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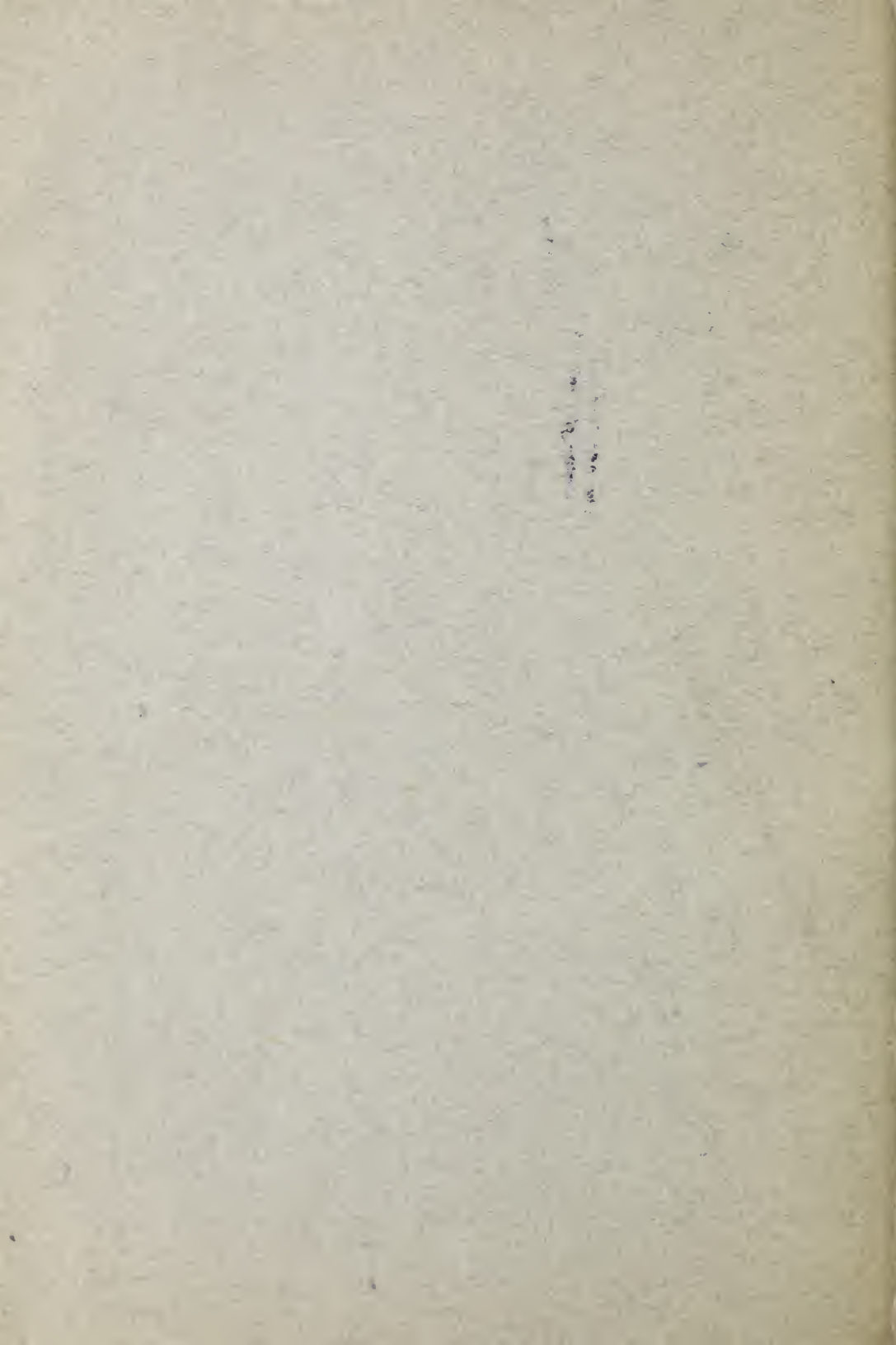
TO THE

Governor of Colorado



For the Years 1919-1920

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Twentieth Biennial
Report
OF THE
STATE ENGINEER
TO THE
Governor of Colorado



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For the Years 1919-1920

LETTER OF TRANSMITTAL

Sir: I have the honor to transmit herewith the Twentieth Biennial Report of the Office of State Engineer for the two fiscal years ending November 30, 1920.

Very respectfully yours,

ADDISON J. McCUNE,

State Engineer.

To His Excellency,

OLIVER H. SHOUP,

Governor.

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LIST OF OFFICERS AND EMPLOYEES

State Engineering Department

Addison J. McCune.....	State Engineer
R. G. Hosea.....	Deputy State Engineer
J. H. Baily.....	Chief Hydrographer
W. T. Blight.....	Hydrographer, Division No. 1
G. C. Price.....	Hydrographer, Division No. 2
H. D. Amsley.....	Hydrographer, Division No. 3
F. C. Snyder.....	Hydrographer, Division No. 4

Appointed July 1, 1920

B. T. Chase.....	Hydrographer, Division No. 5
(Appointed Division Engineer, Division No. 6, November 1, 1920.)	
C. C. Hezmalthalch.....	Chief Clerk and Draftsman
Ellie H. Rhodes.....	Filing Clerk
Bessie Clark	Stenographer

IRRIGATION DIVISION ENGINEERS

Div. No. 1	Fillmore Cogswell	Denver
Div. No. 2	C. W. Beach.....	Pueblo
Div. No. 3	E. S. Counselor.....	Alamosa
Div. No. 4	Heman C. Getty.....	Montrose
Div. No. 5	A. J. Dickson.....	Glenwood Springs
Div. No. 6	B. G. Bradley.....	Steamboat Springs

To July 1, 1920

Div. No. 6	B. T. Chase.....	Steamboat Springs
Appointed November 1, 1920		

WATER COMMISSIONERS

Div. No.	Dist. No.	Name	Address
1	1	A. H. Cutler.....	Fort Morgan
1	2	James P. Higgins (Deceased).....	Brighton
1	3	John L. Armstrong.....	Fort Collins
1	4	H. H. Kelly.....	Loveland
1	5	J. A. Lee.....	Hygiene
1	6	James M. Platt.....	Boulder
1	7	W. M. Elliott.....	Golden
1	8	Louis Bertollett.....	Littleton
1	9	H. S. Rainwater.....	Morrison
2	10	W. F. Starsmore.....	Colorado Springs
2	11	D. P. Cook.....	Salida
2	12	D. S. Jones.....	Florence
2	13	W. W. Hendershott.....	Westcliffe
2	14	Joe Burgess.....	Pueblo
2	15	W. T. Hunter.....	Rye
2	16	A. S. Willburn.....	Walsenburg
2	17	J. C. Hedgcock.....	Rocky Ford
2	18	Juan A. Mestas.....	Aguilar
2	19	H. B. Bostick.....	Hoehne
3	20	Thomas Carr.....	Del Norte
3	21	W. F. Neff.....	La Jara
3	22	B. W. Harrison.....	Manassa
1-2	23	F. E. Lilley.....	Jefferson
3	24	A. Gonzalez.....	San Luis
3	25	John L. Charles.....	Crestone
3	26	S. O. Proffit.....	Saguache
3	27	Jas. Medina.....	La Garita
4	28	J. Roy Hicks.....	Sargents
4	29	F. A. Byrne.....	Pagosa Springs
4	30	George H. Tyner Jr.....	Durango
4	31	No Commissioner.....	
4	32	No Commissioner.....	
4	33	Jerry Griggs.....	Breen
4	34	Hugo Weston.....	Mancos
3	35	Stephen Calkins.....	Blanca
5	36	No Commissioner.....	
5	37	Earl McGlochlin.....	Gypsum
5	38	A. J. Vagg.....	Carbondale
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	E. W. Johnson.....	Meeker
6	44	Arthur Collom.....	Axial
5	45	R. S. Glenn.....	Silt
1	46	Clarence A. Manville.....	Coalmont

Div. No.	Dist. No.	Name	Address
1	47	Clarence Boston	Walden
1	48	R. E. Moan.....	Jelm, Wyo.
2	49	No Commissioner	
5	50	No Commissioner	
5	51	Oscar M. Cole.....	Parshall
5	52	Carl Foster	Sheephorn
5	53	James H. MacFarlane.....	Yampa
6	54	E. W. Leggett.....	Baggs, Wyo.
6	55	No Commissioner	
6	56	No Commissioner	
6	57	No Commissioner	
6	58	Alfred Booca	Yampa
4	59	No Commissioner	
4	60	Roger Williams	Norwood
4	61	W. O. Roberts.....	Bedrock
4	62	Ben Riddle	Cimarron
4	63	No Commissioner	
1	64	John M. Shea.....	Atwood
1	65	J. A. Grant.....	Wray
2	67	H. F. Syp.....	Lamar
4	68	J. W. Martin.....	Ridgway
4	69	No Commissioner	
5	70	George F. Newton.....	De Beque

CHAPTER I

FINANCIAL

Appropriations made by the Twenty-second General Assembly for the State Engineer's Office, for the biennial period ending November 30, 1920:

State Engineer, salary	\$ 6,000.00	
Chief Deputy, salary	4,100.00	
Extra Deputy (part time)	1,200.00	
Draftsman (chief clerk), salary.....	3,600.00	
Chief Hydrographer, salary	4,100.00	
Four Hydrographers, salaries	14,000.00	
File Clerk, salary	2,400.00	
Stenographer, salary	2,400.00	
Traveling and contingent fund State Engineer and Deputies	2,500.00	
Incidental expense (gage readers, instruments, etc.)...	3,000.00	
Traveling expense, Chief Hydrographer	1,200.00	
Traveling expense, four hydrographers.....	4,600.00	
Irrigation Division Engineers' salaries—		
Division No. 1	5,000.00	
Division No. 2	5,000.00	
Division No. 3	4,200.00	
Division No. 4	4,200.00	
Division No. 5	4,200.00	
Division No. 6	4,200.00	
Traveling expense six Division Engineers.....	6,600.00	
Total appropriated		\$82,500.00

GAGING FUND

From filing fees, etc., May 1 to November 30, 1920.....\$ 4,733.41

EXPENSES OF HYDROGRAPHERS PAID FROM STATE DEFENSE FUND

Division No. 1	\$ 1,898.70	
Division No. 2	2,791.77	
Laramie River	122.34	
Western Slope	1,405.63	
South Platte Cooperation	3,968.81	
		\$10,187.25
Total funds		\$97,420.66

BALANCES TURNED BACK TO GENERAL FUND

Traveling and contingent	\$ 406.83	
Chief Hydrographer, salary	0.58	
Chief Hydrographer, expense	15.99	
Hydrographers, salaries	0.05	
Hydrographers, expense	4.64	
Incidental	1.25	
Division Engineers, salaries	1,800.00	
Division Engineers, expense	1,040.32	
Gaging fund	1,359.08	
		\$ 4,628.74

Total amount expended during biennial period.....	\$92,791.92
Fees received during biennial period.....	13,532.86
Net cost of operation	\$79,259.06

(This does not include special work on La Plata River handled through Attorney General's office).

DISTRIBUTION OF FEES RECEIVED IN THE STATE ENGINEER'S OFFICE, DECEMBER 1, 1918 TO NOVEMBER 30, 1920

Filing claims to water rights.....	\$11,325.00
Postage	8.46
Blue prints	1,040.15
Certifications	246.00
Sales	10.00
Gagings	23.75
Filing plans and specifications for reservoir dams.....	743.00
Office labor	92.50
Filing of transfer decrees	44.00
	\$13,532.86

CHAPTER II

GENERAL REVIEW OF THE WORK OF THE DEPARTMENT FOR THE BIENNIAL PERIOD

The operations of the department have been carried along on about the same plan as in the preceding period except that a large amount of work not pertaining to the water administration was added by the 22nd Session of the Legislature. Mention of these items of special work will be made in a separate chapter.

This extra work diverted the attention of the head of the department and the deputy, and to some extent the office force, from the regular work of water administration. However, time was found for considerable field work by the engineer and deputy. This field work consisted of supervising of runs of water from reservoirs, investigation of losses in transmission, special gaugings, inspection of reservoirs, and a couple of trips to the Western Slope investigating return water problems in connection with the proposed Colorado River development.

Also, during the year 1920, considerable time was spent by the head of the department in connection with the League of the Southwest. We deemed this of sufficient importance to justify the giving of space to a short chapter on the aims of the League prepared by Mr. R. I. Meeker, Special Deputy State Engineer.

On account of this special work, much that had been planned relative to the water investigations and administration was necessarily abandoned for lack of time.

The hydrographers were able to do much ditch rating and were in much demand, especially during the drier part of the seasons. There is a growing desire among irrigators to have a closer check on the amounts diverted. It is only by this means that water disputes can be avoided, and it is only by neighborly cooperation that the best use of the water can be obtained. Those who are sometimes accused of thieving in the use of water are usually found to be fair if it can be shown to them that they are receiving their just and legal proportion of available supply. To this end there is a growing disposition to make better provision for checking out the water.

In this connection attention is called to the chapter treating of the cooperative investigations in the lower South Platte River. Distribution of water through this cooperation was so satisfactory to the farmers that they are very anxious to continue the system and will do so if funds can be provided. The Arkansas Valley Ditch Association is planning to adopt the system and it is confidently believed that it will eventually be adopted on all of the different drainages of the State.

Notwithstanding the marked improvement in distribution in many parts of the State, there are other places where conditions are very trying both to the water users and to the water officials. Several districts have 250 to over 400 small ditches. The number

of ditches in these districts in most cases could be reduced by two-thirds, resulting in great economy of water and great improvement in the service. Such consolidation, however, can only be done by the ditch owners themselves.

OFFICE AND CLERICAL WORK

The office and clerical work was largely increased for the period. Much of this increase was created by the special work spoken of under another chapter. The largest increase, however, was due to the supplemental statement filing law mentioned in another paragraph.

The number of ditch filings for the period were 565, and the number of reservoir filings were 121.

IRRIGATION DEVELOPMENT

Ditch and reservoir construction has not been active during the period as compared to some previous years. However, a number of small ditches and reservoirs have been completed. Two dams of considerable magnitude are nearing completion in the Arkansas River drainage; one across the Apishapa Creek is an earth dam 112 feet in height, built by the Apishapa Consolidated Irrigation Company of Fowler, Colorado. The other one is an earth dam equal in magnitude but not so high, built to store water from the Muddy and Smith Canyon, south of Las Animas. This system is being built by the Mutual Carey Company and is intended to reclaim a Carey Act selection.

THE SUPPLEMENTAL STATEMENT LAW

The 22nd General Assembly passed a bill entitled

“An Act to make further provisions for settling the priority of rights to the use of water for irrigation and other beneficial purposes.”

The question frequently arises as to the status of claims evidenced by old filings, when nothing has been done to make beneficial use of the water claimed, other than the expense of making the original survey and filing.

The State Engineer's records of filings do not show anything further than the original claim, and the postoffice address of the original claimant. There is nothing to show whether the ditch, reservoir or other construction was ever completed and used, or whether it is still in the hands of the original claimant, except in the cases of those claims which have been decreed by the courts.

This situation has been the cause of much confusion, and in many cases old claims, which in fact have never been perfected, have constituted a sort of cloud on the title of bona fide projects.

The above mentioned law was passed in the hope of clarifying this situation and of putting the State Engineer's records into simpler and yet more complete form, by means of additional in-

formation, which would show the physical status of the claim, i. e., whether it was still a live issue or merely represented a scheme which had been long abandoned.

To this end it was required of the State Engineer that he send out a "Supplemental Statement" to each claimant of water right *of record* in this office, which was in effect a questionnaire, asking information on the following points:

1. Names and postoffice addresses of those *now* claiming rights under the filing on record.

2. Information as to how title to claim was derived, whether as original claimant, or as successor in title, and if the latter, by what conveyances was title derived.

3. Facts to establish diligence in construction of project and use of water.

4. Are works complete or incomplete, and if the latter, what plans are to be followed to finance and complete the work?

5. How much time will be required to complete the project?

6. Further information as to diligence used and contemplated in completing project.

These supplemental statements were to be sent out by the State Engineer prior to January 1, 1920, to the claimants of all water rights evidenced by filings of record in his office.

This was done and about 28,000 of these supplemental statements were sent out at an expense of over \$1,200.00 for printing and postage. The clerical work involved was quite large, as each statement had to be compared with the filing index and blanks filled in giving the number of the Irrigation Division, Water District, filing number, name, source of supply and name and address of original claimant.

Under the law, the claimant was given one year or until January 1, 1921, to fill in and file the supplemental statement. After January 1, 1921, any claim for water, heretofore filed in the office of the State Engineer, which has not been adjudicated, and for which no supplemental statement has been received, shall be considered as void and shall be so noted upon the State Engineer's records.

When any general adjudication to determine priority of water rights shall be begun before a District Court, the clerk of the court shall call on the State Engineer for a list of all claims not theretofore decreed, or noted as cancelled, and the clerk will then notify the claimants shown on this list to appear in court and submit their claims for adjudication.

These claims will then be either adjudicated or cancelled and eventually the records will be cleared of "dead" filings.

The law further provides that hereafter the State Engineer shall keep a record of the transfer of claims for appropriations for which filings shall have been made. This is in order that he may be able to certify a list to the court as above stated and that the list

shall contain the addresses of the last grantees in order that they may be reached by the court and notified to appear at the adjudication proceedings. Water appropriators should keep this provision in mind and be as careful to have this record made in the State Engineer's office as they would in the transfer of any landed property.

It is hoped that this law will eventually clear up the water filings of the State of Colorado, annulling the bad and protecting the good by court decree, and definitely settling the status of the thousands of claims which have heretofore merely appeared as maps and statements on file in the office of the State Engineer.

THE COLORADO STATE WATER USERS' PROTECTIVE ASSOCIATION

At a meeting held at the Capitol Building in Denver on the 7th of September, seven of the local water users' associations of the State of Colorado formed a state organization to be known as *The Colorado State Water Users' Protective Association*.

The objects of this organization, as set forth in its constitution, are to secure such legislation as shall be deemed proper and necessary for the advancement of the irrigation interests of the State of Colorado, including adequate appropriations of public funds, and such laws as shall be proper for the regulation of the officials having charge of the administration of decreed priorities; to secure a better administration of the existing laws under which the waters of the State are distributed; to take whatever lawful action may be necessary for the protection of the waters of the State of Colorado against attack by interests beyond the confines of said State, and to foster a policy of organizing local water users' associations.

To make this association a success will necessitate the sacrifice of considerable time on the part of some individuals in each community, but it will be worth it in dollars and cents, as well as in the securing of a more harmonious spirit in the community itself. A great stride in that direction was made at the recent meeting of the League of the Southwest in Denver. At that meeting one of the resolutions passed was to the effect that the different states be requested to authorize the appointment of commissioners for the purpose of entering into a compact to settle interstate disputes. With a disposition to be fair, it is hoped that treaty agreements with adjoining states may be worked out that will put a stop to the seemingly endless litigation that has sprung up. Australia did it, and why cannot we do the same?

It is also well known that a large amount of water is lost through inefficient distribution, another difficulty which this association hopes to correct. This may be done by a more careful study of the discharge of the streams and a better check on the amount of water taken into the ditches.

In order to accomplish the purposes of the organization it is hoped that the irrigation interests in all parts of the State will

obtain membership in it, thus bringing to bear upon the solution of these problems the entire weight of the great irrigation and agricultural industries of the State. If all parts of the State will thus harmoniously join in the work of this organization, it is believed that great good will come from it.

As stated above, one of the objects of the Association is to attempt to secure adequate appropriations of public funds necessary for the advancement of irrigation interests. A little explanation of this necessity should perhaps be given.

Under the present system of water administration we have the following water officials:

State Engineer and one Deputy State Engineer.

Six Division Engineers.

One Chief Hydrographer.

Four Hydrographers.

One Water Commissioner, sometimes several deputies in each of the majority of the seventy Water Districts of the State.

The four hydrographers are at present located in the South Platte District, the Arkansas District, the San Luis Valley and the Montrose District. Among them they have about seventy regular river stations to keep up. Each of these stations should be measured frequently if the records obtained are to be of value. On the lower stretches of the rivers where the channels are broad and sandy, measurements should be made at least every three to four weeks.

It should be borne in mind that on these river measurements and records are based the orders of the Division Engineers, distributing the water to the various ditches, and therefore accuracy is essential and can only be obtained by frequent measurement.

In addition to the river stations, the hydrographers have to make ratings of the various ditches in order to prepare tables showing the amount each ditch will carry at various depths. These tables are used by the Water Commissioners in carrying out the orders of the Division Engineers, and on these tables depend the amount of water each ditch will be allowed to divert.

As stated above, there are 70 Water Districts in the State and in some of these Districts there are as many as 400 ditches. How can any one man keep up the ditch ratings in his own Division comprising a dozen such Districts to say nothing of the river ratings which are even more important?

The salaries paid to these hydrographers have been entirely inadequate. Until May, 1919, they received \$125 a month, and at that time they were raised to \$150.00 a month, plus, of course, their actual traveling expense. The expense money appropriated has never been sufficient to begin to cover the actual expense, and had it not been for the Attorney General's ruling that the State Defense Fund was properly available for this purpose, the hydrographic work would have suffered severely.

As to salaries, let any business man ask himself the question, "Where could I get a man for \$150.00 a month, whom I could send out alone, on his own responsibility, to cover a territory say from Tennessee Pass to the Kansas line, and from Colorado Springs to New Mexico, to travel 1,500 miles a month (by Ford auto), to have the requisite technical knowledge to do important work under trying conditions, and to finance himself to the extent of over \$100 a month (which money he knows will be returned to him some time during the next month)?"

As a contrast, it may be noted that these same hydrographers after graduation from state service often make as high as \$25.00 to \$50.00 a day as expert witnesses in water litigation when such litigation comes up, and they are not simply in demand, they are essential. Why then should they be paid at the rate of a ditch walker or day laborer while in state employment?

This same condition exists throughout the State Engineer's office. From the State Engineer down, the salaries paid are simply ridiculous, and only a very commendable loyalty has kept the organization together during the last two years.

It is perfectly obvious that the work which should be done simply cannot be done by the present organization, and that more men are a necessity. The office needs at least double the present number of hydrographers and could use more.

With litigation threatened (or pending) by adjacent states on all sides, it is imperative that we must be in a position to show *facts* as to our water supply and diversions, since these interstate suits must be *won*, and won on matters of fact rather than law.

Under existing conditions it has been impossible for the hydrographers to do the work that should be done, and the result has been that the larger, main stream ditches have received the most of their attention, while the smaller, tributary districts have been allowed to do pretty much as they pleased, or else have been administered largely by guess.

This has resulted in some cases in development of side stream projects at the expense of the older rights on the main stream, and the owners of these rights are waking up to this fact and are making frantic appeals to the State Engineer for help. Handicapped by lack of men and lack of money, it is difficult for him to do much.

Special deputies paid by interested parties are of value in some cases, but the principle of such employment is wrong, and in general the results obtained are meager and unsatisfactory.

In view of these and other facts, the State Water Users' Protective Association proposes to ask the next legislature for sufficient funds for the State Engineer's office to greatly enlarge his present organization and to raise the pay of those at present employed.

WATER POWER

While we are studying the water resources of the State, the thought in the mind of most people is only of irrigation, but we must not forget that water power is one of our great undeveloped natural resources. This department has kept this fact in mind in planning the hydrographic work. Before money is spent on water power development, reliable data must be had on the water supply. This data is being gathered by our hydrographers, and will be available for future use. The application of electricity to the transmission of power, makes it possible to utilize every stream in the State for power purposes whenever there is a market.

By the use of storage in the mountains it is possible to make the waters do double duty; that is, both for power and irrigation. The Federal Water Power Act recently passed should stimulate development. Up to November 12th, 88 applications for permits had been filed with the Water Power Commission from different parts of the Union. We know of but one application so far from this State. With a return to more normal conditions of labor and capital, we may hope for some activity along the line of power development.

CHAPTER III

SPECIAL WORK OF THE PERIOD

GRAND JUNCTION INDIAN SCHOOL WORK

The 22nd Assembly, by House Bill 167, established on the property of the State at the former Indian School at Grand Junction, an addition to the Home and Training School for Mental Defectives.

The bill carried an appropriation of \$30,000 to furnish and equip the buildings, and \$150,000 for maintenance for the biennial period. House Bill No. 139 appropriated \$30,000 to drain and reclaim the lands of said Indian School property and \$90,000 for improvement and repair of the buildings. These two sums of money were to be expended under the direction of the Governor and State Engineer. Both bills were approved by the Governor April 9, 1919, and became immediately effective. However, there was delay in starting the work owing to some objection having been raised as to the feasibility of the plan. An opinion of the Attorney General rendered on May 28th set at rest this question, and the Governor and State Engineer proceeded immediately to carry out the provisions of House Bill No. 139.

There are 177 acres of land in the farm including the ground occupied by the buildings. The soil is heavy adobe, and had become completely water logged from the ditches and from irrigation. Twenty-six wells were sunk across the land to test the water level. These wells were sunk to a depth of 8 feet. They showed the water table all the way from one foot to 5.7 feet from the surface. More than half the wells showed the water level at from 1.5 to 2.5 feet from the surface. Ground water was standing also in two of the basements.

It was very apparent then that if the buildings were to be made habitable and durable and the land made of any value, the first thing of importance was to drain the land.

Two attempts had been made some years before by the state authorities to drain the ground upon which the buildings stood, by the ordinary methods; that is, with trenching machine and tiling. This plan proved to be practically impossible in that soft adobe soil. At least the expense was prohibitive.

The U. S. Reclamation Service engineers in charge of the Government work in the valley, suggested a plan which was believed by the construction board to be feasible, and was adopted. This consisted of the deepening of the wasteway which was already built along the west boundary of the tract and the cutting of three open ditches east from this wasteway, one on the south boundary of the tract, one on the north boundary and one through the center of the tract.

A contract was entered into with the U. S. Reclamation Service to do the work, they having the necessary equipment already in the field. The work was begun in August, 1919, and completed in

December of the same year. The plan proved to be entirely effective so far as affecting the buildings, and there can be little doubt but that the entire farm will be reclaimed within a few more years.

The wells were first read July 9, 1919, which as previously stated, showed water as near as one foot to the surface. A reading made August 7, 1920, showed nine of them dry and in the others the water had gone down to 6 and 7½ feet below the surface. It is believed that crops may be successfully grown on a large part of the farm in the season of 1921 if the soil is properly handled. Credit is due Mr. S. O. Harper, Project Manager, and Mr. A. W. Walker, Engineer directly in charge, for the expeditious and economical manner in which this work was prosecuted.

After the drainage work was well under way, plans were made for the repair and improvement of the buildings. Mr. James H. Rankin, of Grand Junction, having been appointed a member of the Board of Commissioners of the Home, and being himself an experienced builder, was made superintendent of construction.

Mr. Robert Willison, of Denver, was employed to draw plans and specifications from the improvement and repair work. The following is a list of the buildings repaired or improved:

Superintendent's residence, Steward's residence, female dormitory, male dormitory, auditorium and class room, dining hall and kitchen, farmer's residence, horse and hay barn, laundry building, poultry house, dairy barn, and garage. Also a central heating plant for all the buildings except the superintendent's and steward's houses.

One of the larger buildings designated in the plans as No. 3, and intended for the administration building, is still to be remodeled. So much of the repair work had to be done by force account that it was impossible to make a close estimate on the total cost, and while it transpired that there was money enough in the fund to complete this No. 3 building, the fact was not known till too late to complete it before the close of the biennial period.

Considerable work was done on the grounds around the buildings.

The total amount spent from the drainage fund was \$20,337.72, of which \$19,946.27 was paid to the Reclamation Service for cutting the drains and building several bridges and culverts. The amount spent on the improvements and repair was \$78,722.65. With this sum accommodations were provided for about 400 inmates besides the regular employees.

STATE BOARD OF ENGINEER EXAMINERS

The 22nd General Assembly passed a law creating a State Board of Engineer Examiners and Licensing Engineers in the State of Colorado. (Session Laws 1919, chapter 185, page 625.)

Section 1 of this act provides that the State Engineer shall be ex-officio a member of the Board of Engineer Examiners, and Section 3 makes him Secretary-Treasurer of the Board.

This latter provision insures an economical administration of the affairs of the Board by providing free office room, facilities for filing records, and clerical assistance.

The law being a new idea to most engineers, was but little understood, and was the cause of a great volume of correspondence and clerical labor on the part of the office force.

As provided in Section 1 of the act, Governor Shoup appointed four members of the Board of Examiners, viz.: Mr. Frank E. Shepard, of Denver, President of the Denver Engineering Works; Mr. H. S. Sands, of Denver, Manager of Industrial Department The Westinghouse Electric and Manufacturing Company; Mr. R. J. Grant, of Denver, Consulting Mining Engineer; and Mr. H. I. Reid, of Colorado Springs, Consulting Civil Engineer; Mr. Addison J. McCune, State Engineer, being ex-officio the fifth member.

Mr. Frank E. Shepard was elected President of the Board.

The license law became effective on July 9, 1919, and provided that any legal resident of Colorado, over the age of 25 years, who was engaged in the practice of engineering at the time the law went into effect could obtain a license without examination at any time prior to July 9, 1920.

Consequently up to July 9, 1920, no examinations were held, and the principal work of the Board was to formulate rules of procedure, and to decide on special cases involving interpretation of the law. In this connection, the Attorney General's office rendered valuable assistance.

During the year ending July 9, 1920, 765 licenses were issued without examination and subsequently some 18 licenses were issued by the Board upon satisfactory evidence of qualification, which in three cases included written technical examinations.

In deciding upon the character of written examinations, the Board called upon the Engineering Departments of four of the Colorado Universities for suggestions and advice. Conferences were held which were attended by representatives of Colorado University, Colorado College, Colorado Agricultural College and the Colorado School of Mines.

It was the sense of these meetings:

1. That in no case should an applicant's qualification for license be determined solely upon the result of a written technical examination, but that his education and experience should be given due consideration.

2. That the written technical examinations should be prepared by the Board from sets of questions to be submitted by the engineering departments of the above named educational institutions, and should be graded by said engineering departments and not by the Board.

3. That examinations may be given in various parts of the State as seem best suited to the convenience of the applicants.

A careful consideration of the present law, and a comparison with similar legislation in other states will disclose certain weaknesses which should be improved by amendment. Perhaps the most striking of these is the lack of any provision for reciprocity with other states, having license laws, and the lack of proper provision for exemptions. It is manifestly unjust to require an engineer of nationally recognized competence to take an examination and pay a license fee in every state wherein he may be called upon to practice.

This unconformity in the practice of the various state boards in dealing with questions of reciprocal relations between the states, was the cause of a conference of the various State Boards of Engineer Examiners held in Chicago on November 8th and 9th. Colorado was represented by Mr. R. G. Hosea, Deputy State Engineer, who has been acting as Assistant Secretary of the Colorado Board of Engineer Examiners.

It was decided at this meeting that reciprocity would be granted to an engineer *who had taken an examination* for license either in his own state or the state in which he desired license under a reciprocity clause. It will be noted that this does not apply to an engineer who has received his license under any form of "grandfather" or waiver clause.

It is the desire of the various Boards to establish and preserve a high standard in their own states and therefore they will not grant reciprocal licenses obtained under rulings less stringent than their own. Hence states requiring examination as qualification will not grant reciprocal licenses to engineers from other states whose licenses were not obtained by examination equivalent to their own.

As an illustration of what might be considered an equivalent examination, the Michigan examination might be cited. This is given in three parts as follows:

1. Fundamentals of engineering. Time $1\frac{1}{2}$ days. Similar for all branches.
2. Fundamentals in that branch of engineering in which applicant desires to practice. Time $\frac{1}{2}$ day.
3. A practical problem in that branch of engineering in which applicant desires to practice. Time 1 day. Total time of examination 3 days.

The applicant shall also satisfy the Board of Examiners as to his practical experience, general standing and ability.

The idea of licensing engineers is becoming popular. At the present time eleven states have license laws. These are Colorado, Florida, Idaho, Illinois, Iowa, Louisiana, Michigan, New York, Oregon, Virginia and Wyoming.

It is understood that license laws are being considered in Massachusetts, Connecticut, New Jersey, Pennsylvania, Maryland, North Carolina, Tennessee, Ohio, California, Nebraska, Oklahoma,

South Dakota, North Dakota, Washington, West Virginia, Wisconsin, Arizona, New Mexico, Utah and Montana.

It is therefore advisable that these laws should be made as nearly uniform as local conditions will permit, and that laws already in existence should be modified when necessary to conform to the uniform standard.

Amendments have been prepared by the Colorado Section of Engineering Council, based upon the reports and suggestions from its constituent engineering societies, which will be introduced at the next session of the Colorado Legislature. It is hoped that these amendments will carry, and that they will greatly improve the present law. The amended law follows closely the model uniform license law proposed by the national body of Engineering Council.

THE LAND SETTLEMENT BOARD

The 22nd Assembly passed a land settlement bill in which the State Engineer was made a member of the Board. No money was appropriated to carry out the provisions of the bill, consequently the Board never met.

In view of what is being done in California under a similar law, it is hoped the incoming legislature may find a way of financing the Commission so at least one colony might be started during the next biennial period.

IRRIGATION DISTRICT FINANCE COMMISSION

The bill creating the Irrigation District Finance Commission made the State Engineer a member. The only work done by the engineer consisted of an occasional consultation with the Secretary and two trips out, one to La Junta with Mr. Cole, the Secretary, in attendance upon a joint meeting of a committee of farmers of the Otero Irrigation District, and bondholders committee, and one trip of inspection of the Orchard Mesa District in Grand Valley. The latter trip was made without expense to the Commission.

The Commission has prepared a voluminous report for submission to the Legislature, as provided in the bill.

PROTECTION OF THE GRAND RIVER BRIDGES AT GRAND JUNCTION

On June 15, 1920, a resolution or petition was presented to the Governor, chairman of the Colorado Highway Commission, and the State Engineer, setting forth that the Grand River is threatening the safety of the bridges spanning the said river in Mesa County known as the Fifth Street bridge and the Main Street bridge, and that it is necessary to protect said bridges from further encroachments of the river. To that end the petitioners request the State Engineer to make surveys, plans and estimates

of cost of such protection. The resolution was signed by the City Commissioners of Grand Junction, the County Commissioners of Mesa County, and officers of the Chamber of Commerce. In response to this petition, the State Engineer made an examination of the bridges and the ground to be protected and instructed Mr. T. E. Thompson, City Engineer of Grand Junction, to make said surveys, and estimates are being prepared on the work.

CHAPTER IV

THE COOPERATIVE INVESTIGATION OF THE LOWER SOUTH PLATTE RIVER

By R. G. Hosea, Deputy State Engineer

In the spring of 1919 an agreement was entered into between the Irrigation Division Bureau of Public Roads, U. S. Department of Agriculture; the Colorado Experiment Station, and the State of Colorado, to carry on a scientific investigation of the return flow to the South Platte River from the irrigated lands adjacent to the river between Kersey and Julesburg, Colorado. The plan agreed upon was about as outlined in the 19th biennial report on pages 15 and 16.

From the standpoint of the government, such a study would be of value in determining the causes of return flow, and the natural laws governing its amount and distribution. It would necessarily involve a study of canal losses and losses from reservoirs and of various other problems pertaining to irrigation engineering so that the work would very aptly come under the head of "Irrigation Investigations".

In view of the number and magnitude of the irrigation projects constructed and contemplated by the U. S. Reclamation Service, it goes without saying that government engineers, in whatever branch of the service, must be vitally interested in any scientific study of problems affecting water supply and distribution.

As an illustration of the value of a definite knowledge of return flow it may be mentioned that practically all of the larger and more recent of the irrigation projects on the lower South Platte in Colorado, particularly those involving reservoir storage, were reported upon adversely—were "turned down" by eminent engineers, including government engineers, on the ground that the water supply was inadequate. Nevertheless several of these "impossible" projects were built, and are operating today with an ample water supply in spite of the adverse opinions of the experts.

The reason for this situation is that the "return flow" to the river has developed beyond the most vivid imaginings of those familiar with irrigation. If this is true on the South Platte, may it not be true elsewhere, and if so, to what extent may it be counted upon as a supplemental supply for irrigation?

From the point of view of the State, the above considerations apply with equal force and in addition certain other applications of the results of such a study immediately occur to those having to do with the administration or distribution of water.

First—It is axiomatic that a better distribution may be made when a more definite knowledge is had of the supply to be distributed.

Second—As a corollary to the above, it follows that with a more accurate distribution, trouble and litigation between appro-

priators will be reduced to a minimum or will be done away with entirely.

Third—A disinterested scientific study, which will bring out actual facts concerning the return waters developed on interstate streams may have a decided effect in settling existing interstate controversies over the waters of such streams. Colorado realizes that these suits must be settled on matters of fact rather than law, and she desires that these facts be brought out as fully as possible.

The Cooperative Investigation was begun in June, 1919, the three parties above mentioned each agreeing to assume one-third of the expense. The territory to be covered in the investigation consists of that part of the South Platte River Valley in Colorado lying between Kersey and Julesburg or practically Water Districts Nos. 1 and 64.

The organization of the work as first planned was to consist of a district engineer and an assistant in Water District No. 1, with headquarters at Fort Morgan, and a district engineer and an assistant in Water District No. 64, with headquarters at Sterling. These four men were to be under the general supervision of Mr. R. L. Parshall, Irrigation Engineer, U. S. Bureau of Public Roads, etc., and the writer, representing the State Engineer's office, was to keep in touch with the work and approve all bills to be paid from State funds.

It was thought that the district engineers might be appointed Water Commissioners in their respective districts, but a State supreme court decision, holding that Water Commissioners were under State Civil Service, made this impossible. However, after some argument and more or less "oratory", the various counties comprising Water Districts Nos. 1 and 64 agreed to the appointment of the district engineers' assistants as Deputy Water Commissioners in said districts, and to guarantee their pay for the full year instead of for a few weeks, as had been the custom.

This was quite an innovation, and had far reaching effects. In the first place, it put the real distribution of the water in the hands of men trained to measure water, and at the same time it brought the counties into the cooperation to the extent of paying (collectively) the \$5.00 per day allowed by law to the deputy water commissioners. It made possible the carrying out of the investigation which otherwise would have had to be given up for lack of funds.

The first step in the investigation was the installation of automatic recording water-level gages on the rating flumes of every ditch taking water from the South Platte River in the two districts, Nos. 1 and 64. As there are some 75 to 100 such ditches, this was something of a task in itself. In order to save expenses, many of these instruments were made in the hydraulic laboratory of the experiment station at the Colorado Agricultural College, from a design developed by Mr. Parshall. These gages cost about

one-third what would have been paid, if they have been purchased at retail prices, and have been very satisfactory.

In addition to these ditch stations, automatic gages were installed on the river itself at stations averaging about 25 miles apart. These stations were installed at Kersey, Orchard, Fort Morgan, Balzac, Sterling, Crook and Julesburg. The latter station is practically at the Colorado-Nebraska state line.

All of these instruments were of the 7-day type requiring that the record sheets be changed every week. It was the intention to arrange a schedule such that the district engineer or his assistant should visit every ditch in his district once a week, changing the charts and making a measurement at least every two weeks. These frequent measurements would then give rating curves which would be up to date and accurate at all times, and any changes in channels and consequent shifting of rating curves would be immediately apparent. This scheme was carried out as faithfully as was possible, and while measurements were not always made according to schedule, enough were taken to insure an accuracy of distribution never before equalled in these districts.

At this writing the records for 1920 are not completed, since it was found impossible to fully compute all records as they came in. The plan of having four men in the field was never realized, and three men have had to handle the work along 150 miles of river. This meant a very great amount of time expended in travel (by Ford auto), and consequently the working up of the records as a whole had to be postponed till the winter months when the field work was not so extensive.

Generally speaking, this investigation will give very detailed and accurate figures on diversions of water by all ditches in the two districts, on headgate duty of water, on return flow to the river, and it will emphasize strongly the fallacy of attempting to distribute our most valuable natural asset, our water, by the old methods of guessing, aided by occasional measurements made by the State Engineer's office.

The distribution by scientific measurement and automatic record has proven so satisfactory that neither District No. 1 nor District No. 64 desire to give it up, and water users in both districts are now studying ways and means to continue the "service" installed by the cooperative investigation.

Disputes between individuals and between the districts have practically ceased, and both districts are ready to affirm that there is more water available than there was before the installation of the automatic gages.

By means of postcards, the water officials of both districts are advised daily of the quantity of water in the river at the head of District 1 (at Kersey) and at the head of District 64 (at Balzac), and also of the amount passing out of the State at Julesburg. With these figures, and accurate rating tables for every ditch, with river stations every 25 miles and an accurate knowl-

edge of the return flow, the problems of water distribution in these two districts have been simplified until the administration of the river runs like clock work.

As an illustration of the magnitude of the return flow to the lower South Platte River, the following figures for District No. 1 for the three-month period July 1 to September 30, 1919, are submitted:

RETURN FLOW TO SOUTH PLATTE RIVER IN DISTRICT NO. 1, JULY 1 TO
SEPTEMBER 30, 1919

(From automatic gage records)

	Inflow Acre-feet	Outflow Acre-feet
South Platte at Kersey	48,020	
Riverside Reservoir to river.....	4,017	
Jackson Lake Reservoir to river.....	17,896	
Beaver Creek to river (waste).....	939	
Sum of all diversions by ditches.....		117,615
South Platte at Balzac.....		42,100
	70,872	159,715
		70,872
Return flow		88,843
Time		92 days
Rate		996 acre ft. per day.

These figures apply between Kersey and Balzac, a distance of approximately 70 miles, and closely check the mean of several series of direct seepage measurements made by the writer in 1916, 1917 and 1918, on the same section of the river.

This district contains approximately 90,000 acres of irrigated land served by ditches diverting from the South Platte, but some of the water used is reservoir water from previous storage, not run in the river as exchange water, but run directly to the lands, and hence not appearing in the above table. (Example, Riverside District, 33,153 acre ft. run from reservoir to district during 1919 season.)

These figures show in round numbers a return flow *during this three-month period* of 1 acre foot per acre of land irrigated.

CHAPTER V

COLORADO RIVER WATERS AND LEAGUE OF SOUTHWEST PLAN FOR COMPLETE DEVELOPMENT

By R. I. Meeker, Special Deputy State Engineer

The rapid expansion of agriculture by irrigation in the Western United States during the past ten years has imposed a heavy demand on the natural flow of several large river systems. In many tributary basins the irrigation demands far exceed the natural flow during the irrigation period. On such streams storage reservoirs have been widely developed, and in some instances sufficient reservoir capacity has been provided to control stream flow save in years of excessive run-off. On several large rivers additional reservoir control is projected and contemplated that approximates complete equalization.

In other words, utilization of water for irrigation (and in some instances for power) has attained a position where future construction will be in large units, will depend chiefly on storage control, and water demands will be heavy and have far-reaching effects within river basins. The above facts can be concentrated into the statement that on our large rivers a stage in irrigation development has been reached where water demands, water control and their administration are interstate in character, but administrative machinery is strictly intra-state and disconnected.

If future irrigation development is to have a sound basis and escape litigation, then the various states interested in the large river basin must make concerted efforts to adjust their water requirements to fit some comprehensive, equitable plan of water utilization and provide by compacts between the interested states for distribution of interstate waters.

The suggested plan of pooling the water supply of the Colorado River Basin by the seven interested states, and move for a comprehensive engineering study and outline of development whereby each state receives equitable treatment, as proposed by the League of the Southwest, is welcomed by Colorado as a rational move for avoidance of useless interstate water litigation. It is the most constructive plan for water utilization that has been broached for a Western river basin.

Heretofore interstate water litigation has been largely based on antagonism, popular fallacies, sectional feeling, lack of comprehensive engineering study, or the absence of long-time stream-flow records. These factors of wasteful litigation will be avoided in the constructive plan launched by the League of the Southwest for the ultimate development of irrigation and power from the 14,000,000 acre feet of water which now annually pass unused to the Gulf of California.

The cooperative plan of development of the Colorado River Basin as launched by the League of the Southwest is the outgrowth of water problems and their investigation occurring on the lower end of the river. For fifteen years the need of flood control along the lower reaches has forced itself upon the two states of Arizona and California and the republic of Old Mexico. Increasing irrigation requirements for the Imperial Valley Project in California coupled with the low margin between stream flow and diversion needs during the late summer months, and prospective needs of undeveloped irrigable lands have also stimulated interest in reservoir possibilities in recent years.

Numerous preliminary studies and surveys of these lower river problems have of necessity included consideration of the run-off of the entire basin as to origin and distribution of water supply with relation to reservoir opportunities, demands of present irrigated areas, ultimate demands of undeveloped irrigable areas and legal phases of vested rights and prospective water claims of the upper states.

These early studies have invariably pointed to the need of a complete and thorough investigation of the entire Colorado River Basin with adequate consideration of the relation development may have in all parts of the basin. Such studies have also indicated the desirability and opportunity for cooperative effort, among the states involved, of working out of a comprehensive plan of development that will avoid friction, possible litigation, waste of money, provide some form of administration between the states and furnish a safe basis for additional development of reservoir storage and water power.

In addition there is an international phase connected with Colorado River waters in the form of a treaty with the Republic of Mexico which must receive proper treatment and tends to complicate the matter when the basin is considered as a whole.

The average annual flow of the Colorado River at Yuma, Arizona, is 16,000,000 acre feet, ranging from 8,000,000 acre feet in low years to 25,000,000 acre feet in high years. It is evident that a large volume of reservoir capacity is required for complete utilization when it is stated that floods of as great as 200,000 second feet have occurred on the lower river.

The lower portion of the Colorado River Basin is arid in character and the water supply originates chiefly in the high mountains of Wyoming, Colorado, Utah and New Mexico. Ninety-two per cent of the annual average flow at Yuma, Arizona, comes from the Green, Grand and San Juan Rivers.

At the present time the total area irrigated from the Colorado River and its tributaries approximates 2,000,000 acres, of which about 100,000 acres lie in Old Mexico. The undeveloped irrigable area that is considered feasible of development according to present standards may approximate 4,000,000 acres, of which 700,000 acres lie in Old Mexico.

To show the approximate extent, distribution and relation of the present irrigated and undeveloped irrigable areas of the Colorado River Basin, the following table prepared by Mr. John T. Whistler, Engineer of the U. S. Reclamation Service, is quoted (see 18th Annual Reclamation Report, page 399) :

DISTRIBUTION OF IRRIGATION AND IRRIGABLE AREAS, COLORADO RIVER BASIN, 1916.

State	Area Irrigated in 1916 Acres	Additional Area That May Be Irrigated Acres
Wyoming	393,000	358,000
Utah	209,700	336,300
Colorado	452,200	492,000
New Mexico	47,000	71,000
Arizona	356,225	326,940
Nevada	5,315	11,260
California	365,040	1,018,690
United States	1,828,480	2,614,190
Mexico	75,000	719,400
Total	1,903,480	3,333,590
Total area that may be ultimately irrigated:		
United States		4,442,600
Mexico		794,400
Total ultimate area irrigable in Colorado River Basin.....		5,237,000

Since 1914 the U. S. Reclamation Service has made many studies, investigations and surveys of water supply, storage sites, projects and arable lands of every state in the Basin.

