 12 per cent of the average amount flowing out of the state in this division (exclusive of Green River). There is no means at the present time to determine about how much of this 12 per cent is returned to the stream and included with that which leaves the state, but it can readily be seen that the per cent of return flow here would run high, as practically all present irrigated area is adjacent to the streams, the greater proportion being river bottom lands with short ditches.

Hereto is attached a tabulation and statements concerning the annual reports of the Water Commissioners.

Respectfully submitted,

B. T. CHASE,
Irrigation Division Engineer,
Division No. 6.

IRRIGATION DIVISION NO. 6

TABULATED STATEMENT OF WATER COMMISSIONER'S ANNUAL REPORTS: 1927.

	Water Districts as Decreed	Amount of Appropriation as Reported	No. of Days Water Carried	Average Daily Amount	No. of Acre-Ft. Used
43.....	998.15	769.41	12,248	609.65	73,285
44.....	780.73	204.67	1,080	144.80	10,444
54.....	355.74	.....	.....	.....	.....
55.....	40.33	12.00	37	3.00	222
56.....	16.05	.....	.....	.....	.....
57.....	403.12	.....	.....	.....	.....
58.....	1,408.30	.....	.....	.....	.....
Total.....	4,002.42	986.08	13,365	757.45	83,951

	Total No. of Acres That Can Be Irrigated	Alfalfa	Natural Grass	Cereals	Market Garden	Potatoes
43.....	33,457	16,150	6,130	3,477	1½	...
44.....	12,327	5,169	1,556	1,855	..	159
54.....	.....	.....	.....	.....	..	...
55.....	700	165	25	121	..	2
56.....	.....	.....	.....	.....	..	...
57.....	.....	.....	.....	.....	..	...
58.....	.....	.....	.....	.....	..	...
Total.....	46,484	21,484	7,711	5,453	1½	161

	Cabbage	Other Crops	Total Irrigated	Superintendence	Repairs	Improvements
43.....	..	43	25,741	\$602.80	\$10,746.48	\$1,408.00
44.....	7	152	8,898	.....	.....	.....
54.....	..	..	.....	.....	.....	.....
55.....	..	2	315	.....	25.00	35.00
56.....	..	..	.....	.....	.....	.....
57.....	..	..	.....	.....	.....	.....
58.....	..	..	.....	.....	.....	.....
Total.....	7	197	34,954	\$602.80	\$10,771.48	\$1,443.00

Note: District No. 43, complete ditch report. District No. 44, thirty-two ditches reported, or about 26 per cent of the water appropriated. District No. 54, Water Commissioner did not comply with the statistics concerning Ditch and Reservoir Report. District No. 55, complete report furnished by Water Commissioner. District No. 44, total of four ditches, only one being used. District No. 56, no Water Commissioner, there are only sixteen appropriations, totaling 16.05 in the district. District No. 57, new Water Commissioner appointed this season, was not employed long enough to enable furnishing ditch and reservoir report. District No. 58, Water Commissioner did not comply with the statutes concerning Water Commissioner Report.

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER
OF IRRIGATION DIVISION NO. 1 FOR 1928

Denver, November 26, 1928.

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

Dear Sir:

I herewith submit a report for Irrigation Division No. 1, for the year 1928.

Fears expressed in February by our paper irrigation experts that there would be a dangerous water shortage for irrigation in this division during 1928, have, as usual, proved unfounded.

On March 1st precipitation was reported as 0.14 of an inch below normal and on April 1st as 0.29 of an inch above normal. The snow storm of March 14th and 15th was general over the division and brought much needed moisture to many districts which had suffered an arid winter.

This "million dollar" storm was welcomed by the farmers as a "farm relief measure" and was a distinct boon to crops and ranges.

First diversion by the Highline Canal in District No. 8 for direct irrigation was during week ending April 7th.

Orders to stop storage in reservoirs of later date than January 1, 1889, were sent on April 17th to Districts 2 to 9 and 23, to supply shortage for direct irrigation in District No. 1.

Denver Water Company also notified to stop storage in Antero, Lake Cheesman and Lake Marston.

Rains May 9th to 11th all over the division increased the run-off enough to allow the Highline Canal to divert all she needed of her 1879 water on May 10th, and on May 12th in forenoon phone orders were sent to Districts Nos. 1 to 9 and 23, to store water in any decreed reservoir.

This order allowed storage in Antero Reservoir, Cheesman Lake and Marston Lake.

On May 15th storage was allowed in undecreed reservoirs in Districts Nos. 7 and 9.

The precipitation in the South Platte drainage for the first half of May was reported as almost twice the normal amount for May.

On May 16th two inches of rain fell at Sterling within two hours.

These rains, while delaying farm work, were of great benefit to all growing crops and to the ranges, and the outlook in the

agricultural sections of the South Platte drainage was materially improved.

Lake Cheesman was reported full on May 27th, and 360 second-feet flowing over the spillway.

On May 28th and 29th all reservoirs in Districts Nos. 1 and 2 were reported as practically full, and storage was allowed in undecreed reservoirs in Districts Nos. 3, 4, 5 and 6.

May was wetter and warmer than normal and the precipitation was 0.38 of an inch above normal for the first five months of the year.

The storm which broke the night of June 1st and extended through the night of June 3rd, was quite general in the South Platte drainage and snow fell on the main range.

The South Platte and Cache la Poudre Rivers were out of their banks in places, but very little damage was reported.

The total precipitation since January 1st was reported as 2.00 inches above normal.

On August 9th Highline Canal was ordered to shut out all of her 1879 water. This was her last diversion of river water for the season.

On August 24th all 1870 water was shut out of the Denver city pipe lines.

On September 28th all 1865 water was shut out of the Nevada Ditch, and water was discharged from Lake Cheesman to supply Cherry Creek and Mississippi Street galleries.

This was low water mark during 1928 for the South Platte River.

No. 1 reported on October 6th that the ground was so dry that unless it rains beets would have to be irrigated before they could be pulled.

The drouth since June was beginning to be severely felt in all districts in the South Platte drainage.

Winter wheat was reported dying for lack of moisture and farmers were waiting for rain before planting.

Beet digging was retarded by the dry condition of the ground.

The long dry spell since August 6th was broken by the rain of October 14th and the first snow storm of the season night of October 15th.

District No. 1 reported rain on October 16th, and ditches only diverting a small amount of water for direct irrigation and storage of the excess would commence at once. No. 2 reported all ditches shut down.

Denver City pipe lines were allowed to divert the 1870 appropriation and the Highline Canal was given permission to divert her 1879 water for the first time since she shut down on August 9th, but there was no water available at her headgate.

By request No. 9 was allowed to store 1873 water in Harriman Reservoir and District No. 3 was allowed to store prior to Riverside Reservoir (April, 1902).

No other requests for storage were received.

On October 20th permission was given to store 1885 appropriation in Barr Reservoir.

District No. 1 on October 22nd reported storage in all reservoirs except in Empire (1905). Orders were sent to Districts Nos. 3 to 7 and 9 to store in any decreed reservoir.

Barr Reservoir was not supplied her full 1885 appropriation and the reservoirs in Districts Nos. 8 and 23 were not allowed to store as they are of later date. South Platte River reported dry below Burlington headgate.

On November 7th permission was given to store any available water in Antero Reservoir, Lake Cheesman and Marston Lake.

On November 8th District No. 2 was allowed to store in any decreed reservoir and District No. 9 was refused permission to store in undecreed reservoirs.