At the present time the Boulder Canyon reservoir site of 25,000,000 acre-feet capacity is being investigated and studied. This site lies between Nevada and Arizona at the mouth of the Virgin River, and if built will control the entire lower river and equalize and control the flow for all undeveloped irrigable lands in the lower basin. The Boulder Canyon site (if feasible) will serve a three-fold purpose, viz.: largely solve the flood problem of the lower river, equalize for irrigation requirements and also provide equalization for hydro-power development.

The following table shows Colorado's interest in any interstate plan for utilization of Colorado River water. Over 10,000,000 acre-feet of the now unused water passing across Colorado state lines flows into tributaries of the Colorado River. Another way of expressing this fact is that 86 per cent of the total annual average run-off passing into adjacent states originates on the Western Slope of Colorado and feeds the lower Colorado River.

APPROXIMATE AVERAGE ANNUAL DISCHARGE IN ACRE-FEET OF
PRINCIPAL COLORADO INTERSTATE STREAMS AT STATE
LINE ARRANGED IN ORDER OF SIZE.

Stream	Acre-feet	No. Years Record	Remarks
Grand	6,000,000	9	Fruita Station.
Yampa (Bear).....	1,359,000	10	Craig Station, 947,000 + Little Snake at Dixon, 412,000.
San Juan	917,000	10	Arboles Station, 568,000 + Piedra at Arboles, 349,000.
Animas	750,000	19	Durango Station + 70,000 acre-feet, estimated, for Florida, 678,000.
Rio Grande	551,000	20	Lobatos Station.
Dolores	425,000	2	Bedrock, 232,000 + San Miguel, Natu- rita, 187,000.
North Platte.....	416,000	18	Deducted by percent North Gate to Saratoga, long-time records.
White	398,000	15	Meeker Station.
Pine	310,000	12	Ignacio.
South Platte.....	276,000	15	Julesburg.
Arkansas	208,000	9	Holly
Laramie	160,000	10	Jelm + 20,000 acre-feet added for Johnson and Beaver Creeks.
La Plata	25,000	1	Powell's Ranch and La Plata, New Mexico, approximate only.
Republican, N. Fk.	4,000	..	Estimated.
Mancos	No data	.	
11,799,000			

NOTE—San Juan and tributaries 2,002,000 acre-feet.

DISTRIBUTION ACROSS STATE LINES

	Acre-feet	Percent
To the West	8,182,000	69
To the South	2,553,000	22
To the North	852,000	7
To the East	212,000	2
Total annual run-off	11,799,000	100

DISTRIBUTION BY DRAINAGE BASINS

	Acre-feet	Percent	Acre-feet	Percent
Colorado { Grand	6,425,000	63		
{ San Juan	2,002,000	20		
{ Green	1,757,000	17	10,184,000	86
		100		
North Platte { North Platte....	416,000	49		
{ South Platte....	276,000	32		
{ Laramie	160,000	19	852,000	7
		100		
Rio Grande			551,000	5
Arkansas			208,000	2
Republican			4,000	0
Total annual run-off			11,799,000	100

Interstate litigation between Colorado and adjacent states in the Colorado River Basin is unnecessary for the reason that the irrigable lands of Western Colorado are not extensive enough to require or demand anywhere near the total water supply passing from Colorado territory. While there are approximately 25,000,000 acres of land in the western third of Colorado in the Colorado River Basin, probably not to exceed 2,000,000 acres of this land will ever be irrigated, since there are vast areas of high plateaus and mountains not suitable for cultivation. There are also con-

siderable areas of fine land suitable for cultivation which will always remain unbroken because they are so located that there is no adjacent water supply, or the cost of constructing reservoirs and canals to supply them will be excessive.

The menace that Colorado desires to avoid (in the construction of a large reservoir on the lower Colorado River) is the granting of a preferential or priority water right to such a reservoir that will ultimately be felt when Colorado attempts to irrigate the undeveloped arable lands in the western half of the State. Just such water problems confront Colorado water users today in the San Luis Valley on the Rio Grande, in North Park on the North Platte, and in Middle Park (trans-mountain diversion) on the headwaters of the Grand River, where rights-of-way have been denied in order that federal interstate or intra-state projects lower down on those streams may be doubly assured of water even in the driest years.

Of a possible 2,000,000 acres that Colorado may ultimately irrigate from tributaries of the Colorado River, only 750,000 acres are now irrigated. In comparison with this area the annual run-off or stream-flow of Western Colorado which passes now unused across the State line is 10,000,000 acre-feet. The total net demands or consumptive use of water for 2,000,000 acres will approximate, and probably not exceed, over 3,000,000 acre-feet, since ultimately large volumes of water used for irrigation return to the streams as seepage or return water.

Irrigation investigations show that generally from 20 to 40 per cent of the water applied to land for irrigation ultimately returns to the stream channel. This is well illustrated in the irrigation history of the North and South Platte Rivers. The annual measured return flow of the South Platte River in Colorado between La Salle and Julesburg, a distance of 150 miles, now amounts to 800,000 acre-feet annually. Records of return flow secured in 1900 for the same river section show the gain at that time to have only been 350,000 acre-feet. On the North Platte River between Whalen, Wyoming, and North Platte, Nebraska, the measured return flow in 1918 amounted to approximately 400,000 acre-feet, and the records of the Reclamation Service show that the 90,000 acres then under irrigation from the Interstate Canal were contributing 1.5 acre-feet per acre per annum of return flow waters from irrigation to the various formerly dry tributaries of the North Platte River.

The above statements and other well-known engineering facts are the basis for the statement that the irrigation of large areas of land on the headwaters of our streams builds up silently large underground reservoirs which equalize through seepage or return water the flow of our streams which ordinarily discharge 70 per cent of their annual flow in the months of April, May, June and July.

The beneficial effect of return waters from irrigation of the 750,000 acres now irrigated in Western Colorado is partly masked

by the building up of underground reservoirs on lands but recently irrigated and partly through diversion and re-use on new lands. Ten to fifteen years may elapse before the full benefit of such return waters is evident in the lower Yampa, White, Grand, Dolores and San Juan Rivers. With 2,000,000 acres ultimately irrigated in Western Colorado and additional large areas in Utah, New Mexico and Wyoming, the benefits to the lower Colorado River from return water will not only be visible, but should be quite marked.

The lower states of Arizona and California want the peaks knocked off the floods and better equalized winter flow, both for power and irrigation. Irrigation on the headwaters in time will, therefore, automatically better conditions on the Lower Colorado; Arizona and California, therefore, should not be opposed to irrigation and power development in the headwater states.

On the other hand, Colorado, New Mexico, Utah and Wyoming should assist and accelerate any move for the construction of a large reservoir (such as the Boulder site of 25,000,000 acre-feet) in the lower channel of the Colorado River, provided no restrictions are placed on the headwaters, because such equalization will relieve the burden or demand on the direct flow of headwater streams. The doctrine of priority of right regardless of state lines, which is uneconomic in administering interstate rivers and revolutionary in effect and displacement of water rights within a state, is properly an intra-state or localized doctrine not generally applicable to long interstate rivers and especially those which encounter heavy evaporation losses in wide, sandy stream-beds.

Old water rights in the vicinity of Denver have now reached a value as high as \$13,000 per second-foot of water, and with large areas of excellent arid lands adjacent to Denver, the time will soon be here when it will be practicable from an economic point, to bring water through the Continental Divide from the headwaters of the Grand River for use both for irrigation and municipal purposes. The total amount of water which appears feasible for diversion through tunnels from the Western Slope is approximately 250,000 acre-feet annually, or $2\frac{1}{2}$ per cent of the total flow passing across the state line into tributaries of the Colorado River.

California members of the League can readily sympathize with Denver in her desire for a trans-mountain diversion from the Western Slope, since Los Angeles spent \$25,000,000 for developing a trans-mountain water supply at a cost of \$60,000 per second foot, and is now contemplating an extension to the same. San Francisco is constructing a more elaborate and bold trans-mountain water supply.

Colorado's desire is to be unrestrained in the application ultimately of not less than 2,500,000 acre-feet of additional water, not over 25 per cent of the present unused waters discharging from Colorado territory to the Colorado River. Unless such latitude is permitted, development of headwater areas may not completely occur.

Unless the League of the Southwest can outline a practical plan based upon fact rather than an impossible policy founded on desire or advantage, its life will be short. Cooperation must be the basis of accomplishment, and consideration must be given to each state's potential needs as affected by ultimate water development. Early development on the lower river should not stifle or retard ultimate development in the upper states. With a large reservoir or reservoirs on the lower river, there will be no need for restraint of development on the upper river, because equalization will silence direct flow demands on the upper river by lands along the lower river.

SALIENT FACTS

COLORADO PORTION OF COLORADO RIVER BASIN.

Area in square miles.....	38,000	
Area ultimately feasible of irrigation.....	2,000,000	Acres
Area now irrigated (1919).....	750,000	"
Area requiring additional water (now undeveloped).....	1,250,000	"
Stream-flow across State line to Colorado River Basin, average year's run-off	10,200,000	Acre-feet
Net requirements, 2,000,000 acres of land.....	3,000,000	" "
Colorado water available for lower river, assuming irri- gation of all Colorado areas.....	7,000,000	" "
Annual flow Colorado River near Yuma, Ariz., (20 years' records) above Gila River.....	16,200,000	" "
Colorado contributes annually to Lower Colorado, or 60 percent flow at Yuma, Ariz.....	10,200,000	" "
Total flow of water across Colorado State Lines to adja- cent States	12,000,000	" "
Contributed to Colorado River, 86 percent, or.....	10,200,000	" "

CHAPTER VI

SUMMARY OF SUPREME COURT DECISIONS ON CASES PERTAINING TO IRRIGATION, SINCE JANUARY, 1919

German Ditch & Reservoir Co. vs
Platte Valley Irrigation Company, *et al.*
178 Pac., 896

The distribution and use of water for irrigation is controlled by the doctrine of appropriation, and a statutory proceeding is provided for the determination of such right of use, the fundamental principle of which is that the one "first in time is first in right", and after the lapse of the two or four-year periods of limitation rights so decreed become absolute.

A suit to establish by prescription and adverse possession rights to creek waters captured and diverted before reaching a river channel is in a collateral attack upon a judgment of prior appropriation of the waters of the river.

A plaintiff subsequent to passage of the irrigation statutes diverting and using waters of a creek and not permitting them to reach a river channel is violating prior decrees appropriating the river waters, and in defiance of the appropriation statutes, and cannot predicate upon prescription and adverse possession a right to such use as against appropriators having regularly decreed priorities on the river and its tributaries.

North Sterling Irrigation Dist. vs. Dickman
178 Pac., 559

Code of Civ. Proc., par. 25, providing that actions for injuries to real property shall be brought in the county where the land is situated, is applicable to an action against an irrigation district, a quasi-municipal corporation, for injuries to the land of plaintiff, caused by seepage from its irrigation ditch, especially in view of Revised Statutes 1908, par. 3453, providing that irrigation districts may sue and be sued in the courts.

Judgment of District Court affirmed, granting \$2,500 to plaintiff as damages caused by seepage from North Sterling Irrigation District Inlet Canal.

Farmers Ditch & Reservoir Co., *et al.* vs
Boyd Lake Reservoir and Irrigation Company
178 Pac., 561

The district court of Larimer County had no jurisdiction under Revised Statutes 1908, par. 3276, to set aside a water decree rendered by district court of Boulder County in a general adjudication proceeding, although water district extended into both counties, since where a court assumes jurisdiction, its jurisdiction is exclusive and extends to the enforcement of its decree.

Bijou Irrigation Company, *et al.* vs.
Lower Latham Ditch Company, *et al.*
184 Pac., 292

District court of a county held without jurisdiction of a suit to enjoin certain water officials from distributing water in a way claimed by plaintiff ditch companies to be detrimental to their interests, which suit involved matters pertaining to a prior adjudication of water rights by the district court for another county.

•
Hoehne Ditch Co. vs.
John Flood Ditch Co.
191 Pac., 108

1. Verbal contracts to carry water of ditch company established by evidence.
2. Verbal contract to carry water through ditch for 99 years taken out of statute of frauds by performance for one year.
3. Verbal contract to carry waters in ditch held to constitute irrevocable license.
4. That ditch might have to be enlarged held no defense to performance of verbal contract to carry waters of plaintiff.

Rio Grande Reservoir & Ditch Co. vs.
Wagon Wheel Gap Improvement Company, *et al.*
191 Pac., 129

1. Expressed intent to abandon not forfeiture of rights to water appropriated.

An intention expressed in a letter to abandon the construction of a reservoir for irrigation purposes did not cause forfeiture of water rights, unless possession relinquished and acts of ownership ceased.

2. Seepage water could not be appropriated to detriment of prior appropriators.

The owner of a reservoir could not appropriate seepage water and conduct it by ditch to the gates of a canal belonging to it far down the stream for direct irrigation purposes to the detriment of vested rights to the use of water from the stream, on the theory that the waters, having been impounded in the reservoir during the winter months when direct irrigation was impossible, could not have been appropriated for direct irrigation.

Bijou Irrigation District vs.
Weldon Valley Ditch Co., *et al.*
184 Pac., 328

1. Non-user of water right prior to adjudication insufficient to establish abandonment.
2. Sufficiency of complaint to state a cause of action for abandonment of a water right.
3. District court can determine abandonment though it did not enter adjudication decree.

4. Abandonment suit need not be brought in court entering adjudication decree.

5. Adjudication decrees not *res adjudicata* in action to decree abandonment.

6. Abandonment suit not barred in four years after adjudication decree.

Where suit to change point of diversion involved issue of whether certain defendants therein had been using water abandoned by certain ditch, decree adverse to such defendants, being necessarily a finding that water had not been abandoned, is conclusive in subsequent action by such defendants for decree of abandonment of a part of such water right.

CHAPTER VII

ANNUAL REPORTS OF DIVISION ENGINEERS

Owing to a demand for limitations on the size of all reports, and especially a request to cut out tabulated matter wherever possible, only the text of the Division Engineers' reports are published.

ANNUAL REPORT IRRIGATION DIVISION ENGINEER DIVISION NO. 1—1919

December 15, 1919.

M. A. J. McCune,
State Engineer,
Denver, Colorado.

Dear Sir: I herewith submit my report for the work of Irrigation Division No. 1 during the year 1919.

The first use of water for direct irrigation was reported by the "Henrylyn Irrigation District" for week ending Saturday, March 29.

Lake Cheesman was reported full on April 6th.

The sowing of spring grains and the preparation of the ground for planting sugar beets and potatoes was materially delayed by storms in the early part of April, as the ground was too wet to work.

On May 15th the Water Commissioner of District No. 1 reported a shortage of 750 second feet for direct irrigation under appropriations of an earlier date than January 1, 1889, and the Water Commissioner of District No. 2 reported a shortage of 200 second feet prior to January 1, 1879.

June and July were very dry months; the former is reported as being the driest June in 37 years.

The first week in August was unusually wet. Moderate rains were general with an excessive rainfall at Denver of more than three inches. It was reported that the rainfall of Denver during the night of July 31st was 2.60 inches, the greatest in twenty-two years. The normal for the month of July is only 1.60 inches.

Crops in general were greatly benefited by the rain and harvesting continued with but little interruption.

On October 14th, orders were sent to Districts 1 to 9 allowing storage in decreed reservoirs with appropriations of earlier date than June 1, 1907. "Riverside Irrigation District" was demanding 270 second-feet of date May 31, 1907, for direct irrigation.

On December 1st, orders were issued to Districts 1 to 7 allowing storage in any reservoir decreed or undeclared.

On December 11th, orders were sent to Districts 2 to 7 to stop storage of water in all undeclared reservoirs and in decreed reservoirs with appropriations of later date than August 1, 1907, to

supply a demand for 700 second-feet for storage in Jackson Lake, Empire and Riverside reservoirs.

The three reservoirs were short 109,000 acre-feet on November 29th.

I hereby attach the regular statutory tabulation of the Water Commissioners' annual reports.

Respectfully submitted,

F. COGSWELL,
Irrigation Division Engineer,
Irrigation Division No. 1.

ANNUAL REPORT IRRIGATION DIVISION ENGINEER
DIVISION NO. 1—1920

December 15, 1920.

Mr. A. J. McCune,
State Engineer,
Denver, Colorado.

Dear Sir: I herewith submit my report for the work of Irrigation Division No. 1 during the year 1920.

The first use of water for direct irrigation was reported by the "Henrylyn Irrigation District" for the week ending Saturday, March 13.

The Highline Canal in District No. 8 made demand for 100 second-feet of water on March 24th.

Orders were issued on March 23rd to stop all distribution of water to ditches and reservoirs of later date than August 1, 1907, to supply a shortage of 600 second-feet for storage in the Empire and Riverside reservoirs in District No. 1.

Order was sent on March 31st to stop storing in Lake Cheesman to supply a shortage of 150 second-feet for the Highline Canal.

On April 19th, on account of the snow and blizzard of April 17th and 18th, orders were issued to store water in any reservoir decreed or undecreed.

On June 3rd, orders were issued to stop distribution of water to all appropriations of later date than January 1, 1889, to supply a shortage of 820 second-feet for direct irrigation under appropriations of earlier date in District No. 1.

The first demand for water from the Highline Canal in District No. 8, was made on July 2nd, for 100 second-feet, to supply a shortage in District No. 2 for appropriations of earlier date than January 1, 1879.

Lake Cheesman has not been full since May, 1919, and consequently there has not been any water available for storage in Antero Reservoir since that date.

On February 1st of this year there were only 33,514 acre-feet in Lake Cheesman, a shortage of 45,550 acre-feet. This shortage was reduced to 11,000 acre-feet by storage prior to June 5th, but

by November 1st it had again been increased to a shortage of 31,584 acre-feet by sale of water for irrigation.

On October 6th, orders were sent to Districts 1 to 6 allowing storage in decreed reservoirs with appropriations of earlier date than June 1, 1907.

There has been no water available for storage in Riverside Reservoir in District No. 1 since November 16th. The South Platte River was reported dry below the diversion dam of Jackson Lake, or of the Bijou Canal during the month of November.

I hereto attach the regular statutory tabulation of the Water Commissioner's annual reports.

Respectfully submitted,

F. COGSWELL,
Irrigation Division Engineer,
Irrigation Division No. 1.

EXTRACTS FROM THE TABULATED REPORT OF 1919

Total acres under ditch, 1,432,553. Amount of water carried from reservoirs, 606,539 acre-feet. No report from Districts 23, 46, 47, 48.

EXTRACTS FROM THE TABULATED REPORT OF 1920

Total acres under ditch 1,535,283. Amount of water carried from reservoirs, 549,660 acre-feet.

ANNUAL REPORT IRRIGATION DIVISION ENGINEER DIVISION NO. 2—1919

Pueblo, Colorado.

Hon. A. J. McCune,
State Engineer,
Denver, Colorado.

Dear Sir: Our bark has glided serenely over the troubled waters of this Division, regardless of danger signals constantly flaunted in our face, and now while moored in this port, will give you our log.

It is with no little satisfaction we look backward and wonder how we so readily overcame the many obstructions placed in our path. Not the least of these was our salary and expense account, held up at the suggestion of an individual. I feel that our Auditor of State was an honorable man, but a very willing and complacent one, otherwise he would have known, after due consideration, his acquiescence was but to cripple the service of this office, and injure the rights of every farmer in this Division.

For twelve months this condition prevailed. During this period we have successfully operated the functions of this office without means from the State.

However, during the month of November last, the Auditor's heart softened towards us, and he graciously allowed us to receive

the expense fund reimbursing us for the amount paid out in monthly installments.

Retrospectively, this looks more like a practical joke than a reality. We, however, fail to appreciate the joke, which we hope is no offense.

These little annoyances could not hinder the generosity of this great and fertile valley, as the abundance of its crops prove, but there has been a feeling created among the farmers that they have been wronged which no amount of explaining or cajolery will down. The blow aimed at me missed its mark, and hit their personal interests.

The water commissioners have faithfully performed their duties, with two exceptions, though they have suffered many petty annoyances, and are to be commended for their work.

In District No. 67, the water commissioner, Mr. Syp, has failed or refused for two years past to make an annual report, thus in defiance of the law he still retains the office. I have been repeatedly asked the reason, whether it is mental or physical disability, or laziness or obstinacy. I offer no answer as it is up to Mr. Syp, but I will say I think it decidedly unfair in the State to impose an office on any citizen so obnoxious as to be neglected.

In District No. 17 the water commissioner was physically unable to bear the perpetual friction, and resigned, "*mutatis mutandis*"—why comment?

I will say here without particular address to anyone, that efficiency should be the standard of every water commissioner, and should be the first requisite required. The reason is so obvious it is useless to say further.

The rainfall for the year was sufficient for all practical purposes, as will be seen from the following compilation for each month. You will also observe that in the months when many crops are at a critical point, the rainfall was most generous. December, .03 inches; January, .03; February, .86; March, 1.43; April, 2.33; May, .38; June, 1.39; July, 2.95; August, 3.23; September, 2.04; October, .30; November, .64. A total of 15.61 inches for the fiscal year.

At no time did any of the crops suffer for moisture, nor were there ever better or richer crops grown in the valley.

There were no floods, the highest flood never reaching flood stage. * * *

I have long since refrained from indulging in suggestions, but upon request I will again attempt a few:

First, that the spasmodic yearly move to have self-registering devices installed in every ditch of ten feet capacity or more, be made a demand, and every ditch or reservoir refusing, or failing to comply at once, be closed until same has been installed.

Second, that my expense account be increased to \$800.00, as \$500.00 is inadequate, and that the same be paid promptly.

Third, that as every wage earner has had his wage increased, that mine be noticeably increased.

Fourth, that all water commissioners be allowed \$50.00 a month for six months beginning April first, for necessary expenses.

Fifth, that this office be furnished with every convenience, and necessity appurtenant thereto.

Sixth, that the Division Engineer be furnished a "state car" for state work.

Seventh, that each water commissioner be instructed to wear a badge indicative of his office and authority.

Eighth, this being the richest valley in the world, every seductive effort known should be exerted to induce the Dove of Peace to fly this way and build her nest with us, establishing confidence and quietude, that the Rulers may gain wisdom, and his servants profit thereby.

I wish to thank you, Mr. McCune, for your unwavering justice and kindness, and to those serving with you who have established a confidence and help we shall ever feel grateful for, and pleased that we served with you. I respectfully submit.

Yours sincerely,

E. R. CHEW,
Irrigation Division Engineer,
Division No. 2.

ANNUAL REPORT IRRIGATION DIVISION ENGINEER DIVISION NO. 2—1920

Pueblo, Colo., November 30, 1920.

Hon. A. J. McCune,
State Engineer,
Denver, Colorado.

Dear Sir: I have the pleasure of handing you herewith my report as Division Engineer of Irrigation Division No. 2 for the year ending November 30, 1920.

The prospects for water in the spring were not the best. Seasonable rains pulled the irrigation farmers through in fine shape. The run-off and floods did not reach extreme heights at any time. There was not much storage water available at any one time, but floods occurred at opportune times and crops did not suffer for the lack of water under the most junior ditches. As a season for water it was good.

I have cooperated with the Arkansas Valley Ditch Association in publishing daily reports of water conditions on the river. These reports cover the entire length of the river and are a great help in distribution. They prevent misunderstandings in many matters and their value can hardly be estimated. These reports are also valuable as records of run-off stream flow and diversions.

Before the next irrigation season commences, we hope to have electric bell alarms at several strategic points on the Arkansas River so that warnings can be given in the night of the passing of

high water. This is just another step toward better service in the distribution of water.

With the increased value of water, the water users are asking better service from the water commissioners. This necessitates the keeping of an automobile. Under the present scale of prices it is too much to ask a water commissioner to keep up a car on the scale of wages that a common laborer receives. For the good of the service, the wages of the water commissioners should be raised to a point where they can give the service demanded of them. I would also strongly recommend that the State pay the water commissioners. This will avoid much of the trouble with the various boards of county commissioners over the payment of wages. The Supreme Court of this State has decided that a water commissioner is a state officer, and it is only right that the State should pay him.

This office needs furniture, filing cases, a current meter and a typewriter. I sincerely hope that the next Legislature will provide the necessary funds with which to purchase equipment desired.

I have been seriously handicapped in the discharge of my duties during the past season by lack of expense money. Upon taking charge of the office on the 17th day of February last, I found there was no furniture of any kind in the office. It became necessary to purchase a small amount of furniture for the office out of the appropriation for traveling expense. This was done.

This office should have at least \$1,500.00 per annum to cover the various items of expense such as telephone, telegraph and traveling.

In my opinion the Division Engineer should make an inspection of each reservoir and dam in his Irrigation Division at least once a year, and he should go over each water district at least once each year with the water commissioner. These trips are for the purpose of finding any unsafe condition as to reservoirs and dams and superintend the work of the water commissioners. This requires expense money.

There is a movement on foot to install self-registers on all the large canals taking water from the Arkansas River. In my opinion, this will promote confidence between the water users and the water officials. I am encouraging the installation of the self-registers. Many have already been placed in the canals and more will be used next season.

We are in urgent need of another hydrographer. The work is too much for one man to accomplish. Several new gaging stations should be maintained so that future irrigation and power development will take place along sane lines. Seepage measurements along the Arkansas River should be taken to determine the amount and source of return water and its increase over a series of years. We are now using the river channel as a carrier of reservoir water stored in the mountains, and transporting this

water a distance of 180 miles. Each time a run is made a considerable loss occurs to the river to the detriment of older priorities. The source and character of this loss should be determined.

The question of a storage season, or period, I should say, has not arisen during my administration of the office, but I can see that it may come up in the future. In my opinion, it should begin when the irrigation season is over. Practically no crops are irrigated after October 1st. It would be well to have the storage period commence at about that date, and a law to this effect should be enacted.

In conclusion I desire to express my appreciation of the hearty cooperation of your office and assistants and of the water commissioners in Irrigation Division No. 2 in the discharge of the duties that fall upon them.

Yours truly,

C. W. BEACH,
Irrigation Division Engineer,
Division No. 2.

Total number of acres irrigated, 519,993.

Quantity of water in reservoirs May 1, 1920, 150,749 acre-feet.

Quantity of water in reservoirs November 1, 1920, 137,471 acre-feet.

ANNUAL REPORT IRRIGATION DIVISION ENGINEER DIVISION NO. 3—1920

Alamosa Colo., December 15, 1920.

Hon. Addison J. McCune,
State Engineer,
Denver, Colorado.

Dear Sir: I have the pleasure of handing you herewith my annual report of ditches and rivers for the fiscal year ending November 30, 1920, for Irrigation Division No. 3, comprising the eight districts in the San Luis Valley and covering the drainage system of the Rio Grande River and its tributaries.

I wish to express my appreciation for the hearty cooperation of both water users and the water commissioners of my division in the distribution of water during the past year.

The valley has had a very prosperous season, with abundance of water for all priorities, and crops well matured. The depreciation in the price of all livestock and farm products has worked a great hardship upon the water users of this division.

I wish to express my appreciation of the better feeling and the get-together idea of the water users of my division in connection with the work of the commissioners.

I desire respectfully to call your attention to the inadequate pay of the water commissioners under the present laws, and suggest that as it has been decided by our courts that the water commissioner is a state official, that his compensation or salary be

paid not by the counties, as at present, but by the State Treasurer upon voucher signed by the Division Engineer or State Engineer. From my observation, I find that a commissioner during the irrigation season is obliged to make use of an auto as means of transportation, and has daily mileage of from twenty to sixty miles, and as you know, under our statutes he is only allowed the sum of \$5.00 per day for his services. I respectfully submit to you that it is impossible to get a competent man for this daily wage, and suggest that your office get behind and work for a bill in the present legislature that will pay the water commissioner a reasonable compensation for his labor.

• I wish to mention the valuable assistance given this office by Harry D. Amsley, Hydrographer from the State Engineer's office, who has spent the entire season in this division.

In conclusion I desire to thank the State Engineer for his courteous treatment and advice on all matters pertaining to this office, also the several water commissioners in this division, as they have all been active and faithful in the discharge of their duties and given at all times as accurate information as was possible under existing circumstances.

Respectfully submitted,

E. S. COUNSELOR,
Irrigation Division Engineer,
Division No. 3.

ANNUAL REPORT IRRIGATION DIVISION ENGINEER
DIVISION NO. 4—1919 and 1920

Montrose, Colo., November 30, 1920.

Hon. Addison J. McCune,

State Engineer.

Denver, Colorado.

Dear Sir: In compliance with the Statutes, I have the pleasure of herewith handing you my annual reports for the years 1919 and 1920 for Irrigation Division No. 4.

As a part of this report, you will find tabulated statements of the various ditches and reservoirs in this division. A comparison of the reports of the various water commissioners for several years will show a great discrepancy in the reports from year to year. The reports of the water commissioners for Districts 41 and 61 are the only complete reports for the entire districts. The reports for District 40 do not include the water used by ditches taking the water from the Gunnison River, consequently the Gunnison Valley in Delta County is not included in the reports.

This condition is also true of District 42, as the reports from that District do not include the Grand Valley in Mesa County. Much of the reports as given by the various water commissioners are incomplete, for the reason that many of the blanks are not filled in by them. From these reports, it is impossible to even esti-

mate the duty of water in the various districts. After ten years' experience as Division Engineer in this Division, I am firmly convinced that the various reports are absolutely worthless, so far as furnishing any accurate information is concerned. I do not attribute this as being so much the fault of the water commissioners as the system under which they work. This system of distribution of water originated in this State several years ago and has not been materially changed since. The method of appointing and paying water commissioners should be materially changed. The water commissioners are recommended by the Boards of County Commissioners, appointed by the Governor and paid by the counties. At the present time their bills for services are "o.k.'d" by the State Civil Service Commission, which has no opportunity of knowing whether the work has been performed, or whether they have rendered adequate service. They are responsible to no one, and work when and how they see fit. The efficient commissioners are underpaid and the inefficient commissioners receive more pay than they are entitled to. Many of them work through the season without keeping the necessary data to enable them to make a satisfactory report at the end of the season.

The greatest asset that the State possesses is its water supply, and yet this water is distributed under the most expensive, bunglesome and inefficient system imaginable. Much effort has been put forth by various water officials and interested parties to have the system bettered, but up to the present time they have been unsuccessful. The water commissioners should be appointed upon the recommendation of the Division Engineers, and they should be compelled to work under their direction. If their bills were passed on by the Division Engineers, the State would have some method of knowing that the commissioners were giving value received. Why not have the commissioners assignable, so that they could work in any District in the Division where the Division Engineer considered their services necessary? In that case when there was not enough work in one district for the entire services of the commissioner, it would be possible to have him look after one or more districts.

Under the present system of appointing water commissioners, it is exceedingly difficult to obtain efficient men for the positions. In this division there are 17 water districts and we have reports from but 6 districts. There is no report from Districts 28, 30 and 34, and no commissioners for Districts 29, 31, 32, 59, 60, 62, 63 and 69. It is to be earnestly hoped that your office and the various Division Engineers will make a determined effort to have the next legislature amend the irrigation laws of the State.

Thanking you for the many acts of courtesy extended to this office, I am

Yours very respectfully,

H. C. GETTY,
Irrigation Division Engineer,
Division No. 4.

ANNUAL REPORT IRRIGATION DIVISION ENGINEER
DIVISION NO. 5—1919

Glenwood Springs, Colo., November 27, 1919.

Hon. Addison J. McCune,
State Engineer,
Denver, Colorado.

Dear Sir: In accordance with the provisions of the law, I present herewith my report as Irrigation Division Engineer for Division No. 5, for the fiscal year ending November 30, 1919.

The past season was most unfavorable from the standpoint of irrigation and the production of crops. The snowfall last winter was extremely light, and in consequence there was but slight run-off in the spring, and but little flood water in any of the streams in the division. The summer's precipitation was almost negligible, and the ground became very dry and hot, putting to the test the knowledge and experience of our farmers in the conservation of water and the art of applying the precious fluid in the most advantageous manner.

As a result of careful study and intelligent application in some sections in spite of, or dare we say, because of, the diminished supply of water, the crop production was equal to and in some places I believe greater than, in years of normal water supply.

Of course this apparent phenomenal condition did not obtain in those districts which usually suffer from water shortage. These districts really suffered this year. But I maintain that the superior crops produced this year by some people who were obliged to get along with less water than usual and who thought they actually suffered a shortage, but prove and emphasize my oft-repeated contention that many of our farmers are in the habit of using entirely too much water, to their own detriment as well as that of their neighbors. On Gypsum Creek, one tract of 20 acres which had been cropped for over 30 years, yielded 110 bushels of 40-pound oats to the acre, and many other excellent and almost record crops of oats, wheat, potatoes and alfalfa were produced from land that was given a less quantity of water than usual, and this result notwithstanding the lack of precipitation throughout the summer.

However, the above encouraging statement does not alter the fact that many portions of the district were very "patchy" because of the excessively dry weather and the extreme shortage in the streams. For this reason the hay crop, as a whole, is very short, and stockmen are shipping out almost every animal that will bring a price on the market, and the future outlook of the cattle business is by no means rosy.

Notwithstanding the discouraging conditions so far as dependent upon the water supply for the past year, the business of farming has been so good, and the future outlook for the business is so encouraging that during the past three months more ranch

sales have been made in this territory, and at higher prices, than during any previous year in the country's history.

I was considerably handicapped last spring by the late appointment of water commissioners, this delay being an especial hardship on account of the unfavorable conditions prevailing this year. It is very important that appointments should be made before the date when active irrigation operations are required, if the commissioner is to be as effective and useful to the community as he should be.

In one instance the people in a certain community refused to allow the water commissioner to do the work, or rather protested so vigorously against him, alleging incompetence, that I induced the commissioner to appoint a competent deputy whom the people of the community insisted on paying from a fund subscribed by the parties interested. This action was permitted because of the unwillingness of the County Commissioners to pay a deputy for flat territory, and because the farmers interested were unwilling to accept the services of the regularly appointed commissioner.

With the exception of one district, my territory has been well manned this year, the commissioners realizing the unfavorable conditions which called forth the greatest efforts possible to distribute the waters available to the benefit and, if possible, the satisfaction of all, under the decrees.

Notwithstanding the unusual shortage of water this season, and the clamor of the people for every drop possible, there has been very little litigation over water and water rights. I believe the dry season has spurred many to strengthen their titles, and more than the usual number of petitions have been filed to make absolute the conditional decrees issued several years ago. Others who have often sought in vain to have the Division Engineer sit as a court and pass upon questions of judicial import have at last shown a disposition to fee a lawyer and submit their difficulties to the district court for adjustment.

There is in this division but one bounded irrigation district, and apparently that has not been successful, for while it was organized in 1912, it has not acquired, either by purchase or construction, an irrigation system for watering the lands of the district, and once the County Treasurer was enjoined from collecting a tax against the property, and this week the County Commissioners refused to make a levy against the property for the coming year, upon a showing made by parties in the district who own their own water rights and who object to a double assessment.

I feel much encouraged at the prospect for a water supply for next season, because of an early snowfall of about four feet in the mountains, and today a snow blanket of from one to three feet in depth covers the ranches in the valleys of our most prosperous farming communities. Because of the very favorable weather of the past two months I believe more fall plowing has been done than ever before, and this means better crops with less water and,

at least indirectly, tends to minimize the water commissioner's troubles.

I have encouraged the cleaning of ditches and the construction of headgates and measuring flumes in the fall, knowing that the farmers are so very busy in the spring that oftentimes they fail in doing this most important work, or else slight it to such an extent that their ditches cannot be used to their full capacity, and thus the water commissioner is blamed for a trouble which might have been largely remedied by the farmer himself.

Thankful to your office for kindly cooperation and many courtesies extended, I am

Yours very truly,

A. J. DICKSON,
Irrigation Division Engineer,
Division No. 5.

ANNUAL REPORT IRRIGATION DIVISION ENGINEER DIVISION NO. 6—1919

Steamboat Springs, Colo., November 29, 1919.

Hon. Addison J. McCune,
State Engineer,
Denver, Colorado.

Dear Sir: I have the pleasure of handing you herewith my first annual report for the fiscal year ending November 30, 1919, for Irrigation Division No. 6.

Irrigation Division No. 6, formerly a part of Irrigation Division No. 5, was created at the Twenty-second General Assembly of the Colorado Legislature, which designated Steamboat Springs as the headquarters of said Division. My appointment as Irrigation Division Engineer was made by His Excellency, Governor Oliver H. Shoup, under date of May 5, 1919, and I assumed active duties of the office May 25, 1919.

Being inexperienced in the official duties of the office and having had very little data upon which to work, I have proceeded as cautiously as possible in all of my official acts, striving to organize and assist as fully as possible the water commissioners and their deputies, and to assemble data in proper form for the guidance of the water commissioners and water users.

In this regard I am greatly indebted to the members in the Department of the State Engineer's office for the helpful advice, hearty support and courtesies they have always given me. Also to Hon. John T. Shumate, Judge of the District Court, covering Irrigation Division No. 6, for his willingness in giving me much personal and legal advice in matters pertaining to the duties of my office, and to the several clerks of the district court in furnishing me with copies of all new decrees so promptly.

I have found the County Commissioners in all three of the counties comprising Irrigation Division No. 6 fully awake to the

importance of the proper distribution of water, and anxious to give as much assistance as possible toward that end. They have all been liberal in allowing bills for the compensation of water commissioners and their deputies, and the commissioners of Routt and Moffat Counties have requested their Judge of the District Court to enter an order instructing the Clerk of the District Court to prepare and have published, in book form, all water decrees affecting their various districts. These books are now being prepared and will be available for the guidance of the water commissioners and water users by next season.

In Northwestern Colorado the farming season opened very early, and after May 1, 1919, there was little or no rainfall whatever until after all crops had matured, being the driest season ever known in that portion of the State. This brought into prominence the value of a good water right, as many of the streams were insufficient in the more arid sections and in some cases became entirely dry. This also served to increase the controversies between water users, and the problems confronting the officials were multiplied many times. Practically all of the controversies were adjusted and settled amicably by the water commissioners, and the fact that there were no complaints over the manner in which the disputes were settled is indicative of the fact that the water commissioners are men of good judgment and experience, and sincere in their efforts to perform the duties of their office fairly and judiciously. * * * * *

Summing up the agricultural conditions for the year, I will say that the grain crops, except in the very arid sections, were fair; hay crops above average; stock abundant and in good condition, and in general the ranchers have had a very prosperous year.

The shortage of water has led to an increased number of filings and adjudications among water users, most of them being small projects. There has been very little new construction during the year. For the past few years there has been a steady increase in irrigated lands developed under the numerous systems of irrigation in this Division. This development is due entirely to individual and community enterprises.

Some of the problems we have had to meet in Irrigation Division No. 6 are:

1. Lack of proper headgates and measuring weirs.
2. Lack of division boxes.
3. Indiscriminate cutting of ditch banks.
4. Obstructing flow of water in ditches.
5. Wasting of water.
6. Damage by waste water.
7. Determination of domestic rights.

These and many other problems have arisen, most of them, no doubt, simple to one experienced in the discharge of the duties of the office of the Irrigation Division Engineer, but new to myself and at times rather vexing.

Many of the problems arose over which the Division Engineer and water commissioners had no jurisdiction, but it has been our experience that it is very difficult to refrain from giving advice or suggestions between neighbors whereby an amicable settlement might be affected; even though the statutes do not give us any jurisdiction in the matter.

In view of the many disputes that have arisen over which the water commissioners have had no jurisdiction, it seems that the statutes should be revised in order that the water commissioners might have the authority to administer the water and to settle disputes over the proper division of the water in the ditches themselves. If such a revision of the statutes could be secured, the water commissioners could render a much broader service among the water users.

Again acknowledging the many courtesies received from your office during the year, I am

Respectfully yours,

B. G. BRADLEY,
Irrigation Division Engineer,
Division No. 6.

ANNUAL REPORT IRRIGATION DIVISION ENGINEER
DIVISION NO. 6—1920.

Steamboat Springs, Colo., November 30, 1920.

Mr. A. J. McCune,
State Engineer,
Denver, Colorado.

Dear Sir: I herewith present for your consideration my annual report for Irrigation Division No. 6 for the fiscal year ending November 30, 1920.

I assumed the duties of Irrigation Division Engineer on November 1, 1920, and the irrigation season being over, had no disputes brought to my attention concerning the distribution of water.

Division No. 6, covering the drainage area of the White, Yampa, Snake and part of Green Rivers, contains seven water districts, three of which are without commissioners, 55, 56 and 57. In Districts 55 and 56 there is very little irrigation, consequently no need for a commissioner, while District 57 is an important one. It includes Elk Head and Fortification Creeks, which have a limited supply of water after the month of June; consequently a number of disputes arise among users. There should be a commissioner for this district. The commissioners that were on duty were at a disadvantage in the distribution of the water on account of the poor condition of the ditches and headgates. A majority of the headgates are not built to control the water, and in some cases no headgate at all. This loose method has been practiced in most all of the divisions, and in my estimation is a great detriment to the waters users.

In some of the streams the water is plentiful and because there is an abundance of water, many of the irrigators use too much water. The slip-shod method of measuring practiced and the consequent extravagant use of water by many, has resulted in loss to others who have not an equal advantage. This emphasizes the importance of having ditches and headgates in proper shape, and in having proper ratings made. The main streams usually have enough water to fill all demands.

Twenty-two rating stations were maintained throughout the division in 1920. Nine of these stations were maintained in cooperation with the Elk River Irrigation and Construction Company and three in cooperation with the Great Northern Irrigation and Power Company. The balance of the stations were maintained solely by the State Engineer's office.

There are fourteen self-recording gages in the division and are located so as to give a conservative estimate for the total run-off of the principal streams of the division, but to arrive at a better basis for an equal and fair distribution of water, it will be necessary to maintain some additional rating stations above the irrigation on some of the streams.

Of the present ditches and canals in operation, there is an average of three out of five that are in bad order. Some effort has been made the past season on the part of some companies and individuals, to put their ditches in shape, and I believe by little encouragement much improvement in this direction will be made in the near future. The Maybell Ditch in District 44, before the irrigation season this year, put in a complete system of lateral headgates and measuring devices, and all concerned seem to be well pleased over the improvement.

Some of the water users who are favorably located and have all the water they want, do not wish to be disturbed in their present methods, but those who hold early rights but are not so favorably located, but farther down the stream perhaps, are beginning to see the necessity of division of water on a scientific basis.

There was an exceptionally heavy run-off this season, and I know of no cases where crops were injured from lack of water. The water commissioner of District 58 reported there were from 1,500 to 2,000 acres of new ground cultivated in his district this year.

I have received the annual report of but one water commissioner to date. Attached hereto is a tabulated statement of his report.

I will be pleased to accept any suggestions you offer and any advice from your office will be gratefully received.

Yours respectfully,

B. T. CHASE,
Irrigation Division Engineer,
Division No. 6.

CHAPTER VIII

HYDROGRAPHIC DATA

J. H. Baily, Chief Hydrographer

The hydrographic department of the State Engineer's office consists of one Chief Hydrographer and four hydrographers located at Denver, Pueblo, Alamosa and Montrose. The hydrographic work in Irrigation Division No. 6 is carried on by B. T. Chase, Irrigation Division Engineer, who besides discharging his duties as Division Engineer, maintains twenty hydrographic stations.

The State at present maintains gaging stations as follows:

Division No. 1—

Stations maintained	8
Cooperative stations	5
Automatics	6
Automatics to be installed in 1921	2

Division No. 2—

Stations maintained	8
Automatics	7

Division No. 3—

River station maintained	17
Seepage ditch stations	4
Automatics	11
Automatics to be installed in 1921	2

Division No. 4—

Stations maintained	3
Cooperative stations	10
Automatics	6
Automatics to be installed in 1921	2
New stations to be established in 1921	3

Division No. 5—

Cooperative stations	1
Automatics	1

Division No. 6—

Stations maintained	11
*Cooperative stations	9
Automatics (State)	4
Other automatics	9

* Gage readers paid by Elk River Irrigation Company and Great Northern Irrigation Company.

Total—

Stations maintained by State.....	61
Cooperative stations	16
Automatics	34
Automatics on hand.....	10
New stations to be established in 1921.....	3

NOTE—The number of new stations to be established depends on the amount of money appropriated for this work by the legislature.

The last two years new stations were established on Bear Creek in the South Platte Drainage; Big Creek, and three stations on Elk Head Creek in the Yampa River Drainage; North Fork of White River and South Fork of White River in the White River Drainage; Carnero Creek, La Garieta Creek, Pinos Creek, Rock Creek in Rio Grande Drainage; and Hermosa Creek in the San Juan Drainage. The Hermosa Creek station was maintained by Mr. Meeker, Special Deputy State Engineer.

Next year new stations will be maintained on North Fork of the Gunnison and two on the Mancos River.

In order to be of beneficial use in designing power plants or construction of new irrigation systems, it is necessary to have long-time hydrographic records. The State does not appropriate sufficient funds to do this on every stream, so it has been the practice of the State Engineer's office to maintain base stations on the different water-sheds and short-time records on the smaller side streams. By using the base stations in conjunction with the short-time record stations, a fair average of the probable run-off can be estimated. This gives a better estimate of discharge than could possibly be obtained from rainfall and the drainage area.

All hydrographic records of the State that are available have been copied into loose-leaf note books and are on file in the State Engineer's office. Blue prints of these sheets can be obtained at any time by paying the cost of blue printing, which amounts to twenty cents a sheet. Postage will have to be paid if they are sent by mail.

This next year if funds are available, this office expects to make up a file of all measurements on streams and ditches that are obtainable. This will take some time, but owing to the call for spot measurements these last two years, we think this will be a valuable asset to the office.

Besides the hydrographic stations maintained on streams, the hydrographers have to rate the ditches in their divisions and make seepage measurements in order that the water commissioners can make a fair distribution of the water.

ARKANSAS RIVER DRAINAGE

G. C. Price, Hydrographer

TENNESSEE FORK NEAR LEADVILLE

Location.—At highway bridge in Sec. 16, T. 9 S., R. 80 W., a few hundred yards above the mouth of the stream and about three miles northwest of Leadville.

Records Available.—May 10 to October 31, 1890; June 18 to October 16, 1903; February 8, 1911, to November 13, 1920.

Drainage Area.—45 square miles.

Gage.—Vertical staff.

Channel.—Rough, but practically permanent.

Discharge Measurements.—Made from bridge during high water and by wading at ordinary stages.

Winter Flow.—Ice causes backwater during the winter months.

Diversions.—There are court decrees for diversions of 24 second-feet above the station. There is also a decree for diversion of 18.5 second-feet from the headwaters of Eagle River to Tennessee Fork above the station.

Co-operation.—Station maintained by the United States Geological Survey in co-operation with the United States Forest Service. Records were furnished by the United States Geological Survey.

EAST FORK OF ARKANSAS RIVER NEAR LEADVILLE

Location.—At highway bridge in Sec. 16, T. 9 S., R. 80 W., about 200 yards above the mouth of Tennessee Fork, three miles northwest of Leadville.

Records Available.—April 25 to August 31, 1890; June 18 to September 29, 1903; June 5, 1911, to November 6, 1920.

Drainage Area.—52 square miles.

Gage.—Vertical staff.

Channel.—Somewhat shifting.

Discharge Measurements.—Made from bridge during high water and by wading at ordinary stages.

Winter Flow.—Ice causes backwater during the winter months.

Diversions.—There is a court decree for a diversion of 2 second-feet from the East Fork above the station by the Leadville Water Company.

Accuracy.—Results considered fair.

Co-operation.—Station maintained by the United States Geological Survey in co-operation with the United States Forest Service. Records were furnished by the United States Geological Survey.

ARKANSAS RIVER AT GRANITE

Location.—At Granite, in Sec. 31, T. 11 S., R. 79 W., below the mouth of Lake Creek and above Lost Canyon and Clear Creeks.

Records Available.—May 1, 1897, to September 10, 1899; April 6, 1910, to December 31, 1920.

Drainage Area.—425 square miles.

Gage.—Automatic recording gage established in 1910; datum of recording gage bears no determined relation to that of the vertical staff gage which was used from 1897 to 1899, and which was located at the highway bridge near the railroad station. During 1916 the automatic gage was out of order and estimates are based on readings of the staff gage.

Channel.—Practically permanent.

Discharge Measurements.—Made from car and cable.

Winter Flow.—Ice causes backwater during the winter months and the records are discontinued.

Artificial Control.—The discharge is affected by the operation of the Twin Lakes reservoir.

Diversions.—There are court decrees for diversions of 76 second-feet from the Arkansas between this station and the junction of Tennessee and East Forks, and diversions of 22 second-feet from the intervening tributaries.

ARKANSAS RIVER AT SALIDA

Location.—At Salida, Colorado, some distance above the mouth of the South Fork of Arkansas River, the nearest tributary of importance.

Records Available.—April 11, 1895, to October 31, 1903; November 3, 1909, to December 31, 1920.

Drainage Area.—1,160 square miles.

Gage.—Automatic recording gage; no determined relation between automatic gage and the gage used from 1895 to 1903.

Channel.—Slightly shifting.

Winter Flow.—Springs keep the river open during the winter months.

Diversions.—There are court decrees for diversions of 199 second-feet from the Arkansas between this station and Granite, and diversions of 380 second-feet from intervening tributaries.

ARKANSAS RIVER AT CANON CITY

Location.—Just below Hot Springs Hotel, at the mouth of the canyon, and $1\frac{1}{2}$ miles above Canon City. Nearest important tributary is Grape Creek, which enters above.

Records Available.—May 1, 1888, to December 31, 1920.

Drainage Area.—3,060 square miles.

Gage.—Automatic recording gage established by the State Engineer in September, 1909.

Channel.—The channel shifts to such an extent during high water that at times it is necessary to move the gage in order to read the gage heights.

Discharge Measurements.—Made from car and cable.

Winter flow.—Ice causes backwater during the winter months.

Diversions.—There are court decrees for diversions of 131 second-feet from the Arkansas between the stations at Canon City and Salida, and diversions of 2,286 second-feet from intervening tributaries.

ARKANSAS RIVER AT PUEBLO

Location.—At Main Street Bridge in Pueblo, 2 miles above the mouth of Fountain Creek, the nearest tributary.

Records Available.—September 19, 1894, to December 31, 1920. From May 1, 1885, to September 30, 1886, a station was maintained at Pueblo by the State Engineer; from June 1, 1887, to September 30, 1887, a station was maintained at a point 9 miles above Pueblo; from May 1, 1889, to August 31, 1889, the United States Geological Survey maintained the station 9 miles above Pueblo.

Drainage Area.—4,600 square miles.

Gage.—An automatic gage located 150 feet below Main Street Bridge has been used since March 22, 1911.

Channel.—Shifting.

Discharge Measurements.—Made from Main Street Bridge.

Winter Flow.—Ice causes some slight backwater during the winter months.

Diversions.—There are court decrees for diversions of 637 second-feet from Arkansas River, between the station at Canon City and Pueblo, and diversions of 327 second-feet from intervening tributaries.

Co-operation.—This station is maintained in co-operation with the Arkansas Valley Ditch Association.

ARKANSAS RIVER AT NEPESTA

Location.—At Highway bridge, 100 yards north of Nepesta Depot in Sec. 32, T. 21 S., R. 60 W.; about 8 miles below mouth of Huerfano River.

Records Available.—September 8, 1897 to October 31, 1903; July 14, 1909 to November 30, 1912; January 1, 1914 to December 31, 1920. Station maintained at Oxford Farmers Canal Co.'s dam previous to 1918.

Gage.—An automatic recording and slope gages.

Discharge Measurements.—Made from Bridge during high water and by wading at low stages.

Winter Flow.—Ice causes back water during portion of winter months.

Diversions.—There are court decrees for diversions of 1,552 second feet from the Arkansas between Pueblo and Nepesta, and approximately 1,600 second feet from intervening tributaries. The discharge records given in this report do not include the flow of the canal.

Accuracy.—Results poor.

Cooperation.—Maintained in cooperation with Arkansas Valley Ditch Association.

ARKANSAS RIVER AT LA JUNTA

Location.—At the east bridge at La Junta; no important tributary within several miles.

Records Available.—April 11, 1912, to December 31, 1920. From December 5, 1893, to December 31, 1895, a station was maintained near the city pumping plant. During 1899 and 1901 a station was maintained at the head of the Fort Lyon Canal by the Great Plains Water Co. From April 7, 1903, to October 31, 1903, a station was maintained one mile east of La Junta and a number of discharge measurements were made during 1904. From August 27, 1908, to November 30, 1908, a station was maintained half a mile northwest of La Junta, just below the mouth of Crooked Arroyo.

Drainage Area.—12,200 square miles.

Gage.—Automatic recording gage.

Channel.—Shifting.

Discharge Measurements.—Made from the bridge during high water and by wading at ordinary stages.

Winter Flow.—Ice causes backwater during the winter months.

Diversions.—There are court decrees for diversions of 2,735 second-feet from the Arkansas between Nepesta and La Junta, and 511 second-feet from intervening tributaries.

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

ARKANSAS RIVER AT LAMAR

Location.—Located at highway bridge, one mile north of Lamar.

Records Available.—May 11, 1913, to December 31, 1920.

Gage.—Bristol automatic gage and standard chain gage.

Channel.—Shifting.

Diversions.—With the exception of a few small ditches, below all diversions on the river.

Accuracy.—Results are considered fair.

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

ARKANSAS RIVER AT HOLLY

Location.—At highway bridge half a mile southeast of Holly, on line between Secs. 14 and 15, T. 23 S., R. 42 W., 1 mile below the mouth of Wild Horse Creek, an intermittent stream.

Records Available.—October 15, 1907, to December 31, 1920.

Drainage Area.—Approximately 25,000 square miles.

Gage.—A number of gages have been used at the station, but all readings have been referred to the same datum except those from October 25 to December 31, 1911, when a different datum was used.

Channel.—Very shifting.

Discharge Measurements.—Made from bridge during high water and by wading at low stages.

Winter Flow.—Ice causes backwater during a portion of the winter months.

Diversions.—There are court decrees for diversions of 1,072 second-feet from Arkansas River between the stations at La Junta and Holly, and diversions of 1,253 second-feet from intervening tributaries. There are many diversions from Arkansas River below Holly, in Kansas.

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

COTTONWOOD CREEK BELOW HOT SPRINGS, NEAR BUENA VISTA

Location.—In the Leadville National Forest, at bridge in Sec. 22, T. 14 S., R. 79 W., half a mile below Hot Springs Hotel and 6 miles west of Buena Vista; 2 miles below mouth of South Fork, the nearest tributary.

Records Available.—April 7, 1911, to December 4, 1920. From September 23, 1910, to September 13, 1911, a station was maintained in section 21, 1 mile above the present station.

Drainage Area.—72 square miles.

Gage.—Vertical staff.

Channel.—Practically permanent.

Discharge Measurements.—Made from bridge or by wading.

Winter Flow.—The river is open during the winter months on account of hot springs above.

Diversions.—There are court decrees for diversions of 148 second-feet from Cottonwood Creek, of which 28 second-feet are above the station.

Accuracy.—Records good.

Co-operation.—Station maintained by the United States Geological Survey in co-operation with the United States Forest Service. Records furnished by the United States Geological Survey.

CHALK CREEK AT UPPER STATION NEAR ST. ELMO

Location.—In Sec. 27, T. 15 S., R. 80 W., in the Leadville National Forest, one-quarter mile below the power plant of the Tin Cup Gold Dredging Company, and one and one-quarter miles below St. Elmo. The nearest tributary is Coal Creek, which enters a quarter mile below.

Records Available.—November 15, 1913, to September 30, 1919.

Drainage Area.—48 square miles (measured from Forest atlas).

Gage.—Friez recording gage owned by the Tin Cup Gold Dredging Company.

Channel.—Apparently permanent.

Discharge Measurements.—Made from foot bridge and by wading.

Winter Flow.—Affected very little by ice.

Diversions.—There are no court decrees for diversions from Chalk Creek, the water of which is not returned to the stream above the station.

Regulated Flow.—Low-water flow regulated to a certain extent by a small reservoir at St. Elmo formed by the diversion dam for the Tin Cup Gold Dredging power house.

Accuracy.—Conditions are favorable for accurate results and the estimates are considered excellent.

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

PURGATOIRE RIVER AT TRINIDAD

Location.—At Commercial Street bridge.

Records Available.—April 1, 1916, to December 31, 1920. From 1897 to 1899 and 1905 to 1912 a station was maintained about 1,000 feet above the present location.

Drainage Area.—742 square miles.

Channel.—Shifting.

Gage.—Staff on concrete bridge.

Discharge Measurements.—Made by wading at low stages and from Animas Street bridge during high water.

Winter Flow.—Observations discontinued during the winter months.

Diversions.—There are decrees for diversions of 186 second-feet from the Purgatoire River above this station.

Accuracy.—Results for 1919 and 1920 cannot be considered better than fair.

Discharge of Tennessee Fork Creek near Leadville for 1919.

Day	Drainage Area, 45 Square Miles.					Altitude, 10,000 Feet Above Sea Level.					
	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.
1.....						88	60	149	11	9	22
2.....						100	81	135	13	10	
3.....						100	90	117	10	10	
4.....	9					66	73	102	13	10	
5.....						62	50	66	11	13	
6.....					100	62	50	50	10	14	
7.....						54	46	38	10	14	
8.....						58	41	36	10	13	
9.....	11					76	36	36	10	13	
10.....						84	33	27	15	14	
11.....					88	100	52	23	17	14	
12.....			8	8		86	43	23	21	13	
13.....						79	38	23	21	11	
14.....						77	35	23	18	10	
15.....						84	32	18	17	13	
16.....					112	77	29	14	16	13	
17.....				24		79	58	14	16	13	
18.....		9	5			75	56	14	18	14	
19.....						70	35	14	17	14	
20.....						66	29	14	16	14	
21.....				100		66	22	14	16	13	
22.....						62	18	14	14	13	
23.....						56	16	14	14	14	
24.....			8			48	14	13	13	13	
25.....						56	14	11	11	13	
26.....						50	17	10	10	14	
27.....			4			46	18	10	10	23	
28.....				66		50	19	10	9	23	
29.....						46	27	10	10	23	
30.....						46	56	10	10	14	
31.....			5				41	10		14	
Total.....						2063	1229	1062	407	426	
Mean.....						68.8	39.6	34.3	13.6	13.7	
Max.....						100	90	149	21	23	
Min.....						46	14	10	9	9	
Acres-ft.....						4090	2430	2110	809	842	

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

Discharge of Tennessee Fork Creek near Leadville for 1920.
Drainage Area, 45 Square Miles. Altitude, 10,000 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....					19	318	100	41	14	13	5	.....
2.....						266	98	44	12	10	3	.....
3.....						283	95	43	15	13	4	.....
4.....						250	90	52	19	13	5	.....
5.....						250	81	35	11	18	6	.....
6.....						250	77	44	13	11	7	.....
7.....						266	72	38	14	14	3	.....
8.....						250	60	26	18	17	4	.....
9.....					440	218	73	32	22	10	7	.....
10.....						203	58	41	13	17	7	.....
11.....						218	60	35	17	19	7	.....
12.....						266	64	28	19	18	5	.....
13.....						250	54	23	18	18	7	.....
14.....						234	46	20	17	12	.....	.....
15.....					117	218	41	13	11	10	.....	.....
16.....						188	52	21	18	6	.....	.....
17.....						188	48	14	14	3	.....	.....
18.....						115	46	19	13	2	.....	.....
19.....						107	52	22	16	17	.....	.....
20.....						110	50	26	15	13	.....	.....
21.....						105	52	50	17	7	.....	.....
22.....						105	36	35	24	14	.....	.....
23.....						102	27	27	15	11	.....	.....
24.....						95	43	19	17	6	.....	.....
25.....					370	93	84	14	15	5	.....	.....
26.....					370	100	160	19	12	4	.....	.....
27.....					370	95	68	27	14	2	.....	.....
28.....					266	84	41	19	10	4	.....	.....
29.....					300	79	43	35	16	6	.....	.....
30.....					300	73	36	21	19	2	.....	.....
31.....					283	.....	29	11	.....	7	.....	.....
Total.....						5379	1936	894	468	322	.....	.....
Mean.....						17.9	62.5	28.8	15.6	10.4	.....	.....
Max.....						318	160	52	24	19	.....	.....
Min.....						73	27	11	10	2	.....	.....
Acre-ft.....						10700	3840	1770	928	640	.....	.....

Discharge of East Fork of Arkansas River near Leadville for 1919.
Drainage Area, 52 Square Miles. Altitude, 10,000 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....						138	97	84	16	21	26	.....
2.....						152	107	82	18	20	.....	.....
3.....						138	127	80	20	20	.....	.....
4.....	11					120	134	70	19	20	.....	.....
5.....						92	97	75	17	20	.....	.....
6.....					24	92	89	58	16	18	.....	.....
7.....						92	84	50	16	18	.....	.....
8.....						92	77	44	16	20	.....	.....
9.....						94	72	44	16	19	.....	.....
10.....						80	70	39	21	18	.....	.....
11.....					21	89	64	44	21	18	.....	.....
12.....				16	21	92	64	44	26	17	.....	.....
13.....						89	64	29	30	16	.....	.....
14.....						92	60	29	34	18	.....	.....
15.....						99	52	29	34	17	.....	.....
16.....					34	110	48	29	31	15	.....	.....
17.....				21		115	87	29	31	15	.....	.....
18.....		10	16			115	72	29	29	18	.....	.....
19.....						110	60	29	30	18	.....	.....
20.....						104	48	29	31	17	.....	.....
21.....				16		104	42	22	31	15	.....	.....
22.....			12			102	40	17	29	15	.....	.....
23.....						99	39	17	29	15	.....	.....
24.....						94	42	17	26	16	.....	.....
25.....						110	40	16	25	16	.....	.....
26.....						94	42	16	24	18	.....	.....
27.....			12			104	39	16	25	18	.....	.....
28.....				9		102	40	12	22	21	.....	.....
29.....						99	48	12	24	20	.....	.....
30.....						94	82	12	21	18	.....	.....
31.....			14			.....	68	12	.....	18	.....	.....
Total.....						3107	2095	1115	728	553	.....	.....
Mean.....						104	67.6	36.0	24.3	17.8	.....	.....
Max.....						152	134	84	34	20	.....	.....
Min.....						80	39	12	16	15	.....	.....
Acre-ft.....						6190	4160	2210	1450	1090	.....	.....

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

Discharge of East Fork Arkansas River near Leadville for 1920.
Drainage Area, 52 Square Miles. Altitude, 10,000 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....						245	64	49	35	25	16	.....
2.....						328	60	46	30	20	19	.....
3.....						328	64	39	25	19	13	.....
4.....						272	68	60	25	14	13	.....
5.....						328	71	39	14	16	8	.....
6.....						299	64	44	17	17	12	.....
7.....						272	60	35	12	16	.....	.....
8.....						328	40	27	16	17	.....	.....
9.....						245	55	57	17	20	.....	.....
10.....						231	60	49	22	20	.....	.....
11.....						231	64	28	20	32	.....	.....
12.....						272	55	35	18	30	.....	.....
13.....						282	64	42	20	17	.....	.....
14.....						282	44	25	27	16	.....	.....
15.....					26	217	49	25	25	11	.....	.....
16.....						199	44	25	32	10	.....	.....
17.....						170	55	27	27	17	.....	.....
18.....						141	44	28	16	14	.....	.....
19.....						115	49	22	16	12	.....	.....
20.....						106	44	31	14	17	.....	.....
21.....						95	40	46	16	14	.....	.....
22.....						103	73	39	16	15	.....	.....
23.....						92	95	32	17	16	.....	.....
24.....						88	71	25	16	16	.....	.....
25.....					272	95	57	25	25	16	.....	.....
26.....					299	95	95	22	20	16	.....	.....
27.....					328	88	49	39	27	17	.....	.....
28.....					221	82	39	28	20	17	.....	.....
29.....					272	82	39	39	16	16	.....	.....
30.....					328	71	49	25	16	16	.....	.....
31.....					383	.....	40	42	.....	17	.....	.....
Total						5782	1765	1095	617	536	.....	.....
Mean.						300	19.3	56.9	35.3	20.6	17.3	.....
Max..						383	328	95	60	35	32	.....
Min..						221	82	39	22	12	10	.....
Acre-ft.						4160	11500	3500	2170	1230	1060	.....

Discharge of Arkansas River at Granite for 1919.
Drainage Area, 425 Square Miles. Altitude, 8,930 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....						275	940	510	205	140	175	132
2.....						295	910	1050	476	247	128	145
3.....						275	928	1160	525	240	233	145
4.....						205	1100	1030	476	233	275	145
5.....						205	1100	1030	417	205	275	145
6.....						240	1050	970	375	205	132	120
7.....						240	970	970	355	175	175	124
8.....						258	880	940	347	140	175	124
9.....					100	258	910	940	315	125	175	134
10.....					132	268	868	940	315	151	205	134
11.....					100	258	820	850	268	205	175	134
12.....					100	258	880	645	248	190	175	124
13.....					100	258	940	700	233	247	175	120
14.....					130	295	940	760	247	355	175	120
15.....					116	395	970	672	138	355	175	120
16.....					110	395	1000	672	618	307	175	120
17.....					169	462	1100	510	645	283	175	120
18.....					205	562	1100	440	645	268	175	120
19.....					240	634	1100	510	645	268	175	128
20.....					258	730	1130	395	645	250	169	128
21.....					250	730	1160	375	618	233	145	128
22.....					295	820	1130	315	562	190	145	128
23.....					387	880	1130	222	535	151	145	128
24.....					404	910	1100	205	485	151	175	128
25.....					395	940	1100	258	476	199	175	128
26.....					379	1000	1060	375	418	222	175	100
27.....					335	1030	970	440	375	212	145	95
28.....					347	1060	970	440	347	199	145	100
29.....					335	1130	940	375	323	199	145	125
30.....					307	1160	940	485	307	175	145	132
31.....						1070	.....	485	258	.....	145	.....
Total					5194	17496	30136	20129	13146	6585	5342	3817
Mean.					236	564	1000	649	424	220	172	127
Max..					404	1160	1160	1160	645	355	275	175
Min..					100	205	820	205	138	125	128	95
Acre-ft.					10300	31700	59500	39900	26100	13100	10600	7560

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

Discharge of Arkansas River at Granite for 1920.
Drainage Area, 425 Square Miles. Altitude, 8,930 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	90	74	65	78	247	1260	1450	688	195	163	126	136
2.....	57	74	74	78	266	1180	1490	603	229	163	124	136
3.....	81	74	78	78	304	1330	1490	576	229	136	112	90
4.....	90	65	78	90	304	1290	1650	576	195	136	112	112
5.....	90	65	78	90	344	1370	1610	576	195	163	112	90
6.....	73	65	90	84	344	1450	1570	550	229	150	124	112
7.....	57	65	78	101	430	1490	1410	525	229	150	136	78
8.....	54	74	90	124	550	1570	1260	476	229	136	136	90
9.....	65	65	90	150	603	1690	1150	476	229	136	124	90
10.....	60	65	90	136	630	1490	1080	430	229	136	124	90
11.....	60	65	90	124	576	1260	1010	386	195	163	124	90
12.....	65	57	90	101	500	1450	1010	386	163	179	112	112
13.....	74	57	90	112	500	1690	975	386	195	163	101	112
14.....	74	57	112	112	453	1610	908	344	163	163	78	112
15.....	74	57	101	124	386	1610	908	344	163	163	78	112
16.....	74	57	101	136	386	1690	940	688	163	150	78	90
17.....	74	57	101	212	408	1610	975	688	163	163	112	90
18.....	74	65	101	344	476	1530	842	688	163	136	101	90
19.....	74	74	90	344	603	1450	810	688	163	136	101	112
20.....	74	74	112	195	718	1450	659	688	195	136	101	112
21.....	65	74	124	112	748	1450	718	386	195	136	108	90
22.....	65	74	136	112	875	1490	718	344	195	124	101	90
23.....	74	65	124	124	875	1530	748	688	163	124	90	78
24.....	57	57	101	136	940	1490	748	688	163	136	90	78
25.....	65	57	90	136	1010	1490	908	630	163	150	78	78
26.....	74	57	78	136	1180	1490	1040	630	163	136	78	78
27.....	74	57	78	136	1120	1490	875	630	163	101	78	78
28.....	74	57	84	136	1040	1490	630	576	163	112	78	78
29.....	74	57	84	150	1150	1490	630	525	163	101	90	78
30.....	74	....	84	179	1220	1450	650	476	163	136	112	78
31.....	74	....	84	....	1290	....	630	229	....	124	....	112
Total	2204	1861	2866	4170	20476	44330	31472	16554	5608	4401	3129	2972
Mean.	71.1	64.2	92.5	139	661	1480	1020	534	187	142	104	95.9
Max.	....	....	136	344	1290	1690	1650	688	229	179	136	136
Min.	....	....	....	78	247	1180	630	229	163	101	78	78
Acre-ft.	4370	3690	5690	8270	40600	88100	62700	32800	11100	8730	6190	5900

Discharge of Arkansas River at Salida for 1919.
Drainage Area, 1,160 Square Miles. Altitude, 7,038 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....					550	1940	1540	1000	450	400	360	376
2.....					500	1780	1820	850	450	392	380	384
3.....					500	1660	2280	970	450	400	360	364
4.....					500	1620	2100	970	450	450	360	368
5.....					450	1500	2000	910	450	500	360	388
6.....					450	1460	1860	800	425	500	360	388
7.....					450	1460	1700	775	380	400	360	372
8.....					500	1420	1700	850	360	450	450	352
9.....					500	1320	1580	750	352	400	400	282
10.....					500	1390	1540	725	500	400	400	317
11.....					500	1390	1440	675	640	450	380	317
12.....				288	450	1460	1320	640	575	400	400	356
13.....				258	500	1660	1180	550	600	450	380	304
14.....				258	550	1700	1100	550	640	450	360	301
15.....				258	650	1860	1180	550	800	450	360	288
16.....				258	725	1780	1180	710	735	450	364	288
17.....				320	750	1940	1140	910	675	450	364	304
18.....				320	910	1980	1100	850	600	400	364	320
19.....				340	1110	1940	970	910	640	340	368	320
20.....				360	1500	1980	910	850	600	360	368	320
21.....				380	1700	1980	850	850	590	360	368	320
22.....				450	1900	1940	825	840	560	360	372	320
23.....				500	1860	1860	700	800	500	360	372	320
24.....				625	1780	1780	650	750	450	360	372	320
25.....				650	1860	1740	650	700	475	360	376	320
26.....				675	2020	1700	700	650	540	360	368	320
27.....				650	2190	1620	775	650	550	360	328	288
28.....				600	2280	1580	800	600	525	340	298	288
29.....				575	2460	1540	825	550	450	360	372	288
30.....				550	2460	1520	910	540	450	380	360	304
31.....					2100	....	1110	525	....	360	....	314
Total				8315	35155	50500	38435	22250	15862	12452	11084	9781
Mean.				438	1130	1680	1240	750	529	402	370	316
Max.				675	2460	1980	2280	1000	800	500	450	388
Min.				258	450	1320	650	525	352	340	298	282
Acre-ft.				1650	69500	100000	76200	46100	31500	24700	22000	19400

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

Discharge of Arkansas River at Salida for 1920.

Drainage Area, 1,160 Square Miles. Altitude, 7,038 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	287	270	236	170	322	2610	2610	1450	648	398	418	270
2.....	297	270	253	170	359	2310	2560	1200	550	378	418	287
3.....	236	270	253	202	367	2560	2560	921	550	398	418	287
4.....	287	270	236	170	359	2610	2610	1100	550	340	439	270
5.....	304	253	236	170	439	2720	2610	1240	550	322	439	287
6.....	304	253	236	202	439	2770	2460	1170	550	304	418	287
7.....	270	253	219	202	482	2940	2310	980	550	304	439	270
8.....	236	253	219	236	574	3160	2060	950	550	287	439	270
9.....	229	270	236	270	700	3210	1840	921	550	304	398	270
10.....	253	253	253	322	807	3040	1700	1010	550	270	378	270
11.....	243	253	253	322	780	2310	1790	950	527	270	378	270
12.....	243	253	236	236	700	2460	1700	863	527	322	378	304
13.....	253	236	236	236	623	2720	1570	950	504	304	418	236
14.....	270	236	253	236	623	2820	1530	863	482	340	439	253
15.....	270	236	236	236	574	2820	1490	835	460	359	322	236
16.....	270	236	219	287	527	2940	1490	1100	460	359	304	236
17.....	270	236	236	270	527	2770	1610	1200	460	340	322	236
18.....	270	236	236	359	574	2560	1610	1240	460	359	359	253
19.....	270	253	236	418	700	2560	1200	1240	418	359	359	270
20.....	270	270	236	378	921	2410	1570	1310	418	378	340	253
21.....	270	270	243	270	1100	2510	1380	1340	439	398	322	270
22.....	253	270	287	236	1310	2510	1380	980	418	378	304	219
23.....	253	270	297	253	1340	2560	1380	863	418	378	304	202
24.....	270	253	253	253	1420	2610	1530	1200	418	359	287	186
25.....	236	236	219	287	1530	2560	1450	1100	418	359	287	219
26.....	253	236	236	236	1740	2560	1660	1040	439	378	304	219
27.....	270	236	202	253	1530	2720	1490	1200	439	378	304	219
28.....	270	236	186	253	1530	3040	1380	1100	439	378	270	219
29.....	270	236	170	270	1740	2880	1490	1040	439	378	253	253
30.....	270	....	186	287	2110	2720	1530	921	398	398	253	236
31.....	270	....	186	....	2560	....	1450	863	....	378	....	253
Total	8217	7303	7219	7627	29307	80970	55000	33180	14579	10855	10711	7810
Mean.	265	252	233	254	945	2700	1770	1070	486	350	357	252
Max.	304	270	297	418	2560	3210	2610	1450	648	398	439	304
Min.	229	236	170	170	322	2310	1200	835	398	270	253	186
Acre-ft.	16300	14500	14300	15100	58100	161000	109000	65800	28900	21500	21200	15500

Discharge of Arkansas River at Canon City for 1919.

Drainage Area, 3,060 Square Miles. Altitude, 5,363 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	318	398	350	1140	1140	2360	1650	1380	400	440	425	570
2.....	310	398	358	1040	1010	2120	1830	1600	360	392	425	605
3.....	390	390	370	1080	925	1900	2420	1380	380	392	440	584
4.....	440	358	382	925	880	1650	2850	1250	689	450	440	605
5.....	490	358	350	1030	864	1650	2530	1130	425	510	410	584
6.....	490	410	350	1100	840	1480	2160	995	360	498	425	558
7.....	440	382	318	692	880	1370	2200	844	352	440	400	498
8.....	490	422	342	545	898	1420	1900	1830	340	450	450	450
9.....	530	422	330	492	952	1370	1730	905	340	450	540	450
10.....	490	455	310	650	898	1370	1610	796	640	450	510	440
11.....	555	480	318	531	864	1350	1500	745	675	450	522	558
12.....	530	430	330	629	786	1390	1320	654	745	440	540	570
13.....	610	390	358	650	786	1460	1060	626	626	462	510	450
14.....	580	370	342	552	800	1650	1140	570	780	450	522	392
15.....	480	310	318	685	816	1830	1320	510	820	480	462	440
16.....	530	330	310	594	1020	1900	1240	498	820	498	462	480
17.....	580	370	310	566	1060	1960	1320	796	796	450	462	462
18.....	565	390	342	636	1320	1830	1110	745	745	440	462	480
19.....	570	430	410	952	1390	2120	1040	654	654	410	510	498
20.....	520	358	480	970	1820	2090	1100	640	640	410	440	462
21.....	480	370	555	898	2570	2020	1070	605	605	410	462	498
22.....	455	350	530	840	2710	2060	887	654	654	400	462	480
23.....	440	350	520	880	2640	2020	773	640	640	410	462	480
24.....	470	342	470	988	2500	1900	661	605	605	410	440	450
25.....	430	350	422	1060	2390	1920	591	510	510	425	510	425
26.....	410	350	406	988	2710	2020	682	540	540	410	498	462
27.....	422	390	390	970	2810	1770	796	510	510	425	522	450
28.....	370	350	455	1060	2950	1690	968	522	522	400	498	480
29.....	358	....	505	1040	3030	1630	766	510	510	410	400	498
30.....	370	....	580	1390	2850	1590	1010	450	450	425	558	510
31.....	370	....	854	....	2850	....	1230	450	....	450	....	510
Total	14483	10333	12665	25573	49959	52900	42464	24554	17133	13537	14169	15379
Mean.	467	369	409	852	1610	1760	1370	792	571	437	472	496
Max.	610	455	854	1390	3030	2360	2850	1600	820	510	558	605
Min.	310	310	310	492	786	1350	591	450	340	392	400	392
Acre-ft	28700	20500	25100	50700	99000	105000	81900	48700	34000	26900	28100	30500

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

Discharge of Arkansas River at Canon City for 1920.
Drainage Area, 3,060 Square Miles. Altitude, 5,363 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	370	380	435	195	328	3080	2790	1710	800	380	520	502
2.....	380	380	435	223	391	2640	2560	1570	640	380	538	463
3.....	380	380	446	209	408	2820	2480	1260	598	408	550	479
4.....	408	370	424	195	462	2900	2560	1460	580	391	580	435
5.....	424	338	391	223	479	2990	2640	1500	550	370	580	424
6.....	424	328	338	242	479	2990	2430	1300	550	380	610	424
7.....	391	328	318	242	490	3350	2250	1180	562	380	622	424
8.....	354	328	338	242	574	3500	2020	1080	640	380	610	408
9.....	280	380	380	304	658	3640	1830	1070	640	380	610	408
10.....	328	380	338	318	748	3930	1660	1150	610	380	562	435
11.....	354	391	354	338	787	3130	1640	1260	610	380	538	408
12.....	338	338	328	280	768	2900	1600	1010	622	391	520	391
13.....	370	338	328	290	683	3080	1460	1020	610	391	520	435
14.....	370	318	408	424	787	3260	1460	1020	598	408	538	435
15.....	391	338	538	354	814	3210	1460	954	598	408	550	424
16.....	435	338	435	338	814	3130	1400	975	562	435	538	446
17.....	435	328	424	338	748	3080	1380	1160	580	424	490	391
18.....	424	338	424	354	670	3030	1800	1300	562	435	490	446
19.....	424	338	424	435	735	2590	1690	1150	562	424	502	490
20.....	408	370	424	435	940	2480	1300	1300	520	424	490	502
21.....	380	391	462	408	1180	2430	1080	1420	490	408	490	490
22.....	370	424	538	304	1380	2430	1320	1260	490	408	446	435
23.....	354	435	462	290	1640	2530	1400	1020	490	435	435	370
24.....	354	479	354	290	1800	2640	1360	1010	380	435	408	338
25.....	354	462	290	328	1870	2530	1690	1080	380	446	391	424
26.....	338	424	270	318	2040	2560	1800	1150	408	479	446	435
27.....	354	391	280	304	2240	2590	1690	2290	424	479	435	435
28.....	354	391	256	338	1960	3440	1400	1180	424	463	435	462
29.....	338	408	232	318	1800	3210	1340	1020	380	463	391	550
30.....	338	.....	223	318	2210	2960	1380	996	380	502	446	580
31.....	338	.....	223	.....	2900	.....	1400	940	.....	562	.....	610
Total	11560	10832	11520	9195	33783	89050	54270	37825	16240	13029	15281	13889
Mean..	373	374	372	306	1090	2970	1750	1220	541	420	509	448
Max...	435	479	538	435	2900	3930	2790	2290	800	562	622	610
Min...	280	318	223	195	328	2430	1080	940	380	370	391	338
Acre-ft.	22900	21500	22900	18200	67000	177000	108000	75000	32200	25800	30300	27500

Discharge of Arkansas River at Pueblo for 1919.
Drainage Area, 4,600 Square Miles. Altitude, 4,675 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	198	279	244	1150	1440	2250	1530	1230	314	394	356	498
2.....	200	286	272	1080	1280	1980	1320	1430	179	363	356	442
3.....	200	286	286	1110	1170	1850	1320	1430	78	342	474	418
4.....	250	300	300	1210	1150	1710	1930	1470	1620	363	434	522
5.....	300	251	300	1280	1040	1550	2250	1130	258	458	434	514
6.....	300	230	300	1330	914	1410	2430	1060	258	458	434	554
7.....	300	272	230	860	1910	1470	1830	950	204	458	434	514
8.....	325	286	230	286	950	1530	1670	1930	223	458	426	328
9.....	350	272	244	610	941	1590	1650	1880	160	458	506	179
10.....	375	314	236	578	905	1550	1630	730	410	378	586	410
11.....	400	356	179	474	869	1310	1550	682	941	450	626	418
12.....	425	363	179	506	754	1210	1490	690	714	450	506	706
13.....	450	300	198	674	706	1270	1210	570	634	335	586	272
14.....	475	265	198	815	706	1410	1250	450	932	370	506	211
15.....	500	244	198	754	754	1540	1450	418	1460	370	458	328
16.....	514	230	166	514	842	1610	1230	418	842	490	498	450
17.....	546	244	142	426	914	1730	1410	426	754	530	482	426
18.....	514	265	120	426	1060	1810	1280	656	842	450	498	570
19.....	482	363	148	530	1370	1850	1180	674	674	450	498	610
20.....	570	363	265	626	1630	1880	1210	714	650	370	498	586
21.....	514	293	410	674	1770	1850	1160	714	586	363	498	538
22.....	466	286	490	642	2050	1850	1080	642	586	363	356	586
23.....	498	286	402	610	2140	1750	1000	602	626	328	300	530
24.....	498	328	418	779	2050	1750	878	602	546	363	300	514
25.....	418	328	349	1080	2140	1750	815	530	466	402	355	538
26.....	370	286	307	1230	2250	2010	1130	466	426	402	410	482
27.....	370	272	286	1300	2420	2370	995	410	450	402	474	482
28.....	370	244	314	1300	2490	1710	1640	386	498	442	335	482
29.....	342	.....	230	1220	2780	1530	1230	378	450	402	135	482
30.....	314	.....	349	1380	2820	1430	1090	321	418	363	530	522
31.....	286	.....	823	.....	2550	.....	1430	307	.....	328	.....	498
Total	12120	8092	8827	25454	46765	50510	43268	24306	17193	12553	12914	14610
Mean..	391	289	285	848	1510	1680	1400	784	573	405	420	472
Max...	570	363	823	1380	2820	2250	2430	1930	1620	530	626	610
Min...	198	230	130	286	706	1210	815	307	78	328	136	179
Acre-ft	24000	16000	17500	50500	92800	100000	86100	48200	35200	24900	25600	29000

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

Discharge of Arkansas River at Pueblo for 1920.

Drainage Area, 4,600 Square Miles. Altitude, 4,675 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	325	315	184	184	219	2510	2330	1990	814	423	621	434
2.....	336	315	184	193	275	2690	2250	3080	690	423	621	423
3.....	300	285	165	206	300	2270	2150	1170	464	406	621	406
4.....	325	285	165	154	285	2670	2150	1700	493	434	505	493
5.....	325	275	154	146	315	2590	2250	1500	389	406	464	336
6.....	336	275	165	176	325	2670	2090	1150	434	367	493	378
7.....	336	285	167	193	434	2720	1890	931	726	378	505	446
8.....	352	285	169	193	464	2980	1650	853	726	378	543	434
9.....	336	285	172	165	505	3110	1450	822	690	434	524	406
10.....	378	315	174	146	726	3240	1280	762	635	378	505	378
11.....	367	300	176	285	726	2820	1190	979	656	325	505	378
12.....	378	285	165	300	656	2330	1220	995	656	325	505	378
13.....	352	252	165	252	621	2470	1080	1100	608	325	493	481
14.....	367	228	266	176	656	2820	1260	1030	588	352	524	481
15.....	352	266	406	300	690	2690	1430	1050	555	434	524	464
16.....	336	252	367	228	726	2690	1370	1100	524	493	493	446
17.....	336	219	300	252	726	2920	1320	1150	524	493	493	464
18.....	378	219	300	237	588	2950	2640	1170	524	464	493	493
19.....	352	266	325	252	588	2570	1610	1190	524	481	512	524
20.....	315	184	300	352	762	2150	845	2690	493	464	493	524
21.....	300	165	378	378	1080	2090	621	2110	423	434	505	493
22.....	300	206	389	206	1300	2090	1120	1260	423	406	505	505
23.....	315	228	446	193	1550	2210	1170	915	406	406	505	389
24.....	275	237	315	176	1600	2210	1450	995	367	464	493	481
25.....	336	237	275	193	1550	2210	1650	1150	352	493	493	446
26.....	300	219	237	285	1740	2400	1450	1040	378	493	493	493
27.....	300	193	219	275	2150	2150	1170	1070	378	505	493	493
28.....	315	184	206	275	2040	2510	1170	1120	378	505	493	464
29.....	300	206	184	285	1700	2820	1010	1060	378	493	481	524
30.....	300	....	154	228	1890	2490	995	995	378	505	434	505
31.....	275	....	154	....	2210	....	1150	876	....	543	....	493
Total	10198	7266	7426	6884	29397	77040	46411	39003	15574	13430	15332	14072
Mean...	329	251	240	229	948	2570	1500	1260	519	433	511	454
Max....	378	315	446	378	2210	3240	2640	3080	814	543	621	543
Min....	275	165	154	146	219	2090	621	762	352	325	434	336
Acre-ft.	20200	14400	14800	13600	58300	153000	92200	77500	30900	26600	30400	27900

Discharge of Arkansas River at Nepesta for 1919.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	50	182	219	682	1900	1280	1520	2860	314	354	370	300
2.....	50	200	193	882	1750	900	1370	810	314	354	370	282
3.....	50	219	193	828	1520	954	1330	1030	314	330	370	276
4.....	56	219	206	794	1350	730	1790	1310	1790	290	362	262
5.....	74	193	226	918	1260	500	1560	1500	855	390	354	300
6.....	94	172	253	1460	1010	360	1520	1330	480	314	345	269
7.....	100	167	300	1450	828	990	1330	1050	330	378	345	262
8.....	100	161	340	1140	900	1030	1140	1030	330	525	345	355
9.....	100	182	330	918	936	1140	1080	4800	330	450	345	395
10.....	100	233	300	682	810	730	1140	1470	1600	426	345	368
11.....	100	260	280	416	682	575	1030	1030	2550	450	370	376
12.....	100	246	280	416	762	430	1030	1110	1290	480	370	385
13.....	100	233	260	682	918	388	846	974	685	600	324	276
14.....	100	240	226	954	714	575	846	906	1200	426	331	275
15.....	100	260	200	1080	620	650	1790	855	1110	354	312	395
16.....	100	260	193	882	730	846	1220	770	1080	330	312	395
17.....	100	280	182	515	828	810	810	600	855	333	312	295
18.....	100	310	151	360	1010	1220	1140	390	855	336	398	276
19.....	100	330	120	330	1120	1280	1030	290	855	339	299	276
20.....	100	350	172	374	1180	1220	1600	330	770	342	299	276
21.....	100	360	388	515	1120	1370	650	354	736	345	299	276
22.....	108	310	730	500	1100	1560	360	250	685	348	299	276
23.....	108	240	846	472	1180	1520	730	140	600	351	306	295
24.....	140	200	746	682	1100	1460	500	140	480	354	346	315
25.....	140	188	575	828	972	1460	500	140	480	357	346	335
26.....	123	182	458	864	990	1600	388	110	450	360	454	355
27.....	193	206	310	1280	1140	1410	472	140	390	363	340	375
28.....	193	233	233	1860	1350	1560	500	685	314	366	320	375
29.....	193	....	226	1830	1500	1600	778	266	290	370	300	395
30.....	172	....	260	1600	1640	1520	846	290	330	370	280	395
31.....	161	....	402	....	1660	....	1460	314	....	370	....	395
Total	3475	6616	9798	26194	34580	31668	32306	27274	22662	11755	10068	10080
Mean...	112	236	316	873	1120	1060	1040	880	755	379	335	325
Max....	193	360	846	1860	1900	1600	1790	4860	1790	600	370	395
Min....	50	161	120	330	620	360	360	110	290	290	280	262
Acre-ft.	6890	13100	19400	51900	68900	63100	64000	54100	44900	23300	20100	20200

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

Discharge of Arkansas River at Nepesta for 1920

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....			117	29	180	2040	2000	1830	400	420	156	651
2.....			152	16	201	1980	2040	3720	1120	483	156	586
3.....			96	19	264	1730	2240	1040	625	538	107	549
4.....			70	70	285	2370	2410	1360	755	472	90	527
5.....			14	104	308	2150	2440	820	820	440	60	549
6.....			14	84	308	2040	2370	820	625	290	60	226
7.....			46	84	377	2040	1550	505	1040	135	114	60
8.....			530	84	426	2280	1090	1120	820	29	226	505
9.....			342	117	700	2390	628	1540	483	55	651	625
10.....			232	136	700	2300	1470	1120	625	494	586	527
11.....			180	180	820	2190	1120	1690	1030	505	625	625
12.....			180	400	948	1690	1030	1840	1150	527	625	625
13.....			169	400	852	1840	1050	1700	985	516	549	549
14.....			201	180	852	1920	452	1900	955	3560	320	651
15.....			201	117	980	1860	900	1790	794	664	420	472
16.....			426	232	980	2090	1180	1650	703	47	340	186
17.....			504	180	1160	2090	1420	1420	625	163	320	135
18.....			426	342	1070	2500	2130	1650	638	170	440	320
19.....			400	426	1070	1960	2150	573	716	250	505	242
20.....			400	125	948	1670	820	1620	505	260	651	163
21.....	238		342	34	1020	1670	250	2490	95	260	716	150
22.....			400	24	1630	1490	350	651	420	270	755	150
23.....			530	169	1940	1730	1120	410	410	270	716	165
24.....			530	169	1440	1810	1280	450	350	320	625	170
25.....			530	125	1300	1960	1790	755	300	430	549	180
26.....			232	180	1440	2260	2250	1020	290	430	527	200
27.....			125	285	1630	2110	820	820	330	440	651	200
28.....			125	285	1730	2130	1450	400	440	440	755	250
29.....			136	285	1530	2170	1040	210	380	505	781	250
30.....			125	180	1570	1940	1000	527	450	505	651	300
31.....			125	.....	1840	.....	1360	350	.....	50	.....	300
Total.....			7900	5061	30499	60400	43200	37796	19469	13888	13727	11088
Mean.....	250	240	255	169	984	2010	1390	1220	649	448	458	358
Max.....			530	426	1940	2500	2440	3720	1150	3560	781	651
Min.....			14	16	180	1490	250	210	95	47	60	60
Acre-ft.	15400	13800	15700	10100	60500	120000	85500	75000	38600	27500	27300	22000

Discharge of Arkansas River at Ja Junta for 1919.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	12	12	8	18	11	228	510	600	12	52	42	357
2.....	12	22	9	20	13	385	533	120	30	31	38	20
3.....	12	14	8	19	12	368	625	46	12	40	42	17
4.....	12	14	8	18	12	228	488	25	25	20	46	24
5.....	12	36	14	22	14	16	40	18	242	13	26	49
6.....	12	70	9	36	14	14	56	56	40	13	40	300
7.....	12	70	12	36	11	84	436	167	13	25	40	225
8.....	12	22	11	18	8	286	264	300	125	32	158	100
9.....	12	14	10	12	13	368	228	1460	38	20	58	100
10.....	13	11	11	14	14	406	342	901	73	28	210	100
11.....	12	11	113	18	12	385	488	46	203	29	210	100
12.....	12	14	20	14	11	406	578	78	173	29	150	100
13.....	13	18	36	18	10	406	555	113	342	30	184	100
14.....	12	14	22	18	10	264	300	185	264	32	210	100
15.....	11	14	18	11	11	167	56	250	167	40	210	150
16.....	11	12	14	11	11	36	317	18	185	48	137	60
17.....	12	10	13	11	167	457	167	95	725	33	40	98
18.....	12	9	13	9	228	544	167	78	725	38	38	58
19.....	12	8	12	22	300	228	22	42	426	46	30	20
20.....	12	8	14	13	300	18	84	12	162	56	34	16
21.....	18	7	14	14	351	73	8	12	162	29	49	16
22.....	40	7	18	14	385	406	8	26	478	29	28	28
23.....	84	7	18	11	406	467	22	16	589	29	28	17
24.....	22	7	14	22	406	360	167	9	478	29	40	15
25.....	12	8	11	198	385	488	436	9	478	36	28	15
26.....	14	8	11	36	342	436	317	8	368	41	28	15
27.....	12	8	9	36	436	120	242	8	216	40	316	15
28.....	12	7	36	210	544	436	167	8	216	38	300	15
29.....	12	.....	56	143	385	510	84	22	250	35	275	15
30.....	12	.....	36	16	242	436	167	9	84	33	300	12
31.....	18	.....	22	.....	228	.....	56	8	.....	26	.....	16
Total.....	496	462	620	1058	5317	9309	7632	4912	7604	1023	5276	2273
Mean.....	16	16.5	20.0	35.3	172	310	246	158	253	33.0	176	73.3
Max.....	84	70	113	210	544	544	625	1460	725	56	316	357
Min.....	11	7	8	9	8	14	8	8	12	13	26	12
Acre-ft.	984	916	1230	2100	10600	18100	15100	9720	15100	2030	10500	4510