Respectfully submitted,

F. COGSWELL,
Irrigation Division Engineer,
Irrigation Division No. 1.

IRRIGATION DIVISION NO. 1

Reports of the Water Commissioners show the following amounts of water in storage, in acre-feet, in reservoirs of capacity of 1,000 acre-feet or more, on the first of each month from January 1, 1928, to November 1, 1928, both inclusive:

NUMBER	JAN. 1	FEB. 1	MAR. 1	APR. 1	MAY 1	JUNE 1	JULY 1	AUG. 1	SEPT. 1	OCT. 1	NOV. 1
1	74,204	106,202	106,177	124,983	121,113	125,820	136,778	113,605	43,577	30,746	34,305
2	61,152	68,104	82,946	88,088	96,670	88,146	63,667	35,319	11,710	14,949	
3	54,060	61,075	67,309	76,484	82,542	134,533	122,649	60,414	32,560	10,284	
4	39,600	40,985	42,804	44,988	47,681	76,093	84,901	79,159	34,676	11,752	39,318
5	17,072	18,158	18,540	19,926	9	120,810	29,201	30,704	28,008	18,399	10,612
6	17,342	16,133	16,543	16,543	17,306	39,497	39,617	11,303	25,261	17,881	16,011
7	6,900	7,500	11,130	7	11,130	3,500	4,500	6,150	5,800	6,841	1,080
8	2,571	2,758	3,230	3,434	1, All in Castlewood Reservoir	3,134	2,833	1,562	382	510	773
9	12,769	12,722	13,228	2	Harriman and Marston Reservoirs	16,441	13,870	9,450	8,194	11,841	
22	95,737	94,067	92,466	98,556	103,816	114,392	113,766	108,292	101,798	97,692	90,659
64	70,456	83,410	99,442	106,356	98,755	106,766	111,110	99,116	50,162	16,054	32,948
Totals	440,096	591,698	528,703	591,698	602,444	753,930	761,921	668,907	399,322	247,951	293,603

IRRIGATION DIVISION NO. 1

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL
CROP REPORTS FOR THE IRRIGATION SEASON OF 1928.
CROPS IRRIGATED FROM CANALS IN ACRES

District	1 Total No. of Acres That Can Be Irrigated (See Note)	2 Alfalfa	3 Natural Grasses	4 Cereals	5 Orchards	6 Mkt. Grdns.	7 Potatoes
1	197,486	48,555	28,989	33,910	136	25	4,650
2	238,103	42,838	11,860	81,770	635	6,603	11,663
3	388,540	75,635	5,745	87,385	2,258	3,553	38,494
4	141,430	38,405	280	73,230	2,105	1,125	6,165
5	103,773	22,114	3,122	48,035	597	325	230
6	200,655	32,332	66,135	60,077	819	439	1,026
7	118,335	34,665	1,894	44,781	3,732	15,042	180
8	118,931	18,418	1,445	21,426	1,063	1,638	773
9	19,775	6,253	3,288	7,588	126	126	2
23			No Annual Report received.				
47			No Annual Report received.				
48	8,266	....	7,222	....	....	....	....
64	224,234	38,796	31,481	44,172	122	379	2,092
65	6,654	2,012	168	843	17	55	144
Totals	1,766,182	360,023	161,629	503,217	11,610	29,310	65,419

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 stream, or only used reservoir water, or used river and reservoir water combined.

District	8 Sugar Beets	9 Beans	10 Peas	11 Cabbage	12 Lettuce	13 Other Crops	14 Total Irrigated
1	28,404	5,573	....	10	...	13,886	164,138
2	30,615	19,282	571	2,821	...	4,799	213,457
3	35,031	4,022	1,509	2,513	...	12,395	268,540
4	13,090	2,205	1,415	1,275	90	2,045	141,430
5	8,435	450	850	170	...	5,936	90,264
6	7,550	1,240	885	383	...	2,337	173,223
7	1,991	315	369	1,276	174	494	104,913
8	1,297	550	....	....	...	1,150	47,760
9	800	70	....	23	...	69	18,345
23			No Annual Report received.				
47			No Annual Report received.				
48	....	....	....	....	....	....	7,222
64	31,124	1,109	....	110	...	10,652	160,037
65	179	....	....	....	...	184	3,602
Totals	158,516	34,816	5,599	8,581	264	53,947	1,392,931

**A SUMMARY OF THE ANNUAL REPORTS OF THE WATER
COMMISSIONERS FOR 1928 IS AS FOLLOWS:**

If we take Districts 1 to 9, both inclusive, and District No. 64, covering the South Platte River and its tributaries from Platte Canon to the Colorado-Nebraska line, a distance of 250 miles, we have the following table:

District	1 Total No. of Acres that can be irrigated	2 Amount of Reservoir Water used for Irrigation in Acre-Feet "See Note"	3 No. of Acre- Feet diverted by Ditches during season from natural streams for irrigation	4 Total Number of acres irrigated
1	197,486	188,633	315,134	164,138
2	238,103	104,314	297,590	213,457
3	388,540	107,331	329,155	268,540
4	141,430	37,408	144,107	141,430
5	103,773	30,712	82,640	90,264
6	200,655	28,265	130,937	173,223
7	118,335	7,789	128,139	104,913
8	118,931	13,233	126,845	47,760
Marston Lake not included. Used by Denver Water Co. for domestic purposes.				
9	19,775	12,407	33,494	18,345
64	<u>224,234</u>	<u>149,991</u>	<u>261,225</u>	<u>160,037</u>
Totals . . .	1,751,262	680,083	1,849,266	1,382,107

Marston Lake, capacity 19,795 acre-feet. Storage on May 1, 14,766 acre-feet. Storage on November 1, 11,563 acre-feet.

Note: "Amount of Reservoir Water Used" in column 2 represents the acre-feet of water in the reservoirs on May 1, plus the amount diverted from the rivers for storage from May 1 to November 1, plus the amount of reservoir water diverted from other districts; minus the acre-feet of water reported in the reservoirs on November 1, minus the amount of reservoir water sent to other districts.

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER
OF IRRIGATION DIVISION NO. 2 FOR 1928

Pueblo, November 16, 1928.

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

Dear Sir:

I herewith submit to you my annual report for the irrigation season of 1928. The snowfall in the mountains during the winter of 1927 and 1928 was below the average. The official snow report as given out by the United States Weather Bureau showed a water content of 3.61 inches on April 1, 1928. The average water content for this date is 4.11 inches. However, it continued to snow in the mountains during April and the first half of the month of May so that when the snow water started to melt the run-off was fully up to the average. The rainfall was somewhat erratic as compared with the average. During May we had a surplus of rainfall which was a great help to crops in getting them out of the ground and well started. The spring season was favorable to crops and in May and June there was an abundance of irrigation water so that everything received a good start and made a good growth. The growing and irrigation conditions were good until July. At this time the rains were less and the month of August was quite short of the average in rainfall. Irrigation water was mainly supplied from reservoirs in July and August. The rainfall and snow run-off was sufficient to give all the irrigation water needed during May and June and in addition to fill practically all the reservoirs in this irrigation division, so there was plenty of reservoir water to finish out the dry end of the irrigation season.

Below I give a tabulation of the rainfall by months beginning with November, 1927, and ending with October, 1928, together with the average rainfall for these same months. This gives some idea of irrigation conditions as they existed during the past season.

	1927	1927	1928	1928	1928	1928	1928	1928	1928	1928	1928	1928
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
	0.27	0.70	0.01	0.51	1.41	0.29	3.56	1.47	1.06	0.49	0.12	0.15
Average	0.37	0.46	0.35	0.47	0.86	1.43	1.68	1.47	1.97	1.57	0.61	0.70

The quantities are given in inches.

The total rainfall for the irrigation year ending October 31st was 10.04 inches, which was 1.93 inches below the average. This is the fifth consecutive year that the rainfall has fallen below the normal. The rainfall records at Pueblo cover a period of

forty years and during that time there has not been a like period of as long duration.

The supply of water in the reservoirs on May 1st amounted to 173,324 acre-feet. The quantity in the reservoirs on July 1st was 387,909 acre-feet. This was an increase of 214,585 acre-feet of water. The quantity in storage on November 1st was 194,144 acre-feet. There was a use of some 193,765 acre-feet of water during the dry period in July and August to mature crops. Reservoir water plays a very important part in the agriculture of the Arkansas Valley.

Crops on the whole were good. There was considerable hail in certain sections which did much damage. The melon crop was short on account of the hail. The sugar beet crop shows an increase in acreage and the yield and sugar content was good. The corn crop was below the high standard of last year but it is good. Alfalfa has the largest acreage of any of the crops. The yield was better than in 1927.

The statistics gathered by the Water Commissioners show some variation from one year ago but the change is probably due to more careful work.

There has been no material increase in the acreage cultivated and no new land has been brought under cultivation by extending the existing ditches or by the construction of new ones.