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

Discharge of Arkansas River at La Junta for 1920.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	23	22	30	25	89	208	371	96	595	91	54	20
2....	17	24	27	30	24	380	598	329	510	143	51	20
3....	16	25	25	28	26	523	456	139	104	135	42	20
4....	16	26	27	25	28	855	608	49	96	135	49	20
5....	16	24	28	26	40	779	608	42	269	88	44	13
6....	16	26	24	24	72	333	665	42	120	91	42	13
7....	17	28	20	23	137	380	627	46	185	86	48	20
8....	15	27	21	26	196	494	361	50	143	104	40	19
9....	20	26	20	30	128	684	22	49	135	358	45	18
10....	60	28	23	34	32	760	418	35	83	405	41	15
11....	179	28	24	79	53	713	208	48	96	269	40	11
12....	286	31	26	89	48	551	255	102	129	228	36	10
13....	20	31	23	40	380	570	31	83	88	310	36	10
14....	25	35	22	32	456	399	191	68	86	576	33	8
15....	20	45	19	40	162	808	503	126	86	1420	36	8
16....	21	34	21	48	115	646	836	61	88	77	29	17
17....	20	35	150	99	99	874	846	190	87	68	27	62
18....	21	30	224	35	286	779	522	228	78	71	31	26
19....	19	26	72	89	224	247	1010	174	79	67	29	26
20....	18	20	72	173	456	247	481	155	85	67	27	17
21....	14	20	286	79	475	551	253	880	83	65	24	15
22....	67	20	247	24	523	665	443	123	85	65	19	9
23....	22	16	270	18	475	570	443	75	87	66	15	26
24....	21	18	352	28	741	202	642	79	88	68	24	38
25....	21	20	333	150	247	167	642	228	86	67	28	32
26....	21	23	286	72	570	485	662	500	88	67	19	36
27....	22	29	150	106	760	173	83	358	88	67	16	36
28....	25	28	106	128	380	456	63	88	84	40	13	36
29....	22	30	106	128	286	589	66	74	79	54	22	29
30....	22	....	35	89	40	437	63	201	79	57	12	26
31....	23	....	31	....	475	....	80	212	....	63	....	26
Total	1125	775	3100	1917	8023	15525	13057	4929	3989	5468	972	682
Mean.	36.3	26.7	100	63.9	259	518	421	159	133	176	32.4	22.0
Max..	286	45	352	173	760	874	1010	880	595	1420	54	62
Min...	14	16	19	18	24	167	22	35	78	40	12	9
Acre-ft.	2230	1540	6150	3800	15900	30800	25900	9780	7910	10800	1930	1350

Discharge of Arkansas River at Lamar for 1919.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....				220	1230	30	9	810	7	9	25	156
2....				270	910	18	7	2000	7	9	12	50
3....				295	910	18	7	720	7	9	12	62
4....				320	820	18	12	296	7	9	12	62
5....				320	820	18	555	120	7	9	12	62
6....				270	730	18	296	40	7	9	12	80
7....				220	730	18	25	12	7	9	12	100
8....				245	820	18	9	12	7	9	12	62
9....				320	820	18	9	12	7	9	32	80
10....				440	570	18	9	355	7	10	296	100
11....				440	380	2	9	62	7	10	451	156
12....				440	133	10	9	417	7	10	417	125
13....				570	70	10	7	120	7	10	485	125
14....				610	30	10	485	32	7	10	417	125
15....				1340	30	10	1010	12	7	18	355	125
16....				820	30	10	630	18	7	25	417	200
17....				500	18	10	417	9	7	25	417	200
18....				500	18	10	196	9	7	12	335	200
19....				270	18	133	296	9	9	12	88	200
20....				270	18	270	296	8	88	25	88	200
21....				270	18	70	417	8	25	25	172	200
22....			70	173	18	29	156	8	12	12	176	225
23....			85	196	48	9	62	8	9	12	156	237
24....			133	200	18	32	9	8	9	12	156	237
25....			173	1570	10	37	12	8	9	12	196	320
26....			153	1010	48	63	12	8	9	12	156	237
27....			133	910	173	116	8	8	9	12	196	237
28....			153	1450	173	67	8	8	9	12	120	237
29....			173	1120	173	201	8	8	9	12	88	237
30....			173	1340	133	14	8	7	9	12	88	291
31....			173	....	70	....	8	7	....	25	....	192
Total			1419	16909	9987	1305	5001	5159	332	406	5411	5120
Mean.			142	564	322	43.5	161	166	11.1	13.1	180	165
Max..				1570	1250	270	1010	2000	88	25	485	291
Min...				173	10	2	7	7	7	9	12	50
Acre-ft.			2820	33600	19800	2590	9900	10200	660	806	10700	10100

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

Discharge of Arkansas River at Lamar for 1920

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	226	64	6	5	6	5	5	110	10	4	40	93
2.....	226	64	6	5	6	5	6	550	8	5	93	64
3.....	226	64	6	5	6	5	5	895	226	5	64	64
4.....	226	64	10	5	6	5	5	502	93	4	172	64
5.....	226	64	20	5	6	52	6	332	64	5	293	64
6.....	226	64	40	5	6	40	10	128	605	4	226	93
7.....	226	64	52	5	6	6	6	412	550	5	128	93
8.....	199	64	64	5	6	6	2580	293	1040	5	128	93
9.....	226	64	64	5	6	5	2580	128	550	6	172	93
10.....	226	64	64	5	226	5	64	93	370	5	172	93
11.....	226	64	40	5	150	8	10	20	150	5	172	64
12.....	172	64	15	5	6	20	20	64	128	6	293	93
13.....	150	64	6	5	6	15	6	895	64	4	226	93
14.....	226	64	6	128	6	10	6	770	64	5	172	93
15.....	260	64	6	128	64	5	6	293	40	260	172	93
16.....	226	64	6	128	128	5	6	64	20	1740	128	64
17.....	226	64	6	64	30	8	293	10	10	550	128	226
18.....	226	64	6	6	6	6	6	20	10	760	172	226
19.....	226	64	6	5	6	128	20	6	10	455	172	226
20.....	226	64	6	5	6	15	293	6	10	226	172	226
21.....	172	40	6	5	6	10	93	6	6	226	172	10
22.....	172	10	6	6	6	8	370	20	6	93	93	64
23.....	128	10	6	6	5	6	6	20	6	226	172	64
24.....	64	10	6	6	5	5	6	5	5	64	172	172
25.....	64	8	6	6	6	5	6	5	5	93	93	172
26.....	64	6	6	8	6	5	1550	5	5	64	93	172
27.....	64	6	6	6	5	5	550	6	5	93	93	172
28.....	64	10	6	6	6	5	550	20	5	93	93	172
29.....	93	10	6	6	6	5	199	40	4	93	93	226
30.....	64	....	6	6	5	5	40	6	4	40	93	226
31.....	64	....	6	....	5	....	20	6	....	40	....	293
Total	5410	1390	501	590	749	413	9323	5730	4073	5184	4462	3961
Mean...	175	47.9	16.2	19.7	24.2	13.8	301	185	136	167	149	128
Max....	260	64	64	128	226	128	2580	895	1040	1740	293	293
Min....	64	6	6	5	5	5	5	5	4	4	40	10
Acre-ft.	10800	2760	996	1170	1490	821	18500	11400	8090	10300	8870	7870

Discharge of Arkansas River at Holly for 1919.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....			108	365	2300	48	13	180	14	58	68	410
2.....			108	495	1900	48	14	3760	10	48	96	389
3.....			365	605	1640	54	14	2440	10	40	96	368
4.....			365	1070	1170	68	58	810	12	48	134	347
5.....			365	1000	1075	134	48	410	12	68	134	326
6.....			365	930	980	240	320	280	14	48	134	305
7.....			365	795	660	82	180	134	14	68	134	284
8.....			445	930	660	68	48	96	14	96	134	263
9.....			365	930	810	68	32	96	10	96	96	242
10.....			365	930	810	48	17	240	10	68	96	221
11.....			365	930	660	58	14	980	12	48	180	200
12.....			365	930	410	68	12	735	12	32	675	200
13.....			365	1000	210	68	10	410	12	96	690	200
14.....			365	1220	180	68	14	180	14	134	458	200
15.....			365	1465	180	48	26	131	14	131	482	200
16.....			365	1465	134	32	980	96	115	134	383	200
17.....			360	1220	134	20	735	96	240	134	392	200
18.....			245	930	96	20	365	68	134	134	401	232
19.....			161	1000	48	32	240	48	240	134	248	264
20.....			245	930	48	26	320	48	240	134	256	296
21.....			222	930	48	48	320	48	134	180	256	328
22.....			272	862	48	48	240	48	96	115	296	360
23.....			405	665	48	26	134	48	68	82	338	392
24.....			545	665	48	20	134	32	180	82	296	424
25.....			545	1720	48	13	96	20	134	68	256	456
26.....			365	2440	48	26	96	32	96	96	166	488
27.....			449	1900	68	32	48	32	96	134	256	520
28.....			445	4340	68	12	40	26	68	96	338	552
29.....			365	5400	68	10	32	14	68	68	338	585
30.....			365	2740	58	10	20	14	68	68	338	360
31.....			365	....	48	....	32	14	....	68	....	360
Total			10699	40802	14703	1543	4652	11569	2161	2809	8165	10172
Mean...			345	1360	474	51.4	150	373	72.0	90.6	272	328
Max....			545	5100	2300	240	980	3760	240	180	690	585
Min....			108	365	48	10	10	14	10	32	68	200
Acre-ft.			21206	80900	29100	3060	9220	22900	4280	5570	16200	20200

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

Discharge of Arkansas River at Holly for 1920.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....		295	40	20	73	23	17	760	23	308	183	253
2....		242	56	32	73	23	17	2200	23	459	176	253
3....		295	73	40	56	23	17	2200	40	82	169	253
4....		190	96	56	56	32	15	4000	295	87	101	308
5....		120	120	120	40	155	13	2660	120	50	242	375
6....		120	120	155	73	242	17	1990	73	148	232	253
7....		155	295	96	73	295	15	1570	672	148	284	253
8....		190	155	56	56	155	760	1460	855	242	232	308
9....		242	73	40	40	73	2990	760	1570	96	183	253
10....		295	120	32	155	40	1050	585	874	101	242	253
11....		190	155	120	295	32	362	506	970	162	155	200
12....		190	190	32	190	20	190	428	708	63	362	253
13....		190	120	73	96	20	428	1150	322	63	362	162
14....		190	73	73	96	20	73	2200	554	56	375	253
15....		242	40	242	242	20	56	950	274	242	375	33
16....		190	40	295	362	17	40	585	348	1550	253	60
17....		190	32	242	155	18	56	190	836	1010	253	162
18....		242	40	155	96	22	585	96	672	475	375	375
19....		295	40	73	73	22	950	96	760	620	253	308
20....		242	40	40	56	32	585	23	779	446	200	422
21....		155	32	40	73	32	428	96	444	428	162	101
22....		96	23	40	40	20	242	96	264	950	162	50
23....		40	40	40	56	18	120	96	169	742	127	308
24....		40	32	96	40	20	73	120	176	401	162	375
25....		96	40	120	40	20	56	18	111	106	253	422
26....		73	32	73	40	22	428	17	183	60	200	253
27....		73	40	73	40	20	1990	18	183	56	200	308
28....		73	20	56	40	16	1150	32	295	92	253	162
29....		23	20	40	40	18	950	23	40	111	253	162
30....			23	56	40	20	585	56	308	63	162	375
31....			20		23		428	23		190		375
Total		4974	2240	2626	2828	1490	14686	25004	12941	9607	6941	7881
Mean.	300	172	72.3	87.5	91.2	49.7	474	807	431	310	231	254
Max..		295	295	295	362	295	2990	4000	1570	1550	375	422
Min...		23	20	20	23	16	13	23	23	50	101	33
Acre-ft.	18400	9890	4450	5210	5610	2960	29100	49600	25600	19100	13700	15600

Discharge of Cottonwood Creek below Buena Vista Hot Springs for 1919.
Drainage Area 72 Square Miles. Altitude, 8,000 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	26	22	22	22	36	122	134	60	34	30	30	27
2....	26	23	22	21	37	100	156	60	31	28	26	27
3....	26	23	22	21	31	89	207	60	31	30	26	27
4....	26	23	22	22	32	89	177	56	31	30	26	26
5....	24	22	22	22	34	89	144	51	31	31	28	26
6....	24	22	21	22	39	89	122	47	38	31	27	27
7....	24	22	21	21	42	122	129	44	32	32	27	27
8....	24	22	22	21	42	115	106	49	32	32	27	26
9....	24	22	22	22	42	110	106	49	32	31	26	26
10....	24	22	21	21	42	122	86	49	38	31	25	27
11....	24	22	22	21	39	148	76	48	34	30	26	26
12....	25	22	22	22	39	177	73	45	35	31	26	26
13....	24	22	22	22	39	177	73	44	36	31	26	26
14....	24	22	22	22	51	177	81	41	44	32	26	27
15....	24	21	22	21	63	186	73	39	51	32	26	26
16....	24	22	22	21	63	192	73	38	42	32	27	26
17....	25	22	22	21	76	207	66	38	38	32	27	26
18....	25	22	22	23	89	207	63	38	36	32	27	26
19....	25	22	22	25	115	207	63	36	36	32	27	25
20....	25	22	22	26	177	207	60	36	36	30	27	25
21....	24	22	22	27	198	192	60	35	35	31	27	26
22....	23	22	22	34	198	162	60	34	32	31	26	26
23....	24	22	21	37	156	162	56	33	32	30	26	26
24....	24	22	22	42	129	162	53	32	32	30	27	25
25....	24	22	21	42	148	140	53	35	31	30	27	25
26....	24	22	21	38	207	140	49	34	31	30	28	25
27....	24	22	21	38	216	140	50	34	31	31	26	25
28....	24	22	21	32	222	162	49	34	31	25	28	25
29....	24		21	31	216	148	60	33	31	29	26	25
30....	24		21	34	222	148	60	31	30	31	26	24
31....	23		22		207		60	31		29		24
Total	755	618	672	794	3247	4488	2674	1294	1034	947	800	801
Mean.	24.4	22.1	21.7	26.5	105	150	86.3	41.7	34.5	30.5	26.7	25.8
Max..	26	23	22	42	222	207	207	60	51	32	30	27
Min...	23	21	21	21	31	89	49	31	30	25	25	24
Acre-ft.	1500	1230	1330	1580	6460	8930	5310	2560	2050	1880	1590	1590

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

Discharge of Cottonwood Creek below Buena Vista Hot Springs for 1920.
Drainage Area, 72 Square Miles. Altitude, 8,000 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	24	23	22	20	22	222	229	73	52	36	32	29
2....	24	23	22	20	22	192	229	73	52	36	32	30
3....	24	22	22	20	24	192	216	73	54	36	32	31
4....	24	22	22	21	24	198	216	72	54	36	31	31
5....	24	22	22	21	26	207	207	70	54	36	31	....
6....	24	22	22	21	26	198	198	68	52	34	31	....
7....	24	22	22	21	28	257	186	63	49	34	31	....
8....	24	22	22	21	32	320	186	60	47	34	31	....
9....	24	22	22	21	40	320	168	60	45	34	31	....
10....	24	22	22	21	41	297	168	58	44	36	30	....
11....	24	22	22	21	37	277	168	57	40	38	30	....
12....	24	22	22	21	33	277	168	54	40	38	31	....
13....	24	22	22	21	36	257	156	52	40	38	33	....
14....	24	22	22	21	34	257	145	50	38	37	32	....
15....	24	22	20	21	31	257	148	49	38	37	31	....
16....	23	22	22	21	29	250	148	49	37	38	31	....
17....	24	22	22	20	32	277	148	51	35	34	32	....
18....	24	22	22	20	44	240	124	51	34	34	31	....
19....	24	22	21	20	70	222	115	49	34	34	31	....
20....	23	22	22	20	89	216	110	52	34	32	31	....
21....	23	22	22	19	106	222	110	58	36	32	31	....
22....	23	22	22	19	115	240	106	60	36	31	31	....
23....	23	22	22	21	89	257	93	60	36	31	31	....
24....	23	22	21	21	115	250	106	58	36	31	31	....
25....	23	22	21	21	168	250	100	57	36	31	28	....
26....	23	22	21	20	148	216	134	57	38	32	28	....
27....	23	22	21	20	110	257	106	56	38	33	28	....
28....	23	22	21	20	122	297	97	54	37	34	29	....
29....	23	22	21	20	140	277	97	54	37	32	29	....
30....	23	....	21	21	186	257	93	54	36	31	28	....
31....	23	....	21	....	216	....	89	52	....	32	....	....
Total	731	640	671	615	2235	7456	4564	1804	1239	1062	919	....
Mean.	23.6	22.1	21.6	20.5	72.1	249	147	58.2	41.3	34.3	30.6	....
Max....	24	23	22	21	216	320	229	73	54	38	33	....
Min....	23	22	20	19	22	192	89	49	34	31	28	....
Acre-ft.	1450	1270	1330	1220	4430	14800	9640	3580	2460	2110	1820	....

Discharge of Chalk Creek (Upper Station) near St. Elmo for 1919.
Drainage Area, 48 Square Miles. Altitude, 10,000 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	10	9.4	8.8	11	40	120	106	98	21	....	....	....
2....	10	9.4	8.8	12	40	102	164	123	22	....	....	....
3....	11	9.4	8.8	15	37	98	185	116	21	....	....	....
4....	11	9.4	8.8	11	40	100	150	90	21	....	....	....
5....	12	9.4	8.8	11	46	100	130	75	24	....	....	....
6....	12	9.4	8.5	12	52	118	113	65	25	....	....	....
7....	12	9.4	8.5	14	57	142	100	65	26	....	....	....
8....	11	9.4	8.5	12	60	135	90	65	24	....	....	....
9....	10	9.4	8.5	12	61	130	81	58	24	....	....	....
10....	10	9.1	8.5	13	53	150	72	54	25	....	....	....
11....	10	9.1	8.5	11	50	158	67	47	27	....	....	....
12....	9.4	8.8	9.4	10	54	179	64	43	25	....	....	....
13....	9.4	8.8	9.7	9	68	188	81	40	29	....	....	....
14....	9.4	8.5	13	9	94	209	81	37	41	....	....	....
15....	9.7	8.8	10	12	111	200	68	34	33	....	....	....
16....	9.7	9.1	14	13	120	200	65	33	28	....	....	....
17....	10	9.1	14	13	145	194	65	31	27	....	....	....
18....	10	9.1	31	14	164	185	65	31	28	....	....	....
19....	10	9.1	31	19	206	179	72	31	28	....	....	....
20....	9.4	9.1	19	23	233	161	65	30	26	....	....	....
21....	9.1	9.1	18	30	251	140	57	29	24	....	....	....
22....	9.1	9.1	16	33	227	130	52	27	23	....	....	....
23....	9.1	9.1	15	38	179	123	47	26	23	....	....	....
24....	9.1	9.1	14	36	161	118	46	26	22	....	....	....
25....	9.4	9.1	14	31	212	113	53	33	21	....	....	....
26....	9.1	9.1	14	29	254	111	47	28	21	....	....	....
27....	9.1	8.8	13	31	272	111	48	31	21	....	....	....
28....	9.1	8.8	12	28	275	111	52	27	21	....	....	....
29....	9.4	....	12	30	278	113	68	24	21	....	....	....
30....	9.4	....	13	36	242	106	104	24	20	....	....	....
31....	9.4	....	12	....	176	....	104	22	....	....	....	....
Total	307.3	255.4	399.1	578	4258	1224	2562	1463	742	....	....	....
Mean.	9.91	9.12	12.9	19.3	137	141	82.6	47.2	24.7	....	....	....
Max....	12	9.4	31	38	278	209	185	123	41	....	....	....
Min....	9.1	8.5	8.5	9	37	98	46	22	20	....	....	....
Acre-ft.	609	506	793	1150	8420	8390	5080	2900	1470	....	....	....

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

Discharge of Purgatoire River at Trinidad for 1919.

Drainage Area, 742 Square Miles. Altitude, 5,990 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....						425	330	712	46	65	60	56
2....						400	640	276	46	65	60	56
3....						352	1540	187	46	65	60	56
4....						288	450	154	46	130	60	56
5....						288	375	154	46	115	60	56
6....						250	375	154	44	112	58	53
7....						214	330	187	44	112	58	53
8....						214	352	187	44	112	58	53
9....						214	309	485	44	112	58	53
10....					375	214	214	974	44	112	251	53
11....					375	214	475	154	44	112	107	53
12....					330	214	288	154	44	262	58	53
13....					330	232	214	124	44	130	58	53
14....					330	250	500	72	118	85	58	33
15....					330	250	1030	72	180	85	58	33
16....					330	250	610	72	90	85	58	33
17....					330	288	552	72	90	85	58	33
18....					330	330	425	72	90	85	58	33
19....					375	400	330	72	269	85	58	33
20....					352	352	330	72	118	85	58	33
21....					288	352	288	69	88	83	56	33
22....					309	330	250	69	88	83	56	33
23....					400	330	214	69	88	83	56	33
24....					640	288	214	46	88	83	56	33
25....					500	288	214	46	88	83	56	33
26....					475	330	214	46	88	60	56	33
27....					425	309	2870	46	88	60	56	33
28....					500	330	187	46	76	60	56	33
29....					475	330	2550	46	76	60	56	33
30....					475	330	187	46	76	60	56	33
31....					425	....	485	46	....	60	....	33
Total					8699	8856	17342	4981	2381	2874	1975	1245
Mean.					395	295	559	161	79.4	92.7	65.8	40.2
Max..						425	2870	974	269	262	254	56
Min..						214	187	46	44	60	56	33
Acre-ft.					17200	17600	34400	9900	4720	5700	3920	2470

Discharge of Purgatoire River at Trinidad for 1920.

Drainage Area, 742 Square Miles. Altitude, 5,990 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....				20	70	353	270	344	82	20	50	35
2....				20	70	353	270	84	810	20	50	35
3....				20	70	353	270	82	50	10	50	35
4....				20	70	605	210	234	49	10	50	35
5....				20	70	312	110	110	76	10	50	28
6....				20	70	317	110	80	76	10	50	28
7....				20	125	317	110	78	74	10	50	28
8....				20	140	317	110	282	74	10	50	28
9....				20	140	322	192	76	54	10	50	28
10....				20	140	322	110	74	52	10	50	28
11....				20	140	322	108	74	52	10	50	28
12....				20	140	326	106	72	35	10	50	28
13....				20	140	326	104	161	35	10	50	28
14....				20	157	331	104	125	35	110	50	28
15....				20	140	331	102	125	35	70	35	28
16....				20	140	331	102	122	35	70	35	28
17....				20	140	335	100	68	35	70	35	28
18....				20	140	335	100	66	35	70	35	28
19....				20	175	295	98	262	20	70	35	28
20....				20	212	295	98	64	20	70	35	28
21....				20	335	295	96	62	20	70	35	28
22....				20	462	474	96	62	20	70	35	28
23....				20	490	278	94	60	20	70	35	28
24....				20	413	278	92	60	20	50	35	28
25....			20	70	441	262	92	58	20	50	35	28
26....			20	70	391	451	90	1280	20	50	35	28
27....			20	70	391	353	90	96	20	50	35	28
28....			20	70	349	308	88	86	20	50	35	28
29....			20	70	304	266	88	84	20	50	35	28
30....			20	70	308	270	86	84	20	50	35	28
31....			20	....	308	....	86	82	....	50	....	28
Total				900	6681	10033	3782	4597	1934	1290	1260	896
Mean.			20	30	216	334	122	148	64.5	41.6	42.0	28.9
Max..				70	490	605	270	1280	810	110	50	35
Min..				20	70	262	86	58	20	10	35	28
Acre-ft.			1230	1780	13300	19900	7500	9100	3840	2560	2500	1780

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

GRAND RIVER DRAINAGE

U. S. Geological Survey
and
F. C. Snyder, State Hydrographer

GRAND RIVER AT HOT SULPHUR SPRINGS

Location.—At the bridge connecting the Denver, Northwestern & Pacific Railway station with the town of Sulphur Springs, in Sec. 2, T. 1 N., R. 78 W. Nearest tributary, Beaver Creek, enters the river 2 miles below the station.

Records Available.—July 22, 1904, to September 30, 1909, a station was maintained at this point by the United States Geological Survey; September 23, 1910, to November 30, 1920.

Drainage Area.—946 square miles.

Gage.—Chain gage.

Channel.—Practically permanent.

Discharge Measurements.—Made from bridge during high and ordinary stages and by wading during low water.

Winter Flow.—The river is frozen over during the winter months and discharge measurements are made to determine the winter flow.

Diversions.—Between this station and the mouth of North Fork there are court decrees for diversions of 96 second-feet from Grand River, and there is also a reservoir decree for 31,300 acre-feet from the flood waters of Grand River.

Accuracy.—Results considered good.

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

GRAND RIVER AT GLENWOOD SPRINGS

Location.—At Glenwood Springs, at the point where the discharge from the hot springs enters the river. No Name Creek enters Grand River about 2 miles above the station and Roaring Fork enters one-half mile below.

Records Available.—May 12, 1899, to November 30, 1920.

Drainage Area.—4,520 square miles.

Gage.—Chain gage originally installed at the railroad bridge just above the Roaring Fork, but in 1900 a staff gage was installed at the present location. Since 1902 a number of automatic gages referred to the staff gage datum have been used, the present one being a Friez gage.

Channel.—Slightly shifting.

Discharge Measurements.—Made from a car and cable stretched beneath the State Street bridge, which crosses the river one-third mile below the gage.

Winter Flow.—Ice never forms at the station, as the hot water from the springs keeps the water above the freezing point.

Artificial Control.—The Shoshone power plant of the Central Colorado Power Company, 6 miles above Glenwood Springs, has sufficient pondage to withhold the flow of the river for a portion of the day during low-water periods.

Diversions.—Between this station and the one near Kremmling there are court decrees for a diversion of 13 second-feet from Grand River for irrigation, 1,250 second-feet absolute for power, and 14,400 second-feet conditional for power.

Accuracy.—Conditions are favorable for accurate results and the estimates are considered reliable.

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

GRAND RIVER NEAR PALISADES

Location.—At the State bridge 2 miles above Palisades, in Sec. 2, T. 11 S., R. 98 W. Nearest important tributary, Plateau Creek enters, about 6 miles above the station.

Records Available.—April 9, 1902, to November 30, 1920.

Drainage Area.—8,550 square miles.

Gage.—Chain gage; location and datum unchanged.

Channel.—Practically permanent.

Discharge Measurements.—Made from bridge in Palisades.

Winter Flow.—The river usually freezes over a portion of the year, but except for slush and ice and an occasional thin ice cover, the effect on the gage heights is slight.

Diversions.—There are court decrees for diversions of 1,828 second-feet from Grand River and 2,500 second-feet from intervening tributaries between Palisades and the Glenwood Springs station. The proposed high line canal of the United States Reclamation Service will divert 700 second-feet 7 miles above the Palisades station. Below the station the Grand Valley Irrigation Co. has a diversion of 400 second-feet.

Accuracy.—Conditions are favorable for accurate results, and the estimates should be reliable.

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

GRAND RIVER NEAR FRUITA

Location.—At highway bridge, $11\frac{1}{2}$ miles south of Fruita, in Sec. 20, T. 1 N., R. 2 W., Ute principal meridian. Nearest important tributary, Little Salt Wash, enters a mile below the station; Gunnison River enters at Grand Junction, about 12 miles above.

Records Available.—Flood records during 1908, 1909, and 1910; April 1, 1911 (station established), to November 30, 1920.

Drainage Area.—16,800 square miles.

Gage.—Chain gage; datum was raised 0.05 foot May 3, 1911.

Channel.—Shifts at high water.

Discharge Measurements.—Made from the highway bridge.

Winter Flow.—The river is frozen over during a portion of the year and readings are discontinued.

Diversions.—Between the Palisades station and Fruita there are decrees for 788 second-feet from the Grand River.

Maximum Stage.—Since the establishment of the station the maximum stage has been 15.0 feet, which occurred June 9, 1909. The highest stage known was about 18.5 feet on July 4, 1884.

Accuracy.—Results considered good.

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

FRASER RIVER NEAR ARROW

Location.—In Sec. 4, T. 2 S., R. 75 W., $\frac{1}{4}$ mile from Vasquez Sid-ing; $1\frac{1}{2}$ miles southwest of Arrow.

Records Available.—September 23, 1910, to December 4, 1920.

Drainage Area.—37 square miles.

Gage.—Friez automatic gage on left bank. Prior to June 3, 1916, vertical staff gage located one mile upstream.

Discharge Measurements.—Made from log bridge and by wading. Channel.—Probably permanent.

Diversions.—There is a court decree for the diversion of 53 second-feet from the headwaters of this stream across the divide to the Clear Creek basin.

Accuracy.—Records are considered good.

Co-operation.—Stations maintained by the United States Geological Survey, by whom the records are furnished.

WILLIAMS FORK NEAR PARSHALL

Location.—On highway bridge at Field's ranch, 4 miles above the mouth of the river, about Sec. 36, T. 1 N., R. 79 W. Nearest tributary is Battle Creek, which enters from the west 2 miles below the station.

Records Available.—July 25, 1904, to November 30, 1920.

Drainage Area.—185 square miles.

Gage.—Vertical staff and automatic gages.

Channel.—Shifting after high water.

Discharge Measurements.—Made from bridge to which the gage is attached.

Winter Flow.—The main channel is kept open by springs, but ice forms along the edges and slush ice frequently forms. The morning readings are usually affected by backwater from ice, but the afternoon readings are practically unaffected.

Diversions.—There are court decrees for diversion of 558 second-feet from Williams Fork between this station and the one near Scholl, and 25 second-feet from tributaries. There is also a storage decree for 80,700 and 1,420 acre-feet from Williams Fork.

Accuracy.—Conditions are favorable for accurate results, and the estimates should be reliable.

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

BLUE RIVER AT DILLON

Location.—At the cemetery bridge on the outskirts of Dillon, in Sec. 18, T. 5 S., R. 77 W., on the edge of the Leadville National Forest, a short distance above the mouth of Snake River. Ten-Mile Creek also enters below the station.

Records Available.—October 15, 1910, to November 10, 1920.

Drainage Area.—110 square miles.

Gage.—Vertical staff; location and datum unchanged.

Channel.—Practically permanent.

Discharge Measurements.—Made by wading near by and from bridge.

Winter Flow.—Ice causes backwater during the winter and discharge measurements are made to determine the flow.

Diversions.—There are court decrees for diversions of 2.3 second-feet from Blue River above the station, and 63 second-feet below, exclusive of a decree for 350 second-feet for the Green Mountain Canal. There is an unadjudicated diversion from the headwaters of the Blue across Boreas Pass to Tarryall Creek. There are also decrees for diversions of 5 second-feet from tributaries entering above. In addition, there are decrees for placer mining, where practically all of the water used is returned to the river.

Accuracy.—Records considered reliable.

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

SNAKE RIVER AT DILLON

Location.—At a highway bridge 200 yards above the mouth of the river in Sec. 18, T. 5 S., R. 77 W. Nearest tributary is a small stream that enters from the north 1 mile above station.

Records Available.—October 15, 1910, to September 30, 1919.

Drainage Area.—92 square miles.

Gage.—Vertical staff; location and datum unchanged.

Channel.—Practically permanent.

Discharge Measurements.—Made from the bridge and by wading.

Winter Flow.—Ice gorging causes backwater of varying amount.

Diversions.—There are court decrees for diversions of 4.5 second-feet from Snake River above the station and 11 second-feet from tributaries entering above. The Summit County Power Company diverts about 30 second-feet around the station.

Accuracy.—Records reliable.

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

TEN-MILE CREEK AT DILLON

Location.—At the highway bridge in Dillon, in Sec. 18, T. 5 S., R. 77 W., 300 yards above the mouth of the creek. Nearest tributary, Canon Creek, enters from the west about 4 miles above the station.

Records Available.—October 15, 1910, to September 30, 1919.

Drainage Area.—113 square miles.

Gage.—Vertical staff; location and datum unchanged.

Channel.—Practically permanent.

Discharge Measurements.—Made by wading and from bridge.

Winter Flow.—Ice causes backwater during the winter months, and discharge measurements are made to determine the flow during that period.

Diversions.—There are court decrees for diversions of 11 second-feet from Ten-Mile Creek above the station and 14.5 second-feet from tributaries entering above.

Accuracy.—Records considered reliable.

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

EAGLE RIVER AT RED CLIFF

Location.—In Sec. 29, T. 6 S., R. 80 W., in the town of Red Cliff, in the Holy Cross National Forest, 100 yards above the mouth of Turkey Creek, and 1 mile above the mouth of Homestake Creek.

Records Available.—January 8, 1911, to September 30, 1920.

Drainage Area.—74 square miles.

Gage.—Chain gage; location and datum unchanged.

Channel.—Slightly shifting.

Discharge Measurements.—Made from highway bridge at 800 feet above during high water and by wading at ordinary stages.

Winter Flow.—Little, if any, ice forms at this station.

Diversions.—There are court decrees for diversions of 22 second feet from Eagle River and tributaries above the station; 18.5 second-feet of this amount for diversion to the Arkansas Basin.

Accuracy.—Records considered good.

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

EAGLE RIVER AT EAGLE

Location.—In Sec. 33, T. 4 S., R. 84 W., at the highway bridge at Eagle, in Eagle County, three-fourths of a mile above the mouth of Brush Creek.

Records Available.—March 12, 1905, to February 10, 1907, at site a short distance below the mouth of Brush Creek; January 17, 1911, to November 30, 1920.

Drainage Area.—630 square miles.

Gage.—Chain gage.

Channel.—Practically permanent.

Discharge Measurements.—Made from highway bridge at ordinary and high stages and by wading during low water.

Winter Flow.—Ice causes backwater during the winter. Discharge measurements are made to determine the winter flow.

Diversions.—Between Eagle and the station at Red Cliff there are court decrees for diversions of 380 second-feet from Eagle River, of

which 300 second-feet is for power, and for diversions of 286 second-feet from intervening tributaries. Between Eagle and the mouth there are decrees for 22 second-feet from Eagle River.

Accuracy.—Records considered good.

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

TURKEY CREEK AT RED CLIFF

Location.—In Sec. 19, T. 6 S., R. 80 W., at highway bridge in Red Cliff, 800 feet above the mouth of the creek.

Records Available.—June 30, 1913, to September 30, 1920.

Drainage Area.—27 square miles.

Gage.—Vertical staff.

Discharge Measurements.—Made from single span bridge, and by wading.

Winter Flow.—Ice causes backwater during the winter months, and discharge measurements are made to determine the flow.

Accuracy.—Records considered good.

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

ROARING FORK AT ASPEN

Location.—In Sec. 7, T. 10 S., R. 84 W., at the bridge near the old power plant at Aspen, above Castle, Maroon and Hunter Creeks.

Records Available.—January 1, 1911, to November 30, 1920.

Drainage Area.—109 square miles.

Gage.—Vertical staff.

Channel.—Practically permanent.

Discharge Measurements.—Made by wading, except during high water, when bridge is used.

Winter Flow.—Ice causes backwater during the winter; discharge measurements are made to determine the winter flow.

Diversions.—The Salvation ditch, which has a decree for 58 second-feet, diverts water above the station usually from the middle of May to the middle of September.

Accuracy.—Results are reliable.

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

ROARING FORK AT GLENWOOD SPRINGS

Location.—In Sec. 9, T. 6 S., R. 89 W., on bridge 500 feet above the mouth of the river in Glenwood Springs. Nearest important tributary enters about 3 miles above the station.

Records Available.—April 6, 1906, to September 30, 1909; September 21, 1910, to November 30, 1920.

Drainage Area.—1,450 square miles.

Gage.—November 20, 1915, a new slope gage established 800 feet above bridge. Recording gage installed October 27, 1917.

Channel.—Practically permanent, but rough. Extremely high water in Grand River may cause backwater at the gage. Measurements made at stages as high as 5.7 feet on Roaring Fork, and 9.2 feet on Grand River have shown no backwater effect.

Discharge Measurements.—Made from highway bridge.

Winter Flow.—Surface ice rarely forms entirely across the river, but slush and anchor ice frequently occur. Discharge measurements sometimes show backwater from ice.

Diversions.—There are court decrees for diversions of 196 second-feet from Roaring Fork above the station, and 795 second-feet from the various tributaries.

Accuracy.—Conditions are favorable for accurate results; estimates should be reliable.

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

CASTLE CREEK NEAR ASPEN

Location.—In Sec. 35, T. 10 S., R. 85 W., in the Sopris National Forest, on the highway bridge 4 miles above Aspen. No tributary between the station and the mouth of the creek except small gulches that carry spring run-off. Nearest tributary above, Conundrum Creek, enters one mile upstream.

Records Available.—February 16, 1911, to December 31, 1919.

Drainage Area.—62 square miles.

Gage.—Automatic gage.

Channel.—Slightly shifting.

Discharge Measurements.—Made from car and cable during high water and by wading at low stages.

Winter Flow.—Affected by ice, and discharge measurements are made to determine the flow.

Diversions.—No water is diverted above the station. The Roaring Fork Light & Power Co. and the Newnan Mine divert water from Castle Creek below the station.

Accuracy.—Results considered excellent except for latter part of 1916.

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

FRYING PAN CREEK AT THOMASVILLE

Location.—At a private bridge in Sec. 7, T. 8 S., R. 83 W., 1,000 feet southwest of railroad station. Nearest tributary, Deadman Gulch, enters one-fourth mile below.

Records Available.—January 2, 1911, to June 30, 1920.

Drainage Area.—175 square miles.

Gage.—Vertical staff. Recording gage installed May 5, 1918.

Channel.—Practically permanent, but rough.

Discharge Measurements.—Made from the bridge during high water and by wading at ordinary stages.

Winter Flow.—Ice causes backwater during the winter months, and discharge measurements are made to determine the flow.

Diversions.—As there are no court decrees for diversions of water above the station, it is probable that the records represent the natural run-off from the drainage basin.

Accuracy.—Conditions favorable for fairly accurate determination of discharge; results should be reliable.

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

EAST RIVER AT ALMONT

Location.—In Sec. 22, T. 51 N., R. 1 E., at highway bridge at Almont, 100 feet above the junction of East and Taylor Rivers.

Records Available.—July 27, 1910, to November 30, 1913; March 7, 1916, to November 30, 1920. A station was maintained at this point from April 15 to October 8, 1905, but the gage was referred to a different datum.

Drainage Area.—295 square miles.

Gage.—Vertical staff.

Channel.—Shifting.

Discharge Measurements.—Made from bridge.

Winter Flow.—Ice causes backwater in varying amounts, but no measurements have been made to determine this.

Diversions.—There are court decrees for diversions of 78 second-feet from East River, above the station, and 52 second-feet from tributaries.

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

TAYLOR RIVER AT ALMONT

Location.—At highway bridge in Almont, in Sec. 22, T. 51 N., R. 1 E., New Mexico principal meridian, 800 feet above the junction of Taylor and East Rivers.

Records Available.—July 27, 1910, to November 30, 1913; March 15, 1915, to November 30, 1920.

Drainage Area.—413 square miles.

Gage.—Vertical staff.

Channel.—Practically permanent.

Discharge Measurements.—Made from highway bridge.

Winter Flow.—Ice causes backwater.

Diversions.—There are no court decrees for diversions from Taylor River, but from Willow Creek, which enters above, there are decrees for 12 second-feet diversion.

Accuracy.—Conditions are favorable for accurate results; the estimates are considered good.

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

GUNNISON RIVER NEAR GUNNISON

Location.—At highway bridge 2 miles below Gunnison. Nearest tributary, Tomichi Creek, enters about 1 mile below.

Records Available.—November 27, 1910, to November 30, 1914; April 27, 1916, to November 30, 1920.

Drainage Area.—1,010 square miles.

Gage.—Standard Chain Gage.

Channel.—Somewhat shifting.

Discharge Measurements.—Made from bridge during high water and by wading at ordinary stages.

Winter Flow.—Ice causes backwater during the winter months.

Diversions.—There are court decrees for diversions of 250 second-feet from Gunnison River, between this station and the forks at Almont, and diversions of 270 second-feet from intervening tributaries.

Co-operation.—Station is 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., a quarter of a mile below the Redlands Irrigation and Power Company's canal, and one and one-half miles above mouth of Gunnison River in Grand Junction, in Mesa County, below all tributaries.

Drainage Area.—7,920 square miles (measured on Colo. Geo. Survey map, scale 1:500,000).

Records Available.—April 1, 1917, to November 30, 1920. From October 19, 1894, to December 21, 1895, and May 2, 1897, to November 30, 1899, station maintained nearer mouth.

Gage.—Vertical staff at left bank one-quarter of a mile below canal intake; read by employee of Redlands Irrigation and Power Company. Original gage vertical staff attached to wall of D. & R. G. pump house some distance below present site. Moved July 5, 1895, to highway bridge one mile below present gage. Relation between different gages not determined.

Discharge Measurements.—Made from car and cable at gage section.

Channel and Control.—Channel composed of gravel well compacted; permanent. Control at rapids 500 feet down stream; practically permanent. Banks high and not subject to overflow.

Diversions.—Below all diversions from Gunnison River. Most of water diverted through Redlands canal is for pumping and is returned to Grand River below the Gunnison.

Combined Flow.—The combined flow of the Gunnison River and Redlands power canal represents the flow of the Gunnison River which enters the Grand River, less about 25 second-feet, which is used during the irrigation season.

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

TOMICHI CREEK AT SARGENTS

Location.—In NW. $\frac{1}{4}$ Sec. 28, T. 48 N., R. 5 E., at railroad bridge three-quarters of a mile west of Sargents, in Saguache County. Nearest tributary, Marshall Creek, which enters one-quarter mile above.

Drainage Area.—145 square miles.

Records Available.—May 12, 1917, to November 30, 1920.

Gage.—Lallie recording gage installed October 5, 1917, and referred to vertical staff attached to downstream piling of railroad bridge; read by W. S. Cole.

Discharge Measurements.—Made by wading or from pile bent bridge.

Channel and Control.—Composed of gravel, shifting; control 30 feet down stream at small rapids of compact gravel; practically permanent.

Diversions.—A few small ditches divert water for irrigation above Sargents.

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

LAKE FORK AT LAKE CITY

Location.—In Sec. 34, T. 44 N., R. 4 W., at private bridge one-third mile above Henson Creek in Lake City, Hinsdale County.

Drainage Area.—126 square miles (measured on topographic map).

Records Available.—April 21 to December 4, 1920.

Gage.—Vertical staff fastened to down-stream side right bridge abutment.

Discharge Measurements.—Made by wading or from bridge.

Channel and Control.—Bed of stream composed of coarse gravel well compacted; permanent. Banks not subject to overflow except during extreme high stages. Control located at small rapids 250 feet down stream; apparently permanent.

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

Diversions.—Practically none which do not return to stream above station. Court decrees for 22 second-feet from Lake Fork below station.

Regulation.—Flow naturally regulated by Lake San Cristobal, located 4 miles up stream; area 1 square mile. During low water operation of power plant, located 1 mile up stream, may influence discharge slightly.

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

UNCOMPAHGRE RIVER AT OURAY

Location.—Near highway bridge in Sec. 31, T. 44 N., R. 7 W., New Mexico principal meridian, half a mile south of Ouray, Colo. Nearest tributary, Canon Creek, enters 150 feet below; nearest tributary above is Bear Creek.

Records Available.—January 25, 1911, to November 30, 1920; January 7 to March 17, 1908, records were kept at the power plant of the Ouray Electric Light & Power Co., 1 mile south of Ouray.

Drainage Area.—44 square miles.

Gage.—Vertical staff.

Channel.—Permanent, except at time of high water, when channel scours and fills.

Discharge Measurements.—Made from bridge during high water and by wading at ordinary stages.

Winter Flow.—Little, if any, backwater from ice at this station, as channel remains open during the year.

Diversions.—Water is diverted 2 miles above the station by the Ouray Light & Power Co. This amounts approximately to 8 second-feet and is returned to the river below the station.

Accuracy.—Results considered reliable.

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

UNCOMPAHGRE RIVER BELOW OURAY

Location.—In Sec. 30, T. 44 N., R. 7 W., at left bank 700 feet above the lowest bridge in Ouray, one-third mile below the railroad station. It is below all tributaries in Ouray.

Records Available.—May 12, 1913, to November 30, 1920.

Drainage Area.—76 square miles.

Gage.—Vertical staff, moved upstream from former location. No relation established between old and new gages. Recording gage installed March 28, 1917.

Control.—Shifting.

Discharge Measurements.—Made from bridge and by wading.

Winter Flow.—Ice causes little or no backwater, as the warm springs above prevent freezing.

Diversions.—There are no diversions which are not returned to the river above the station.

Accuracy.—Owing to the high altitude of the station (7,700 feet) there are diurnal fluctuations of stage at certain seasons, due to alternate melting and freezing, and the mean daily gage height, based on morning and evening readings and the maximum stage for the 24-hour period, may be somewhat in error. For this reason, and because of the shifting character of the channel, the estimates cannot be considered better than fair, or possibly good.

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

UNCOMPAHGRE RIVER AT COLONA

Location.—In Sec. 17, T. 47 N., R. 8 W., one-half mile east of Colona, in Ouray County. No important tributary within several miles.

Drainage Area.—475 square miles approximately (measured by U. S. R. S.).

Records Available.—April 6, 1917, to November 30, 1920.

Gage.—Vertical staff.

Discharge Measurements.—Made from suspension footbridge near gage.

Channel and Control.—Somewhat shifting.

Extremes of Discharge.—No data.

Ice.—No data as station is discontinued during winter.

Diversions.—Only a few small diversions above station.

Co-operation.—Daily discharge furnished by United States Reclamation Service.

UNCOMPAHGRE RIVER AT MONTROSE

Location.—At highway bridge, one-fourth mile west of Montrose. Nearest important tributary, Happy Canyon Creek, enters about 2 miles below.

Records Available.—April 22, 1903, to December 16, 1913; March 8, 1915, to October 31, 1920.

Drainage Area.—565 square miles.

Gage.—Vertical staff; location and datum unchanged.

Channel.—Extremely shifting.

Discharge Measurements.—Made from the bridge.

Winter Flow.—Although ice forms along the edges of the river during the winter months, the river does not freeze over. Observations of gage heights are, however, discontinued during November, December, January, February, and March.

Diversions.—Uncompahgre River is so over-appropriated that the United States Reclamation Service has constructed a tunnel and canal to divert 1,300 second-feet from Gunnison River into the Uncompahgre above Uncompahgre.

Accuracy.—Although the channel is extremely shifting, sufficient discharge measurements were made to afford data for estimates by the indirect method, and these estimates may be considered reliable.

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

UNCOMPAHGRE RIVER NEAR DELTA

Location.—At highway bridge on township line between Tps. 95 and 96, 2 miles south of Delta; no tributaries between the station and the mouth and no important tributaries for several miles upstream.