There are now three transmountain diversions bringing water into the Arkansas River watershed in Lake County. These diversions require close watching and careful accounting of the water received. They have added greatly to the work of this office but they have also added to the agricultural wealth of the country.

A careful account must be kept of all these transmountain diversions and of the runs of water from the mountain reservoirs. The system is becoming quite complicated. We have at times a reservoir running water out to two or three ditches, different amounts and starting and stopping the runs on different days and different hours of the day. There are also times when a ditch will be receiving water from two or more reservoirs. This requires careful watching and accounting to avoid errors.

This irrigation division is in great need of an additional hydrographer to be stationed in Lake County. In that vicinity there are three large reservoirs and three transmountain diversions that are all quite active in the irrigation season. There is something going on there all the time during the summer months. If they are not storing water in the reservoirs from the snow run-off and transmountain ditches, water is being run out for irrigation purposes for lands below Pueblo. These matters should receive more attention than I am able to give them by phone from Pueblo and by the visits of a hydrographer once a month who is stationed in Pueblo.

We are gradually getting more Venturi flumes installed in

both the smaller and larger canals. With the knowledge gained from experience more confidence is gained in the accuracy of the Venturi flume. The Fort Lyon Canal Company is now engaged in the construction of a Venturi flume which will have a width of 40 feet at the throat and will carry 1,800 second-feet. So far these flumes have given universal satisfaction.

We continue to operate the Arkansas River with the aid of self-registers on the larger canals. We could not give much service without them. In conclusion, I desire to thank all those connected with the irrigation service for their hearty co-operation in performing all duties assigned to them.

Very truly,

C. W. BEACH.

IRRIGATION DIVISION NO. 2
TABULATED STATEMENT OF WATER COMMISSIONER'S ANNUAL REPORTS FOR 1928.

Number of Districts	Allotments Grosses	Market Prices	Other Receipts	Potauges	Beefs	Meats	Dried Lettuce and Caudiflower	Beans, Peas, Cabbages	Total Fruits	Cost of Supervintendence	Cost of Repairs	Cost of Improvements	Total of Expenditure						
													14	15	16	17	18	19	20
10	8,949	3,210	2,302	219	496	124	335	...	370	3,868	17,929	\$.....	\$ 6,505.00	\$ 600.00					
11	4,826	5,627	4,268	61	45	674	25	...	1,682	196	17,740	.....	.....	.....		
12	8,725	1,886	5,423	3,711	422	19	...	188	689	1,799	22,862	.....	.....	.....		
13	1,464	13,380	1,468	10	17	160	...	75	134	1,068	17,716	.....	599.00	.....				
14	41,050	17,265	16,820	1,161	2,620	...	13,960	600	4,260	21,080	119,256	34,335.00	29,517.00	.....				
15	4,736	3,200	2,514	27	8	...	193	...	104	37	11,207	.....	.....	5,987.00					
16	22,563	9,764	12,896	500	8	2	1,735	...	4,067	1,479	52,999	13,570.00	10,575.00	4,150.00					
17	60,740	2,849	55,225	577	845	130	14,341	...	4,053	20,497	167,520	32,849.00	18,336.00	30,933.00					
18	2,354	534	912	...	6	...	...	2	...	4,823	.....	.....	.....			
19	21,905	7,394	6,202	68	257	...	121	...	4,353	5,512	46,087	13,466.00	28,681.00	28,227.00					
67	33,605	5,391	24,000	268	281	3	2,802	...	309	2,678	68,437	12,466.00	31,172.23	12,500.00					
Totals	211,367	70,500	132,030	6,602	4,999	1,058	33,752	863	20,023	6,014	546,576	\$106,477.00	\$125,385.23	\$82,397.00					

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER
OF IRRIGATION DIVISION NO. 3 FOR 1928

Alamosa, November 23, 1928.

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

Dear Sir:

As provided by statute I am herewith submitting my annual report of Irrigation Division No. 3 for the fiscal year ending November 30, 1928.

The present year has been a very trying one for the water officials administering water rights of this division. There has been a great deal of very hot and dry weather accompanied by dry winds which not only dried up the top of the ground but caused a very considerable loss of water by evaporation. Owing to the dry summer the crops raised are about eighty per cent of a normal year.

The cultivation of vegetable crops is increasing yearly in this valley, consisting of lettuce, cauliflower, garden peas and potatoes. The first crop of lettuce was practically a failure on account of the dry weather, and not the lack of water for irrigation, causing "tip burn." One farmer on the Conejos River tells me that he had 90 acres of early lettuce and at the time that the heads were forming he tried the experiment of sprinkling. He rigged up a contraption on wheels and sprinkled 15 acres. The 15 acres grew a good crop and the balance of the field was a total loss. The market price of lettuce this year was very low and many of the growers are very much discouraged with this crop while the price for cauliflower was high and one farmer in Costilla County claims that he had a return of better than \$2,000 per acre for his entire crop of 17 acres.

I am glad to report progress in the installation of automatic measuring devices upon nearly all of the larger canals, especially in District 20, and in the smaller ditches a great many of the Venturi flumes are being installed. The Water Users Association of District 20 have co-operated heartily with this office in the administering of water this season. They have employed a stenographer as assistant secretary of the association, Mrs. Glee Goad, who has been located in this office. Mr. Dan S. Jones, Jr., as special deputy state engineer, has had charge of the distribution of the water in connection with the regular water officials. He has done wonderful work this year and I can say that I think every water user in District 20 is thoroughly satisfied with the way that the water was handled. A bulletin was issued each morning during the irrigation season giving the amount of water

in storage and the amount coming into the district at the different gauging stations and amount of water each canal and ditch was carrying. This plan has worked so well that I would be very much pleased if some of the other water districts in my division would adopt the same.

This season has shown us the necessity of more storage of water and a great deal of interest is being taken in the building of more reservoirs. At the Vega-Sylvester site on the Rio Grande above Creede two of the possible dam sites have been tested by drilling. I understand that early in the spring they will drill on the third possible dam site. The water users on the Conejos River are organizing a district with the view of building the Conejos reservoir as soon as the compact is signed between Colorado and New Mexico. It is to be hoped that this question of compact may be settled satisfactory to the two states this winter.

A number of repairs have been made at the different reservoirs. On the Rio Grande have replaced their valve stems and concreted their spillway. Terraee Reservoir has installed new valves. The La Jara Reservoir, owing to the fact that some person unknown attempted to blow up the dam in September, have purchased and installed new valves.

Respectfully submitted,

E. S. COUNSELOR,
Irrigation Division Engineer,
Division 3.

IRRIGATION DIVISION NO. 3

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL REPORTS FOR THE IRRIGATION SEASON OF 1928

District Number	Number of Priorities Reported	Amount of Appropriations in Sec. Ft. Reported	Length of Main Ditches in Miles	Length of Laterals in Miles
20.....	429	7,513.24	1,080.5	961.5
21.....	76	1,505.83	278.25	No Report
22.....	119	3,454.36	No Report	No Report
24.....	60	265.81	....	...
25.....	96	661.73	No Report	No Report
26.....	189	546.20	No Report	No Report
27.....	32	114.01	29.75	No Report
35.....	70	790.59	172.50	135.05
Totals....	1,071	14,852.77		

District Number	First Day Water Diverted from Natural Streams for Irrigation	Last Day Water Diverted from Natural Streams for Irrigation	Max. No. Days Water Diverted from Natural Streams for Irrigation	Max. No. Days Water Carried from Reservoirs
20.....	April 5	October 31	238	117
21.....	April 2	November 16	228	144
22.....	April 1	November 15	225	...
24.....	March 23	November 15	237	180
25.....	April 1	October 31	214	...
26.....	.....	.....	246	...
27.....	.....	.....	215	...
35.....	March 29	October 25	177	140

District Number	Amt. of Water Carried from Reservoirs, Acre-Feet	Daily Average Amt. of Water Diverted by Ditches During Season from Nat. Streams for Irrigation	Number of Acre-Feet Diverted by Ditches During Season from Nat. Streams for Irrigation	Total No. Acres That Can Be Irrigated
20.....	84,174	82,094.05	348,376.16	370,913
21.....	13,018	358.14	48,643.00	75,052
22.....	.....	737.00	35,520.00	126,515
24.....	38,176	.....	33,396.00	43,988
25.....	.....	353.82	151,079.00	92,100
26.....	.....	332.27	68,067.35	49,027
27.....	.....	No Report	No Report	8,110
35.....	7,290	334.33	59,729.03	58,247
Totals....	142,658	.....	744,810.5	823,952

No. of District	Alfalfa	Natural Grasses	Cereals	Orchards	Market Gardens
20.....	43,498	88,205	46,765	..	1,668
21.....	11,129	22,892	9,160	..	243
22.....	14,845	42,469	21,089	..	241
24.....	7,139	2,531	7,201	57	1,135
25.....	2,215	28,480	2,670	..	...
26.....	3,237	41,064	845	..	...
27.....	940	5,047	385	..	...
35.....	3,328	5,031	1,498	..	590
Totals....	86,331	155,719	89,613	57	3,877

IRRIGATION DIVISION NO. 3

TABULATED STATEMENT OF WATER COMMISSIONER'S ANNUAL REPORTS FOR THE IRRIGATION SEASON OF 1928.

No. of District	Potatoes	Peas	Lettuce	Sugar Beets	All Other Crops
20.....	32,253	45,838	1,735	604	109,532
21.....	4,323	8,982	....	83	4,334
22.....	1,698	10,440	1,075	120	11,413
24.....	295	13,171	....	55	2,227
25.....	151	200	....	...	30,150
26.....	25	....	....	...	3,896
27.....	292	454	....	...	428
35.....	291	1,609	484	...	1,380
Totals....	39,328	80,694	3,294	862	163,360

District Number	Total Acres Irrigated	Cost of Superintendence	Repairs	Improvements
20.....	370,098	\$1,775.00	\$52,950.90	\$1,425.00
21.....	61,146	.....	.....	.....
22.....	103,390	.....	2,000.00	500.00
24.....	33,811	1,117.00	.....	50.00
25.....	63,866	.....	.....	.....
26.....	49,067	.....	2,171.00	870.00
27.....	7,546	.....	1,095.00	.....
35.....	14,211	5,844.31	714.34	.....
Totals....	703,135	\$8,736.31	\$58,931.24	\$2,845.00

AMOUNT OF WATER (ACRE-FEET) IN RESERVOIRS ON THE FIRST DAY OF EACH MONTH DURING THE YEAR 1928

	April	May	June	July	Aug.	Sept.	Oct.	Nov.
Rio Grande	41,749	32,742	45,988	35,122	11,923	2,729	0.0	.....
Santa Maria	23,410	23,871	30,824	28,490	6,937	1,604	2,550	.....
Terrace	8,192	7,137	13,018	7,817	3,055	0.0	....	.....
La Jara	...	...	3,249	2,666	1,136	660	...	.....
Mtn. Home	6,488	6,548.5	9,745	9,077	4,455	2,698	2,003	No Rpt.
Smith	5,336.3	5,336.3	5,336.3	4,259.5	3,884	3,169.5	2,967	2,360.4
Sanches	11,830	12,970	19,091	11,542	5,354	3,261	4,258	48
Continental	...	216	4,376	5,196	450	127	435	.....

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER
OF IRRIGATION DIVISION NO. 4 FOR 1928

Montrose, November 26, 1928.

State Engineer,
Capitol Building,
Denver, Colorado.

Dear Sir:

In filing my report for the fiscal year ending November 30th, there is very little to add to the report of the previous season.

The run-off during the months of April, May and June were remarkable from the fact that the streams were very regular in flow; the flow for weeks at a time would be practically the same. During the month of June the streams were tolerably high, but there was no excessive flow or heavy run-off. The month of May was particularly remarkable for the regularity of the flow in the streams. The amount in the various streams varied but little for the entire month. During the latter part of the season, in August and September, the streams were very low and in some portions of the division the scarcity of water for irrigation purposes was felt very severely. This was particularly true in the North Fork region and on the La Plata River.

The quantity of water stored in the reservoirs on Grand Mesa was somewhat in excess of the normal storage.

During the season several more Venturi flumes were installed throughout the division, thus doing away with the necessity of so much ditch rating.

Besides the administrative work of the division, we were able to keep up ten river stations and make a couple of trips outside of this division. On one of these trips, during the month of August, we visited other portions of the state, accompanied by Mr. M. C. Hinderlider, State Engineer, who made an extensive examination of the various reservoirs on Grand Mesa, and ordered a considerable amount of improvements made. As a result of his examination of the various reservoirs, a vast amount of work was done by different reservoir companies on the Grand Mesa watershed; and from the middle of August to the middle of October, most of the time of the division engineer was spent in supervising the work being done, at the request of the state engineer.

While our expense account was depleted to the extent of \$600 for a new car, we will be able, by strict economy and inspecting reservoirs on Grand Mesa, to pay back practically the whole amount. The crops throughout the division were generally good, but the prices for farm products were very discouraging on certain classes of crops. Alfalfa brought a good price, as also

did sugar beets and onions, but the price of potatoes at digging time was so low that it barely paid for digging. The price of fruit, especially apples, was also very discouraging, and a large amount of the apple crop was not harvested—especially for commercial purposes. The farmers are still afflicted by the order from the Agricultural Department compelling the washing of apples.

We made but one trip to the southwestern part of the state, as the distribution of water under the La Plata River compact is under the immediate supervision of Mr. J. R. Williams, special deputy state engineer.

There are two important reclamation projects in this division, one being the Grand Valley Project and the other the Uncompahgre Project. The brief summary of the accomplishments during the year for the Uncompahgre Project is given by the project manager and is attached to this letter.

In our report for last year we made a few recommendations advocating certain changes, which we very much hope will be accomplished during next year.

Attached herewith is a tabulated statement of the Water Commissioners' Annual Ditch and Reservoir Reports.

Sincerely yours,

H. C. GETTY,
Irrigation Division Engineer,
Division No. 4

UNCOMPAHGRE PROJECT, COLORADO

Season of 1928

The Uncompahgre Project was continued in operation by the Bureau of Reclamation of the Department of the Interior during the season of 1928.

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 \$1.60. The 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 \$1.20 per acre. Excess water was furnished to water users at the rate of \$0.40 per acre-foot.

The project canals and laterals were operated almost continuously during the year. No operating troubles of any consequence were experienced in connection with the operation of the Gunnison Tunnel and the South Canal. The operation of canals and laterals in the highline district west of Olathe was more or less intermittent during the month of July due to numerous cloudbursts which occurred and which at times caused washouts to flumes and other structures of the irrigation system.

The supply of water available for irrigation purposes was generally sufficient to meet all irrigation demands throughout the entire irrigation season. The supply available from the Gunnison River was particularly good in this respect and held up much better than during all years since the year 1921. The supply available from the Uncompahgre River was about normal.

Generally good yields have been obtained by project farmers during the season of 1928 for all crops. The hay crop for all cuttings was put into the stack this year in practically all sections of the project without loss from rain damage. The prices received by the project farmers for all crops raised have been good generally except for potatoes but it is anticipated that a better price will be had for the stored potatoes after the first of the year. The prices paid to onion growers for the onion crop were especially good.

It is estimated that approximately 62,000 acres were irrigated during the season of 1928. 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 during former years. Approximately one-third of the project is in alfalfa.

The various co-operative organizations in existence for the disposal of the crops raised on the project are generally in a flourishing condition.

It is estimated that about seven carloads of turkeys will be shipped out of the project by the poultry organization for the Thanksgiving trade.

A veneer and box plant—the only one located between Denver and the west coast—has been constructed in the town of Montrose and it is anticipated that operations will begin sometime during the spring of 1929. It is also expected that a debarking plant will be completed during 1929 at Montrose. This plant will receive spruce logs from the mountain areas adjacent to Montrose and remove the bark in this plant, after which the stripped logs will be shipped to Wisconsin and ground into paper pulp.