Records Available.—April 29, 1903, to December 18, 1913; March 8, 1915, to October 31, 1920.

Drainage Area.—1,130 square miles.

Gage.—Vertical staff.

Channel.—Extremely shifting.

Discharge Measurements.—Made from the bridge.

Winter Flow.—The flow is probably not materially affected by ice, although ice forms along the edges and slush ice frequently occurs. Observations are discontinued during the winter months.

Diversions.—The normal flow is diverted during the irrigation season by ditches above the station, so that the records represent largely return seepage water.

Accuracy.—Estimates only fair, or, for certain periods, possibly good, measurements being insufficient to permit use of indirect method for shifting channels to fullest extent.

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

CRYSTAL CREEK NEAR MAHER

Location.—In Sec. 35, T. 50 N., R. 6 W., at the old Kruebling ranch, 300 feet above the headgate of Fruitland Irrigation Company's ditch, 8 miles southeast of Maher, in Montrose County. Nearest important tributary, North Fork, which enters one mile above.

Drainage Area.—.....

Records Available.—April 6, 1917, to September 30, 1919.

Gage.—Vertical staff attached to downstream left abutment of highway bridge; read by C. B. Wray.

Discharge Measurements.—Made from bridge or by wading.

Channel and Control.—Channel of compact gravel; permanent control at small rapids of compact gravel, 40 feet downstream; slightly shifting during 1918. Banks will overflow at stage of 4.0 feet.

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

Diversions.—Above station, Cedar Canyon and Iron Springs ditch has adjudicated decree for 50 second-feet. Below, the Fruitland Irrigation Company's ditch diverts water into the Onion Valley reservoir.

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

LEROUX CREEK NEAR LAZEAR

Location.—In Sec. 33, T. 13 S., R. 93 W., at highway bridge, about 8 miles north of Lazear, in Delta County. No important tributary within several miles.

Drainage Area.—52 square miles (measured on Forest atlas).

Records Available.—May 15, 1917, to October 31, 1920.

Gage.—Lallie water-stage recorder installed April 23, 1918, and referred to vertical staff fastened to face of left bridge abutment; July 20, 1917, datum lowered 0.40 foot; read by G. H. Henderson.

Discharge Measurements.—Made from single-span bridge or by wading.

Channel and Control.—Channel composed of gravel and boulders; very rough. Control 50 feet downstream, somewhat shifting during 1918.

Diversions.—Court decrees for diversions of 55 second-feet from Leroux Creek above station, of which 33 second-feet are for diversion out of the drainage basin. Below, adjudicated decrees for 290 second-feet.

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

SURFACE CREEK AT CEDAREDDGE

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

Drainage Area.—43 square miles.

Records Available.—May 16, 1917, to December 4, 1920.

Gage.—Lallie water-stage recorder referred to vertical staff fastened to right concrete abutment of footbridge 400 feet upstream from highway bridge in Cedaredge.

Discharge Measurements.—Made from footbridge at gage section.

Channel and Control.—Channel of small boulders filled in behind control, which is old concrete weir filled up flush with boulders and gravel, located 12 feet downstream. Control permanent. Above stage 0.7 foot water flows through an overflow channel which may shift somewhat.

Diversions.—Adjudicated decrees for diversions of 142 second-feet from Surface Creek above station, of which 67 second-feet are for diversion out of the drainage basin. Below, adjudicated decrees for 272 second-feet.

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

KANNAH CREEK NEAR WHITEWATER

Location.—In Sec. 34, T. 12 S., R. 97 W., a quarter of a mile below intake for water supply of Grand Junction, and 17 miles southwest of Whitewater, in Mesa County. Nearest tributary, Coal Creek, enters short distance above station.

Drainage Area.—38 square miles (measured on Forest atlas).

Records Available.—October 15, 1917, to November 30, 1920.

Gage.—Vertical staff located at right bank 300 feet above footbridge; read by James Woods.

Discharge Measurements.—Made by wading or from cable near gage.

Channel and Control.—Bed composed of gravel and small boulders; will shift. Control located at riffle of small boulders 75 feet downstream; will shift during high water.

Extremes of Stage.—Maximum stage recorded during year, 2.74 feet at 6 p. m., May 23. Minimum stage recorded, 0.16 foot at 8, a. m., December 7 and 8.

Ice.—Stage-discharge relation not affected by ice, except for short periods.

Diversions.—City of Grand Junction diverts an average of 4 second-feet above station for domestic use; maximum diversion, 7.8 second-feet.

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

Combined Flow.—Flow diverted by city intake measured by weir and flow added to that at gaging station to show total flow of creek.

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

DOLORES RIVER AT RICO

Location.—In Sec. 36, T. 40 N., R. 11 W., at highway bridge at upper edge of Rico, Dolores County. Silver Creek enters just above station.

Drainage Area.—.....

Records Available.—June 9 to December 31, 1914; June 1, 1919, to December 31, 1920.

Gage.—Vertical staff fastened to right abutment used during 1914, and until August 13, 1919. On that date a chain gage referred to datum 1.84 foot lower, was installed on bridge.

Discharge Measurements.—Made from single-span bridge, and by wading at control.

Channel.—Bed composed of small boulders.

DOLORES RIVER AT BEDROCK

Location.—In Sec. 17, T. 47 N., R. 18 W., at highway bridge at Bedrock, Montrose County. Nearest perennial tributary, West Paradox Creek, enters below station.

Drainage Area.—1,910 square miles (measured on Colo. Geol. Survey map, scale 1:500,000).

Records Available.—April 26 to December 1, 1920.

Gage.—Chain attached to up-stream side of bridge; read by Henry Dockery.

Discharge Measurements.—Made from single-span bridge or by wading.

Channel and Control.—Bed of stream composed of compact sand and silt, which was apparently permanent during 1918; no well-defined control.

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

SAN MIGUEL RIVER AT NATURITA

Location.—On line between ranges 15 and 16 west, T. 46 N., at Highway Bridge in Naturita, Montrose County. Nearest tributary, Basin Creek, enters one half mile down stream.

Drainage Area.—1,909 square miles (measured on Colo. Geol. Survey map, scale 1:500,000).

Records Available.—April 26, 1918, to November 30, 1920.

Gage.—Chain fastened to upstream side of bridge.

Discharge Measurements.—Made from single-span bridge or by wading.

Channel.—Bed of stream composed of coarse gravel and small boulders, and is rough.

Diversions.—Court decrees for diversion of 102 second-feet from San Miguel River, of which approximately 84 second-feet are above station.

Discharge of Grand River at Hot Sulphur Springs for 1919.
Drainage Area, 946 Square Miles. Altitude, 7,665 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....				372	820	2390	940	580	181	173	160	84
2....				440	900	1770	900	610	195	173	165	85
3....				440	780	1440	900	940	190	177	175	85
4....				330	820	1340	900	780	188	181	202	88
5....				350	780	1150	860	580	192	181	154	88
6....				275	1020	1060	820	520	198	179	151	85
7....				210	1060	1060	820	395	188	181	144	83
8....				158	980	1150	740	395	192	181	140	82
9....				173	980	1340	670	395	192	181	132	81
10....				175	980	1440	580	350	231	181	122	82
11....		102		190	900	1890	520	330	240	181	115	85
12....				200	860	1890	490	275	275	181	110	88
13....				275	900	1890	550	258	292	181	110	92
14....				310	890	1890	580	246	350	181	110	92
15....				213	1200	1890	465	234	350	205	110	92
16....				195	1290	2010	465	222	330	202	112	92
17....				169	1550	1890	465	213	231	195	116	92
18....	106			292	1890	1890	418	219	240	173	120	92
19....				395	2130	1890	490	225	213	165	125	92
20....				490	2390	1890	372	213	208	163	126	93
21....				550	2810	1550	350	213	205	161	126	95
22....				740	2950	1440	350	208	181	160	130	95
23....				740	3100	1440	350	222	181	167	132	95
24....				1060	3250	1340	330	198	183	163	132	95
25....				1240	3100	1150	292	195	183	179	110	95
26....				1240	3250	1150	292	205	183	190	95	96
27....				1200	3100	1060	310	200	183	185	88	102
28....				1020	3250	1100	372	198	183	175	83	107
29....				860	3400	1020	372	177	183	158	83	114
30....				860	3250	1020	418	167	183	158	83	110
31....					2950		580	169		158		98
Total				15162	57620	45430	16961	10132	6524	5469	3761	2855
Mean	106	101	125	505	1860	1510	547	327	217	176	125	92.1
Max.				1240	3400	2390	940	940	350	205	202	114
Min.				158	780	1020	292	167	181	158	83	81
Acre-ft.	6520	5610	7690	30000	114000	89800	33600	20100	12900	10800	7440	5660

Discharge of Grand River at Hot Sulphur Springs for 1920.
Drainage Area, 946 Square Miles. Altitude, 7,665 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	88	110	106	440	254	5580	3550	780	372	254	154	....
2....	88	106	105	418	670	4860	3400	780	350	240	154	....
3....	87	104	105	395	1060	4520	3250	860	330	247	142	....
4....	86	103	106	395	1060	4180	3100	860	330	240	138	....
5....	85	102	110	413	1440	4520	2950	860	310	234	140	....
6....	84	101	116	440	1440	4520	2260	740	310	225	130	....
7....	83	100	140	740	2010	4690	2010	740	372	213	126	....
8....	83	100	175	980	2010	5400	1890	550	395	200	122	....
9....	85	101	228	1240	2130	6660	1660	610	418	195	118	....
10....	87	101	275	1240	1890	5940	1550	610	372	198	115	....
11....	89	101	310	1290	1770	5580	1550	640	350	200	110	....
12....	91	102	334	1240	1890	5220	1340	580	330	200	110	....
13....	93	101	372	1100	1890	4520	1440	490	292	200	115	....
14....	95	102	408	1100	2010	3860	1240	490	275	198	120	....
15....	98	104	440	1200	2130	3700	1200	640	263	192	122	....
16....	102	110	404	1100	2260	5040	1100	550	251	200	130	....
17....	104	115	404	1100	2530	4520	1240	465	240	183	132	....
18....	107	120	408	520	2810	4180	1150	465	228	185	140	....
19....	110	122	431	490	3100	3700	1150	550	216	179	151	....
20....	106	120	450	465	3860	3250	980	820	231	185	154	....
21....	102	110	480	465	4180	3320	860	900	234	175	151	....
22....	99	104	514	440	4350	3620	900	780	292	165	149	....
23....	98	99	490	418	4520	3620	900	705	292	165	147	....
24....	98	98	470	350	4350	3620	1240	610	292	179	144	....
25....	104	98	450	310	4690	3780	1440	465	330	185	144	....
26....	107	99	440	258	5400	3780	1150	395	292	169	144	....
27....	108	102	440	225	4690	3780	980	490	275	152	144	....
28....	110	105	440	258	4350	3780	820	465	258	152	144	....
29....	114	106	465	292	5400	3780	780	440	258	151	144	....
30....	114		490	258	5400	3620	740	440	258	152	147	....
31....	112		502		5580		670	418		152		....
Total	3017	3046	10608	19580	91124	131140	48490	19188	9016	5965	4081	....
Mean	97.3	105	342	653	2940	4370	1560	619	301	192	136	....
Max.	114	122	514	1290	5580	6660	3550	900	418	254	154	....
Min.	83	98	105	225	254	3250	670	395	216	151	110	....
Acre-ft.	5980	6040	21000	38900	181000	260000	95900	38100	17900	11800	8090	....

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

Discharge of Grand River at Glenwood Springs for 1919.
Drainage Area, 946 Square Miles. Altitude, 7,665 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	730	758	642	2450	4030	9060	3400	2170	904	996	880	963
2....	688	758	660	2520	4140	7420	3300	2310	987	1000	1120	1090
3....	624	745	648	2310	4140	6200	3710	2760	1000	952	1100	1030
4....	786	745	654	2050	3920	5500	4140	2930	880	969	1120	960
5....	786	735	630	2050	3920	4980	3600	2600	1030	936	1130	888
6....	779	808	654	2180	4490	4490	3200	2180	1000	1040	1230	978
7....	786	730	654	2050	4850	4260	3110	1920	928	1050	1230	1030
8....	786	702	772	1560	4610	4260	3200	1740	1040	1030	1240	969
9....	730	695	671	1300	4490	4610	2840	1800	1030	1030	1040	920
10....	705	667	730	1180	4370	4980	2520	1680	1000	1030	980	904
11....	800	744	744	1150	4370	5500	2310	1620	1050	1040	900	912
12....	751	695	751	1140	4260	5770	2240	1560	1140	1020	990	969
13....	824	751	744	1110	4260	5910	2180	1500	1090	1120	1030	900
14....	793	714	758	1220	4610	5910	2380	1380	1260	1060	990	850
15....	714	730	920	1440	5230	6200	2380	1330	1640	1060	940	830
16....	686	785	715	1440	6200	6500	2240	1240	1840	1070	760	630
17....	800	618	702	1310	6500	6500	2050	1120	1620	1110	1080	715
18....	718	628	760	1440	7420	6200	1980	1200	1490	1120	1080	710
19....	824	758	985	1800	8060	6200	1900	1070	1360	1050	1130	700
20....	800	674	1170	2450	9400	5770	1900	1020	1220	1100	996	779
21....	888	674	1160	2930	10800	5630	1860	1030	1230	1080	1010	695
22....	808	758	1330	3300	11200	5230	1680	1070	1170	1030	1020	779
23....	765	738	1740	4030	11600	4980	1560	978	1140	1050	1140	751
24....	800	772	1800	4850	11600	4730	1440	978	1140	1000	1210	765
25....	848	636	1560	5360	11200	4610	1386	969	1120	1020	1210	612
26....	784	811	1260	5500	11600	4370	1360	1020	1140	978	1220	848
27....	730	674	1270	5360	11600	4140	1500	1020	1110	1050	960	896
28....	791	730	1330	5100	11600	3920	1630	1000	969	1100	660	709
29....	723	....	1620	4370	12300	3710	1760	1000	1030	1080	510	786
30....	723	....	1800	4030	12300	3600	1900	1000	996	936	535	737
31....	716	....	2180	....	10800	....	2040	928	....	969	....	730
Total	23686	20233	32014	79980	229870	161140	72690	46123	34554	32076	30441	26041
Mean.	764	723	1030	2630	7420	5370	2340	1490	1150	1030	1010	840
Max..	888	811	2180	5500	12300	9060	4140	2930	1840	1120	1240	1090
Min..	624	618	630	1110	3920	3600	1360	928	880	936	510	612
Acre-ft.	47000	40200	63300	156000	456000	320000	144000	91600	68400	63300	60100	51600

Discharge of Grand River at Glenwood Springs for 1920.
Drainage Area, 946 Square Miles. Altitude, 7,665 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	674	716	779	772	1860	23800	10806	3300	1680	1500	1160	842
2....	808	709	723	772	2450	22500	10100	3400	1560	1500	1250	904
3....	716	730	695	606	3500	20400	9750	3400	1560	1500	1260	987
4....	772	674	723	744	4140	18700	9400	3600	1740	1440	1230	1000
5....	856	660	695	723	5630	18200	9060	3710	1680	1440	1190	....
6....	832	681	744	824	6060	18700	8390	3710	1680	1380	1130	....
7....	718	702	515	800	6800	20000	7420	3400	1740	1380	1170	....
8....	600	737	642	944	7420	21700	6500	3110	1800	1330	1200	....
9....	654	648	786	920	7420	22500	5910	2840	1920	1280	1260	....
10....	660	688	660	1420	9400	22500	5630	2600	1920	1280	1250	....
11....	660	667	688	1610	9400	21200	5520	2760	1860	1270	1250	....
12....	600	654	800	1500	8720	19500	5400	2760	1800	1310	1130	....
13....	730	667	808	1440	8060	19100	5290	2600	1680	1300	1070	....
14....	730	702	540	1550	8720	18700	5186	2600	1620	1320	1080	....
15....	880	648	864	1880	8720	18700	5070	2290	1500	1330	1200	....
16....	800	702	737	2170	8060	18200	4960	2100	1500	1280	1210	....
17....	840	751	758	2130	8060	17000	4850	2000	1500	1330	987	....
18....	618	585	786	1700	9400	15700	4730	1920	1440	1290	1070	....
19....	772	674	758	1400	11600	13900	4730	1820	1440	1500	1220	....
20....	730	695	808	1250	13900	12300	4370	1700	1500	1300	1240	....
21....	695	832	709	1260	16500	11600	4030	2000	1500	1260	1160	....
22....	730	702	928	1310	18200	11600	3920	2200	1500	1310	1190	....
23....	730	744	944	1210	18200	11600	3920	2500	1500	1260	1150	....
24....	709	744	896	1210	18200	11900	4140	2650	1500	1330	1140	....
25....	695	612	800	1230	19100	12300	4610	2300	1620	1330	960	....
26....	751	758	896	1320	21200	11900	5500	1900	1620	1290	960	....
27....	730	590	928	1180	20800	11200	5910	1850	1620	1260	1070	....
28....	737	779	723	1180	19500	10800	4850	1800	1620	1250	1090	....
29....	660	575	808	1270	20000	11200	4140	1800	1560	1250	1040	....
30....	654	....	772	1440	21700	11200	3920	1800	1560	1220	805	....
31....	744	....	765	....	23600	....	3500	1680	....	1180	....	....
Total	22485	20026	23678	37765	365720	498600	181500	78100	48720	41210	34122	....
Mean.	725	691	764	1260	11800	16600	5850	2520	1620	1330	1140	....
Max..	880	832	941	2170	23000	23800	10800	3710	1920	1500	1260	....
Min..	600	575	515	606	1860	10800	3500	1680	1440	1180	805	....
Acre-ft.	44600	39700	47000	75000	726000	988000	360000	155000	96400	81800	67800	....

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

Discharge of Grand River at Palisade for 1919.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1			1500	3880	7300	16600	6210	2940	1070	1280	1640	
2			1500	4180	7740	12900	6080	3480	1030	1320	1700	
3			1500	4180	8330	11000	5960	4600	1230	1280	1580	
4			1640	3780	8180	9740	6600	4810	1190	1190	1760	
5			1530	3480	8180	8480	6210	4390	910	1280	1820	
6			1480	4280	8640	7590	4920	3680	1190	1230	1700	
7			1530	3680	9420	7300	5030	2940	1110	1280	1700	
8			1530	3030	9260	7300	5250	2540	990	1320	1880	
9			1580	2620	9100	8180	4920	2320	1320	1320	1760	
10			1420	2180	8790	8640	4280	2250	1190	1370	1700	
11			1480	2120	8480	9900	3880	2320	1030	1370	1640	
12			1420	2120	7880	10700	3480	2180	1320	1370	1640	
13			1640	2120	7590	10900	3390	2060	1530	1370	1640	
14			2060	2180	8640	11200	3390	1820	1640	1420	1610	
15			1700	2250	8330	11000	3580	1640	2000	1580	1530	
16			1640	2320	11000	11700	3390	1530	2540	1530	1530	
17			1640	2180	12400	11700	3120	1370	2620	1420	1480	
18			1760	2390	13200	11700	3300	1280	2390	1420	1640	
19			2180	2860	14800	11400	2940	1420	2180	1480	1700	
20			2540	4080	15600	10900	2780	1190	2000	1370	1640	
21			2940	5030	18400	10400	2700	1190	1760	1370	1640	
22			3120	6210	19900	9740	2540	1190	1700	1580	1640	
23			3580	7590	19700	9260	2180	1070	1700	1320	1640	
24			3210	9260	19700	8640	2060	1030	1640	1320	1580	
25			2860	9900	19900	8330	1940	1070	1640	1580	1580	
26			2460	10200	20500	7880	1840	1110	1530	1420	1700	
27			2250	10400	20800	7300	2000	990	1480	1370	1600	
28			2320	9740	21000	7160	2000	1110	1370	1480	1600	
29			2320	8330	21200	6600	2000	1070	1190	1420	1600	
30			2860	7440	21400	6340	2860	1030	1420	1420	1600	
31			3210	19900	19900	3030	910	910	1420	1420	1420	
Total			64400	144010	415260	290480	113860	62530	45910	42800	49500	
Mean			2080	4800	13400	9680	3670	2020	1530	1380	1650	1600
Max.			3580	10400	21400	16600	6600	4810	2620	1580	1880	
Min.			1420	2120	7300	6340	1840	910	910	1190	1480	
Acres-ft.			128000	286000	824000	576000	226000	124000	91000	84800	98200	98400

Discharge of Grand River at Palisade for 1920.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1			1370	1880	3390	41600	19200	5480	2460	2250	2460	
2			2250	1480	5140	39500	18800	5360	2390	2250	2320	
3			2250	1580	6740	35200	18200	5480	2250	2250	2250	
4			1640	1480	7880	31900	17600	6880	2120	2180	2320	
5			1530	1480	8790	30100	17400	6340	2120	2120	2180	
6			1530	1580	10200	30700	16400	5960	2180	2120	2390	
7			1420	1700	11200	32800	15000	5960	2180	2120	4180	
8			1230	1940	12400	35500	13100	5250	2180	2060	2700	
9			1280	2060	13800	38600	12000	4600	2320	2000	2390	
10			1530	2390	15600	38200	11200	4180	2540	2000	2320	
11			1640	2940	16800	35500	10400	4080	2540	2000	2320	
12			1480	2860	15800	32500	10400	4080	2540	2000	2180	
13			1530	2540	14300	31900	9900	4080	2390	2000	2250	
14			1820	2700	16800	30700	9420	3980	2250	2000	2120	
15			1420	3030	16000	30100	8640	3680	2120	2000	2180	
16			1530	4600	15200	29600	8480	3390	2120	2000	2250	
17			1420	4600	15000	27600	8480	3120	2000	2000	2000	
18			1580	3390	16800	25300	8790	2940	2000	2060	2000	
19			1480	2860	12200	23000	8180	2700	2000	2060	1880	
20			1530	2460	26300	21200	7880	2780	2000	2060	2000	
21			1580	2250	29900	19900	7440	3030	2060	2320	2250	
22			1370	2250	34900	20300	6880	3580	2120	2320	2000	
23			1880	2120	35800	20800	6600	3880	2120	2320	1940	
24			1820	2120	34000	21200	7440	3980	2120	2120	2000	
25			1700	2000	35800	21400	7590	3390	3120	1940	2000	
26			1700	2320	39800	21400	8790	2860	2250	1940	1880	
27		1640	1820	2120	39200	20100	9740	2860	2390	2000	1940	
28		1480	1760	2120	36400	19700	8480	2860	2390	1940	1880	
29		1640	1530	2120	36100	19900	7160	2860	2390	1940	1880	
30			1580	2460	38200	19700	6470	2860	2390	1940	1760	
31			1530	40200	40200	5960	2780	2780	2060	2060	2060	
Total			49730	71430	669640	845900	332020	125260	68050	64170	66220	
Mean	1600	1600	1600	2380	21600	28200	10700	4040	2270	2070	2210	
Max.			2250	4600	40200	41600	19200	6880	3120	2320	4180	
Min.			1230	1480	3390	19700	5960	2700	2000	1940	1760	
Acres-ft.	98400	92000	98400	142000	1330000	1680000	658000	248000	135000	127000	132000	

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

Discharge of Grand River near Fruita for 1919.
Drainage Area, 16,800 Square Miles. Altitude, 4,500 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....			2100	6130	12600	25000	8380	5330	1350	1850	2700	280
2.....			2240	6130	13000	21200	8090	5550	1730	1850	2700	277
3.....			2440	6380	14100	17700	6500	7000	2550	1850	2700	280
4.....			2730	6130	14500	14100	6750	7260	1730	1980	2860	282
5.....			2730	5640	15000	13700	7810	6500	1430	1980	2860	273
6.....			2440	6130	15400	12600	8380	5780	1350	1980	2860	273
7.....			2300	6630	15900	10900	8380	5110	1430	2110	3020	2650
8.....			2170	5640	15000	11200	8090	4300	1620	1980	3020	2450
9.....			2300	4510	14500	11900	6750	3720	2250	1850	3020	2300
10.....			2300	3720	15000	12600	6260	3910	1980	2110	3100	2150
11.....			1800	3540	14500	13300	6020	4300	1850	2250	2860	2180
12.....			2170	3200	14100	14100	5330	4700	1980	1980	2860	2200
13.....			2580	3540	13000	14500	4700	3540	1850	2110	2860	2180
14.....			3200	3910	13000	15000	5330	2700	2110	2110	2860	2250
15.....			2880	4300	15000	15400	5780	2250	2860	2550	2700	2180
16.....			2880	4300	16800	15900	6260	1980	3720	2700	2700	2140
17.....			2880	4300	17700	15900	6020	1980	3910	2550	2860	2170
18.....			2730	4720	19200	16300	5330	1850	3360	2550	2860	2300
19.....			3200	6380	21200	14100	5110	1730	3190	2550	2860	2420
20.....			3540	8510	23900	14100	4700	1730	3020	2400	3100	2540
21.....			4100	10800	25000	13700	4500	1620	2700	2400	2860	2570
22.....			5170	12600	27600	13700	4300	1430	2700	2250	2860	2650
23.....			5640	15000	27600	13000	3910	1520	2400	2250	2700	2660
24.....			5170	16200	26300	11900	3360	1430	2250	2400	2700	2660
25.....			4720	16700	26900	10900	3020	1350	2110	2400	2700	2530
26.....			4300	16700	26300	10600	2860	1270	2110	2550	2700	2700
27.....			3910	15400	26300	10200	2550	1270	2110	3020	2550	2800
28.....			3910	15000	27600	9920	2550	1270	2110	2700	2460	2640
29.....			4100	13400	28900	8990	2700	1270	2110	2620	2430	2750
30.....			4720	12200	28900	8680	3360	1270	1850	2700	2460	2670
31.....			5170	.....	27600	.....	4700	1270	.....	2860	.....	2700
Total.....			102520	247740	612400	411090	167780	96190	67720	71440	83780	78090
Mean.....	2210	2200	3310	8260	19800	13700	5410	3100	2260	2300	2790	2520
Max.....			5640	16700	28900	25000	8380	7260	3910	3020	3100	.....
Min.....			1800	3200	12600	8680	2550	1270	1350	1850	2430	.....
Ac-ft. 136000	122000	204000	492000	1220000		815000	333000	191000	134000	141000	166000	155000

Discharge of Grand River near Fruita for 1920.
Drainage Area, 16,800 Square Miles. Altitude, 4,500 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	2720	2600	2700	3020	8090	66300	28200	7800	3200	3910	4200	.....
2.....	2740	2600	3100	3190	11500	63700	26700	7540	2880	3910	4100	.....
3.....	2780	2700	4300	3190	15200	59300	26000	8950	2730	3910	3910	.....
4.....	2830	2780	3280	3020	15700	55800	25300	9750	2580	3720	3910	.....
5.....	3000	2850	2700	2860	17600	51400	24000	9250	3200	3540	4000	.....
6.....	2750	2820	2550	2860	20700	52200	24000	9100	3200	3370	3720	.....
7.....	2600	2830	2550	2860	21700	54900	20200	8510	3200	3370	3910	.....
8.....	2540	2730	2250	3360	24600	55800	17600	7400	3040	3540	4300	.....
9.....	2500	2760	2250	4100	26700	57500	17100	6880	3200	4720	3910	.....
10.....	2480	2780	2550	4900	31400	55800	16200	6630	3200	3720	3910	.....
11.....	2470	2830	2700	5330	31400	55800	15200	5760	3370	3040	3910	.....
12.....	2470	2880	2860	4900	28200	54000	14800	4830	3370	3200	3910	.....
13.....	2470	2940	2700	4700	26700	50500	13900	3630	3200	3200	3910	.....
14.....	2480	3000	2860	4900	29800	47000	13100	4010	3040	3200	3820	.....
15.....	2500	3050	2860	4700	34700	47000	13100	4830	2880	3370	3720	.....
16.....	2500	3160	2700	5330	30600	47000	12300	4510	2880	3370	3540	.....
17.....	2520	3180	2550	7000	27500	45200	12300	4300	2730	3370	3370	.....
18.....	2550	3200	2550	6260	31400	39900	11500	4100	2730	3370	3370	.....
19.....	2590	3350	2860	4900	37300	36400	11500	3720	2730	3370	3200	.....
20.....	2620	3520	3020	4300	48700	32200	10700	3540	2730	3370	3460	.....
21.....	2640	3550	3190	4100	54000	31400	9960	3910	2730	4200	3460	.....
22.....	2670	3550	3190	4100	61000	29800	9620	4300	2880	3720	3540	.....
23.....	2680	3500	3540	3910	71600	30600	9620	4720	3040	3910	3540	.....
24.....	2680	3550	3540	3910	64600	31400	9300	4940	3040	3820	3370	.....
25.....	2680	3100	3190	3910	66300	32200	9960	4940	3200	3460	3370	.....
26.....	2700	2860	3020	3910	60300	33000	10700	4100	3200	3160	3370	.....
27.....	2650	2480	3190	3910	68100	30600	12700	3540	3200	3630	3200	.....
28.....	2500	2550	3360	3910	64600	29800	11500	3540	3540	3630	3200	.....
29.....	2480	2550	3190	3910	62800	28900	9300	3540	3910	3540	3200	.....
30.....	2540	.....	3020	4700	63700	28200	8090	3540	3910	3370	3040	.....
31.....	2600	.....	3020	.....	66300	.....	8090	3540	.....	3910	.....	.....
Total.....	80903	86050	91340	125950	1228790	1333600	462540	169650	92740	111320	109370	.....
Mean.....	2610	2970	2950	4200	39600	44500	14900	5470	3090	3590	3650	.....
Max.....			4300	7000	71600	66300	28200	9750	3910	4720	4300	.....
Min.....			2250	2860	8090	28200	8090	3540	2580	3040	3040	.....
Acro-ft. 160000	171000	181000	250000	2430000	2650000	916000	336000	184000	221000	217000	.....	.....

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

Discharge of Fraser River near Arrow for 1919.

Drainage Area, 28 Square Miles.				Altitude, 9,500 Feet Above Sea Level.								
Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Dec. 1.....	8.3	7.8	6.2	8.0	33	109	73	60	22	21	12	10
2.....	8.3	7.8	6.2	11	33	100	81	55	24	21	12	10
3.....	8.3	7.8	6.0	8.6	42	100	80	50	23	21	12	10
4.....	8.3	7.8	6.0	9.5	52	86	75	48	21	21	14	10
5.....	8.3	7.4	6.0	12	52	78	67	46	21	21	11	10
6.....	8.3	7.0	6.0	9.5	62	75	67	44	21	21	12	9
7.....	8.0	7.0	6.0	13	52	78	63	43	19	21	16	9
8.....	8.0	7.0	6.0	9.5	52	83	59	43	19	20	12	9
9.....	8.0	7.0	6.0	8.6	42	84	55	42	21	18	12	9
10.....	7.8	6.8	6.0	8.0	42	94	54	40	17	19	11	9
11.....	7.8	6.8	6.0	9.5	52	103	52	37	18	18	10	9
12.....	7.8	6.4	6.0	11	52	107	54	35	24	18	9	9
13.....	7.8	6.4	6.0	12	62	112	55	32	28	16	9	9
14.....	7.8	6.4	6.0	12	57	118	50	30	36	15	10	9
15.....	7.8	6.4	6.0	10	62	118	48	30	32	15	11	9
16.....	7.8	6.2	6.0	10	78	116	48	31	31	15	12	9
17.....	7.6	6.4	6.0	15	70	118	48	28	30	14	11	9
18.....	7.6	7.4	6.0	19	78	114	48	28	28	15	12	9
19.....	7.8	6.4	6.0	25	93	112	48	29	28	15	11	8
20.....	7.8	6.4	6.0	22	107	109	48	28	28	18	11	8
21.....	7.8	6.4	6.0	33	122	105	45	27	27	21	11	8
22.....	7.6	6.4	6.0	52	126	98	43	27	26	18	12	8
23.....	7.6	6.4	6.2	52	124	94	42	26	25	16	14	8
24.....	7.4	6.4	6.4	62	126	89	41	26	24	15	14	8
25.....	7.0	6.4	6.4	52	135	86	40	26	23	15	18	8
26.....	7.2	6.4	6.2	57	142	84	40	25	22	16	13	8
27.....	7.4	6.4	6.0	42	135	83	41	27	22	14	11	8
28.....	7.6	6.2	6.0	33	156	76	41	25	22	12	10	8
29.....	7.6	.....	8.0	33	135	78	42	24	22	12	10	8
30.....	7.6	.....	6.0	33	144	70	50	21	21	12	11	8
1.....	7.8	.....	8.0	.....	131	.....	60	21	.....	12	.....	8
Total	241.8	189.6	191.6	692.2	2649	2877	1658	1054	725	526	354	271
Mean.....	7.80	6.77	6.18	23.1	85.5	95.9	53.5	34.0	24.2	17.0	11.8	8.7
Max.....	8.3	7.8	8.0	62	156	118	81	60	36	21	18	10
Min.....	7.0	6.2	6.0	8.0	33	70	40	21	17	12	9	8
Acre-ft.	480	376	380	1370	5260	5710	3290	2090	1440	1050	702	535

Discharge of Fraser River near Arrow for 1920.

Drainage Area, 28 Square Miles.					Altitude, 9,500 Feet Above Sea Level.							
Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	8	8	7	7	12	196	168	56	30	21	14	12
2.....	8	8	7	7	13	156	156	52	29	21	13	12
3.....	8	8	6	6	14	137	156	51	28	21	14	13
4.....	8	8	7	6	17	133	144	52	28	20	16	14
5.....	8	8	7	6	20	129	137	48	28	20	16	....
6.....	8	9	6	6	24	168	122	46	30	19	20	....
7.....	8	12	6	7	22	256	114	45	34	19	23	....
8.....	8	9	6	7	29	272	105	43	32	16	20	....
9.....	8	9	6	9	25	288	103	47	29	16	19	....
0.....	8	8	6	9	33	288	100	46	28	15	18	....
1.....	8	10	6	8	25	272	96	45	25	15	16	....
2.....	8	10	6	8	22	256	92	48	24	15	18	....
3.....	8	10	6	8	22	241	88	46	24	15	17	....
4.....	8	12	7	8	38	241	84	43	23	15	17	....
5.....	8	12	6	8	33	241	78	38	22	14	18	....
6.....	8	11	6	8	40	226	84	37	21	15	18	....
7.....	8	12	7	11	47	211	80	36	24	14	17	....
8.....	8	12	6	7	54	182	76	36	25	13	18	....
9.....	8	11	6	7	61	168	72	41	24	13	19	....
0.....	8	11	6	7	81	156	70	48	24	13	15	....
1.....	8	10	8	7	101	168	68	56	25	13	14	....
2.....	8	8	7	7	121	168	64	54	24	14	31	....
3.....	8	7	6	7	128	168	72	51	24	15	18	....
4.....	8	7	6	7	135	182	72	50	24	16	19	....
5.....	8	8	6	7	142	168	81	47	25	16	18	....
6.....	8	8	6	7	129	168	75	45	24	16	16	....
7.....	8	7	6	7	135	182	67	42	24	16	14	....
8.....	8	7	6	7	135	182	61	41	23	16	14	....
9.....	7	7	6	7	168	168	58	37	22	29	18	....
0.....	8	....	6	8	196	168	55	36	22	16	12	....
1.....	8	....	7	....	226	....	54	32	....	14	....	....
Total	247	267	196	221	2248	5939	2852	1395	769	511	520	....
Mean...	8	9.2	6.3	7.4	72.5	198	92	45	25.6	16.5	17.3	....
Max...	8	12	8	11	226	288	168	56	34	29	31	....
Min...	7	7	6	6	12	129	54	32	21	13	12	....
Acre-ft.	492	529	387	440	4460	11800	5660	2770	1520	1010	1030	....

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

Discharge of Williams Fork River near Parshall for 1919.
Drainage Area, 185 Square Miles. Altitude, 7,800 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	28	47	69	68	160	555	234	135	58	65	40	28
2.....	28	44	71	68	176	555	231	170	56	65	16	30
3.....	40	40	40	68	176	432	375	190	60	65	20	33
4.....	40	40	38	64	170	375	300	162	60	65	20	34
5.....	40	41	66	74	162	326	228	135	54	66	20	34
6.....	40	47	69	75	225	284	228	114	50	66	20	30
7.....	40	40	68	50	201	274	219	106	47	66	10	28
8.....	38	43	77	46	201	284	219	110	46	66	24	28
9.....	40	41	77	38	207	284	192	110	79	67	47	25
10.....	40	41	75	46	210	304	184	110	64	67	53	26
11.....	50	40	68	54	207	375	160	104	69	67	62	28
12.....	54	43	85	48	210	432	154	100	72	67	62	30
13.....	47	38	79	51	198	492	198	92	92	67	43	33
14.....	43	34	66	58	198	492	165	88	176	68	74	35
15.....	43	33	83	50	247	506	162	82	110	70	60	38
16.....	47	32	44	47	274	457	137	80	108	70	62	38
17.....	54	30	54	66	313	464	131	75	97	68	47	40
18.....	54	33	51	92	355	438	129	82	85	69	51	40
19.....	54	40	48	124	420	432	160	80	80	69	57	40
20.....	51	46	50	133	506	432	131	75	87	68	63	40
21.....	54	44	44	129	598	426	99	72	80	58	60	40
22.....	54	46	51	184	630	414	92	75	75	63	43	40
23.....	54	47	54	213	555	420	88	71	64	63	43	40
24.....	54	48	51	264	590	414	92	69	64	62	54	40
25.....	54	54	53	278	630	414	92	71	64	72	50	40
26.....	54	54	48	267	590	375	95	71	64	72	47	40
27.....	54	67	56	241	630	295	116	66	64	66	34	46
28.....	54	68	51	210	670	288	87	106	64	44	24	48
29.....	51	....	60	198	750	250	90	74	64	69	24	54
30.....	48	....	62	192	670	250	154	62	64	54	28	57
31.....	47	....	66	....	590	....	135	66	....	62	....	54
Total	1449	1211	1874	3496	11719	11739	5077	3003	2217	2016	1258	1157
Mean.	46.7	43.2	60.5	117	378	391	164	96.9	73.9	65.0	41.9	37.3
Max..	54	68	85	278	750	555	375	190	176	72	74	57
Min...	28	30	38	38	160	250	87	62	46	44	10	25
Acres-ft.	2870	2400	3720	6960	23200	23300	10100	5960	4400	4000	2490	2290

Discharge of Williams Fork River near Parshall for 1920.
Drainage Area, 185 Square Miles. Altitude, 7,800 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	48	47	40	42	88	950	590	181	99	87	79	....
2.....	46	54	38	42	114	870	555	195	99	83	75	....
3.....	35	54	38	41	147	830	520	195	90	79	59	....
4.....	30	63	35	40	160	790	492	181	90	75	66	....
5.....	28	56	35	41	170	790	464	173	87	75	71	....
6.....	26	34	35	45	165	790	444	152	92	77	77	....
7.....	26	29	40	50	184	870	402	135	102	77	71	....
8.....	25	43	40	55	198	950	350	131	108	77	74	....
9.....	25	44	47	65	260	1030	336	137	108	77	74	....
10.....	28	48	47	72	304	950	318	149	104	77	66	....
11.....	28	41	43	71	288	950	318	142	99	83	64	....
12.....	30	38	47	70	247	910	304	154	94	80	66	....
13.....	32	47	54	69	260	950	278	181	90	90	65	....
14.....	34	60	43	69	300	910	260	149	85	85	63	....
15.....	36	43	56	79	288	910	244	122	85	79	59	....
16.....	38	56	60	74	292	870	260	124	85	80	56	....
17.....	38	48	56	62	327	790	274	124	83	77	54	....
18.....	38	38	51	72	385	790	238	114	90	77	52	....
19.....	35	39	54	62	414	710	244	110	99	77	51	....
20.....	35	35	40	62	471	670	219	124	83	69	51	....
21.....	35	51	51	54	520	670	204	170	82	71	59	....
22.....	36	38	62	54	590	710	184	149	88	57	51	....
23.....	38	40	48	51	555	710	189	126	90	57	45	....
24.....	40	40	50	53	590	670	228	116	92	79	38	....
25.....	50	40	48	54	710	710	244	110	100	79	44	....
26.....	56	40	63	54	790	710	288	110	95	74	51	....
27.....	41	40	48	54	630	710	228	114	90	56	63	....
28.....	40	40	72	58	670	750	204	126	90	69	55	....
29.....	46	40	41	60	790	710	192	114	88	74	48	....
30.....	48	....	53	66	870	670	178	106	88	80	41	....
31.....	54	....	43	....	910	....	195	104	....	79	....	....
Total	1145	1286	1478	1741	12687	24300	9444	4318	2775	2356	1788	....
Mean.	36.9	44.3	47.7	58.0	409	810	305	139	92.5	76	59.6	....
Max..	56	63	72	79	910	1030	590	195	108	90	79	....
Min...	25	29	35	40	88	670	178	104	82	56	41	....
Acres-ft.	2270	2550	2930	3450	25100	48200	18800	8550	5550	4670	3550	....

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

Discharge of Blue River at Dillon for 1919.

Drainage Area, 110 Square Miles. Altitude, 8,815 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	32	23	17	27	117	355	265	134	42	....	....	....
2	32	23	17	28	119	315	305	131	44	....	....	....
3	32	24	17	28	110	295	458	146	44	....	....	....
4	31	24	17	28	104	255	285	128	44	....	....	....
5	31	24	17	29	104	236	245	106	44	....	....	....
6	30	24	17	31	123	217	225	96	44	....	....	....
7	30	23	17	32	130	200	245	86	44	....	....	....
8	29	22	17	32	130	236	225	84	44	....	....	....
9	29	22	17	33	130	236	208	83	42	....	....	....
10	28	21	18	34	130	236	167	76	40	....	....	....
11	28	21	18	34	130	295	161	73	46	....	....	....
12	28	20	18	34	130	295	173	70	50	....	....	....
13	28	20	19	38	150	305	161	69	60	....	....	....
14	28	20	19	36	170	325	161	66	98	....	....	....
15	28	20	20	36	217	390	164	65	106	....	....	....
16	28	20	20	40	236	345	152	58	90	....	....	....
17	28	19	20	40	295	345	131	58	73	....	....	....
18	28	19	20	55	335	368	126	54	70	....	....	....
19	27	18	21	66	375	325	158	56	70	....	....	....
20	28	18	21	78	420	325	161	58	68	....	....	....
21	28	17	21	98	465	325	126	54	58	....	....	....
22	28	17	21	112	488	305	104	50	58	....	....	....
23	28	17	21	135	488	285	104	48	56	....	....	....
24	27	17	21	155	442	285	96	48	52	....	....	....
25	26	17	22	184	465	285	94	48	48	....	....	....
26	26	17	23	150	442	265	88	50	48	....	....	....
27	26	17	24	142	488	265	92	44	48	....	....	....
28	25	17	24	130	488	265	86	48	48	....	....	....
29	23	....	24	115	510	245	86	48	48	....	....	....
30	23	....	24	108	510	265	114	46	46	....	....	....
31	23	....	26	....	442	....	140	46	....	....	....	....
Total	866	561	618	2088	8883	8689	5306	2227	1673	....	....	....
Mean	27.9	20.0	19.9	69.6	287	290	171	71.8	55.8	....	....	....
Max.	32	24	26	184	510	390	458	146	106	....	....	....
Min.	23	17	17	27	104	200	86	44	40	....	....	....
Cu.-ft.	1720	1110	1220	4140	17600	17300	10500	4410	3320	....	....	....

Discharge of Blue River at Dillon for 1920.

Drainage Area, 110 Square Miles. Altitude, 8,815 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1					43	700	375	194	81	54	44	....
2					50	600	375	207	75	51	42	....
3					65	578	375	184	73	49	41	....
4					75	555	365	172	72	48	40	....
5					89	555	365	187	76	48	40	....
6					121	555	315	181	75	48	41	....
7					130	600	275	158	78	47	41	....
8					155	650	255	135	81	46	42	....
9					217	700	236	126	79	46	41	....
10					228	650	236	128	79	46	42	....
11					187	600	236	132	76	46	....	....
12					155	532	217	126	76	47	....	....
13					142	555	204	128	75	48	....	....
14					142	555	200	121	73	50	....	....
15					150	555	197	106	72	52	....	....
16					135	532	184	98	69	52	....	....
17					155	488	187	97	66	52	....	....
18					217	465	181	91	65	54	....	....
19					295	420	175	89	65	55	....	....
20					325	375	167	102	58	53	....	....
21				28	370	375	161	119	60	50	....	....
22					442	398	155	140	61	50	....	....
23					375	420	184	130	63	50	....	....
24					442	420	210	112	63	50	....	....
25					510	420	295	102	63	48	....	....
26					555	398	375	95	61	46	....	....
27					442	410	295	108	59	45	....	....
28					465	420	236	121	58	44	....	....
29					532	420	217	110	57	44	....	....
30					625	398	191	97	56	44	....	....
31					675	....	178	87	....	44	....	....
Total					8509	15299	7607	3983	2065	1507	....	....
Mean					274	510	245	128	68.9	48.6	....	....
Max.					675	700	375	207	81	55	....	....
Min.					43	375	155	87	56	44	....	....
Cu.-ft.					16800	30300	15100	7870	4100	2990	....	....

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

Discharge of Snake River at Dillon for 1919.

	Drainage Area, 92 Square Miles.		Altitude, 8,815 Feet Above Sea Level.									
Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	14	12	12	37	26	168	110	158	16	....	....	....
2....	14	12	12	34	26	160	126	168	19	....	....	....
3....	14	12	12	28	22	130	137	137	18	....	....	....
4....	14	12	12	34	20	108	102	93	15	....	....	....
5....	14	11	12	43	20	96	93	72	14	....	....	....
6....	14	12	12	31	28	96	83	69	14	....	....	....
7....	14	12	12	20	35	108	102	60	14	....	....	....
8....	14	12	12	18	35	126	83	62	14	....	....	....
9....	14	12	12	17	35	135	71	61	15	....	....	....
10....	14	12	12	15	29	130	67	71	15	....	....	....
11....	14	12	12	14	26	128	66	72	16	....	....	....
12....	14	12	12	14	36	150	71	66	17	....	....	....
13....	13	16	12	22	43	165	72	60	25	....	....	....
14....	14	12	12	21	55	175	74	56	78	....	....	....
15....	14	12	12	18	91	175	61	51	56	....	....	....
16....	14	13	12	18	78	172	60	39	39	....	....	....
17....	14	13	12	22	96	165	55	39	36	....	....	....
18....	13	13	12	55	113	152	67	34	23	....	....	....
19....	13	12	12	47	184	148	83	31	25	....	....	....
20....	13	12	13	49	233	141	69	30	22	....	....	....
21....	13	12	13	51	233	148	58	28	19	....	....	....
22....	13	12	14	49	284	148	48	22	18	....	....	....
23....	12	12	13	76	252	124	40	20	15	....	....	....
24....	12	12	12	66	268	126	42	20	14	....	....	....
25....	14	13	13	55	264	113	38	20	14	....	....	....
26....	14	12	13	47	302	110	35	20	14	....	....	....
27....	12	12	14	47	307	113	40	25	14	....	....	....
28....	14	12	14	38	375	104	38	26	14	....	....	....
29....	14	....	14	37	312	104	48	20	14	....	....	....
30....	13	....	16	31	272	106	89	18	13	....	....	....
31....	13	....	22	....	216	....	102	18	....	....	....	....
Total	420	343	399	1054	4316	4024	2230	1666	640	....	....	....
Mean.	13.5	12.2	12.9	35.1	139	134	71.9	53.7	21.3	....	....	....
Max..	14	16	22	76	375	175	137	168	78	....	....	....
Min...	12	11	12	14	20	96	35	18	13	....	....	....
Acres-ft.	830	678	793	2090	8550	7970	4420	3300	1270	....	....	....