The adjustment contract between the Uncompahgre Valley Water Users' Association and the United States has practically been consummated and about 97 per cent of the project water users have assented by formal document to the contract. There only remain some legal questions to be determined before the contract becomes fully operative. So far as project payments are concerned the contract is tentatively in operation and project water users are paying on the basis of the adjustment contract rates provided they have executed the necessary assent thereto.

This contract in short gives the project water users a water right at the rate of \$52 per acre and also gives them a period of 40 years from December 1, 1922, in which to pay out said water right and no interest is charged if the annual installments are paid as they become due. The contract also provides that delinquencies in operation and maintenance and also in construction payments, which have occurred during past years, may be paid to the United States on a deferred basis plan, four additional years being given for the operation and maintenance delinquencies and 10 years for the construction delinquencies. In this connection it may be well to state that approximately 40 per cent of the project water users have all their charges paid up to date.

The operation and maintenance charges for the project are being collected in advance by the Uncompahgre Valley Water Users' Association and are turned over to the United States for operation and maintenance purposes.

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL
DITCH REPORTS, 1928.

District Number	Bunches Reported	Number of Priorities	Amount of Appropriation Ch. Ft. Per Sec.	Capacity of Canals and Ditches Cn. Ft. Per Sec.	Length of Canals or Ditches in Miles	First Day Water Was Used	Last Day Water Was Used
28.....	237	266	653	2,856	251	April 15	Sept. 1
30.....	168	226	578	735	237	Jan. 1	Dec. 31
33.....	41	48	635	399	73	April 3	Oct. 13
34.....	60	48	1,481	1,630	122	May 1	Oct. 15
40.....	352	291	2,106	3,216	807	Mar. 28	Oct. 15
41.....	32	28	2,083	3,253	305	Mar. 15	Oct. 31
42.....	256	253	4,427	5,231	603	Jan. 1	Dec. 31
60.....	114	134	...	711	295	April 1	Nov. 15
61.....	21	36	67	103	28	Mar. 1	Nov. 15
68.....	145	142	653	781	228	April 1	Oct. 18
69.....	11	13	24	45	17	May 1	Sept. 15
Totals	1,437	1,485	12,727	18,960	2,966		

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL
DITCH REPORTS, 1928.

District Number	Average Number Days Water Was Used	Average Daily Amount in Sec. Ft.	Number Acres Can Be Irrigated	Number Acres Irrigated	Alfalfa	Natural Grasses
28.....	85	626	119,533	32,189	170	31,595.5
30.....	101	371	119,790	53,993	12,096	6,003
33.....	57	1,096	22,518	33,548	10,396	.....
34.....	86	390	106,780	85,480	30,350	1,505
40.....	125	1,391	401,754	239,026	71,057	29,357
41.....	191	1,496	631,636	194,020	20,856	915
42.....	110	1,616	603,764	206,118	51,553	13,993.5
60.....	82	336	89,358	40,535	20,522	730
61.....	125	22	5,144	4,238	2,157	42
68.....	73	361	64,275	25,035	4,229	7,025
69.....	45	9	751	1,247	711	70
Totals...	98	7,714	2,165,303	915,429	224,097	91,236

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL
DITCH REPORTS, 1928.

District Number	Orchard	Market Gardening	Potatoes	Cereals	Sugar Beets	Other Crops	Total Acres Irrigated
28.....	.....	.....	46.5	255.5	.....	.....	32,067.5
30.....	593	52	577	9,654	55	.....	29,030
33.....	176	30	437	6,060	.....	235	17,334
34.....	3,114	.....	1,537	33,393	.....	3,132	73,031
40.....	17,308	1,360	5,040	26,181	4,539	8,183	163,025
41.....	3,979	2,525	10,090	25,135	10,730	15,123	89,353
42.....	11,991.75	191.5	1,579	6,142.5	2,325	18,692.75	106,469
60.....	134	50	270	4,964	.....	.....	26,670
61.....	23	18	.....	460	.....	214	2,914
68.....	36	24	356	2,685	1	18	14,374
69.....	14	.....	.....	36	.....	.....	831
Totals.	37,368.75	4,250.5	19,932.5	114,966.0	17,650	45,597.75	555,098.5

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL
DITCH REPORTS, 1928.

District Number	Superintendence	Repairs	Improvements
28.....	.....	.....	.....
30.....	\$ 4,765.00	\$ 15,131.00	\$ 20,475.00
33.....	900.00	400.00	400.00
34.....	485.00	2,734.00	.....
40.....	12,164.00	49,014.00	2,950.00
41.....	24,970.00	26,525.00	22,590.00
42.....	50,837.00	95,663.00	1,103.50
60.....	3,120.00	9,430.00	.....
61.....	1,045.00	1,130.00	.....
68.....	286.00	6,299.05	385.75
69.....	.....	415.00	12.00
Totals.....	\$ 98,572.00	\$ 206,741.05	\$ 47,916.25

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL
RESERVOIR REPORTS, 1928.

District Number	Number in District	Area of High Water Line, Acres	Capacity in Cubic Feet	Quantity of Water in Reservoir May 1	Quantity of Water in Reservoir Nov. 1, Cu. Ft.
30.....	3	909	1,089,290,535	414,625,120	898,145,522
34.....	6	914	56,493,188	55,849,688	5,931,250
40.....	115	3,263	1,751,656,170	1,646,222,800	.....
42.....	54	1,890	668,234,139	.....	.....
60.....	2	390	223,748,000	223,748,000	21,000,000
61.....	1	.....	.....	.....	.....
Totals.....	181	7,366	3,789,422,032	2,340,455,608	925,076,772

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL
RESERVOIR REPORTS, 1928.

District Number	First Day Water Was Used	Last Day Water Was Used	Average Number Days Water Was Used	Average Daily Amount in Sec. Ft.	Number Acres-Feet Carried
30.....	Jan. 1	Dec. 31	182	112	39,879
34.....	April 1	Nov. 1	214	76	42,500
40.....	April 30	Sept. 27	32	798	36,910
42.....	June 15	Oct. 15	43	103	10,148
60.....	May 3	Oct. 15	...	...	.....
61.....	April 17	Oct. 15	76	35	7,250
			109	1,124	136,687

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL
RESERVOIR REPORTS, 1928.

District Number	Superintendence	Repairs	Improvements
30.....	\$ 1,200.00	\$ 100.00	.....
34.....	2,330.00	.....	.....
40.....	6,115.00	5,750.00	\$ 4,500.00
42.....	.....	.....	.....
60.....	.....	.....	.....
61.....	1,035.00	1,020.00	.....
Totals.....	\$10,680.00	\$6,870.00	\$4,500.00

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER
OF IRRIGATION DIVISION NO. 5 FOR 1928

Glenwood Springs, November 20, 1928.

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

Dear Sir:

I have the honor to submit herewith my annual report as Irrigation Division Engineer for Irrigation Division No. 5 for the season of 1928.

The season just past has been a little below normal in the matter of precipitation and crop production. The rainfall was much lighter than last year, and the snowfall last winter was not so heavy as that of a year previous. These two unfavorable conditions and the further fact that the spring was unusually backward, combined to make the hay crop lighter than usual. Potatoes were slow in starting, and later their growth was retarded by a cold period in June, causing the tubers in some sections to be very knotty, and lacking in uniformity, making it necessary for the farmers to sort out a larger percentage of tonnage than usual, and this fact, coupled with the light demand and the low price is not conducive to an optimistic outlook for Western Slope agriculture.

Sugar beets have not yielded as well as usual, being inferior both in tonnage and uniformity. I have as yet heard no report on the percentage of sugar content.

The fruit crop was good this year, both as to yield and quality, and the prices were almost or quite up to the average, and therefore quite satisfactory. Our most successful farmers, however, are those who depend largely on dairying and hog raising, or those who depend for their chief revenue on the growing and marketing of either cattle or sheep, with enough variety in feed crops to furnish proper pasture and nutriment, and at the same time supply the most practical crop rotation.

The irrigation of the lands in Irrigation Division No. 5 is by means of water carried through small ditches from small streams. Although the largest river in the state traverses this division, its waters are used but little for irrigation, chiefly because of the depth of its stream bed and the difficulty of getting its water out and conducting it to lands available for cultivation.

And thus it is that the waters of the Colorado River now pass on their way to the sea practically unused, so far as this irrigation division is concerned. I believe the day is coming when the water of this stream, if preserved to us by legislative action,

will water considerable areas of nearby lands on both sides of the river, releasing the waters of small streams now used for the irrigation of the lands and making said waters available for lands farther up the small creeks, thus making possible and practical the better irrigation of larger areas.

Comparatively few irrigation rights have been adjudicated in the division the past year, and no irrigation projects of any consequence have been initiated. Even the small ditches that have been built are very few indeed. This, I attribute to the fact that nearly all of the small streams are fully appropriated, and to the further fact that the depression from which the farming industry has suffered the past few years has not furnished the proper incentive for the undertaking of new work.

The ditches in many portions of the division are in better condition and are operated in a more satisfactory manner than ever before, chiefly on account of the installation of Venturi flumes, which I consider a great advance over the measuring devices in use in this territory years ago and which, in portions of the territory are altogether too common at this time. I am making every effort possible to secure a general use of the Venturi, and I am pleased to report one hundred per cent installation on some of the streams.

I have made plans to invade in the spring some sections where I have not yet been able to secure the installation of a single Venturi. I would have covered some of this territory the past few months but for the fact that my limited expense account had been exhausted on other work of perhaps greater importance.

I have not yet been able to secure annual reports from all water commissioners, but believe these will reach me very shortly, after which I will compile a tabulated report covering the work of the division, and file the same with you at the earliest possible date.

Respectfully submitted,

A. J. DICKSON,
Irrigation Division Engineer,
Irrigation Division No. 5.

IRRIGATION DIVISION NO. 5

TABULATED STATEMENT OF WATER COMMISSIONER'S ANNUAL REPORTS FOR 1928

No. of District	Amount of Appropriation Cu. Ft. per Sec.	Capacity of Canals Cu. Ft. per Sec.	Last Day Water Used from Natural Stream	No. of Days Water Used from Natural Stream
37.....	610	937	May 15	Oct. 1
38.....	666	263.85	Mar. 15	Oct. 31
39.....	535	141	Apr. 9	Oct. 30
45.....	449	146	Mar. 13	Oct. 30
52.....	134	36	Apr. 20	Sept. 10
53.....	333	35	May 2	Oct. 5
70.....	250	99	Mar. 13	Oct. 30
Totals..	2,977	2,728	991	853

No. of District	Average Daily Amount of Water (Cu. Ft. per Sec.) from Natural Stream	No. of Acre- Feet Used by Canal for Season from Natural Stream	Total No. of Acres That Can Be Irrigated	Alfalfa	Natural Grasses	Cereals
37.....	402.2	85,110	12,115	10,723	5,484	3,056
38.....	675	184,650	....	17,033	371	5,027
39.....	281	101,957	25,480	10,265	2,841	3,205
45.....	315	54,912	34,715	14,744	3,257	5,389
52.....	128	16,586	11,457	1,738	2,493	173
53.....	278	12,767	1,895	1,751	740	290
70.....	111	45,554	14,120	6,570	54	866
Totals..	2,505	501,536	99,782	62,824	15,240	18,006

No. of District	Orchards	Market Gardens	Potatoes	Sugar Beets	Beans	Peas
37.....	.....	30	1,269	....	...	182
38.....	7	...	2,755	....	...	...
39.....	627	144	1,523	1,542	34	10
45.....	551	76	713	55	154	17
52.....	1	6	41	....	...	...
53.....	445	...	244	....	8	...
70.....	175	28	254	20	88	5
Totals..	1,806	284	6,799	1,617	284	214

No. of District	Other Crops	Total Irrigated	Superin- tendence	Repairs	Improvements
37.....	845	21,800	....	\$19,817	....
38.....	80	23,378	....	....	....
39.....	162	20,495	\$4,909	10,018	\$1,821
45.....	758	25,714	....	....	....
52.....	10	4,462	2,080	....	150
53.....	143	3,251	....	....	745
70.....	34	8,092	....	1,110	240
Totals..	2,032	107,192	\$6,989	\$20,945	\$2,956

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER
OF IRRIGATION DIVISION NO. 6 FOR 1928

Steamboat Springs, November 26, 1928.

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

Dear Sir:

I herewith submit my annual report for Irrigation Division No. 6 for the fiscal year ending November 30, 1928.

The season commenced with a trifle more than the normal amount of snow in the mountains as indicated by the observations made by the Forestry Service on the last day of April.

The month of April was comparatively dry, some snow, light rains and considerable wind. The ground dried out rapidly, causing a more general demand for early irrigation water.

Early flow of water in the streams was variable on account of intermittent cold days. Commenced to raise the latter part of April. Continual warm winds early part of May raised the water in the streams far above normal for this time of the year.

June 1st to the 20th stormy and cold, followed by hot and dry weather through July. While crops did not suffer materially from lack of moisture. The weather conditions during the growing season had its ill effect on some crops, chief among which was the grain.

Threshing conditions were more favorable than they have been for a number of years, warm dry weather continued during the harvesting and threshing season.

The grain crop in most places has threshed out about one-half the usual amount. The shortage is attributed to the extremely dry weather prevailing, followed by severe early frosts. The grain heads in most cases did not fill out. Considerable smut was found in the grain in the mountain sections.

Lettuce shipped from Yampa district totaled about 1,500 cars. The late lettuce crop was at its best during the later part of September. There were about 2,400 acres planted to this crop, 1,900 acres or more irrigated.

Very few violations of the law have been reported and only one instance of an arrest of a violator. Water Commissioner of District 44 caused the arrest of a Mr. Carrighan for continual tampering with headgate on undecreed ditches used by him, previously closed by the water commissioner.

Mr. F. J. Ebler asked for an injunction restraining the Water Commissioner of District 43 from turning any water down Willow

Creek to supply the Pile Ditch on the grounds that the headgate of the Pile Ditch had been changed and that the water was being used on lands for which it was not decreed. Orders were sent to the Water Commissioner from this office to supply the Pile Ditch until reversed by the court. May 16th the case was set for hearing at Glenwood Springs and the court did not sustain the injunction.

Following is a tabulation of special orders for headgates, measuring, and other devices, sent from this office the past season.

November 10th notice was sent to all water commissioners to have annual reports in this office by November 20th.

Hereto is attached a tabulation and statements concerning the annual reports of the water commissioners.