Discharge of Tenmile Creek at Dillon for 1919.

	Drainage Area, 113 Square Miles.		Altitude, 8,815 Feet Above Sea Level.									
Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....			22	35	162	348	212	141	45	....	Nov.	Dec.
2....			23	42	159	330	245	144	55	....	....	....
3....			23	50	148	275	324	155	55	....	....	....
4....			24	45	127	245	212	127	52	....	....	....
5....			24	59	138	225	203	103	49	....	....	....
6....			24	58	166	221	181	91	45	....	....	....
7....			24	43	190	240	212	91	43	....	....	....
8....			24	42	190	270	185	89	45	....	....	....
9....			24	42	194	260	174	89	49	....	....	....
10....			24	40	185	270	162	85	49	....	....	....
11....			24	41	174	324	174	83	49	....	....	....
12....			24	41	185	324	181	73	52	....	....	....
13....			25	52	194	342	185	68	66	....	....	....
14....	23	....	24	43	225	324	177	70	127	....	....	....
15....			24	40	366	372	166	79	101	....	....	....
16....			24	44	396	314	159	79	73	....	....	....
17....			24	48	418	319	159	79	64	....	....	....
18....			25	62	518	314	148	55	62	....	....	....
19....			25	83	625	302	159	55	55	....	....	....
20....		24	25	113	700	292	130	58	55	....	....	....
21....		24	25	170	738	275	110	55	55	....	....	....
22....		24	25	190	700	255	110	55	55	....	....	....
23....		24	25	297	662	245	113	54	54	....	....	....
24....		24	25	302	700	245	113	49	54	....	....	....
25....			25	314	662	230	101	49	49	....	....	....
26....			26	235	625	221	85	49	45	....	....	....
27....			26	203	662	216	89	49	43	....	....	....
28....			27	170	662	212	98	55	43	....	....	....
29....			27	162	625	190	89	55	43	....	....	....
30....			27	162	518	199	159	52	43	....	....	....
31....			27	....	410	....	181	52	....	....	....	....
Total			765	3228	12454	8199	4996	2385	1675	....	....	....
Mean.	23	23	24.7	108	402	273	161	76.9	55.8	....	....	....
Max..			27	314	738	372	324	155	127	....	....	....
Min...			22	35	127	190	85	49	43	....	....	....
Acres-ft.	1410	1280	1520	6430	24700	16200	9900	4730	3320	....	....	....

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

Discharge of Eagle River at Redcliff for 1919.

Drainage Area, 64 Square Miles.				Altitude, 8,598 Feet Above Sea Level.								
Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	11	13	....	30	168	260	71	81	....	17	4.6	14
2.....	12	13	....	34	156	232	78	85	....	17	7.6	14
3.....	13	13	....	31	122	219	116	69	....	18	9.6	13
4.....	14	13	....	29	133	193	74	52	....	19	11	12
5.....	14	13	....	31	133	180	68	46	....	19	22	14
6.....	14	13	....	52	168	168	65	41	....	19	19	14
7.....	14	13	....	41	144	168	78	41	....	19	16	14
8.....	13	13	....	21	156	168	63	41	....	22	16	14
9.....	14	13	....	18	168	168	59	41	....	20	16	12
10.....	14	13	....	19	168	168	53	42	....	20	16	14
11.....	13	13	....	20	156	168	50	39	....	21	17	14
12.....	14	13	....	20	144	168	51	37	....	20	15	14
13.....	14	13	....	20	168	168	62	35	....	20	18	14
14.....	11	....	....	28	193	156	73	34	....	21	16	15
15.....	14	....	....	26	219	156	60	33	....	21	11	14
16.....	14	....	....	25	246	144	53	30	....	19	18	14
17.....	14	....	....	32	260	156	50	26	....	18	16	14
18.....	14	....	....	60	288	156	48	26	....	18	16	14
19.....	14	....	....	98	303	133	46	26	....	9.2	17	12
20.....	14	....	....	106	364	133	41	27	....	7.6	15	11
21.....	13	....	....	118	380	122	38	26	....	3.2	15	14
22.....	13	....	....	133	364	118	36	24	....	4.4	17	14
23.....	12	....	....	156	364	114	36	24	....	9.2	32	13
24.....	12	....	....	156	348	106	29	22	....	11	10	13
25.....	13	....	....	180	333	100	31	22	....	9.2	5.6	13
26.....	13	....	....	149	364	92	29	22	....	17	11	13
27.....	13	....	....	156	364	91	27	22	....	20	5.6	13
28.....	13	....	....	122	333	85	32	22	17	24	12	12
29.....	13	....	17	133	333	81	62	21	....	12	10	12
30.....	13	....	21	144	318	73	102	21	....	8.4	13	12
31.....	13	....	28	....	274	....	83	21	....	7.8	....	12
Total	410	....	....	2188	7632	4444	1764	1099	....	491.0	428.0	412
Mean..	13.2	13.0	15.0	72.9	246	148	56.9	35.5	28	15.8	14.3	13.3
Max..	14	....	....	180	380	260	116	85	....	24	32	14
Min..	11	....	....	18	122	73	27	21	....	3.2	4.6	11
Acre-ft.	812	722	922	4340	15100	8810	3500	2180	1670	972	851	818

Discharge of Eagle River at Redcliff for 1920.

Drainage Area, 64 Square Miles.				Altitude, 8,598 Feet Above Sea Level.								
Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	10	11	7.6	10	37	617	131	62	30	.....	8	.....
2.....	10	10	8.8	12	47	481	136	61	30	.....	7	.....
3.....	10	11	8.4	12	58	464	131	55	30	.....	7	.....
4.....	12	9.6	9.2	11	76	447	133	53	30	.....	6	.....
5.....	12	10	9.2	12	102	431	133	53	30	.....	4	.....
6.....	10	9.6	9.6	12	136	415	127	50	30	.....	4	.....
7.....	13	11	8	15	151	431	114	49	30	.....	.....	.....
8.....	14	11	9.6	16	199	464	108	48	30	.....	.....	.....
9.....	12	9.6	10	20	225	447	100	31	30	.....	.....	.....
10.....	13	8.8	11	19	238	415	92	31	30	.....	.....	.....
11.....	12	10	10	21	238	367	92	31	30	.....	.....	.....
12.....	13	7.8	10	15	252	337	84	31	30	.....	.....	.....
13.....	12	7.6	12	19	199	308	72	35	30	.....	.....	.....
14.....	12	9.6	11	24	199	308	68	30	30	.....	.....	.....
15.....	12	10	7.4	24	186	294	68	30	30	.....	.....	.....
16.....	12	11	11	26	186	280	70	30	30	.....	.....	.....
17.....	10	10	11	23	238	266	70	30	30	11	.....	.....
18.....	12	10	12	19	308	252	67	30	30	10	.....	.....
19.....	11	10	12	17	352	238	64	30	29	9	.....	.....
20.....	12	9.6	10	19	415	238	58	31	29	8	.....	.....
21.....	10	9.2	12	19	481	212	58	35	28	8	.....	.....
22.....	9.2	9.2	13	19	515	212	59	31	28	8	.....	.....
23.....	10	9.6	13	19	515	199	62	30	27	8	.....	.....
24.....	11	9.2	8.4	19	481	199	78	30	25	.....	.....	.....
25.....	11	9.6	12	19	549	186	114	30	22	.....	.....	.....
26.....	11	8	12	15	583	174	151	30	21	.....	.....	.....
27.....	10	9.6	23	20	464	174	88	31	21	.....	.....	.....
28.....	9.6	10	15	20	481	174	62	30	20	.....	.....	.....
29.....	10	9.2	13	22	549	174	59	30	20	.....	.....	.....
30.....	11	.....	17	26	617	162	55	30	20	.....	.....	.....
31.....	10	.....	10	.....	617	.....	62	30	.....	9	.....	.....
Total	346.8	280.8	346.2	544	9694	9366	2766	1128	830	.....	.....	.....
Mean.	11.2	9.7	11.2	18.1	313	312	89.2	36.4	27.7	.....	.....	.....
Max..	23	11	23	26	617	617	151	62	30	.....	.....	.....
Min..	7.4	7.6	7.4	10	37	162	55	30	20	.....	.....	.....
Acre-ft.	689	558	689	1080	19200	18600	5480	2240	1650	.....	.....	.....

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

Discharge of Eagle River at Eagle for 1919.
Drainage Area, 630 Square Miles. Altitude, 6,553 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....					748	2220	988	450	178	145	142	112
2.....					825	1740	1030	500	175	145	143	112
3.....					785	1410	1120	550	172	155	144	112
4.....					748	1210	1030	550	208	160	146	111
5.....				208	748	988	945	450	238	165	160	111
6.....				257	905	945	865	406	224	170	160	111
7.....				214	865	945	820	416	201	180	130	110
8.....				178	905	1030	780	370	188	196	106	110
9.....				166	865	1120	750	390	175	196	103	110
10.....				162	905	1310	740	416	188	196	100	110
11.....				158	945	1410	710	365	224	196	105	110
12.....				160	905	1410	680	323	224	196	110	110
13.....				164	945	1510	650	301	217	196	105	110
14.....				198	1120	1410	620	297	254	196	110	112
15.....				192	1620	1740	619	297	281	196	120	114
16.....				188	1740	1620	610	301	293	196	121	112
17.....				201	1980	1740	600	305	281	196	122	112
18.....				265	2100	1740	530	297	265	196	123	110
19.....				390	2460	1620	470	269	242	193	124	110
20.....				545	2590	1460	450	246	231	190	125	108
21.....				640	2720	1310	440	231	318	187	126	106
22.....				710	2850	1310	420	268	269	184	128	110
23.....				1030	3240	1210	380	192	211	181	130	110
24.....				1210	3110	1310	370	182	178	178	125	109
25.....				1210	3110	1210	370	170	160	175	115	109
26.....				1120	3110	1210	370	168	156	172	100	109
27.....				988	3240	1120	370	178	152	169	95	109
28.....				865	3110	1120	370	195	148	167	110	109
29.....				748	3110	1080	380	182	144	167	116	109
30.....				710	2980	1080	400	164	140	167	114	108
31.....					2850		420	166		167		108
Total				12877	58134	40538	19288	9535	6335	5573	3648	3413
Mean				495	1880	1350	622	308	211	180	122	110
Max.				1210	3240	2220	1120	550	318	196	160	114
Min.				158	748	945	370	164	140	145	95	106
Acre-ft.				25500	116000	80300	38200	18900	12600	11100	7260	6760

Discharge of Eagle River at Eagle for 1920.
Drainage Area, 630 Square Miles. Altitude, 6,553 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	108	101	96	126	280	4300	2000	742	325	227	170	
2.....	107	95	102	107	340	3920	2200	726	320	224	164	
3.....	101	93	118	114	385	3850	2000	758	315	220	148	
4.....	96	92	102	104	455	3720	2000	822	310	213	150	
5.....	96	93	101	110	588	3660	1900	839	305	210	150	
6.....	95	98	101	120	726	3720	1840	694	300	206	161	
7.....	88	96	93	164	884	3920	1770	600	294	206	161	
8.....	85	94	93	262	1080	4110	1700	552	288	202	150	
9.....	85	96	92	269	1320	4240	1580	510	282	199	142	
10.....	91	106	92	262	1580	3660	1510	892	276	199	140	
11.....	98	100	95	220	1510	3460	1420	504	269	213	132	
12.....	102	98	101	179	1250	3400	1330	470	265	213	132	
13.....	106	90	101	206	1190	3460	1240	460	261	216	140	
14.....	110	91	110	224	1250	3330	1150	420	257	220	138	
15.....	114	98	110	238	1020	3400	1060	395	253	216	122	
16.....	116	95	102	238	920	3070	970	375	250	202	114	
17.....	116	89	95	206	970	2880	890	360	247	189	150	
18.....	118	95	95	173	1640	2680	806	345	244	185	140	
19.....	114	110	102	158	1900	2290	839	386	241	185	130	
20.....	106	110	104	167	2360	2030	798	428	234	182	135	
21.....	100	110	132	167	2740	2220	806	470	238	185	135	
22.....	98	102	173	138	2810	2420	782	892	238	189	112	
23.....	95	95	140	142	2680	2550	940	420	238	182	135	
24.....	95	95	126	148	3200	2550	911	370	246	178	114	
25.....	98	102	140	145	3000	2480	1390	335	255	173	114	
26.....	102	104	135	140	3980	2550	1610	318	244	176	132	
27.....	107	102	122	142	3330	2550	1190	340	234	164	126	
28.....	107	96	114	150	3330	2550	950	260	230	150	123	
29.....	107	95	112	161	3720	2550	902	350	230	155	120	
30.....	108		112	196	3920	2350	822	340	230	173	122	
31.....	106		140		3920		726	330		179		
Total	3175	2841	3151	5179	58278	94070	40032	15803	7919	6031	4102	
Mean	102	98.0	111	173	1880	3140	1290	510	264	195	137	
Max.	118	110	173	269	3980	4300	2200	892	325	227	170	
Min.	85	89	92	104	280	2030	726	318	230	150	112	
Acre-ft.	6270	5640	6820	10300	116000	187000	79300	31400	15700	12000	8150	

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

Discharge of Turkey Creek at Red Cliff for 1919.
Drainage Area, 27 Square Miles.. Altitude, 8,598 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	5	....	....	9	29	104	46	23	....	8	8	5
2....	5	....	....	6	31	79	45	23	....	8	6	6
3....	5	4	....	12	33	91	43	20	....	10	6	6
4....	5	....	....	8	29	85	38	19	....	8	7	4
5....	5	4	....	10	28	79	38	18	....	8	6	6
6....	5	4	....	11	36	79	38	19	....	8	6	4
7....	5	4	....	8	37	79	39	19	....	8	8	4
8....	5	4	....	8	37	72	37	19	....	8	6	6
9....	4	....	....	8	38	76	35	19	....	8	4	3
10....	4	4	....	7	40	79	35	19	....	8	6	5
11....	4	4	....	7	36	79	33	18	....	6	7	5
12....	4	4	....	7	39	79	33	19	14	6	6	4
13....	4	4	....	7	47	91	32	17	....	6	6	4
14....	2	....	....	8	68	91	31	14	....	7	6	5
15....	4	....	....	8	64	85	31	14	....	7	5	4
16....	4	....	....	8	91	85	33	14	....	6	6	2
17....	4	....	....	12	91	85	30	14	....	6	6	2
18....	4	....	....	16	85	85	30	15	....	6	5	3
19....	4	....	....	20	111	79	26	14	....	7	6	3
20....	4	....	....	24	118	70	25	14	....	7	8	2
21....	3	....	....	32	148	72	23	13	....	2	7	2
22....	3	....	....	37	148	66	23	14	....	8	6	2
23....	4	....	....	37	148	66	28	14	....	5	7	3
24....	4	....	....	41	164	64	26	14	....	6	8	2
25....	4	....	....	42	164	56	29	15	....	6	8	2
26....	4	....	....	34	214	56	23	14	....	7	9	4
27....	4	....	....	35	197	54	23	14	....	6	6	3
28....	4	....	....	31	232	51	25	13	14	9	4	3
29....	4	....	8	26	197	48	25	14	....	9	4	2
30....	4	....	7	26	180	46	23	14	....	7	6	3
31....	4	....	10	....	148	....	22	14	....	7	....	3
Total	128	112	155	545	3028	2231	968	504	509	218	189	112
Mean.	4.1	4	5	18.2	97.7	74.4	31.2	16.3	17.0	7.0	6.3	3.6
Max..	5	....	....	42	232	104	46	23	....	10	9	6
Min..	2	....	....	6	28	46	22	13	....	2	4	2
Acre-ft.	252	222	307	1080	6010	4430	1920	1000	1010	430	375	221

Discharge of Turkey Creek at Redcliff for 1920.
Drainage Area, 27 Square Miles. Altitude, 8,598 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	3	3	3	5	18	214	91	24	12	9	....	....
2....	2	2	4	3	22	251	79	23	12	9	6	....
3....	3	3	3	2	25	251	79	22	12	....	6	....
4....	3	2	3	2	30	251	79	22	12	....	6	....
5....	3	2	3	3	34	270	74	20	12	....	6	....
6....	3	3	3	3	38	270	74	20	12	....	6	....
7....	4	3	2	4	41	270	68	19	12	....	....	....
8....	2	3	3	6	49	233	68	19	12	....	....	....
9....	3	2	3	11	63	290	58	19	11	....	....	....
10....	2	2	3	14	58	270	54	19	11	....	....	....
11....	2	2	2	8	49	214	50	19	11	....	....	....
12....	2	2	3	8	41	214	50	20	11	....	....	....
13....	3	2	2	8	38	197	50	19	11	....	....	....
14....	3	2	3	10	38	197	50	17	11	....	....	....
15....	2	3	12	11	41	197	50	17	11	....	....	....
16....	3	2	5	8	45	197	50	17	11	....	....	....
17....	2	2	3	8	58	180	50	17	11	....	....	....
18....	3	2	3	4	63	180	46	17	11	....	....	....
19....	2	2	4	5	85	180	46	17	11	....	....	....
20....	2	2	8	4	118	148	42	16	11	....	....	....
21....	2	2	12	4	133	133	33	15	10	....	....	....
22....	2	2	8	4	133	118	32	13	10	....	....	....
23....	2	2	4	5	133	118	34	13	10	....	....	....
24....	2	2	4	4	164	118	35	13	9	....	....	....
25....	2	2	4	4	214	118	34	13	9	....	....	....
26....	2	2	4	4	214	104	35	13	9	....	....	....
27....	3	3	4	5	133	104	31	13	9	....	....	....
28....	3	3	4	4	180	104	28	14	9	....	....	....
29....	2	3	4	7	251	91	28	12	9	....	....	....
30....	2	....	4	11	251	91	26	12	9	....	....	....
31....	3	....	6	....	232	....	24	12	....	....	....	....
Total	77	67	133	179	2992	5673	1548	525	321	....	....	....
Mean.	2.5	2.3	4.3	6.0	96.5	189	49.9	16.9	10.7	....	....	....
Max..	4	3	12	14	251	333	91	24	12	....	....	....
Min..	2	2	2	2	18	91	24	12	9	....	....	....
Acre-ft.	154	132	264	357	5930	11200	3070	1040	637	....	....	....

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

Discharge of Roaring Fork River at Aspen for 1919.
Drainage Area, 109 Square Miles. Altitude, 7,931 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	29	30	24	40	148	430	289	181	26	41	34	38
2....	37	28	25	40	156	362	350	190	27	40	41	37
3....	35	31	28	38	133	325	338	181	29	35	38	34
4....	35	33	30	38	133	300	278	148	29	45	38	38
5....	33	29	23	42	148	257	257	126	31	58	40	38
6....	31	29	24	40	181	278	228	104	31	58	38	35
7....	30	29	23	37	181	289	237	98	32	49	38	38
8....	32	29	28	33	181	325	208	104	34	49	40	33
9....	31	31	21	28	190	325	199	104	35	54	40	33
10....	32	30	23	31	190	400	181	91	40	49	39	33
11....	30	29	21	33	172	465	164	85	41	45	42	40
12....	32	28	26	35	181	500	156	79	43	45	43	40
13....	30	28	34	33	199	535	156	74	58	45	30	33
14....	29	28	24	35	228	500	164	63	91	47	36	30
15....	33	28	24	34	289	500	164	58	104	46	35	34
16....	30	31	21	33	312	535	164	54	111	38	40	34
17....	31	26	26	35	400	575	148	40	79	35	35	34
18....	32	26	26	49	448	535	148	44	79	40	34	34
19....	31	26	28	74	535	535	164	54	63	45	38	33
20....	29	27	29	91	670	535	148	49	63	45	40	32
21....	29	25	29	126	785	535	133	46	54	46	37	33
22....	29	27	30	172	845	575	118	40	49	41	37	34
23....	29	24	28	228	785	430	104	34	46	41	35	40
24....	24	29	26	218	785	415	91	33	42	46	35	33
25....	27	24	26	218	910	435	91	35	42	42	35	38
26....	28	28	28	199	980	375	85	33	49	42	34	38
27....	31	30	28	199	980	350	79	30	49	42	34	40
28....	33	25	29	164	980	325	98	33	43	38	43	38
29....	33	....	29	133	910	300	111	33	41	41	42	29
30....	31	....	32	133	845	300	133	29	41	40	41	33
31....	34	....	35	....	725	....	126	31	....	37	....	28
Total	960	788	828	2609	14605	12526	5310	2304	1502	1365	1132	1085
Mean.	31.0	28.1	26.7	87.0	471	418	171	74.3	50.1	44.0	37.7	35.0
Max..	37	33	35	228	980	575	350	190	111	58	43	40
Min...	24	24	21	28	133	257	79	29	26	35	30	28
Acre-ft.	1910	1560	1640	5180	29000	24900	10500	4570	2980	2700	2240	2150

Discharge of Roaring Fork River at Aspen for 1920.
Drainage Area, 109 Square Miles. Altitude, 7,931 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	34	26	34	37	72	785	785	218	89	66	54	....
2....	32	25	35	31	79	670	785	218	79	68	54	....
3....	29	27	34	29	107	910	725	237	74	47	54	....
4....	27	25	32	33	94	845	670	218	78	54	54	49
5....	31	26	32	31	121	845	670	237	208	41	52	....
6....	30	24	35	31	134	845	575	199	81	41	54	....
7....	33	31	31	33	127	1270	535	181	75	54	54	....
8....	34	31	40	37	151	1350	500	172	68	54	54	....
9....	26	33	37	45	190	1430	465	151	69	54	54	....
10....	27	30	34	46	208	1120	448	156	70	54	51	....
11....	27	33	34	38	208	1120	430	145	67	54	49	....
12....	24	27	32	38	181	1050	400	126	58	57	58	....
13....	24	33	32	39	172	1050	415	126	54	62	54	....
14....	27	34	40	45	154	1200	388	111	49	66	58	....
15....	34	37	24	45	148	1120	350	104	58	60	53	....
16....	30	37	40	40	139	1050	400	107	59	65	58	....
17....	27	33	31	42	151	980	400	96	63	58	58	....
18....	27	38	34	38	190	845	325	98	64	63	58	....
19....	23	35	34	40	278	670	325	111	58	68	57	....
20....	22	35	44	40	400	670	338	133	62	70	58	....
21....	25	34	40	40	482	785	312	133	63	69	51	....
22....	25	35	33	38	325	980	278	133	68	58	53	....
23....	24	40	31	38	500	980	278	107	63	54	54	....
24....	21	33	27	40	620	910	278	104	63	46	57	....
25....	30	33	27	41	845	910	325	99	74	57	58	....
26....	23	33	35	41	845	785	388	94	56	58	58	....
27....	22	33	35	37	575	980	289	126	68	58	51	....
28....	24	33	33	40	620	910	257	107	70	51	51	....
29....	24	40	30	46	910	910	257	92	46	47	58	....
30....	24	....	32	56	980	845	208	90	56	58	51	....
31....	28	....	33	....	1120	....	218	84	....	54	....	....
Total	838	934	1045	1175	11126	28820	13017	4313	2110	1766	1638	....
Mean.	27.0	32.2	33.7	39.2	359	961	420	139	70.3	57	54.6	....
Max..	34	40	40	56	1120	1430	785	237	208	70	58	....
Min...	21	24	24	29	72	670	208	84	46	41	49	....
Acre-ft.	1660	1850	2070	2330	22100	57200	25800	8550	4180	3500	3250	....

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

Discharge of Roaring Fork at Glenwood Springs for 1919.
Drainage Area, 1,450 Square Miles. Altitude, 5,747 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	475	494	427	797	1900	3980	2540	1320	512	700	591	582
2....	475	463	433	806	2040	3210	2620	1590	531	685	619	540
3....	475	433	421	788	1970	2780	2700	1900	557	655	626	534
4....	488	415	421	719	1900	2460	2390	1590	544	670	619	575
5....	501	427	390	744	2040	2240	2170	1290	544	678	612	554
6....	520	427	410	833	2240	2170	2040	1160	557	670	605	561
7....	534	410	410	702	2170	2460	2320	1070	612	655	591	527
8....	540	427	405	618	2040	2700	2100	1050	612	685	640	527
9....	540	433	421	589	2100	2780	1900	1030	640	700	626	451
10....	540	439	390	561	2100	3210	1780	1080	724	708	598	405
11....	540	433	390	561	1970	3880	1650	989	749	715	598	501
12....	540	433	421	561	1900	3980	1540	917	749	700	598	547
13....	540	421	451	575	1970	4080	1540	872	908	715	557	488
14....	540	421	475	648	2170	3980	1540	827	1110	732	557	433
15....	540	400	427	625	2540	4380	1650	774	1280	724	570	390
16....	540	421	410	632	2620	4280	1470	732	1110	708	570	390
17....	527	433	433	685	3210	4480	1390	700	989	678	564	439
18....	501	457	475	851	3680	4280	1350	700	944	670	557	494
19....	514	439	547	1120	4480	4180	1370	692	953	655	544	520
20....	514	415	596	1360	4900	4080	1270	692	908	655	557	514
21....	514	415	640	1540	5460	3780	1170	670	872	633	564	547
22....	514	427	670	1900	5700	3590	1090	655	827	640	557	561
23....	520	445	685	2320	5580	3300	1020	640	809	648	554	554
24....	514	439	596	2540	5700	3300	962	626	792	662	550	540
25....	475	400	514	2540	5700	3210	926	612	774	724	550	520
26....	475	433	520	2320	6440	2940	890	591	740	732	598	582
27....	475	463	561	2390	6440	2860	890	577	749	724	550	547
28....	475	421	603	1970	6690	2860	917	570	783	662	538	520
29....	475	....	648	1840	6940	2780	1100	570	766	662	550	514
30....	494	....	744	1780	6440	2700	1370	544	740	715	577	501
31....	501	....	788	....	5460	....	1270	531	....	715	....	527
Total	15816	12084	15722	35915	116490	100910	48935	27561	23385	21275	17387	15885
Mean..	510	432	507	1200	3760	3360	1580	889	780	686	580	512
Max...	540	494	788	2540	6940	4480	2700	1900	1280	732	640	582
Min...	475	400	390	561	1900	2170	890	531	512	633	538	390
Acre-ft.	31400	24000	31200	71400	231000	200900	97200	54700	46400	42200	34500	31500

Discharge of Roaring Fork at Glenwood Springs for 1920.
Drainage Area, 1,450 Square Miles. Altitude, 5,747 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	520	445	433	469	1130	10200	6190	2040	935	817	711	....
2....	501	445	445	475	1400	8800	6190	1900	905	799	677	....
3....	540	433	451	469	1650	8250	6190	2390	915	781	645	....
4....	561	427	400	439	1710	7460	6440	2320	915	763	660	....
5....	561	427	433	469	2100	7720	6060	2170	895	754	668	....
6....	534	421	427	463	2320	7980	5120	1970	895	736	668	....
7....	494	400	380	475	2620	9360	4700	1840	905	728	668	....
8....	469	427	390	561	2940	9920	4380	1710	915	728	660	....
9....	445	433	439	648	3400	10800	4280	1650	935	720	652	....
10....	494	410	433	788	3680	9640	3980	1540	915	772	638	....
11....	488	410	427	744	3400	8520	3980	1540	855	745	622	....
12....	475	380	410	648	3120	7980	3780	1430	835	736	630	....
13....	488	415	415	632	3030	8520	3780	1430	817	728	608	....
14....	534	405	439	670	3500	8520	3500	1320	790	720	600	....
15....	545	390	421	728	3030	8250	3400	1320	772	702	592	....
16....	556	390	395	797	2860	8250	3400	1260	754	711	585	....
17....	568	385	475	719	3030	7200	3210	1210	763	702	600	....
18....	501	400	427	632	3980	6440	3210	1180	772	702	585	....
19....	475	405	400	589	5010	5820	2860	1180	763	728	585	....
20....	482	421	451	596	6190	5460	2860	1290	745	720	592	....
21....	469	405	475	610	7200	5820	2860	1300	763	711	600	....
22....	469	421	540	568	9080	6440	2620	1240	781	686	578	....
23....	463	457	554	589	7720	6690	3210	1150	781	677	600	....
24....	445	433	520	610	7460	6690	3030	1110	772	677	552	....
25....	427	410	527	610	8800	6690	2740	1070	865	677	572	....
26....	439	405	508	582	9640	6690	3300	1050	855	702	572	....
27....	433	431	501	582	7980	6440	2620	1080	855	711	578	....
28....	427	457	469	589	7980	6440	2240	1110	845	686	559	....
29....	433	433	451	648	8800	6440	2100	1050	817	677	486	....
30....	433	....	451	806	9360	6190	1970	1010	808	694	481	....
31....	433	....	469	....	9920	....	1900	980	....	728	....	....
Total	15102	12121	13956	18205	154040	229620	116100	44840	25138	22418	18224	....
Mean..	487	418	450	607	4970	7650	3750	1450	838	723	607	....
Max...	568	457	554	806	9920	10800	6440	2390	935	817	711	....
Min...	427	380	380	439	1130	5460	1900	980	745	677	481	....
Acre-ft.	29900	24000	27700	36100	306000	455000	231000	89200	49900	44500	36100	....

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

Discharge of Castle Creek near Aspen for 1919.
Drainage Area, 72 Square Miles. Altitude, 7,931 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	30	34	31	31	73	210	268	225	68	60	50	48
2....	35	34	28	31	72	200	292	182	68	58	50	46
3....	36	34	25	29	73	180	295	182	68	58	50	48
4....	36	32	27	29	83	160	252	150	64	61	52	47
5....	36	34	29	30	80	150	225	119	68	58	51	46
6....	36	34	29	31	90	160	222	110	72	55	51	45
7....	37	32	30	30	90	168	222	121	76	55	51	43
8....	37	30	31	29	91	178	205	123	73	58	51	42
9....	37	30	32	28	97	188	190	112	78	56	51	30
10....	36	30	31	28	97	240	178	110	90	55	51	35
11....	36	30	31	28	81	283	165	102	81	56	51	41
12....	36	30	31	28	80	265	161	102	91	56	47	45
13....	36	29	34	29	84	277	188	97	108	58	47	42
14....	35	30	35	31	102	295	178	90	161	58	50	43
15....	35	29	32	30	125	330	205	86	152	58	50	45
16....	36	28	32	30	135	348	165	86	119	56	51	45
17....	36	29	32	34	172	348	147	88	104	55	51	45
18....	36	31	34	42	205	348	141	86	99	55	51	45
19....	36	32	34	48	235	330	141	88	90	54	51	45
20....	36	31	34	56	260	312	129	86	84	51	51	43
21....	34	31	32	61	286	286	121	80	80	50	51	43
22....	32	30	32	70	295	280	114	78	75	52	47	43
23....	34	31	32	84	283	277	106	76	73	55	48	43
24....	32	30	32	97	295	286	112	75	70	55	47	43
25....	30	29	32	102	312	283	112	73	67	55	47	43
26....	29	31	31	91	348	268	112	73	67	55	48	43
27....	31	29	30	90	348	265	115	75	66	55	45	42
28....	29	32	30	81	365	268	117	75	66	50	47	42
29....	30	...	30	75	348	280	129	70	64	54	47	42
30....	30	...	34	73	312	277	198	67	61	54	48	41
31....	32	...	32	...	265	...	172	66	...	54	...	41
Total	1057	866	969	1476	5782	7740	5377	3153	2503	1720	1483	1335
Mean.	34.1	30.9	31.3	49.2	187	258	173	102	83.4	55.5	49.4	43.1
Max..	37	34	35	102	365	348	295	225	161	61	52	48
Min..	29	28	25	28	72	150	106	66	61	50	45	30
Acre-ft.	2100	1720	1920	2930	11500	15400	10600	6270	4960	3410	2940	2650

Discharge of Frying Pan Creek at Thomasville for 1919.
Drainage Area, 175 Square Miles. Altitude, 7,968 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	...	...	...	53	395	770	395	218	52	48	43	...
2....	...	...	...	53	418	680	462	303	52	45	47	...
3....	...	...	...	53	330	580	440	338	58	43	45	...
4....	...	...	...	53	310	540	310	243	57	46	42	...
5....	...	...	...	50	350	470	274	183	54	50	46	...
6....	...	...	...	46	440	510	274	154	54	50	42	...
7....	...	...	...	42	418	540	290	141	56	49	49	...
8....	...	...	...	39	395	585	280	158	52	53	41	...
9....	...	...	...	42	395	612	274	145	59	59	39	...
10....	...	...	...	45	395	778	240	149	85	58	39	...
11....	...	...	...	48	395	805	224	130	74	58	39	...
12....	...	...	...	51	395	865	208	123	70	57	39	...
13....	...	...	39	61	418	865	240	108	104	64	39	...
14....	...	...	...	71	510	865	274	98	166	66	39	...
15....	...	...	39	79	535	925	274	96	152	66	40	...
16....	...	...	...	71	560	865	274	94	123	58	40	...
17....	...	...	...	87	695	925	230	92	102	60	39	...
18....	...	...	39	130	925	865	200	90	96	52	38	...
19....	...	...	...	180	1120	750	230	88	104	56	37	...
20....	...	...	...	257	1180	750	190	85	88	44	38	...
21....	...	...	...	310	1310	695	152	78	79	41	39	...
22....	...	...	...	440	1310	640	149	71	71	43	39	...
23....	...	...	...	560	1310	585	138	68	64	42	39	...
24....	...	...	...	560	1240	612	119	66	61	41	39	...
25....	...	...	...	535	1240	560	121	64	58	43	40	...
26....	...	...	...	462	1380	510	119	61	54	46	40	...
27....	...	...	...	418	1380	485	123	60	54	42	39	44
28....	...	...	...	330	1380	462	130	64	54	39	39	...
29....	...	...	...	292	1440	440	166	58	52	38	40	...
30....	...	...	...	330	1310	418	200	54	50	37	40	...
31....	...	...	...	...	1130	...	194	53	...	39	...	...
Total	...	...	...	5739	25009	19952	7194	3713	2255	1533	1215	...
Mean.	...	...	...	191	807	665	232	120	75.2	49.5	40.5	42
Max..	...	...	...	560	1440	925	462	338	166	66	49	...
Min..	...	...	...	39	310	418	119	53	50	37	37	...
Acre-ft.	...	...	...	11400	49600	39600	14300	7380	4470	3040	2410	2580

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

Discharge of Frying Pan Creek at Thomasville for 1920.
Drainage Area, 175 Square Miles. Altitude, 7,968 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....					170	1720						
2....					194	1510						
3....	41			45	257	1380						
4....					292	1310						
5....					372	1440						
6....			41		395	1650						
7....		45			440	1790						
8....					505	1860						
9....					585	1860						
10....	39			100	612	1650						
11....					510	1510						
12....					462	1440						
13....			39		462	1510						
14....		39			510	1510						
15....				92	462	1460						
16....					470	1460						
17....	39			88	480	1300						
18....					680	1170						
19....					880	1050						
20....			49		1080	1050						
21....		39			1270	1050						
22....					1310	1180						
23....					1240	1180						
24....	39			63	1650	1180						
25....					1930	1120						
26....					1860	1120						
27....			45		1650	1100						
28....		41			1580	1100						
29....					1720	1080						
30....					1790	1060						
31....	39				1860	....						
Total	....	....	....	....	27678	40800	....	....	....	....	....	....
Mean.	39	41	44	86	893	1360	....	....	....	....	....	....
Max..	....	....	....	....	1930	1860	....	....	....	....	....	....
Min..	....	....	....	....	170	1050	....	....	....	....	....	....
Acre-ft.	2400	2360	2700	5120	54900	80900	....	....	....	....	....	....

Discharge of East River at Almont for 1919.
Drainage Area, 295 Square Miles. Altitude, 8,031 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	45	63	53	96	745	962	650	328	120	108	116	85
2....	39	62	53	106	745	905	650	348	120	108	116	85
3....	39	61	54	108	650	745	745	408	120	108	114	83
4....	47	61	54	120	695	695	605	315	120	120	116	82
5....	49	62	54	128	850	695	488	279	120	130	116	77
6....	49	64	55	151	905	695	450	250	120	130	116	73
7....	49	65	56	145	905	745	450	246	120	130	108	68
8....	48	67	57	128	850	745	408	250	120	130	104	63
9....	47	68	58	135	905	745	348	242	125	130	100	60
10....	47	67	60	125	850	850	285	210	125	130	97	60
11....	47	65	62	120	745	962	255	203	120	125	94	61
12....	48	59	63	122	695	850	255	203	120	116	96	63
13....	50	61	63	125	695	850	261	203	120	116	98	65
14....	51	65	63	130	850	850	291	196	237	116	100	69
15....	53	65	63	125	905	850	273	182	246	116	104	71
16....	54	65	63	132	1020	850	255	169	182	116	110	73
17....	56	63	63	145	1140	850	334	169	160	116	116	75
18....	57	60	66	232	1250	905	303	169	142	116	120	75
19....	59	58	71	374	1360	905	291	160	132	116	116	75
20....	60	56	73	450	1540	905	303	145	122	116	116	75
21....	60	56	75	488	1600	850	250	142	120	116	114	77
22....	61	56	75	695	1650	850	219	140	118	116	112	77
23....	62	55	75	795	1600	795	210	135	116	116	108	77
24....	63	54	75	850	1540	745	196	130	116	116	108	76
25....	64	53	75	850	1480	745	182	130	112	116	97	75
26....	65	53	73	745	1600	745	172	128	108	116	91	75
27....	65	52	76	695	1650	695	169	125	108	116	85	75
28....	65	53	79	605	1710	695	169	120	108	116	81	75
29....	65	....	81	605	1650	695	178	120	108	116	83	77
30....	65	....	85	650	1540	695	189	120	108	116	85	80
31....	65	....	96	....	1250	....	360	120	....	116	....	77
Total	1694	1689	2069	10175	35570	24069	10194	6085	3913	3669	3137	2279
Mean.	54.6	60.3	66.7	339	1150	802	329	196	130	118	105	73.5
Max..	65	68	96	850	1710	962	745	408	246	130	120	85
Min..	39	52	53	96	650	695	169	120	108	108	81	60
Acre-ft.	3360	3350	4100	20200	70700	47700	20200	12100	7740	7260	6250	4520

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

Discharge of East River at Almont for 1920.

Drainage Area, 295 Square Miles. Altitude, 8,031 Feet Above Sea Level.											
Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov. Dec.
1.....	75	75	85	85	297	3390	2060	605	196	112	100
2.....	72	75	85	85	334	3540	2060	565	196	112	100
3.....	70	73	85	85	394	3120	1940	695	196	112	100
4.....	69	75	85	85	443	2880	1940	650	196	112	100
5.....	67	77	85	85	573	2760	1820	650	196	112	100
6.....	67	77	85	85	614	2880	1600	565	196	112	100
7.....	67	75	85	85	785	3390	1940	488	196	112	100
8.....	66	72	85	85	1140	3700	1310	450	163	112	100
9.....	64	72	85	110	1310	3870	1190	429	163	112	100
10.....	63	70	85	110	1360	3390	1190	429	163	112	100
11.....	63	70	85	110	1250	2880	1140	429	135	112	100
12.....	63	70	85	114	1080	2640	1020	394	135	112	100
13.....	63	71	85	116	1140	2880	850	328	135	112	100
14.....	65	71	85	120	1190	3000	850	242	135	120	100
15.....	65	73	85	120	1020	2880	962	242	135	100	100
16.....	67	77	85	120	962	2640	850	242	135	100	100
17.....	70	81	85	112	1080	2280	695	242	135	100	100
18.....	75	82	85	104	1600	2060	695	242	135	100	100
19.....	80	78	85	106	2000	1940	650	297	135	100	100
20.....	77	75	85	108	2230	2060	745	297	135	100	100
21.....	73	73	85	110	2760	2170	695	297	135	100	100
22.....	70	71	85	112	2640	2170	605	297	135	100	100
23.....	71	71	85	114	2280	2170	565	297	135	100	100
24.....	75	71	85	128	2280	2170	565	297	135	100	100
25.....	79	75	85	132	2880	2170	905	267	135	100	100
26.....	80	77	85	135	2880	2400	905	242	135	100	100
27.....	79	81	85	142	2400	2170	695	242	135	100	100
28.....	79	83	85	160	2520	2170	695	242	135	100	100
29.....	85	85	85	203	2760	2170	605	228	135	100	100
30.....	80	.....	85	242	3390	2170	565	210	112	100	100
31.....	75	.....	85	.....	3700	.....	565	200	.....	100	.....
Total	2214	2176	2635	3511	51292	80110	32872	11300	4538	3276	3000
Mean.	71.4	75.0	85	117	1650	2670	1060	365	151	106	100
Max.	.....	.....	85	242	3700	3870	2060	695	196	120	100
Min.	.....	.....	85	85	297	1940	565	200	112	100	100
Acre-ft.	4390	4310	5230	6960	101000	159000	65200	22400	8980	6520	5950

Discharge of Taylor River at Almont for 1919.

Drainage Area, 413 Square Miles. Altitude, 8,031 Feet Above Sea Level.											
Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov. Dec.
1.....	115	93	109	143	438	890	605	498	169	169	183 155
2.....	100	90	109	149	448	740	605	498	169	169	183 155
3.....	90	90	110	155	380	690	945	448	162	169	176 155
4.....	90	90	112	155	416	648	605	375	162	190	176 149
5.....	95	90	112	166	465	605	530	328	158	198	176 140
6.....	100	92	109	180	498	690	530	315	172	198	176 134
7.....	100	95	108	186	498	740	530	315	190	198	176 125
8.....	100	96	106	172	465	740	465	302	190	198	176 115
9.....	99	98	106	155	465	840	438	284	198	206	176 98
10.....	99	100	106	152	454	1000	360	279	194	206	172 84
11.....	99	100	106	166	438	1000	360	279	190	190	169 80
12.....	99	104	106	152	438	945	360	274	190	183	149 90
13.....	99	108	106	183	438	890	365	266	190	183	140 96
14.....	99	110	106	183	568	945	426	262	315	183	140 100
15.....	99	114	106	183	690	945	375	262	292	183	143 110
16.....	99	115	108	202	740	945	375	262	230	183	155 125
17.....	99	112	92	230	840	945	385	262	246	183	155 131
18.....	99	109	118	370	740	790	356	262	206	183	169 134
19.....	99	108	149	498	1180	840	400	342	198	183	183 137
20.....	99	106	166	498	1450	740	375	226	194	183	186 137
21.....	99	106	137	465	1450	740	356	206	190	183	180 140
22.....	98	106	131	498	1600	690	324	190	190	183	176 140
23.....	97	106	131	530	1450	648	315	190	186	183	176 140
24.....	97	106	131	498	1320	648	292	190	180	183	176 137
25.....	97	106	128	498	1180	648	270	190	176	183	176 131
26.....	98	106	115	416	1600	605	270	190	169	183	176 125
27.....	98	108	115	410	1600	605	270	190	169	183	176 125
28.....	98	109	115	385	1600	605	270	190	169	182	169 131
29.....	97	.....	118	346	1600	605	370	190	169	183	166 143
30.....	96	.....	125	421	1600	605	410	183	169	183	155 149
31.....	95	.....	143	.....	1320	.....	438	176	.....	183	 149
Total	3048	2873	3639	8745	28369	22967	12975	8424	5782	5751	5085 3960
Mean.	98.3	103	117	292	915	766	419	272	193	186	170 128
Max.	115	115	166	530	1600	1000	945	498	315	206	186 155
Min.	90	90	92	143	380	605	270	176	158	169	140 80
Acre-ft.	6040	5720	7190	17400	56300	45600	25800	16700	11500	11400	10100 7870

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

Discharge of Taylor River at Almont for 1920.

Drainage Area, 413 Square Miles. Altitude, 8,031 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....			140	137	222	2640	1620	560	260	222	208	
2....			140	137	252	2480	1620	525	260	222	208	
3....			140	137	272	2640	1620	525	260	222	208	
4....			140	137	284	2320	1620	490	260	222	208	
5....			140	137	402	2320	1470	466	252	222	208	
6....			140	137	460	2320	1340	424	248	222	208	
7....			140	143	497	2640	1210	408	244	216	208	
8....			140	137	640	2800	1150	408	236	216	208	
9....			140	219	820	3600	1090	408	230	208	208	
10....			140	212	870	2640	1090	408	230	202	208	
11....			140	219	730	2480	1090	408	222	202	208	
12....			140	208	685	2480	920	408	222	194	208	
13....			140	194	685	2480	920	370	222	188	208	
14....			140	202	640	2480	820	355	222	188	208	
15....			140	202	560	2320	820	355	222	216	208	
16....			140	202	560	2160	820	355	222	216	208	
17....			140	202	640	2000	640	320	222	208	208	
18....			140	184	1090	1840	640	307	222	208	208	
19....			140	167	1760	1690	640	355	222	208	208	
20....			140	152	1690	1690	775	380	222	208	208	
21....			140	137	1840	1760	775	355	222	208	208	
22....			140	137	1760	1760	685	325	222	208	208	
23....			140	137	1620	1760	730	316	222	208	208	
24....			140	137	1540	1760	685	307	222	208	188	
25....			140	137	1760	1840	685	307	222	208	188	
26....			140	137	2000	2000	975	307	222	208	188	
27....			140	137	1620	2000	685	307	222	208	188	
28....			140	137	1690	1760	685	307	222	208	180	
29....			140	158	1840	1760	640	307	222	208	174	
30....			140	184	2160	1760	560	284	222	208	174	
31....			140	....	2480	1760	525	264	....	208	....	
Total			4340	4903	34069	66180	29545	11621	6920	6498	6064	
Mean.	130	140	140	163	1100	2210	953	375	231	210	202	
Max.	....	....	140	219	2480	3600	1620	560	260	222	208	
Min.	....	....	140	137	222	1690	525	264	222	188	174	
Acre-ft.	7990	8050	8610	9700	67600	132000	58600	23100	13700	12900	12000	

Discharge of Gunnison River near Gunnison for 1919.