Respectfully submitted,

B. T. CHASE,
Irrigation Division Engineer,
Division No. 6.

IRRIGATION DIVISION NO. 6

TABULATED STATEMENT OF WATER COMMISSIONER'S ANNUAL REPORTS FOR 1928

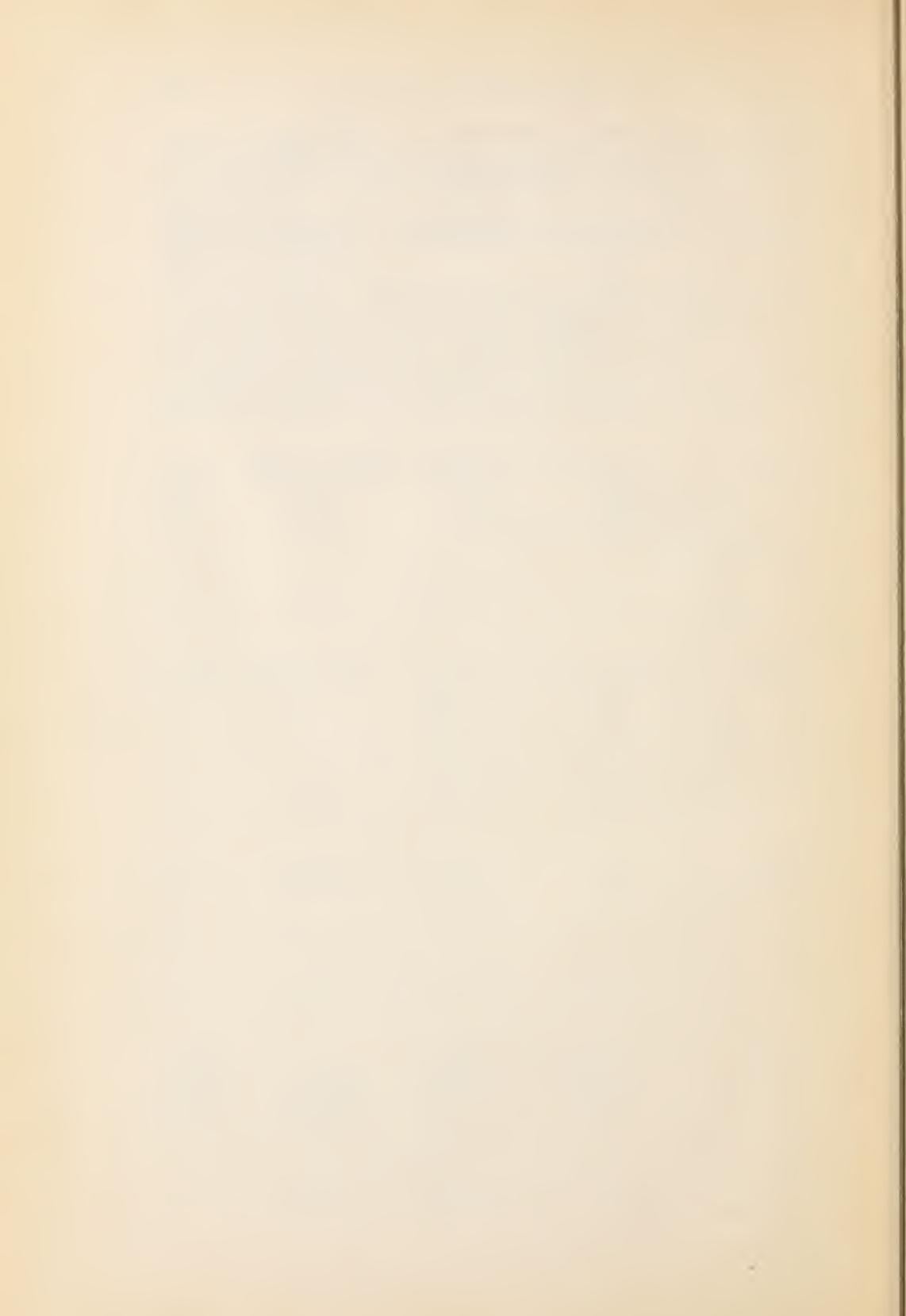
No. of District	Amount of Appropriation	First Day Water Used	Last Day Water Used	No. of Days Water Carried
43.....	795.13	.....	.....	14,958
44.....	459.86	.....	.....	1,600
54.....	Has made no effort to make report and does not reply to letters.			
57.....	Commenced duties too late in season to make complete report.			
58.....	Sent tabulation of 23 ditches, showing no crop statistics.			
Total.....	1,254.99	.....	.....	16,558

No. of District	Average Daily Amount	No. Acre-Feet Used	Total Acres That Can Be Irrigated	Alfalfa
43.....	647.51	156,075.90	34,210	14,963
44.....	357.50	35,380	29,235	9,185
54.....	.....	.....	.....	.....
57.....	.....	.....	.....	.....
58.....	.....	.....	.....	.....
Total.....	.....	.....	.....	.....

No. of District	Natural Grass	Cereals	Market Garden	Potatoes
43.....	8,936	3,223	6.50	2
44.....	7,110	4,320	.....	178
54.....	.....	.....	.....	.....
57.....	.....	.....	.....	.....
58.....	.....	.....	.....	.....
Total.....	.....	.....	.....	.....

No. of District	Beans	Peas	Cabbage	Other Crops
43.....	2
44.....	10	7	5	309
54.....
57.....
58.....
Total.....

No. of District	Total Irrigated	Superintendence	Repairs	Improvements
43.....	27,138.50	\$1,148.00	\$11,840.00	\$4,441.00
44.....	21,065	.....	4,150.00	2,508.00
54.....	.....	.....	.....	.....
57.....	.....	.....	.....	.....
58.....	.....	.....	.....	.....
Total.....	.....	.....	.....	.....



INDEX

A	Page
Administration	11
Agate Irrigation District.....	40
Alamosa River above Terrace Reservoir—	
Description	153
Discharge	163
Alamosa River below Terrace Reservoir—	
Description	153
Discharge	163-164
Animas River at Durango—	
Description	218
Discharge	226
Annual Reports, Irrigation Division Engineer, Div. No. 1.....	238-267
Annual Reports, Irrigation Division Engineer, Div. No. 2.....	243-273
Annual Reports, Irrigation Division Engineer, Div. No. 3.....	248-277
Annual Reports, Irrigation Division Engineer, Div. No. 4.....	252-281
Annual Reports, Irrigation Division Engineer, Div. No. 5.....	258-288
Annual Reports, Irrigation Division Engineer, Div. No. 6.....	261-291
Appeals and Rulings	21
Arkansas River at Canon City—	
Description	128
Discharge	134
Arkansas River at Granite—	
Description	128
Discharge	132
Arkansas River at Holly—	
Description	129
Discharge	139
Arkansas River at La Junta—	
Description	129
Discharge	137
Arkansas River at Lamar—	
Description	129
Discharge	138
Arkansas River at Nepesta—	
Description	128
Discharge	136
Arkansas River at Pueblo—	
Description	128
Discharge	135
Arkansas River at Salida—	
Description	128
Discharge	133
Arkansas Valley, Additional Water Supplies for.....	33

B

	Page
Bear Creek at Mouth—	
Description	82
Discharge	103
Bear Creek at Starbuck—	
Description	81
Discharge	102
Bent County Colorado Irrigation District.....	40
Big Grizzly Creek near Walden—	
Description	85
Discharge	121
Big Thompson River at Canon near Drake—	
Description	84
Discharge	115
Big Thompson River at Mouth—	
Description	84
Discharge	116
Blue River at Dillon—	
Description	189
Discharge	199
Board of Examiners for Engineers and Land Surveyors.....	23
Boulder Creek at Mouth—	
Description	83
Discharge	108
Boulder Creek near Orodell—	
Description	82
Discharge	107
Buzzard Creek near Colbran—	
Description	190
Discharge	202-203

C

Cache la Poudre River at Mouth of Canon near Fort Collins—	
Description	84
Discharge	117
Cache la Poudre River near Mouth—	
Description	85
Discharge	118
Carnero Creek near La Garita—	
Description	156
Discharge	177-178
Cascade Creek near Tacoma—	
Description	218
Discharge	227
Cherry Creek near Red Mesa—	
Description	219
Discharge	233
Clear Creek near Golden—	
Description	82
Discharge	104

Clear Creek at Mouth—	Page
Description	82
Discharge	105
Colorado River near Cisco, Utah—	
Description	188
Discharge	196
Colorado River at Glenwood Springs—	
Description	188
Discharge	194
Colorado River at Hot Sulphur Springs—	
Description	188
Discharge	193
Colorado River at Lee's Ferry, Arizona—	
Description	189
Discharge	197
Colorado River near Palisade—	
Description	188
Discharge	195
Compacts, Interstate River.....	30
Conejos Reservoir, Proposed.....	36
Conejos River near Mogote—	
Description	154
Discharge	170-171
Conejos River at Mouth near La Sauses—	
Description	154
Discharge	171-172
Conferences, Interstate	38
Co-operation with Other State Departments.....	24
Crop Conditions	17
Cucharas River at La Veta—	
Description	130
Discharge	144
Culebra River near San Luis—	
Description	155
Discharge	175-176
D	
Dallas Creek near Ridgway—	
Description	191
Discharge	211
Dams and Reservoirs, Plans, Construction, Inspection and Repairs.....	25
Discharge of The Denver Sewers to the South Platte River.....	46
Dolores River at Dolores—	
Description	192
Discharge	213
E	
Elk River near Trull—	
Description	180
Discharge	184