Drainage Area, 1,010 Square Miles. Altitude, 7,673 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	132	150	150	325	1120	1880	953	834	312	280	325	302
2....	126	147	154	302	1220	1540	926	761	312	280	325	325
3....	129	141	162	280	1150	1220	926	962	312	260	325	289
4....	132	142	166	260	1170	1120	1100	874	289	248	325	316
5....	134	147	170	325	1310	1120	1100	917	302	272	325	325
6....	135	150	170	325	1400	1090	1000	691	320	289	325	325
7....	138	160	170	260	1350	1150	930	656	334	280	325	289
8....	136	170	170	194	1310	1120	842	691	348	316	325	325
9....	144	182	185	185	1290	1120	818	691	356	272	325	325
10....	147	182	194	200	1220	1220	842	656	366	272	302	302
11....	147	182	208	240	1350	1470	803	586	395	280	316	272
12....	147	176	220	220	1070	1470	768	586	415	280	316	240
13....	147	170	232	200	998	1620	733	518	445	280	325	185
14....	147	166	240	220	1290	1470	698	518	524	260	325	170
15....	147	164	256	260	1290	1620	768	470	500	280	316	160
16....	147	162	264	260	1400	1620	733	470	455	280	302	166
17....	147	160	280	302	1700	1790	733	470	445	302	289	182
18....	147	158	280	395	2060	1620	663	450	380	289	289	208
19....	147	154	302	670	2440	1470	662	435	320	325	280	216
20....	147	153	302	775	2820	1350	628	420	312	325	280	216
21....	147	154	280	935	3100	1350	593	410	312	325	272	216
22....	147	154	280	1170	2920	1350	579	400	312	316	272	232
23....	150	154	280	1400	3010	1290	537	370	312	325	272	240
24....	150	154	280	1290	2720	1220	558	361	302	325	272	240
25....	150	150	280	1290	2820	1190	537	361	289	325	280	240
26....	150	150	280	1220	2820	1150	524	361	289	325	280	240
27....	147	150	260	1090	3100	1120	558	352	289	325	272	240
28....	147	150	260	962	3100	1120	476	325	298	325	289	240
29....	150	....	240	998	3100	1120	677	316	280	325	289	240
30....	150	....	280	1070	2820	1020	678	316	280	325	289	240
31....	150	....	316	....	2630	....	733	316	....	325	....	240
Total	4461	4432	7311	17623	61098	40010	23167	16544	10405	9236	9052	7746
Mean.	144	158	236	587	1970	1330	747	534	347	298	302	250
Max.	150	182	316	1400	3100	1880	1100	962	524	325	325	325
Min.	126	141	150	185	998	1020	476	316	280	248	272	160
Acre-ft.	8850	8780	14500	34900	121000	79100	45900	32800	20600	18300	18000	15400

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

Discharge of Gunnison River near Gunnison for 1920.
Drainage Area, 1,010 Square Miles. Altitude, 7,673 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	240	208	289	220	705	7480	3960	1290	513	393	330	....
2....	240	200	298	220	810	6820	3580	1130	513	393	330	....
3....	240	200	302	240	810	6730	3700	1240	513	393	307	....
4....	240	200	298	240	980	6520	3580	1130	513	366	330	....
5....	240	200	316	260	1290	6520	3340	1180	513	340	340	....
6....	224	200	325	325	1290	6380	3000	1130	513	340	356	....
7....	200	200	348	325	1790	6820	2680	985	513	340	330	....
8....	182	200	395	420	2160	7100	2480	1030	481	340	330	....
9....	170	197	460	500	2440	6820	2290	1030	450	340	330	....
10....	168	200	370	470	2440	6240	2110	900	450	340	330	....
11....	162	197	348	470	2060	5570	2110	900	393	340	356	....
12....	156	194	325	445	2060	5220	2110	860	393	340	284	....
13....	154	188	445	395	2480	5220	1940	820	393	340	284	....
14....	154	188	348	420	2250	5570	1860	780	393	340	284	....
15....	156	194	302	395	1970	5510	1780	780	393	393	284	....
16....	160	200	260	348	1840	5220	1700	780	421	340	330	....
17....	160	220	280	325	2340	4640	1620	705	393	340	330	....
18....	162	240	260	325	2780	4090	1620	705	393	340	330	....
19....	162	264	260	302	3720	3830	1620	780	393	330	307	....
20....	166	280	280	325	4750	3830	1620	900	393	330	307	....
21....	166	280	325	302	5080	3830	1620	742	393	330	330	....
22....	166	280	302	280	5220	3960	1700	742	293	330	330	....
23....	170	280	280	272	4930	3700	1620	705	393	330	307	....
24....	194	260	260	325	5510	4220	1620	635	393	330	307	....
25....	208	240	240	325	5860	4220	1620	600	421	330	284	....
26....	224	248	220	348	6960	4220	1940	600	421	330	307	....
27....	232	260	200	470	6670	4360	1550	600	393	330	307	....
28....	240	280	194	420	6090	4090	1260	600	393	330	307	....
29....	240	289	200	420	6240	3960	1240	600	393	330	284	....
30....	232	....	240	544	6380	3830	1240	565	393	330	275	....
31....	216	....	200	....	6670	....	1180	545	....	356	....	....
Total	6024	6587	9170	10576	106575	156520	65290	25989	12916	10674	9447	....
Mean.	225	235	296	353	3440	5220	2110	838	431	344	315	....
Max.	....	....	460	544	6960	7480	3960	1290	513	393	356	....
Min.	....	....	194	220	705	3700	1180	545	393	330	275	....
Acre-ft.	13800	13500	18200	21000	212000	311000	130000	51500	25600	21200	18700	....

Discharge of Gunnison River near Grand Junction for 1919.
Drainage Area, 7,920 Square Miles. Altitude, 4,573 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	795	870	870	2940	5640	8310	2880	1440	411	657	1300	1140
2....	760	870	870	2830	6260	6730	2740	2120	626	620	1160	1160
3....	700	830	910	2530	6920	5260	3350	3850	494	620	1210	1190
4....	730	830	950	2530	6480	4890	3340	3060	490	625	1300	1200
5....	760	830	990	2570	6920	3930	3200	2600	477	645	1300	1200
6....	730	800	950	3170	7800	3760	2740	1890	461	635	1260	1180
7....	760	830	830	3180	7800	3820	2610	1760	471	760	1210	1130
8....	760	830	830	2460	7580	4170	2900	1760	853	735	1210	1060
9....	730	830	830	2200	7150	4340	2460	1540	770	783	1330	980
10....	760	910	795	1660	6920	4520	2080	1520	675	835	1330	915
11....	760	910	760	1460	7360	4880	1970	1680	576	895	1220	950
12....	760	950	795	1510	6280	5680	1650	1320	626	975	1200	1030
13....	795	950	990	1660	5230	5460	1600	1080	645	760	1220	974
14....	830	910	1490	2000	5640	5670	1870	980	665	902	1160	950
15....	910	870	1280	2330	6280	6100	2340	755	830	960	1160	910
16....	760	910	1130	2080	6920	6500	2880	591	1200	1030	1080	886
17....	760	910	1080	2330	7820	6500	2580	542	1140	1030	1160	870
18....	760	910	1130	2590	8540	6080	2110	547	1220	1030	1220	854
19....	760	870	1490	4140	9570	5660	1780	503	980	1030	1220	854
20....	870	910	1830	6060	10400	5240	2460	503	1040	1030	1220	854
21....	870	910	1830	7140	10900	4860	1760	499	810	990	1280	870
22....	870	910	2080	8280	11200	4670	1620	493	700	950	1240	870
23....	870	870	2080	9040	10400	4480	1300	483	695	870	1240	854
24....	870	910	1830	9560	9830	4140	1180	381	645	870	1160	870
25....	910	910	1950	9300	8780	4320	1070	356	680	950	1160	886
26....	910	830	1710	8770	8790	4140	935	326	660	1030	1160	902
27....	910	870	1600	7360	9840	3520	840	226	675	1210	877	910
28....	910	910	1490	6470	10100	3350	895	326	680	1300	630	934
29....	830	....	1710	5630	10400	3190	925	431	626	1210	1200	942
30....	910	....	1950	5630	10600	3190	1020	436	650	1030	1140	950
31....	870	....	1950	....	10400	....	2490	416	....	1080	....	950
Total	25180	24650	40980	129410	254750	147360	63575	34514	21471	29047	35557	30225
Mean.	812	880	1280	4310	8220	4910	2050	1110	716	905	1190	975
Max.	910	950	2020	9560	11200	8310	3350	3850	1200	1300	1330	1200
Min.	700	800	760	1460	5230	3190	840	326	411	620	630	854
Acre-ft.	49900	48900	81200	256000	505000	292000	126000	68200	42600	55600	70800	60000

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

Discharge of Gunnison River near Grand Junction for 1920.
Drainage Area, 7,920 Square Miles. Altitude, 4,573 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	918	1030	910	1240	4520	27400	9500	1940	545	1220	1780	....
2....	902	1060	1080	1360	6510	25500	8950	2180	535	1180	1700	....
3....	902	1100	1300	1360	7900	23400	8420	2050	490	1150	1670	....
4....	950	1150	1160	1180	7650	21400	10100	2670	480	1150	1600	....
5....	990	1190	910	1040	8940	20400	11300	2930	488	1150	1550	....
6....	966	1160	870	1020	10400	20000	7190	2670	578	1140	1690	....
7....	934	1140	870	1060	11900	20700	6520	2410	578	1140	1860	....
8....	902	1140	910	1520	13600	21400	5740	1960	620	1140	1860	....
9....	870	1120	910	2020	14900	21400	5200	1860	660	1070	1760	....
10....	838	1120	950	2900	16600	21400	5680	1760	672	1040	1700	....
11....	806	1160	1040	3450	14600	20000	4210	1860	692	1000	1560	....
12....	776	1210	1020	2640	12600	17700	4520	1660	652	1000	1540	....
13....	790	1300	1020	2140	11900	16600	4360	1480	617	1000	1440	....
14....	790	1400	940	2140	16600	16300	3760	1330	595	1080	1380	....
15....	790	1420	950	2640	16300	16300	3470	1180	550	1070	1340	....
16....	830	1510	995	2780	12600	15600	3190	1010	590	1300	1340	....
17....	854	1550	955	2780	13300	14600	3330	1670	542	1300	1260	....
18....	886	1620	925	2650	15600	12900	3190	805	527	1260	1220	....
19....	910	1680	972	1900	20000	11300	3190	808	527	1220	1210	....
20....	926	1740	1040	1710	23400	10400	2910	805	527	1220	1260	....
21....	950	1800	975	1720	26200	10400	2880	1030	548	1560	1240	....
22....	990	1860	985	1680	31500	10400	2790	1200	595	1380	1220	....
23....	1010	1860	1440	1360	35200	11000	2660	1140	1050	1550	1140	....
24....	1030	1740	1660	1440	30100	11000	2520	910	905	1640	1130	....
25....	1030	1160	1380	1320	30100	10100	2520	855	1090	1550	1150	....
26....	1030	990	1340	1540	31500	9780	2920	970	1220	1540	1090	....
27....	1010	870	1310	1540	30500	11000	3340	652	1300	1620	1100	....
28....	950	910	1300	1440	27700	11300	2650	670	1380	1700	1060	....
29....	950	950	1180	1540	27400	10700	2280	670	1460	1610	1080	....
30....	990	....	1110	2780	27400	10100	2030	710	1300	1610	896	....
31....	1010	....	1120	....	27700	....	1920	690	....	1700	....	....
Total	28480	37940	33527	55890	585120	480480	143240	44535	22313	40290	41826	....
Mean.	919	1310	1080	1860	18900	16000	4620	1440	744	1300	1390	....
Max..	1030	1860	1660	3450	35200	27400	11300	2930	1460	1700	1860	....
Min...	776	870	870	1020	4520	9780	1920	652	480	1000	896	....
Acre-ft.	56500	75400	66400	111000	1160000	952000	284000	88500	44300	79900	82700	....

Discharge of Tomichi Creek at Sargents for 1919.
Drainage Area, 145 Square Miles. Altitude, 8,467 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....					125	309	78	68	35	24	26	....
2....					140	228	83	69	35	24	....	....
3....					126	210	125	69	35	24	....	....
4....					132	204	102	62	35	25	....	....
5....					148	190	83	56	39	24	....	....
6....					156	170	83	49	41	24	....	....
7....					162	166	72	47	46	24	....	....
8....					164	162	68	49	43	27	....	....
9....					168	164	63	52	41	25	....	....
10....					162	150	61	53	40	25	....	....
11....					142	150	59	47	43	26	....	....
12....				53	134	148	66	46	40	24	....	....
13....				47	144	146	90	42	40	27	....	....
14....				47	158	130	90	39	46	29	....	....
15....				43	188	126	76	31	47	30	....	....
16....				42	201	128	71	42	41	30	....	....
17....				51	239	125	70	42	40	30	....	....
18....				64	267	121	67	44	39	27	....	....
19....				81	298	121	68	41	39	31	....	....
20....				89	326	112	63	38	36	30	....	....
21....				89	378	112	58	39	35	28	....	....
22....				106	378	106	57	43	34	31	....	....
23....				121	358	110	55	38	32	31	....	....
24....				132	366	112	55	34	33	32	....	....
25....				125	330	116	53	35	32	32	....	....
26....				112	430	101	57	36	32	35	....	....
27....				107	460	90	58	39	30	39	....	....
28....				114	465	85	61	36	30	31	....	....
29....				121	470	80	70	34	30	34	....	....
30....				117	460	77	74	33	25	46	....	....
31....					442	....	71	33	....	30	....	....
Total				1661	8137	4249	2207	1396	1114	899	....	....
Mean.				874	262	142	712	45.0	37.1	29.0	....	....
Max..				132	470	309	125	69	47	46	....	....
Min...				42	125	77	53	33	25	24	....	....
Acre-ft.				3290	16100	8450	4380	2770	2210	1780	....	....

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

Discharge of Tomichi Creek at Sargents for 1920.
Drainage Area, 145 Square Miles. Altitude, 8,467 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....					109	550	142	80	32	22	28	.....
2.....					112	465	126	66	33	19	21	.....
3.....					121	434	127	68	33	18	20	.....
4.....					123	424	129	73	33	20	22	.....
5.....					156	416	131	67	33	22	36	.....
6.....					154	438	119	62	33	22	35	.....
7.....					162	460	117	58	32	22	29	.....
8.....					158	438	108	48	32	22	26	.....
9.....					162	429	104	48	31	22	24	.....
10.....					175	411	82	49	31	23	20	.....
11.....					160	367	76	47	30	29	20	.....
12.....					146	359	74	45	30	29	18	.....
13.....					144	318	71	44	29	28	16	.....
14.....					144	296	67	48	29	26	14	.....
15.....					134	290	68	48	30	24	12	.....
16.....					125	279	71	50	30	22	6	.....
17.....					126	261	72	49	30	22	12	.....
18.....					338	244	64	53	28	22	18	.....
19.....					490	227	67	53	30	20	24	.....
20.....					495	195	67	57	31	20	24	.....
21.....					410	190	68	54	32	17	22	.....
22.....					410	175	67	48	29	17	20	.....
23.....					398	165	68	53	32	18	18	.....
24.....					426	168	65	41	37	18	18	.....
25.....					460	172	60	39	30	18	18	.....
26.....					470	165	62	39	27	18	18	.....
27.....					455	172	62	39	24	20	18	.....
28.....					40	430	206	62	37	26	20	16
29.....					47	434	158	66	31	25	22	18
30.....					86	446	150	59	30	22	34	20
31.....					475	.....	62	31	.....	32	.....	.....
Total.....					8548	9022	2583	1555	904	688	611	.....
Mean.....					276	301	833	50.2	30.1	22.2	20.4	.....
Max.....					495	550	142	80	37	34	36	.....
Min.....					109	150	59	30	22	17	6	.....
Acre-ft.....					17000	17900	5120	3090	1790	1360	1210	.....

Discharge of Lake Fork at Lake City for 1919.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....				12	84	470	470	155	55	41	28	.....
2.....				15	108	330	470	194	52	47	28	.....
3.....				17	108	280	470	201	51	38	27	.....
4.....				18	110	261	432	181	50	36	28	.....
5.....				21	133	261	362	160	43	36	22	.....
6.....				27	163	280	330	143	44	36	20	.....
7.....				24	188	330	330	141	44	36	20	.....
8.....				20	178	362	362	172	45	39	20	.....
9.....				17	175	362	330	194	47	38	22	.....
10.....				15	175	470	305	160	50	36	24	.....
11.....				14	152	560	261	163	50	36	24	.....
12.....				22	130	612	261	152	52	36	23	.....
13.....				24	146	560	261	125	52	36	22	.....
14.....				29	172	612	280	120	58	38	22	.....
15.....				29	232	722	395	115	78	38	20	.....
16.....				29	280	722	362	103	76	38	20	.....
17.....				34	330	780	305	92	74	36	20	.....
18.....				12	39	432	722	280	86	74	34	22
19.....				11	44	515	665	280	84	72	34	20
20.....				10	50	560	665	280	80	69	34	20
21.....				11	55	612	612	242	76	62	27	20
22.....				12	72	612	560	214	71	55	24	20
23.....				12	101	560	560	188	58	55	24	20
24.....				13	123	432	560	169	52	54	24	18
25.....				13	130	395	560	158	58	51	30	18
26.....				14	125	470	470	146	60	50	29	20
27.....				14	118	560	470	143	65	47	24	20
28.....				14	90	665	470	136	62	50	26	23
29.....				13	78	722	470	143	58	50	24	20
30.....				11	76	722	470	141	58	43	24	19
31.....				12	.....	665	.....	136	55	.....	26	.....
Total.....				172	1468	10786	15228	8642	3494	1653	1025	650
Mean.....				12.3	48.9	348	508	279	113	55.1	33.1	21.7
Max.....				14	130	722	780	470	201	78	47	28
Min.....				10	12	84	261	136	52	43	24	18
Acre-ft.....				342	2910	21400	30200	17200	6950	3280	2040	1290

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

Discharge of Lake Fork at Lake City for 1920.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....			20	14	21	780	515	172	51	44	39	32
2....			20	14	26	780	560	169	43	44	40	32
3....			20	12	30	722	560	163	36	44	39	32
4....			20	14	39	722	560	160	34	41	39	32
5....			20	12	52	665	515	155	31	40	39	.....
6....			23	12	115	665	560	141	31	40	38	.....
7....			27	17	181	722	515	125	32	40	38	.....
8....			29	18	169	780	470	118	35	39	36	.....
9....			31	20	188	780	395	115	32	38	36	.....
10....			31	22	214	900	330	113	31	35	34	.....
11....			34	22	221	840	280	113	30	34	35	.....
12....			34	21	188	780	280	113	28	32	34	.....
13....			33	20	191	780	242	103	27	31	34	.....
14....			31	20	191	722	242	96	26	31	34	.....
15....			27	20	181	711	242	92	24	41	34	.....
16....			19	20	152	665	261	86	23	44	34	.....
17....			18	22	152	665	261	80	21	44	31	.....
18....			17	22	125	612	242	80	20	41	30	.....
19....			17	21	178	560	238	74	20	41	29	.....
20....			16	17	305	560	228	106	21	43	30	.....
21....			15	15	470	612	224	110	29	44	29	.....
22....			14	20	515	612	221	106	35	41	29	.....
23....			13	20	515	612	210	101	39	39	29	.....
24....			15	18	470	612	210	92	45	38	29	.....
25....			14	17	560	612	207	78	45	36	29	.....
26....			13	16	665	612	207	74	45	36	29	.....
27....			12	16	665	560	204	72	44	32	29	.....
28....			12	16	665	560	188	69	44	32	31	.....
29....			14	16	665	560	181	65	44	35	31	.....
30....			16	17	780	560	169	58	44	38	31	.....
31....			15	.....	780	.....	175	57	.....	39	.....	.....
Total			640	531	9669	20323	9692	3256	1010	1197	999	.....
Mean.	16	18	20.6	17.7	312	677	313	105	33.7	38.6	33.3	.....
Max..			34	22	780	900	560	172	51	44	40	.....
Min..			12	12	21	560	169	57	20	31	29	.....
Acre-ft.	984	1040	1270	1050	19200	40300	19200	6460	2010	2370	1980	.....

Discharge of Uncompahgre River and Power House Flume at Ouray for 1919.**Drainage Area, 44 Square Miles. Altitude, 7,710 Feet Above Sea Level.**

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	14	12	14	19	82	230	212	74	16	18	22	16
2....	13	12	15	20	80	187	236	83	16	18	20	17
3....	13	12	14	21	86	163	224	74	15	18	24	17
4....	13	12	14	21	121	165	199	74	15	24	24	17
5....	13	12	14	21	181	187	152	74	15	20	24	17
6....	13	10	14	25	194	210	152	74	13	19	24	16
7....	12	10	14	25	156	223	199	58	10	20	24	16
8....	12	10	14	25	116	236	224	92	11	21	24	16
9....	13	13	14	27	123	248	199	66	10	20	24	16
10....	16	13	14	27	107	310	141	66	12	20	17	16
11....	16	13	14	27	110	378	130	51	12	22	18	16
12....	12	14	14	27	105	323	130	44	13	23	18	16
13....	12	10	14	27	112	348	120	43	28	21	18	16
14....	12	10	14	27	142	396	130	40	66	22	16	16
15....	12	11	14	27	196	378	163	38	41	22	16	16
16....	12	11	14	27	246	378	120	37	39	21	16	16
17....	12	11	14	39	284	344	110	32	30	21	16	16
18....	12	15	14	60	321	320	101	28	27	21	16	16
19....	12	15	14	77	376	317	101	28	27	22	16	16
20....	12	15	14	88	428	304	83	26	28	22	21	16
21....	12	14	14	116	428	304	83	18	40	22	16	19
22....	12	17	16	142	334	286	74	14	28	22	16	19
23....	12	13	15	134	334	286	66	15	22	22	16	19
24....	12	13	15	123	296	299	66	16	21	22	16	19
25....	12	12	12	114	334	274	74	17	20	22	16	19
26....	12	12	12	93	394	224	66	18	20	24	16	19
27....	12	12	16	85	466	236	66	16	18	25	16	19
28....	12	12	16	82	486	236	58	16	23	18	16	19
29....	12	.....	15	73	526	236	74	16	20	20	16	19
30....	12	.....	15	74	486	224	53	16	18	23	16	16
31....	12	.....	15	.....	361	.....	58	15	.....	22	.....	16
Total	388	346	442	1693	8011	8250	3869	1279	674	657	558	527
Mean.	12.5	12.4	14.3	56.4	258	275	125	41.3	22.5	21.2	18.6	17.0
Max..	16	17	16	142	526	396	236	92	66	25	24	19
Min..	12	10	12	19	80	163	58	14	10	18	16	16
Acre-ft.	769	689	879	3360	15900	16400	7690	2540	1340	1300	1110	1050

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

Discharge of Uncompahgre River and Power House Flume at Ouray or 1920.
Drainage Area, 44 Square Miles. Altitude, 7,710 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	19	17	16	22	72	524	307	111	29	29	36	....
2....	18	16	16	22	68	506	281	94	28	28	37	....
3....	18	16	16	22	78	451	258	102	28	27	37	....
4....	18	16	17	22	91	375	258	86	28	31	38	....
5....	18	16	19	22	114	355	232	73	38	26	40	....
6....	11	16	20	22	126	467	195	68	46	26	36	....
7....	11	17	20	24	158	585	182	59	38	26	36	....
8....	11	17	20	25	220	621	182	62	40	26	36	....
9....	11	17	23	31	251	620	159	100	36	27	36	....
10....	11	16	22	30	231	549	159	78	31	26	36	....
11....	11	16	22	23	179	403	159	65	35	26	36	....
12....	11	16	22	22	172	371	159	59	30	32	36	....
13....	16	16	26	25	207	374	170	58	28	26	36	....
14....	18	16	26	23	234	351	159	52	27	28	36	....
15....	18	16	23	26	150	385	159	49	27	32	36	....
16....	20	16	23	23	103	382	159	49	26	33	36	....
17....	18	16	22	23	122	292	148	48	27	29	37	....
18....	18	17	22	23	180	254	137	49	26	27	37	....
19....	20	17	22	23	314	283	137	68	27	27	35	....
20....	19	17	32	23	333	299	137	59	32	28	34	....
21....	18	16	35	23	427	346	137	55	36	28	35	....
22....	22	17	29	23	410	338	126	53	35	27	35	....
23....	22	16	23	23	382	322	116	49	47	33	35	....
24....	22	16	22	23	467	317	126	42	35	32	37	....
25....	22	16	23	24	636	270	116	38	34	32	36	....
26....	22	16	22	27	589	295	106	37	30	30	35	....
27....	18	16	22	26	500	308	97	36	30	35	35	....
28....	19	16	22	28	541	295	97	35	29	27	34	....
29....	16	16	22	40	579	295	88	39	31	38	32	....
30....	17	....	22	74	588	285	79	32	28	38	32	....
31....	16	....	22	....	630	....	109	31	....	38	....	....
Total	529	472	693	787	9152	11518	4934	1036	962	918	1073	....
Mean.	17.1	16.3	22.4	26.2	295	384	159	59.2	32.1	29.6	35.8	....
Max..	22	17	35	74	636	621	307	111	47	38	40	....
Min..	11	16	16	22	68	254	79	31	26	26	32	....
Acre-ft.	1050	938	1380	1560	18100	22800	9780	3640	1910	1820	2130	....

Discharge of Uncompahgre River below Ouray for 1919.
Drainage Area, 44 Square Miles. Altitude, 7,710 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	33	33	33	46	147	343	422	122	51	35	36	31
2....	33	32	32	47	143	267	478	135	50	27	41	32
3....	33	31	32	47	129	235	410	169	43	29	41	33
4....	33	31	32	49	169	228	352	145	32	28	39	32
5....	33	32	31	54	252	300	282	123	34	29	40	32
6....	33	32	31	55	285	368	294	117	34	32	38	29
7....	33	32	31	46	242	354	432	122	34	32	37	27
8....	33	32	31	43	200	385	390	134	33	36	38	26
9....	33	30	32	39	190	405	352	126	24	38	38	23
10....	33	32	32	40	176	470	318	120	26	34	39	26
11....	33	31	32	47	171	560	250	112	27	35	41	28
12....	33	30	33	45	167	560	240	102	24	41	39	29
13....	33	29	34	48	180	560	276	90	41	39	38	26
14....	32	29	33	51	235	610	294	82	111	37	41	27
15....	32	31	32	54	309	635	394	76	98	41	34	27
16....	33	31	32	60	385	635	300	76	84	38	31	27
17....	32	33	32	83	492	590	282	75	69	38	32	27
18....	33	32	34	118	538	568	270	75	55	37	30	27
19....	33	31	39	139	685	545	252	75	56	34	29	27
20....	33	31	36	162	635	522	210	67	54	32	31	27
21....	33	34	40	192	585	478	189	61	46	32	31	29
22....	32	30	37	245	538	500	163	58	44	32	29	29
23....	32	31	34	261	515	478	159	58	37	34	30	29
24....	33	31	34	235	448	545	153	57	37	33	29	27
25....	32	31	34	202	448	522	153	57	41	34	29	28
26....	33	31	35	165	492	432	155	61	41	35	29	29
27....	32	30	36	143	610	455	159	57	40	34	26	27
28....	32	31	38	134	585	455	151	55	34	32	29	28
29....	31	....	39	128	635	432	149	51	40	37	30	28
30....	32	....	61	134	585	410	155	48	37	37	31	29
31....	33	....	54	....	405	....	135	46	....	34	....	27
Total	1012	874	1096	3112	11576	13847	8229	2752	1377	1066	1026	873
Mean.	32.6	31.2	35.4	104	373	462	265	88.8	45.9	34.4	34.2	28.2
Max..	33	34	61	261	685	635	478	169	111	41	41	33
Min..	31	29	31	39	129	228	135	46	24	27	26	23
Acre-ft.	2000	1730	2180	6190	22900	27500	16300	5460	2730	2120	2040	1730

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

Discharge of Uncompahgre River below Ouray for 1920.
Drainage Area, 44 Square Miles. Altitude, 7,710 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	25	32	27	27	96	805	730	169	65	65	55	.....
2.....	28	32	27	27	87	830	755	159	64	63	54	.....
3.....	29	29	22	27	105	730	658	181	62	62	57	.....
4.....	31	32	24	27	126	635	680	185	61	60	58	.....
5.....	31	29	26	29	155	680	635	161	75	59	56	.....
6.....	29	29	30	29	177	780	522	147	86	59	53	.....
7.....	27	28	28	34	200	962	478	130	74	58	55	.....
8.....	24	28	29	41	260	962	455	167	82	55	52	.....
9.....	26	28	31	55	328	962	410	285	71	53	51	.....
10.....	28	27	28	43	276	990	352	230	64	53	50	.....
11.....	27	26	28	32	202	805	318	179	63	53	48	.....
12.....	27	24	20	30	193	755	318	163	68	54	47	.....
13.....	26	27	31	35	260	830	352	139	64	52	47	.....
14.....	26	26	34	37	282	780	318	130	62	59	49	.....
15.....	27	27	28	39	198	805	318	123	60	74	44	.....
16.....	27	27	28	37	171	855	335	120	60	67	46	.....
17.....	27	26	27	34	181	680	282	114	61	61	46	.....
18.....	26	27	26	30	300	590	268	114	61	56	48	.....
19.....	26	29	33	29	545	680	250	159	60	57	49	.....
20.....	28	32	47	32	612	780	262	137	65	54	47	.....
21.....	25	27	51	32	680	880	270	117	93	55	44	.....
22.....	26	26	40	30	680	830	228	106	74	58	45	.....
23.....	26	28	32	30	590	780	195	99	100	53	44	.....
24.....	26	28	29	29	730	780	268	92	81	61	37	.....
25.....	24	27	29	27	855	635	230	88	74	68	46	.....
26.....	24	24	28	28	830	612	208	87	65	64	40	.....
27.....	26	29	27	27	780	612	195	86	64	59	43	.....
28.....	26	29	24	30	855	658	181	80	65	59	34	.....
29.....	27	30	26	45	880	658	173	75	65	55	37	.....
30.....	30	.....	27	90	962	635	165	71	67	51	40	.....
31.....	30	.....	29	.....	962	.....	165	68	.....	60	.....	.....
Total	835	813	916	1042	13558	22976	10974	4161	2076	1817	1422	.....
Mean.	26.9	28.0	29.5	34.7	437	766	354	134	69.2	58.6	47.4	.....
Max..	31	32	51	90	962	990	755	285	100	74	58	.....
Min..	24	24	20	27	87	590	165	68	60	51	34	.....
Acre-ft.	1650	1610	1810	2060	26900	45600	21800	*8240	4120	3600	2820	.....

Discharge of Uncompahgre River at Colona for 1919.
Drainage Area, 443 Square Miles. Altitude, 6,399 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....					475	462	630	250	40	60	.....	.....
2.....					460	415	760	285	47	60	.....	.....
3.....					425	370	760	405	40	47	.....	.....
4.....					460	327	695	370	40	100	.....	.....
5.....					630	365	520	285	40	100	.....	.....
6.....					670	405	487	250	40	100	.....	.....
7.....					630	405	902	250	60	90	.....	.....
8.....					487	460	630	405	47	100	.....	.....
9.....					475	520	630	346	60	100	.....	.....
10.....					448	543	600	543	60	100	.....	.....
11.....					365	835	520	346	40	90	.....	.....
12.....					365	968	460	285	60	100	.....	.....
13.....					370	835	487	250	78	100	.....	.....
14.....					460	1070	695	250	78	100	.....	.....
15.....					600	1040	902	250	60	110	.....	.....
16.....					520	1100	600	250	180	125	.....	.....
17.....					600	1100	570	226	150	150	.....	.....
18.....					635	1300	487	165	147	125	.....	.....
19.....					760	902	570	210	123	125	.....	.....
20.....					760	902	460	150	123	125	.....	.....
21.....				450	760	835	405	140	123	110	.....	.....
22.....				789	630	760	370	125	110	110	.....	.....
23.....				705	695	760	346	165	100	125	.....	.....
24.....				695	570	902	346	100	100	110	.....	.....
25.....				630	630	835	370	100	100	110	.....	.....
26.....				520	760	695	250	100	90	125	.....	.....
27.....				425	968	760	250	60	78	125	.....	.....
28.....				425	760	695	250	60	78	125	.....	.....
29.....				405	902	695	327	47	78	110	.....	.....
30.....				460	835	695	285	47	78	125	.....	.....
31.....					695	.....	327	47	.....	125	.....	.....
Total				5576	18800	21956	15891	6762	2448	3307	.....	.....
Mean.				558	606	732	513	218	81.6	107	.....	.....
Max..				789	968	1300	902	543	180	150	.....	.....
Min..				405	365	327	250	47	40	47	.....	.....
Acre-ft.				11100	37300	43600	31500	13400	4860	6580	.....	.....

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

Discharge of Uncompahgre River at Colona for 1920.
Drainage Area, 443 Square Miles. Altitude, 6,399 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....				105	342	1180	1040	392	121	128	140	99
2....				102	346	930	1100	392	114	119	135	88
3....				102	394	960	990	402	110	112	130	99
4....				102	410	850	1000	440	108	110	127	88
5....				102	510	750	970	402	110	107	117	94
6....				137	485	1080	820	373	123	100	120	99
7....				145	555	1500	730	350	129	100	123	88
8....				170	625	1600	670	330	129	98	127	81
9....				175	765	960	620	455	130	95	127	90
10....				210	750	960	560	485	118	98	127	74
11....				155	570	1130	515	392	111	110	127	86
12....				124	550	1360	508	368	107	110	127	75
13....				142	640	1260	520	325	105	108	127	63
14....				177	930	1290	503	260	103	123	127	86
15....				203	785	1240	498	220	103	139	127	50
16....				204	635	1190	580	205	103	145	127	75
17....				156	680	1100	537	197	105	132	127	81
18....				155	910	942	525	180	103	123	127	95
19....				164	1100	975	498	260	100	120	127	99
20....				164	1260	990	490	300	103	140	127	97
21....				164	1390	1170	498	239	112	135	127	95
22....				122	1390	1200	487	205	140	145	99	74
23....				129	1350	1100	487	197	138	149	77	77
24....				138	1260	1070	537	182	139	139	77	70
25....				138	1140	1010	520	180	157	151	99	77
26....				133	1400	990	480	174	143	166	81	79
27....				122	1020	1010	460	170	132	166	99	74
28....				129	970	1090	440	160	131	159	99	81
29....				138	1180	1060	409	150	128	159	99	95
30....				170	1180	1040	400	140	123	159	99	95
31....					1180	....	378	131	....	154	....	105
Total				4377	26702	33387	18770	8656	3578	3999	3499	2629
Mean				146	861	1110	605	279	119	129	117	84.8
Max.				210	1400	1600	1100	485	157	166	140	105
Min.				102	342	750	378	131	100	95	77	50
Acre-ft.				8690	52900	66000	37200	17200	7080	7930	6960	5210

Discharge of the Uncompahgre River at Montrose for 1919.
Drainage Area, 565 Square Miles. Altitude, 5,820 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....				140	375	405	658	650	245	55	....	....
2....				130	449	365	782	740	245	55	....	....
3....				161	532	305	825	730	228	55	....	....
4....				130	405	470	760	700	228	25	....	....
5....				208	575	510	615	595	228	95	....	....
6....				275	552	552	720	575	262	54	....	....
7....				110	552	575	825	490	285	54	....	....
8....				110	345	532	532	676	305	54	....	....
9....				110	170	552	760	635	285	54	....	....
10....				110	552	595	760	640	262	54	....	....
11....				110	575	783	635	645	245	54	....	....
12....				120	510	658	615	605	305	54	....	....
13....				170	425	658	1020	552	365	54	....	....
14....				345	490	470	910	490	531	54	....	....
15....				150	615	532	1090	490	492	95	....	....
16....				133	575	595	802	450	447	95	....	....
17....				133	676	658	802	425	425	70	....	....
18....				225	595	575	700	490	365	54	....	....
19....				386	760	676	676	450	262	54	....	....
20....				345	760	760	676	470	245	95	....	....
21....				225	700	825	552	425	225	95	....	....
22....				285	490	720	825	405	225	70	....	....
23....				425	615	802	450	405	205	54	....	....
24....				188	532	825	450	365	188	54	....	....
25....				188	510	825	425	304	170	54	....	....
26....				177	635	676	425	304	135	95	....	....
27....				150	802	700	430	285	95	95	....	....
28....				255	743	700	425	260	95	205	....	....
29....				304	783	658	475	260	55	285	....	....
30....				255	700	658	225	250	55	405	....	....
31....					615	....	470	250	....	95	....	....
Total				6053	17613	18615	20275	15011	7703	2741	....	....
Mean				202	568	620	654	484	257	88.4	....	....
Max.				425	802	825	1090	740	531	405	....	....
Min.				110	170	305	225	250	55	25	....	....
Acre-ft.				12000	34900	36900	40200	29800	15300	5440	....	....

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

Discharge of Uncompahgre River at Montrose for 1920.
Drainage Area, 565 Square Miles. Altitude, 5,820 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....				27	335	900	840	580	448	210		
2.....				30	370	295	1070	590	422	137		
3.....				33	405	685	740	602	408	149		
4.....				33	335	712	734	780	386	162		
5.....				32	487	900	730	650	412	158		
6.....				33	533	960	715	577	416	92		
7.....				44	385	1020	680	580	457	90		
8.....				44	270	1020	709	602	448	78		
9.....				59	200	960	709	625	457	61		
10.....				91	160	960	715	840	448	78		
11.....				112	150	900	667	660	412	92		
12.....				122	45	900	387	562	397	92		
13.....				124	320	840	630	536	380	90		
14.....				95	598	840	709	497	398	100		
15.....				168	270	840	650	388	361	108		
16.....				175	220	775	910	300	332	52		
17.....				175	197	658	800	487	336	31		
18.....				170	338	543	754	468	347	17		
19.....				143	658	755	734	480	345	15		
20.....				112	598	850	779	585	341	17		
21.....				72	658	940	800	558	355	17		
22.....				35	658	1000	734	536	347	18		
23.....				30	658	909	657	510	412	20		
24.....				218	658	940	790	525	475	15		
25.....				220	776	930	754	208	496	12		
26.....				220	1090	850	736	462	472	15		
27.....				207	776	785	623	477	442	13		
28.....				223	840	775	602	495	392	12		
29.....				241	960	698	582	480	392	10		
30.....				282	960	778	576	462	380	9		
31.....					960	.....	576	470	.....	9		
Total				3570	15868	24918	22092	16572	12114	1979		
Mean.				119	512	831	713	535	404	63.8		
Max..				282	1090	1020	1070	840	496	210		
Min..				27	45	295	387	208	332	9		
Acre-ft.				7080	31500	49400	43800	32900	24000	3920		

Discharge of Uncompahgre River at Delta for 1919.
Drainage Area, 1,130 Square Miles. Altitude, 4,970 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....					152	387	140	260	110	147		
2.....					140	140	365	417	112	140		
3.....					140	119	350	672	121	180		
4.....					117	128	225	475	124	225		
5.....					318	142	183	445	106	260		
6.....					165	285	277	423	152	260		
7.....				117	397	154	152	352	152	243		
8.....				63	51	177	305	387	132	275		
9.....				59	89	168	297	451	128	300		
10.....				53	275	210	195	496	113	260		
11.....				25	723	189	165	487	87	173		
12.....				25	672	402	165	392	128	170		
13.....				225	261	158	445	301	152	227		
14.....				365	547	152	345	180	445	235		
15.....				243	315	144	263	119	417	360		
16.....				207	274	152	630	117	417	345		
17.....				171	318	189	365	130	365	385		
18.....				112	260	128	273	152	365	385		
19.....				67	275	155	670	162	340	360		
20.....				243	422	243	365	117	340	325		
21.....				281	397	100	451	138	340	297		
22.....				490	355	370	165	106	326	340		
23.....				432	210	225	177	126	340	355		
24.....				165	210	324	195	113	340	410		
25.....				195	289	375	135	119	326	382		
26.....				180	771	213	140	123	305	277		
27.....				140	555	146	140	119	309	318		
28.....				117	226	213	147	106	267	251		
29.....				112	445	305	225	117	273	297		
30.....				83	197	180	192	110	219	417		
31.....					264	.....	165	140	.....	260		
Total				4170	9840	6273	8307	7852	7351	8859		
Mean.				174	317	209	268	253	245	286		
Max..				490	771	402	670	672	445	417		
Min..				25	51	100	135	106	87	140		
Acre-ft.				8280	19500	12400	16500	15600	14600	17600		

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

Discharge of Uncompahgre River near Delta for 1920.
Drainage Area, 1,130 Square Miles. Altitude, 4,970 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....				23	485	870	320	105	112	515	.....	.....
2.....				28	648	757	333	109	110	520	.....	.....
3.....				37	165	880	333	240	57	297	.....	.....
4.....				43	730	284	370	505	105	252	.....	.....
5.....				47	952	300	226	625	118	218	.....	.....
6.....				44	710	640	118	447	125	212	.....	.....
7.....				64	817	209	160	505	130	218	.....	.....
8.....				174	810	289	48	490	124	175	.....	.....
9.....				135	685	310	69	495	135	145	.....	.....
10.....				130	555	632	69	742	196	150	.....	.....
11.....				80	503	240	54	550	141	155	.....	.....
12.....				53	246	177	54	120	125	160	.....	.....
13.....				75	440	90	69	280	141	160	.....	.....
14.....				117	1350	153	69	290	146	162	.....	.....
15.....				150	1710	78	69	118	124	171	.....	.....
16.....				273	570	110	69	105	125	184	.....	.....
17.....				174	490	90	69	78	141	162	.....	.....
18.....				340	695	54	69	120	119	143	.....	.....
19.....				587	1170	135	92	112	140	130	.....	.....
20.....				102	1330	209	86	150	141	150	.....	.....
21.....				88	1410	240	78	110	154	151	.....	.....
22.....				55	1660	387	78	210	210	162	.....	.....
23.....				31	2000	440	34	135	154	190	.....	.....
24.....				64	1570	385	78	160	382	210	.....	.....
25.....				165	1480	343	160	110	522	229	.....	.....
26.....				135	1430	360	110	112	650	230	.....	.....
27.....				155	915	772	105	118	695	208	.....	.....
28.....				75	1020	430	105	120	570	230	.....	.....
29.....				73	1020	387	48	105	625	208	.....	.....
30.....				138	1090	337	130	92	625	208	.....	.....
31.....					970	.....	118	96	.....	208	.....	.....
Total.....				3655	29626	10588	3790	7554	7142	6513	.....	.....
Mean.....				122	956	353	122	244	238	210	.....	.....
Max.....				587	2000	880	370	742	695	520	.....	.....
Min.....				23	165	54	34	78	57	130	.....	.....
Acre-ft.....				7260	58800	21000	7500	15000	14200	12900	.....	.....

Discharge of Crystal Creek near Maher for 1919.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....				194	137	78	4	2	2	.....	.....	.....
2.....				49	153	49	4	18	2	.....	.....	.....
3.....				34	169	54	4	15	2	.....	.....	.....
4.....				34	161	60	4	6	2	.....	.....	.....
5.....				34	169	49	4	2	2	.....	.....	.....
6.....				39	169	44	4	2	2	.....	.....	.....
7.....				44	169	49	4	2	2	.....	.....	.....
8.....				39	153	44	4	2	2	.....	.....	.....
9.....				26	153	78	4	2	2	.....	.....	.....
10.....				34	137	60	4	2	2	.....	.....	.....
11.....				34	137	54	4	2	2	.....	.....	.....
12.....				39	129	60	3	2	2	.....	.....	.....
13.....				72	137	54	2	2	3	.....	.....	.....
14.....				72	153	44	2	2	4	.....	.....	.....
15.....				85	169	44	2	2	4	.....	.....	.....
16.....				129	169	39	2	2	4	.....	.....	.....
17.....				169	202	39	2	2	4	.....	.....	.....
18.....				177	220	30	3	2	4	.....	.....	.....
19.....				177	228	30	3	2	4	.....	.....	.....
20.....				169	220	22	2	2	4	.....	.....	.....
21.....				220	237	15	2	2	4	.....	.....	.....
22.....				54	273	186	15	2	4	.....	.....	.....
23.....				22	273	169	15	2	4	.....	.....	.....
24.....				18	237	153	12	2	4	.....	.....	.....
25.....				30	202	137	9	8	4	.....	.....	.....
26.....				22	161	137	9	9	4	.....	.....	.....
27.....				18	153	153	9	9	4	.....	.....	.....
28.....				12	161	137	6	9	2	.....	.....	.....
29.....				30	137	129	4	2	2	.....	.....	.....
30.....				39	129	137	4	2	2	.....	.....	.....
31.....				60	.....	129	.....	2	2	.....	.....	.....
Total.....				305	3596	5038	1079	95	89	.....	.....	.....
Mean.....				30.5	120	163	36.0	3.7	3.0	.....	.....	.....
Max.....				60	273	237	78	9	18	.....	.....	.....
Min.....				12	26	129	4	2	2	.....	.....	.....
Acre-ft.....				605	7140	10000	2140	228	179	.....	.....	.....

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

Discharge of Leroux Creek near Lazear for 1919.
Drainage Area, 52 Square Miles. Altitude, Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....				12	214	76	18	15	5.0	2.8	0.8	0.5
2....				16	211	52	19	12	5.4	2.8	1.1	0.4
3....				20	214	51	23	11	5.8	2.9	1.6	0.5
4....				23	257	52	33	8.6	4.2	3.0	0.9	....
5....				20	264	50	33	7.4	3.0	2.5	1.6	....
6....				22	274	51	32	6.6	2.9	2.5	1.6	....
7....				23	251	57	39	9.0	4.0	2.4	1.0	....
8....				17	224	57	34	15	3.4	1.9	1.0	....
9....				13	206	50	23	14	3.4	2.3	0.9	....
10....				12	165	49	17	14	3.6	2.3	0.9	....
11....				15	137	49	14	12	3.2	2.3	0.8	....
12....				25	139	44	15	11	3.0	2.3	1.0	....
13....				29	141	39	14	16	4.6	2.0	1.1	....
14....				38	167	38	18	15	5.4	1.8	1.1	....
15....				43	211	40	21	14	6.2	2.0	0.9	....
16....				61	264	39	20	12	4.0	1.9	1.0	....
17....				84	288	35	20	7	3.0	1.8	1.0	....
18....				106	303	27	23	2.8	2.9	1.7	1.0	....
19....				114	318	25	25	2.8	3.2	1.7	1.1	....
20....				176	368	23	16	2.6	2.9	1.6	1.0	....
21....				236	311	27	11	2.6	2.9	1.6	0.9	....
22....				376	326	27	9	2.3	2.8	1.8	0.8	....
23....			9	467	236	26	7.4	2.9	2.6	2.1	1.0	....
24....			5.8	394	211	27	7.8	3.8	2.6	1.8	0.9	....
25....			5.0	288	193	25	7.8	3.6	2.6	1.3	1.0	....
26....			6.2	251	193	23	8.6	4.6	2.6	1.0	1.1	....
27....			4.8	227	179	20	6.5	7.6	2.1	0.8	1.1	....
28....			4.6	184	141	20	7.0	8.2	2.6	0.8	1.3	....
29....			4.8	161	143	19	13	6.2	2.7	1.2	1.3	....
30....			7.4	174	174	18	16	6.6	2.7	0.9	1.0	....
31....			12	....	120	....	18	4.8	....	0.7	....	....
Total			59.6	3623	6843	1136	569.2	261.0	105.3	58.5	31.8	....
Mean.			6.62	121	221	37.9	18.4	8.42	3.51	1.89	1.06	....
Max.			12	467	368	76	39	16	6.2	3.0	1.6	....
Min.			4.6	12	120	18	6.6	2.3	2.1	0.7	0.8	....
Acre-ft.			118	7200	13600	2260	1130	518	209	116	63	....