	Page
Employees, List of.....	7
Engineers, Board of Examiners for.....	23
 F	
Financial Statement	15
Florida River near Durango—	
Description	219
Discharge	230
Fraser River near West Portal—	
Description	189
Discharge	198
 G	
Goose Creek at Lake Cheesman—	
Description	81
Discharge	101
Grape Creek near Westcliffe—	
Description	129
Discharge	140
Gunnison River near Grand Junction—	
Description	190
Discharge	205-206
Gunnison River near Gunnison—	
Description	190
Discharge	204-205
 H	
Hermosa Creek near Hermosa—	
Description	218
Discharge	228
Holly Drain near Coolidge, Kansas—	
Description	131
Discharge	150-151
Huerfano River at Manzanares Crossing—	
Description	130
Discharge	142
Huerfano River at Huerfano—	
Description	130
Discharge	143
 I	
Illinois Creek near Walden—	
Deserption	86
Discharge	124
Interstate Conferences	38
Interstate River Compacts, Administration of	30
Investigations	32
Irrigation Districts	39
 X	
Kannah Creek near Whitewater—	
Description	192
Discharge	212

L

La Garita Creek near La Garita—	Page
Description	155
Discharge	176-177
La Jara Creek near Capulin—	
Description	153
Discharge	164-165
La Jara Creek near Mouth—	
Description	153
Discharge	165-166
La Plata River at Colorado-New Mexico Line—	
Description	219
Discharge	232
La Plata River Compact, Administration of.....	30
La Plata River at Hesperus—	
Description	219
Discharge	231
Laramie River near Glendevey—	
Description	87
Discharge	126
Laramie River at Jelm, Wyoming—	
Description	87
Discharge	127
Left Hand Creek near Mouth—	
Description	84
Discharge	114
Legislation, Recommended	42
Letter of Transmittal	3
Lightner Creek near Durango—	
Description	219
Discharge	229
Little Snake River near Lily—	
Description	180
Discharge	185
Long Hollow near Red Mesa—	
Description	219
Discharge	233
Los Pinos Creek near Ortiz—	
Description	155
Discharge	174-175
Lost Canon Creek near Dolores—	
Description	192
Discharge	214

M

McElmo Creek near Cortez—	
Description	220
Discharge	235
Mancos River near Towaoc—	
Description	220
Discharge	234
Maybell Irrigation District.....	39

Michigan River near Walden—	Page
Description	86
Discharge	125
Middle Fork St. Vrain Creek near Allen's Park—	
Description	83
Discharge	112

N

Navajo River at Edith—	
Description	217
Discharge	223
North Fork Gunnison River near Paonia—	
Description	191
Discharge	206-207
North Fork North Platte River near Walden—	
Description	86
Discharge	123
North Fork South Platte River at South Platte—	
Description	79
Discharge	91
North Fork St. Vrain Creek near Allen's Park—	
Description	83
Discharge	110
North Fork St. Vrain Creek at Longmont Dam—	
Description	83
Discharge	111
North Platte River near North Gate—	
Description	85
Discharge	120
North Platte River near Walden—	
Description	85
Discharge	119

O

Officers and Employees, List of	7
---------------------------------------	---

P

Parachute Creek at Grand Valley—	
Description	189
Discharge	201
Paria River at Lee's Ferry—	
Description	192
Discharge	215-216
Piedra River at Arboles—	
Description	217
Discharge	224
Pine River near Bayfield—	
Description	218
Discharge	224
Pise River near Ignacio—	
Description	218
Discharge	225

	Page
Plateau Creek near Collbran—	
Description	190
Discharge	201-202
Purgatoire River near Alfalfa—	
Description	130
Discharge	146-147
Purgatoire River near Mouth—	
Description	131
Discharge	148-149
Purgatoire River at Nine Mile Dam—	
Description	131
Discharge	147-148
Purgatoire River at Trinidad—	
Description	130
Discharge	145-146

R

Recommended Legislation	42
Reservoirs, Dams, Plans, Construction and Repairs	25
Rio Grande River at Alamosa—	
Description	152
Discharge	161
Rio Grande River near Del Norte—	
Description	152
Discharge	159
Rio Grande River near Lobatos—	
Description	153
Discharge	162
Rio Grande River at Monte Vista—	
Description	152
Discharge	160
Rio Grande River at Thirty Mile Bridge—	
Description	152
Discharge	157
Rio Grande River at Wason below Creede—	
Description	152
Discharge	158
Rio Grande Valley, Supplemental Water Supplies for.....	35
Roaring Fork at Glenwood Springs—	
Description	189
Discharge	200
Roaring Fork near Walden—	
Description	86
Discharge	122
Rulings, Appeals and Supreme Court Decisions.....	21
Runoff in Percentage of the Normal for Streams in Colorado.....	44

S

Saguache Creek near Saguache—	
Description	156
Discharge	178-179

St. Charles River at Burnt Mill Crossing—	Page
Description	129
Discharge	141
St. Vrain Creek at Lyons—	
Description	83
Discharge	109
St. Vrain Creek at Mouth—	
Description	84
Discharge	113
San Antonio River at Mouth near Manassa—	
Description	155
Discharge	173-174
San Antonio River at Ortiz—	
Description	155
Discharge	172-173
Sangre de Cristo Creek near Fort Garland—	
Description	154
Discharge	168-169
San Juan River near Bluff, Utah—	
Description	217
Discharge	222
San Juan River at Rosa, New Mexico—	
Description	217
Discharge	221
San Miguel River at Naturita—	
Description	192
Discharge	214-215
Seasonal and Crop Conditions.....	17
Seepage Investigations—	
South Platte River, 1926.....	48
South Platte River, 1927.....	54
Rio Grande, 1924.....	66-73
Rock and Spring Creeks, 1924.....	69
Concjos River, 1924	70
Alamosa River, 1924	71
La Jara Creek, 1924	71
Diamond Spring Arroyo, 1924	72
Uncompahgre River, 1921.....	76
Seepage Return to South Platte River, Graph Showing.....	47
South Boulder Creek at Eldorado Springs—	
Description	82
Discharge	106
South Fork South Platte River above Lake Cheesman—	
Description	79
Discharge	89
South Fork South Platte River below Lake Cheesman—	
Description	79
Discharge	90
South Fork South Platte River at Lake George—	
Description	79
Discharge	88
South Platte River at Balzae—	
Description	81
Discharge	98

	Page
South Platte River Compact, Administration of.....	30
South Platte River at Denver—	
Description	80
Discharge	94
South Platte River at Henderson—	
Description	80
Discharge	95
South Platte River at Julesburg—	
Description	81
Discharge	99
South Platte River near Kersey—	
Description	80
Discharge	96
South Platte River at South Platte—	
Description	80
Discharge	92
South Platte River at Sublette—	
Description	80
Discharge	97
South Platte River at Waterton—	
Description	80
Discharge	93
South Platte Valley, Supplemental Water Supplies.....	36
Supreme Court Decisions, Rulings and Appeals.....	21
Surface Creek at Cedaredge—	
Description	191
Discharge	207-208

T

Table of Contents.....	5
Table Showing Total Quantity of Water in Acre-feet Originating in Colorado and Discharged into Adjacent States.....	45
Tarryall Creek near Lake George—	
Description	81
Discharge	100
Taylor River at Almont—	
Description	190
Discharge	203-204
Timpas Creek at Catlin Siphon—	
Description	130
Discharge	145
Trinchera Creek above Mountain Home Reservoir near Fort Garland—	
Description	154
Discharge	167-168
Trinchera Creek above Turner's Ranch near Fort Garland—	
Description	154
Discharge	166-167
Trinchera Irrigation District	39

U

Uncompahgre River near Coloma—	Page
Description	191
Discharge	209-210
Uncompahgre River near Delta—	
Description	191
Discharge	210-211
Uncompahgre River below Ouray—	
Description	191
Discharge	208-209
Ute Creek near Fort Garland—	
Description	154
Discharge	169-170

V

Vega Sylvester Reservoir, Proposed.....	35
---	----

W

Water Commissioners, List of.....	8
Water Rights, Recording Claims to.....	20
Water Supplies, Supplemental.....	36
White River near Meeker—	
Description	181
Discharge	186
White River near Watson, Utah—	
Description	181
Discharge	187
Wild Horse Creek at Mouth near Holly—	
Description	131
Discharge	149-150
Williams River near Hamilton—	
Description	180
Discharge	184

Y

Yampa River near Maybell—	
Description	180
Discharge	183
Yampa River at Steamboat Springs—	
Description	180
Discharge	182