Discharge of Leroux Creek near Lazear for 1920.
Drainage Area, 52 Square Miles. Altitude, Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....				5	103	826	108	22	9.5	8.0	....	....
2....				4	130	775	113	25	8.9	8.3	....	....
3....				4	148	675	125	81	8.6	7.6	....	....
4....				4	150	695	115	32	8.6	7.2	0.8	....
5....				4	200	740	90	25	10	7.2	....	....
6....				4	260	820	67	18	12	7.0	....	....
7....				5	310	837	53	17	16	7.0	....	....
8....				5	370	785	45	15	16	6.8	....	....
9....				5	412	750	42	17	19	6.8	....	....
10....				5	377	675	32	22	14	6.8	....	....
11....		3.4		5	299	695	27	20	7.4	6.0	0.5	....
12....		3.8		5	242	680	33	16	7	5.0	....	....
13....		3.4		6	264	605	30	14	6.8	4.0	....	....
14....		3.4		6	343	540	29	14	6.6	3.0	....	....
15....		4.2		6	198	495	29	12	6.2	3.0	....	....
16....		4.0		6	208	435	34	11	6	3.2	....	....
17....		3.6		5	315	370	33	13	6.2	3.2	....	....
18....		3.8		5	394	326	32	14	6.4	3.4	1.8	....
19....		4.6		5	435	415	32	15	6.4	3.4	....	....
20....		4.2		4	576	322	31	14	6.8	3.6	....	....
21....		4.8		4	915	239	26	14	7	3.7	....	....
22....		5.4		4	998	209	22	18	10	4.5	....	....
23....		4.4		4	702	158	19	13	9.2	5.3	....	....
24....		4.0	3.6		650	106	18	11	13	5.6	....	....
25....		3.8	3.4		800	106	18	11	15	6.2	3.0	....
26....		3.8	4.4		930	203	25	12	13	5.8	....	....
27....		4.8	4.6		790	260	14	11	17	4.6	....	....
28....		4.6	6.6		854	170	17	11	18	3.5	....	....
29....		4.7	17		837	132	17	11	12	3.0	....	....
30....		4.7	55		869	111	17	11	8.3	2.5	....	....
31....		4.8	....		820	....	18	10	....	2.0	....	....
Total		90.2	204.6	14899	14155	1311	550	310.9	157.2	....	....	....
Mean.		4.30	6.82	481	472	42.3	17.7	10.4	5.07	....	....	....
Max.		6.2	55	998	837	125	81	19	8.3	....	....	....
Min.		3.4	3.4	103	106	14	10	6	2.0	....	....	....
Acre-ft.		179	406	29600	28100	2600	1090	619	312	....	....	....

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

Discharge of Surface Creek at Cedaredge for 1919.
Drainage Area, 43 Square Miles. Altitude, 7,000 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....					100	56	36	14	20	2.8	3.5	...
2.....					82	70	44	14	13	2.4	6	...
3.....					70	68	36	12	13	2.2	2.4	...
4.....					60	67	21	8.7	12	2.8	2.6	...
5.....					55	65	25	12	5.5	2.2	2.6	...
6.....				5.0	51	45	33	8.0	3.5	2.2	2.6	...
7.....				4.0	42	48	33	5.0	10	2.2	2.8	...
8.....				3.5	42	48	24	6.0	12	2.2	2.8	...
9.....				2.8	48	57	22	6.0	10	2.2	3	...
10.....				2.8	48	57	19	8.7	11	2.2	3	...
11.....				3.5	63	48	14	8.7	11	2.4	2.8	...
12.....				3.5	48	48	14	10	5.0	2.6	2.6	...
13.....				4.0	38	42	12	9.4	6.0	2.6	2.8	...
14.....				5.0	39	44	13	6.5	8.7	2.4	4	...
15.....				5.5	81	43	14	7.0	12	2.4	2.4	...
16.....				12	89	35	15	12	10	2.4	2.2	...
17.....				24	74	33	16	19	10	2.6	2.4	...
18.....				40	70	32	17	19	10	2.6	2	...
19.....				65	60	24	18	19	9	2.6	1.8	...
20.....				89	58	20	20	19	9	2.2	1.4	...
21.....				98	65	28	20	19	8.7	2	1.2	...
22.....				100	63	43	20	19	8.7	2.6	1.2	...
23.....				130	51	43	20	19	5.5	2.2	1	...
24.....				120	52	58	21	22	4.0	1.8	1	...
25.....				110	48	35	19	26	4.0	2	1	...
26.....				105	47	57	19	20	3.5	1.8	...	...
27.....				98	51	54	17	20	4.5	2.2	...	...
28.....				90	57	44	15	17	6.0	2.8	...	...
29.....				92	60	21	15	13	4.5	4	...	...
30.....				98	51	25	18	13	3.0	3	...	...
31.....				...	47	...	16	17	...	2.2	...	...
Total				1310.6	1810	1359	646	429	253.1	74.8	61.1	...
Mean.				52.4	58.4	45.3	20.9	13.8	8.44	2.41	2.44	...
Max..				130	100	70	44	26	20	4.0	6.0	...
Min...				2.8	38	20	12	5.0	3.0	1.8	1.0	...
Acre-ft.				2600	3590	2700	1290	848	502	148	121	...

Discharge of Surface Creek at Cedaredge for 1920.
Drainage Area, 43 Square Miles. Altitude, 7,000 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....					42	414	56	15	16	4.4	4.8	7.6
2.....					70	350	49	14	16	4	6	8.0
3.....					72	328	44	24	21	4	13	8.0
4.....					68	312	56	52	21	4	10	8.0
5.....					117	305	59	32	8	4	5.2	...
6.....					136	305	57	32	11	3.8	3	...
7.....					178	238	65	32	16	3.8	3	...
8.....					222	212	46	26	18	3.6	2.6	...
9.....					268	201	61	26	20	3.6	2.2	...
10.....					191	183	72	32	19	3.6	2.0	...
11.....					133	178	87	32	19	4	2.2	...
12.....					109	183	70	26	19	4.4	2.6	...
13.....					127	183	52	32	8	4	2.4	...
14.....					136	146	76	35	6	3.8	2.4	...
15.....					74	127	78	34	6	4	2.4	...
16.....					80	117	87	35	8	4.8	2.2	...
17.....					120	109	89	35	16	3.8	2.0	...
18.....					227	99	27	44	16	3.4	2.2	...
19.....					422	89	21	46	12	3.6	2.2	...
20.....					512	83	36	37	10	3.8	2.2	...
21.....					560	84	42	35	5.6	8.8	2.0	...
22.....					590	85	52	35	7.6	10	1.8	...
23.....					503	87	40	38	6.8	8.8	1.6	...
24.....					448	88	28	52	6.8	10	1.8	...
25.....				1.4	580	90	30	61	6.8	9.6	2.4	...
26.....				1.4	630	92	32	61	6.8	8.8	2.8	...
27.....				1.4	512	94	29	65	6.8	8	3.0	...
28.....				1.4	522	83	33	59	6.8	7.6	6.8	...
29.....				1.4	570	86	25	52	5.6	8	8.0	...
30.....				7.2	640	59	22	66	4.8	4	7.2	...
31.....				...	503	...	18	44	...	4	...	...
Total				14.2	9362	4992	1539	1209	351.4	166.0	112.0	...
Mean.				2.37	302	166	49.6	39.0	11.7	5.35	3.73	...
Max..				7.2	640	414	89	66	21	10	13	...
Min...				1.4	42	59	18	14	4.8	3.4	1.6	...
Acre-ft.				28	18600	9880	3050	2400	696	329	222	...

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

Discharge of Kannah Creek near Whitewater for 1919.
Drainage Area, 38 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	7.0	4.0	7.0	13	62	127	50	37	13	11	13	13
2....	7.0	4.0	7.0	13	65	102	48	54	13	11	13	13
3....	6.4	4.0	7.0	13	68	98	48	70	13	11	12	11
4....	6.4	4.6	7.0	13	80	92	48	68	13	12	13	12
5....	12	4.6	7.0	12	89	90	48	51	13	12	13	11
6....	5.8	4.9	7.0	12	104	85	48	51	13	12	13	12
7....	5.8	5.2	7.0	11	123	83	48	44	13	12	13	12
8....	5.8	5.5	7.0	11	134	81	42	41	13	12	12	12
9....	4.6	5.8	7.8	11	143	80	42	38	13	12	12	1.5
10....	4.6	6.4	8.2	11	160	78	42	35	13	12	13	10
11....	4.6	6.4	9.4	11	162	75	38	31	13	12	13	10
12....	4.6	6.4	10	12	204	73	37	28	13	12	11	11
13....	4.6	6.4	10	14	252	61	37	27	13	12	12	9.4
14....	4.6	6.4	11	17	258	50	37	27	13	12	11	8.2
15....	5.5	6.4	11	22	331	46	37	26	13	12	11	8.2
16....	4.6	6.4	11	30	345	45	37	24	13	12	11	8.2
17....	4.6	6.4	11	44	482	40	37	22	13	12	13	9
18....	4.6	6.7	9.8	45	514	39	34	21	13	12	12	9
19....	4.6	7.0	10	48	538	38	34	18	13	12	12	9
20....	4.6	7.0	10	47	550	34	32	16	13	12	13	9
21....	4.0	7.0	10	50	474	32	32	16	13	12	13	8.6
22....	4.0	7.0	10	52	362	32	32	15	13	12	11	9
23....	4.0	7.0	13	58	366	32	30	14	13	12	12	9
24....	4.0	7.0	13	60	356	32	30	14	13	12	12	9
25....	4.0	7.0	13	58	342	31	30	14	13	12	12	8.2
26....	4.0	7.0	14	60	328	31	30	13	13	12	12	8.2
27....	4.0	7.0	14	65	331	31	30	13	13	12	13	7.4
28....	4.0	7.0	14	63	320	50	30	13	14	13	13	7.8
29....	4.0	....	15	66	314	50	30	13	14	13	12	7.8
30....	4.0	....	16	65	317	50	37	13	13	13	11	7.4
31....	4.0	....	16	....	237	....	37	13	....	13	....	7.4
Total	156.3	170.5	323.2	1007	8410	1788	1172	890	392	373	367	288.3
Mean.	5.04	6.09	10.4	33.6	271	59.6	37.8	28.7	13.1	12	12.2	9.3
Max..	12	7.0	16	66	550	127	50	70	14	13	13	13
Min..	4.0	4.0	7.0	11	62	31	30	13	13	11	11	1.5
Acre-ft.	310	338	640	2000	16700	3550	2320	1760	780	738	726	572

Discharge of Kannah Creek near Whitewater for 1920.
Drainage Area, 38 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	7.4	7	9.8	11	54	870	56	33	20	6.7	7.8	....
2....	7.4	7	9.4	11	71	870	56	31	20	6.7	7.0	....
3....	7.4	7	10	12	66	990	52	27	17	6.7	7.0	....
4....	7.4	7	11	12	71	1050	52	22	16	6.7	5.8	....
5....	7.8	7	6.7	12	78	1110	51	20	16	6.7	5.8	....
6....	8.2	7.4	5.2	13	90	990	51	17	16	6.7	6.4	....
7....	6.4	7.4	9.4	13	114	870	48	16	15	6.7	5.8	....
8....	4.9	7.4	9.4	15	101	810	48	24	13	6.7	6.1	....
9....	4.6	6.7	9.8	14	92	580	47	24	13	6.7	6.7	....
10....	3.8	7	10	15	84	608	47	23	13	7.0	6.7	....
11....	4.6	7.8	10	15	87	500	48	21	13	7.4	6.1	....
12....	4.3	9	11	15	111	450	48	21	13	7.0	6.4	....
13....	4.6	9.4	11	15	157	315	51	29	11	6.7	6.7	....
14....	5.4	9.4	10	16	173	260	51	28	9.4	6.7	6.4	....
15....	5.5	9.8	10	16	140	228	50	44	8.6	6.7	7.0	....
16....	6.4	9	9.8	15	124	213	50	44	8.6	6.7	6.7	....
17....	6.7	11	9.8	14	124	198	49	42	8.6	6.7	6.4	....
18....	6.1	9.8	9.4	12	131	181	51	42	8.6	6.7	6.4	....
19....	6.4	9.8	10	12	157	154	50	39	8.2	6.7	6.4	....
20....	6.7	9.8	9.4	12	198	133	50	35	8.2	6.7	6.4	....
21....	6.4	11	9.8	11	228	118	49	35	9	7.0	5.8	....
22....	6.4	11	10	11	295	105	47	33	8.6	7.0	5.8	....
23....	6.7	11	9.8	11	335	101	54	31	8.6	6.7	6.1	....
24....	6.7	11	9.8	11	475	98	58	28	8.6	6.1	6.4	....
25....	6.4	6.4	10	11	635	97	58	28	8.2	7.0	6.1	....
26....	6.4	4.3	10	12	552	97	49	27	8.6	7.4	6.1	....
27....	6.4	9	9	12	580	80	48	27	7.8	7.4	5.8	....
28....	6.4	9.8	5.2	14	750	65	46	23	7	7.4	5.5	....
29....	6.7	9.8	7.4	20	930	61	42	21	7	7.4	5.4	....
30....	6.7	....	8.2	39	990	59	39	21	7	8.2	5.4	....
31....	6.7	....	8.2	....	930	....	36	20	....	8.2	....	....
Total	194.0	249.0	288.5	422	8923	12261	1530	876	336.6	315.1	188.4	....
Mean.	6.26	8.59	9.31	14.1	288	409	49.4	28.3	11.2	6.94	6.28	....
Max..	8.2	11	11	39	990	1110	58	44	20	8.2	7.8	....
Min..	3.8	4.3	5.2	11	54	59	36	16	7	6.1	5.4	....
Acre-ft.	385	494	572	839	17700	24300	3040	1740	666	427	374	....

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

Discharge of Dolores River at Rico for 1919.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....						275	171	157	42	38	36	30
2....						260	162	167	40	38	50	25
3....						260	157	157	40	38	27	25
4....						275	150	162	40	39	26	25
5....						326	139	150	42	38	28	25
6....						328	136	119	41	37	25	24
7....						323	136	111	40	41	23	24
8....						301	129	106	39	37	19	24
9....						315	116	106	38	39	19	23
10....						319	106	91	36	39	21	23
11....						363	111	84	35	37	22	23
12....						367	110	77	40	37	22	23
13....						372	157	66	46	37	21	24
14....						381	167	62	41	37	23	25
15....						345	215	58	40	39	23	22
16....						363	235	60	39	37	24	18
17....						345	227	58	37	37	24	19
18....						319	215	75	38	37	25	23
19....						297	207	66	38	38	25	22
20....						279	187	56	38	39	22	24
21....						264	187	49	37	38	22	24
22....						235	187	45	37	38	22	24
23....						235	175	44	37	38	22	23
24....						231	175	44	37	35	22	23
25....						229	157	42	37	35	24	23
26....						207	157	40	37	38	24	24
27....						181	157	40	38	37	21	24
28....						173	157	42	38	37	22	24
29....						179	144	42	36	38	22	22
30....						167	144	42	37	37	27	22
31....							150	41		36		24
Total						8514	5032	2459	1161	1166	733	727
Mean						284	162	79.3	38.7	37.6	24.4	23.5
Max...						381	235	167	46	41	50	30
Min...						167	106	40	35	35	19	18
Acre-ft.						16900	9960	4880	2300	2310	1450	1440

Discharge of Dolores River at Rico for 1920.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	28	21	16	21	190	1000	471	106	40	31	38	26
2....	24	21	16	21	190	900	428	106	39	31	38	27
3....	23	21	14	22	252	870	366	110	39	30	43	25
4....	20	21	14	22	296	855	306	115	40	29	32	25
5....	20	16	19	28	285	825	267	103	38	30	34	21
6....	19	21	16	22	308	765	230	108	36	30	30	24
7....	19	24	16	24	368	780	177	105	35	30	34	23
8....	18	22	17	27	442	735	175	105	34	28	30	26
9....	17	20	16	30	290	705	161	105	34	30	28	24
10....	17	21	16	30	308	705	155	103	32	28	30	23
11....	17	21	17	28	308	675	175	102	32	25	31	21
12....	17	24	18	29	320	660	165	102	34	25	30	27
13....	17	20	16	31	355	630	143	102	46	28	31	35
14....	16	17	18	31	368	630	136	103	48	28	27	27
15....	16	18	17	30	392	615	136	98	48	28	27	33
16....	16	18	18	28	418	630	149	85	41	28	29	22
17....	16	19	17	25	455	630	142	80	41	28	26	23
18....	19	18	19	26	515	615	134	73	41	28	27	26
19....	20	17	19	27	710	609	134	59	37	28	27	27
20....	19	16	21	27	725	600	134	58	35	34	29	24
21....	19	16	18	28	740	600	123	54	34	48	26	26
22....	20	15	24	27	995	600	153	53	32	42	27	21
23....	20	15	19	27	965	585	129	50	29	39	25	21
24....	20	16	19	25	1060	585	126	53	28	37	30	23
25....	19	16	19	37	1060	585	113	48	28	38	29	23
26....	18	17	21	46	1010	630	113	46	29	37	28	21
27....	22	18	19	51	1010	690	110	45	29	45	27	20
28....	20	16	17	62	1010	630	109	44	30	39	28	20
29....	24	15	17	99	995	570	109	41	29	31	26	20
30....	22		18	113	935	525	109	41	29	43	30	17
31....	22		21		935		116	40		28		18
Total	604	540	552	1044	18219	20434	5494	2443	1067	1004	897	739
Mean	19.5	18.6	17.8	34.8	588	681	177	78.8	35.6	32.4	29.9	23.8
Max...	28	24	24	113	1060	1000	471	115	48	48	43	33
Min...	16	15	14	21	190	525	109	40	28	25	25	17
Acre-ft.	1260	1070	1090	2070	36200	40500	10900	4850	2120	1990	1780	1460

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

Discharge of Dolores River at Bedrock for 1919.
Drainage Area, 1,910 Square Miles. Altitude, 4,971 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....				700	1630	1780	145	310	16	18	98	
2.....				820	1750	1340	145	176	16	18	124	
3.....				600	1780	1080	154	620	14	18	115	
4.....				708	1690	825	176	530	13	16	106	
5.....				730	1810	710	165	340	13	16	98	
6.....				708	1690	688	188	212	13	18	115	
7.....				985	2080	710	188	165	10	18	115	
8.....				1110	2080	642	98	212	10	18	115	
9.....				620	1810	575	83	200	14	18	115	
10.....				480	1810	552	98	225	13	76	115	
11.....				428	1690	552	115	124	11	55	115	
12.....				520	1516	530	134	95	17	98	115	
13.....				1190	1420	598	165	73	35	106	98	
14.....				1480	1570	732	200	59	40	115	83	
15.....				1300	1780	732	375	53	72	115	83	
16.....				1240	1780	778	310	47	158	115	83	
17.....				1360	1900	710	530	59	205	115	83	
18.....				1480	1930	665	800	73	228	115	83	
19.....				1600	1930	598	710	130	94	115	83	
20.....				1660	1930	530	1100	80	86	115	98	
21.....				1690	1900	470	710	73	65	115	83	
22.....				1750	1990	392	490	66	51	115	76	
23.....				1990	1960	340	340	53	45	98		
24.....				2140	2140	325	265	47	34	98		
25.....				2300	2110	295	212	41	33	98		
26.....				2110	2020	280	165	36	24	115		
27.....				1990	2050	280	113	31	24	154		
28.....				1720	2210	188	105	23	21	154		
29.....				1570	2080	154	89	17	18	144		
30.....				1570	2140	165	75	16	18	124		
31.....					2110	.....	165	16	.....	106		
Total				38776	58580	18216	8608	4202	1411	2619	2199	
Mean.				1290	1890	607	278	136	47.0	84.5	100	
Max..				2300	2210	1780	1100	620	228	154	124	
Min..				428	1420	154	75	16	10	16	76	
Acre-ft.				76800	116000	36100	17100	8360	2800	5200	4360	

Discharge of Dolores River at Bedrock for 1920.
Drainage Area, 1,910 Square Miles. Altitude, 4,971 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....				375	3480	3690	1720	59	22	42	130	49
2.....				410	3480	3620	1600	95	22	33	130	
3.....				375	3340	3620	1540	73	22	25	130	
4.....				375	3270	3550	1420	200	22	22	132	
5.....				340	3200	3480	1420	280	22	22	134	
6.....				325	3270	3340	1200	225	86	17	134	
7.....				450	3270	3340	1000	188	94	17	130	
8.....				1000	3270	3410	800	144	65	17	130	
9.....				1310	3340	3410	710	134	51	17	125	
10.....				1900	3480	3340	620	134	51	17	125	
11.....				1600	3480	3200	530	103	30	17	125	
12.....				1200	3200	3130	450	310	22	17	124	
13.....				1200	2930	2930	375	176	22	17	115	
14.....				1900	3000	2930	310	124	17	15	98	
15.....				1900	3060	2540	280	88	17	14	98	
16.....				2020	2860	2540	295	66	17	14	134	
17.....				1780	2740	2540	250	59	17	77	124	
18.....				1420	2740	2280	280	53	17	83	115	
19.....				1150	3060	2080	188	53	17	83	115	
20.....				1100	3200	2020	144	95	58	106	115	
21.....			225	1050	3480	2020	134	47	19	115	115	
22.....			340	950	3690	2020	144	41	35	154	115	
23.....			620	900	4040	2150	575	53	22	144	115	
24.....			575	1200	3900	2080	188	47	19	115	115	
25.....			450	1720	3830	1960	124	41	19	134	106	
26.....			450	2080	3830	1780	90	36	19	134	106	
27.....			530	2280	3760	2280	106	31	17	106	106	
28.....			490	2800	3760	2670	98	28	45	115	83	
29.....			450	3130	3760	2540	83	23	45	134	90	
30.....			375	3200	3760	2020	62	23	51	134	49	
31.....			375	.....	3690	.....	49	23	.....	134	.....	
Total			4880	41440	105170	82510	16785	3052	982	2091	3463	
Mean.			444	1380	3390	2750	541	98.5	32.7	67.5	115	
Max..			620	3200	4040	3690	1720	310	94	154	134	
Min..			225	325	2740	1780	49	23	17	14	49	
Acre-ft.			9680	82100	208000	164000	33300	6060	1950	4150	6840	

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

Discharge of San Miguel River at Naturita for 1919.
Drainage Area, 1,090 Square Miles. Altitude, 5,426 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....				262	990	850	676	....	....	85	85	130
2....				241	1030	620	725	....	....	85	99	106
3....				315	920	590	769	....	....	85	106	106
4....				309	950	510	690	....	....	85	106	106
5....				384	1250	555	535	....	....	85	106	114
6....				474	1190	572	457	....	....	85	92	114
7....				300	1100	572	634	....	....	99	92	106
8....				227	970	530	683	....	....	99	99	99
9....				196	890	488	555	....	....	99	106	52
10....				172	1070	550	474	....	....	99	106	52
11....				267	1050	676	429	....	....	106	106	52
12....				445	850	725	488	....	....	106	99	54
13....				492	870	778	683	....	....	99	106	57
14....				662	900	860	814	....	....	99	106	58
15....				535	1000	1040	841	....	....	114	114	57
16....				560	1100	950	596	....	198	114	114	57
17....				662	1260	990	566	....	189	114	114	57
18....				1060	1260	940	572	....	156	114	106	56
19....				1390	1260	814	890	....	145	99	106	56
20....			212	1480	1280	760	560	....	134	92	99	56
21....			283	1540	1420	746	418	....	127	85	106	56
22....			203	1860	1320	690	366	....	114	85	106	53
23....			164	1700	1320	620	345	....	104	85	106	53
24....			187	1480	1060	627	315	....	104	85	114	53
25....			156	1420	1050	627	286	....	93	85	106	53
26....			138	1200	1110	560	294	....	90	85	99	53
27....			142	1050	1410	614	272	....	90	85	80	57
28....			164	1000	1440	608	241	....	91	85	90	58
29....			180	970	1350	634	235	....	91	67	139	58
30....			289	930	1590	641	230	....	91	92	130	63
31....			315	....	1260	....	225	....	....	85	....	61
Total			2433	23583	35520	20737	15864	....	1811	2887	3143	2163
Mean....			203	786	1150	691	512	....	121	93.1	105	70.0
Max....			315	1860	1590	1040	890	....	198	114	139	130
Min....			138	172	850	488	225	....	90	67	80	52
Acre-ft.			4830	46800	70700	41100	31500	....	3600	5720	6250	4300

Discharge of San Miguel River at Naturita for 1920.
Drainage Area, 1,090 Square Miles. Altitude, 5,426 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	69	130	154	114	2000	2870	1300	400	92	132	137	....
2....	67	135	172	114	2210	2870	1500	420	68	126	116	....
3....	66	139	164	106	2650	2430	1210	480	85	120	106	....
4....	73	148	130	114	2540	2100	1040	420	92	122	122	....
5....	77	148	128	122	2540	1900	1210	365	440	117	127	....
6....	75	152	122	148	2650	1700	1120	312	122	110	120	....
7....	73	152	102	215	2430	2000	890	280	130	105	144	....
8....	66	152	102	312	2320	2000	890	265	122	105	120	....
9....	61	150	111	400	2210	2320	760	480	122	98	122	....
10....	58	148	124	615	2000	1600	710	615	106	92	120	....
11....	54	144	112	365	1700	1800	615	440	92	102	112	....
12....	56	143	105	382	1500	1900	525	348	99	102	112	....
13....	58	137	111	330	1700	1900	570	280	73	96	114	....
14....	63	132	124	480	2320	1800	570	240	67	98	112	....
15....	68	130	130	480	1600	1800	570	215	79	104	112	....
16....	75	127	116	525	1400	1700	570	190	85	110	108	....
17....	85	127	117	420	1400	1400	570	202	79	104	104	....
18....	99	125	116	302	1600	1300	525	168	85	108	106	....
19....	110	117	111	252	2000	1400	480	190	92	106	100	....
20....	125	117	132	252	2430	1400	480	240	99	141	100	....
21....	135	139	225	252	2760	1500	480	202	130	102	99	....
22....	135	154	271	168	4180	1400	480	179	148	105	102	....
23....	135	156	188	215	3220	1300	570	158	139	127	116	....
24....	132	148	141	312	2980	1500	660	139	139	114	116	....
25....	130	125	130	330	2980	1210	660	130	139	124	111	....
26....	128	105	132	312	3220	1300	525	130	139	127	106	....
27....	127	108	144	348	2870	1500	420	122	139	128	100	....
28....	118	120	117	525	2650	1600	420	122	139	146	91	....
29....	117	117	108	1120	2650	1300	365	114	139	148	84	....
30....	121	....	130	2000	2870	1300	330	106	139	152	88	....
31....	122	....	124	....	2870	....	348	92	....	150	....	....
Total	2878	3925	4193	11630	74450	52100	21363	8044	3619	3621	3327	....
Mean....	92.8	135	135	388	2400	1740	689	259	121	117	111	....
Max....	135	156	271	2000	4180	2870	1500	615	440	152	144	....
Min....	54	105	102	106	1400	1210	330	92	67	92	84	....
Acre-ft.	5710	7760	8300	23100	148000	104000	42400	15900	7200	7190	6600	....

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

NORTH AND SOUTH PLATTE DRAINAGES

W. T. Blight, Hydrographer

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, in the Pike National Forest, about 2 miles above the mouth of Caylor Gulch; no tributary between the outlet of the lake and the station.

Records Available.—October 22, 1910, to November 30, 1920.

Drainage Area.—1,070 square miles.

Gage.—Vertical Staff.

Channel.—Conditions in the channel will remain unchanged as long as the control for the station—a 2-foot timber-crib dam 50 feet below the gage—remains permanent.

Discharge Measurements.—Made from bridge during high water and by wading at ordinary stages.

Winter Flow.—Ice causes backwater during the winter months and measurements are made to determine the flow.

Regulation.—The discharge at the station is regulated to some extent by the Antero Reservoir, located about 35 miles above, and by Lake George.

Diversions.—There are court decrees for diversions of 1,076 second-feet from South Fork above this station and for diversions of 1,816 second-feet from tributaries entering above.

Accuracy.—Results are considered fair.

NORTH FORK OF SOUTH PLATTE AT SOUTH PLATTE

Location.—In Sec. 25, T. 7 S., R. 70 W., one-third mile above South Platte. No tributary between station and mouth at South Platte.

Records Available.—January 4, 1909, to September 30, 1910; April 1, 1913, to December 4, 1920.

Drainage Area.—450 square miles.

Gage.—Inclined staff whose datum has remained unchanged.

Channel.—Somewhat shifting.

Discharge Measurements.—Made from car and cable during high and medium stages, and by wading at low stages.

Winter Flow.—Ice causes backwater and discharge measurements are made to determine the flow.

Diversions.—There are court decrees for diversions of 20 second-feet from North Fork between Grant and South Platte, and 62 second-feet from intervening tributaries, exclusive of Geneva Creek. There are also a number of small ice and fish ponds which divert small amounts of water at various times.

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., in the Pike National Forest, three-fourth of a mile east of South Platte; about 300 feet below junction of the North and South Forks; no tributary between the forks and the station, and none for several miles below.

Records Available.—March 28, 1902, to December 8, 1920.

Drainage Area.—2,610 square miles.

Gage.—An automatic recording gage.

Channel.—Shifting.

Discharge Measurements.—Made from ear and cable during high water, and by wading at low stages.

Winter Flow.—Ice causes backwater during a portion of the winter months and measurements are made to determine the flow.

Regulation.—The flow is regulated to a certain extent by the Cheesman Reservoir, which is on the South Fork about 20 miles above the forks.

Diversions.—Lake Cheesman has a storage decree for 80,000 acre-feet and the Antero Reservoir for 46,000 acre-feet on the South Fork, South Platte, besides numerous decrees for meadow irrigation.

Accuracy.—Although the channel is shifting, sufficient discharge measurements have been obtained to enable fair estimates of discharge to be made.

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

SOUTH PLATTE RIVER AT DENVER

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

Records Available.—May 7, 1895, to December 31, 1920.

Drainage Area.—3,840 square miles.

Gage.—Automatic and slope gages. The chain gage was replaced by a slope gage November 9, 1916.

Channel.—Shifting.

Discharge Measurements.—Made from 19th Street bridge, or by wading.

Winter Flow.—The flow at this point is seldom affected by ice.

Diversions.—There are decrees for diversions of 1,922 second-feet from the South Platte between this station and South Platte and 5,988 second-feet from tributaries.

SOUTH PLATTE RIVER NEAR KERSEY

Location.—At highway bridge in Sec. 9, T. 5 N., R. 64 W., $1\frac{3}{4}$ miles north of Kersey, 2 miles below the entrance of Lone Tree Creek, an intermittent stream, and 3 miles below the mouth of the Cache la Poudre River.

Records Available.—April 27, 1901, to October 31, 1903; March 1, 1905, to November 30, 1912; January 1, 1914, to December 31, 1920.

Drainage Area.—9,500 square miles.

Gage.—Automatic and slope gages, 300 feet below bridge.

Channel.—Shifting.

Discharge Measurements.—Made from bridge at high water and by wading at low water.

Winter Flow.—Ice causes slight backwater for a few days during the winter.

Diversions.—Between this station and Denver there are court decrees for diversions of 3,764 second-feet from the South Platte, and 17,000 second-feet from intervening tributaries, besides numerous flood water decrees.

Accuracy.—The channel is extremely shifting and results cannot be considered better than fair.

Co-operation.—Station maintained in co-operation with Colorado Agricultural College, South Platte Water Users, Great Western Sugar Co., and State of Colorado.

SOUTH PLATTE RIVER AT BALZAC

Location.—Six hundred feet above highway bridge in Sec. 13, T. 5 N., R. 55 W., at Balzac. No important tributaries between this station and Kersey.

Records Available.—January, 1917, to December 31, 1920.

Drainage Area.—17,700 square miles.

Gage.—Automatic recording gage installed April 26, 1918. New datum established at same time. Old gage on highway bridge.

Channel.—River in one channel, very shifting.

Discharge Measurements.—Made from bridge during high water and by wading at ordinary stages.

Winter Flow.—Ice causes backwater during exceptionally cold weather only.

Accuracy.—Results are considered fair, when frequent discharge measurements are made.

Diversions.—There are court decrees for 2,148 second-feet on the South Platte River between this station and Kersey.

Co-operation.—Station maintained in co-operation with Colorado Agricultural College, South Platte Water Users, and State of Colorado.

SOUTH PLATTE RIVER NEAR JULESBURG

Location.—At highway bridge one mile south of Julesburg, about Sec. 33, T. 12 N., R. 44 W. No important tributaries between this station and the Colorado-Nebraska State Line a few miles below. All the tributaries for 100 miles or more above the station are intermittent, except Lodge Pole Creek, which has a small but nearly constant flow.

Records Available.—April 2, 1902, to November 16, 1906; May 12, 1908, to November 30, 1912; April 8, 1914, to December 31, 1920.

Drainage Area.—20,600 square miles.

Gage.—When the station was re-established in 1908 a gage was placed in each of the two main channels; both gages read practically the same as the original gage on the lower bridge 2,000 feet below the

present site. On May 5, 1915, six scales with open pulleys were placed on the bridge. The zeros of these scales were arranged so as to be at the same datum. These scales are numbered one to six, beginning at the south end of the bridge. Gages numbered one, two and three are over one channel.

Channel.—Shifting.

Discharge Measurements.—Made from bridge at high water and wading at low water stages.

Winter Flow.—Ice causes backwater during the winter months.

Diversions.—Between Kersey and Julesburg there are court decrees for diversions of 5,316 second-feet from the South Platte, and diversions of 1,240 second-feet from intervening tributaries, including Lodge Pole Creek in Wyoming and Nebraska and Crow Creek in Wyoming, besides numerous flood decrees. Between the state line and mouth, diversions of 260 second-feet from the South Platte have been granted in Nebraska.

Accuracy.—Sufficient measurements have been made so that results can be considered good.

Co-operation.—Station maintained in co-operation with Colorado Agricultural College, Great Western Sugar Co., South Platte Water Users and State of Colorado.

NOTE.—Results for 1915 are based on gage readings taken on scales numbered one, two and three. In 1916, 1917, 1918 and 1919, each main channel has been computed separately and the totals for the entire stream published.

BEAR CREEK AT STARBUCK

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

Drainage Area.—111 square miles.

Records Available.—October 1, 1919, to December 31, 1920.

Gage.—Vertical staff located on downstream side of south abutment.

Discharge Measurements.—Made from bridge during high water, and by wading at low stages.

Channel and Control.—Channel composed of boulders and cobbles; control 60 feet below station. Fairly permanent.

Ice.—Discharge effected for short periods during winter. Flow estimated during these periods by means of frequent measurements.

Accuracy.—Results good.

Diversions.—A few small diversions above station for small meadow farms and domestic use.

CLEAR CREEK NEAR GOLDEN

Location.—In Sec. 32, T. 3 S., R. 70 W., $1\frac{1}{2}$ miles above Golden. Station located one-half mile upstream prior to May 3, 1919. The only tributary of importance between the station and the mouth is Ralston Creek which enters about 12 miles below.

Records Available.—December 4, 1908, to December 31, 1909; June 8 to September 24, 1911; January 26, 1912, to November 2, 1920.

Drainage Area.—Approximately 380 square miles.

Gage.—Automatic recording gage, whose datum has remained unchanged.

Channel.—Slightly shifting.

Discharge Measurements.—Made from car and cable located near the gage.

Winter Flow.—Ice causes backwater during the winter months, but discharge measurements are made to determine the approximate winter flow.

Diversions.—Between Forks Creek and the station near Golden there is a court decree for a diversion of 26 second-feet by the Golden Ditch.

Accuracy.—Conditions are favorable for accurate results, and the records should be reliable.

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

SOUTH BOULDER CREEK AT ELDORADO SPRINGS

Location.—At the mouth of the canyon at Eldorado Springs, in Sec. 30, T. 1 S., R. 70 W., 3 miles southwest of Marshall. No important tributaries within several miles.

Records Available.—May 15, 1895, to September 30, 1901; July 1, 1904, to December 31, 1920.

Drainage Area.—125 square miles.

Gage.—Vertical staff; datum unchanged.

Channel.—Fairly permanent.

Discharge Measurements.—Made by wading.

Winter Flow.—Warm springs keeping channel open during the winter.

Diversions.—There are court decrees for diversions of 137 second-feet above the station and 1,658 second-feet below. There are also a number of flood-water decrees.

BOULDER CREEK NEAR ORODELL

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

Records Available.—May 12, 1917, to December 31, 1920. From May 14, 1895, to December 20, 1909, a station was maintained four miles below present station. From March 8, 1907, to November 26, 1914; February 27 to December 12, 1916, a station was maintained one mile below present station.

Drainage Area.—108 square miles.

Gage.—Automatic recording gage installed by the Colorado Power Company.

Channel.—Shifting in extremely high water.

Discharge Measurements.—Made from car and cable.

Winter Flow.—Ice causes backwater during winter months and during this period discharge measurements are made to determine the flow.

Diversions.—There are no diversions from Boulder Creek above the station for irrigation, but there are court decrees for 165 second-feet from tributaries entering above. Below the station there are decrees for diversions of 2,871 second-feet from Boulder Creek.

Artificial Control.—The Colorado Power Company's plant, one mile above the station, withholds the water for a portion of the day and thus causes considerable variation of gage height during low water.

Co-operation.—Station maintained in co-operation with the Colorado Power Company.

ST. VRAIN CREEK AT LYONS

Location.—Three-fourths of a mile below Lyons, in Sec. 17, T. 3 N., R. 70 W., one-fourth mile below the junction of North and South St. Vrain Creeks and just below Stone Canyon.

Records Available.—August 1, 1887, to October 31, 1890; June 13, 1895, to October 31, 1903; July 1, 1904, to December 31, 1920.

Drainage Area.—209 square miles.

Gage.—Inclined staff gage installed August 9, 1909, at practically the same datum as the inclined staff gage used from 1895 to 1903. It is not known whether the gage used prior to 1895 was located at the present site.

Channel.—Permanent.

Discharge Measurements.—Made from car and cable.

Winter Flow.—Ice causes very little backwater at this station.

Diversions.—There are court decrees for the diversion of 166 second-feet from the St. Vrain and tributaries above the station. Below there are court decrees for 1,632 second-feet from St. Vrain Creek and flood-water diversions of 190,000 acre-feet.

Co-operation.—Station maintained in co-operation with the Great Western Sugar Co.

BIG THOMPSON RIVER NEAR DRAKE

Location.—In Sec. 2, T. 5 N., R. 71 W., at highway bridge No. 7 in Big Thompson Canyon, 200 yards below Loveland dam and 1½ miles east of Drake, in Larimer County. Nearest tributary, North Fork, enters at Drake.

Drainage Area.—274 square miles (measured on topographic maps).

Records Available.—September 18, 1917, to November 8, 1920.

Gage.—Bristol pressure gage attached to left bridge abutment.

Discharge Measurements.—Made from single span bridge.

Channel and Control.—Channel is pool in which several feet of silt are deposited and scoured out; control 50 feet downstream at rapids of compact gravel; practically permanent. Banks not subject to overflow.

Ice.—Stage-discharge relation seriously affected by ice. Winter measurements made at section one-half mile upstream.

Extremes of Discharge.—Data too few.

Diversions.—Court decrees for diversions of 23 second-feet from river above station and 2,277 second-feet below, also decrees for storage of 81,000 acre-feet below station.

Regulation.—Alternate melting and freezing of mountain snow during spring causes diurnal fluctuation of discharge. No artificial regulation.

Co-operation.—Field data furnished by City of Loveland. Check measurements made by United States Geological Survey.

Accuracy.—Stage-discharge relation permanent; affected by ice during December. Rating curve well defined. Operation of recording gage fairly satisfactory until June 5, after which date chain gage readings only available. Daily discharge ascertained by applying to rating table mean daily gage heights obtained by inspection of gage height graph. Results good.

CACHE LA POUDE RIVER AT MOUTH OF CANON, NEAR FORT COLLINS

Location.—In Sec. 15, T. 8 N., R. 70 W., 3 miles below the intake of the Fort Collins waterworks, 12 miles above Fort Collins; half a mile above mouth of Lewstone Creek.

Records Available.—March 15, 1884, to October 15, 1901; February 3, 1910, to December 31, 1920.

Drainage Area.—1,060 square miles.

Gage.—An automatic recording gage installed November 30, 1909. No information available concerning the gage used 1884 to 1901.

Channel.—Permanent.

Discharge Measurements.—Made from car and cable.

Winter Flow.—Ice causes backwater during the winter months.

Regulation.—The flow is regulated by the Chambers Lake and Hailigan Reservoirs and by ditches diverting water from the headwaters of the Laramie and Grand Rivers and Michigan Creek across the divide.

Diversions.—There are court decrees for the diversion of 614 second-feet above this station.

CACHE LA POUDE RIVER AT MOUTH

Location.—About three miles below Greeley and one-half mile above mouth.

Records Available.—March 24, 1903, to October 31, 1903; July 20, 1904, to November 30, 1904; February 1, 1914, to December 17, 1919.

Gage.—The vertical staff gage used since 1914 was replaced April 4, 1916, by a slope gage on the right bank directly opposite the old gage, but reading 2.50 feet lower. A Bristol automatic gage was also installed on this date.

Discharge Measurements.—By wading at low stages and from highway bridge about one mile above at high stages.

Diversions.—Below all diversions on this stream.

Accuracy.—Low water measurements are good, but high water measurements are subject to error on account of poor conditions at the highway bridge.

Co-operation.—During 1916 station was maintained in co-operation with the Colorado Experiment Station.

NORTH PLATTE RIVER NEAR NORTH GATE

Location.—In Sec. 11, T. 11 N., R. 80 W., at highway bridge on Interstate Highway, 6 miles south of Colorado-Wyoming line and 6 miles northwest of North Gate, in Jackson County. Three small tributaries, Camp, Three-Mile, and Six-Mile Creeks, enter North Platte between station and state line. These have very little flow except spring run-off.

Drainage Area.—1,440 square miles.

Records Available.—May 23, 1915, to October 31, 1920.

Gage.—Vertical staff located at downstream side of center pier. Recording gage installed April 8, 1918.

Discharge Measurements.—Made from two-span bridge during high water, and by wading at low stages.

Channel and Control.—Channel composed of sand, gravel, and small boulders; control located 200 feet downstream at small rapids which shift slightly. Banks not liable to overflow.

Ice.—Discharge relation seriously affected by ice; observations discontinued during winter months.

Diversions.—There are court decrees for diversions of 3,060 second-feet from the North Platte and tributaries in Colorado.

Regulation.—None.

Accuracy.—Results excellent.

Co-operation.—Station maintained by the United States Geological Survey, from which records were obtained.

LARAMIE RIVER AT GLENDEVEY

Location.—At highway bridge one-eighth mile west of Glendevoy in Sec. 36, T. 10 N., R. 76 W., in the Medicine Bow National Forest; McIntyre Creek enters a short distance below and Nunn Creek above.

Records Available.—June 24, 1904, to October 31, 1905; August 18, 1910, to December 2, 1920.

Drainage Area.—102 square miles.

Gage.—Vertical staff and automatic gages.

Channel.—Permanent.

Discharge Measurements.—Made from bridge during high water and by wading at ordinary stages.

Winter Flow.—Ice causes backwater during the winter months.

Diversions.—There are court decrees for diversions of 65 second-feet from Laramie River above the station and 749 second-feet from tributaries entering above. Of this latter amount 688 second-feet are for diversion into the Cache La Poudre Basin.

Accuracy.—Conditions are favorable for excellent results, and the estimates should be reliable.

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

LARAMIE RIVER NEAR JELM, WYO.

Location.—At highway bridge in Sec. 15, T. 12 N., R. 77 W., 4 miles south of Jelm Postoffice, one-fourth mile below the Colorado-Wyoming line.

Records Available.—May 7, 1911, to October 31, 1920. From June 22, 1904, to October 31, 1905, a station was maintained at Decker's ranch, half a mile south of the state line. The records at the two stations are practically comparable, as there are no tributaries nor diversions of any amount between.

Drainage Area.—293 square miles.

Gage.—In 1911 an automatic recording gage was installed. This is referred to the same datum as the vertical staff used at first.

Channel.—Practically permanent.

Discharge Measurements.—Made from bridge.

Winter Flow.—Ice causes backwater during the winter months and the records are discontinued.

Diversions.—Between this station and that at Glendevy, Colorado, there are court decrees for diversions of 236 second-feet from Laramie River and 204 second-feet from intervening tributaries. These diversions are all in Colorado.

Accuracy.—Conditions are favorable for accurate results, and the estimates should be excellent.

Co-operation.—Station maintained in co-operation with State of Wyoming and United States Geological Survey.

Discharge of South Fork of South Platte River at Lake George for 1919.
Drainage Area, 1,070 Square Miles. Altitude, 7,963 Feet Above Sea Level.

Day .	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....				190	328	312	160	845	57	66	60	...
2....				292	278	254	223	1080	54	60	60	...
3....				354	241	194	328	410	54	57	80	...
4....				464	198	117	628	404	72	62	76	...
5....				470	166	90	446	288	66	70	60	...
6....				628	166	74	318	219	60	72	60	...
7....				328	149	85	318	206	60	78	60	...
8....				278	132	146	250	268	60	82	60	...
9....				410	142	152	194	206	57	70	60	...
10....				628	100	149	142	210	60	62	60	...
11....				470	74	149	78	186	117	57	60	...
12....				502	64	152	76	170	123	57	58	...
13....				458	54	160	146	146	163	58	60	...
14....				496	54	156	232	126	259	60	60	...
15....				483	52	146	365	120	323	60	60	...
16....				202	48	273	307	108	323	60	60	...
17....				163	46	273	318	114	278	60	60	...
18....				160	45	278	344	264	210	60	60	...
19....				190	45	365	440	259	190	60	56	...
20....				182	72	354	446	254	174	57	54	...
21....				194	138	323	354	254	146	54	52	...
22....				166	190	307	297	245	135	54	51	...
23....				160	278	254	268	241	126	52	51	...
24....				160	302	206	245	236	114	51	51	...
25....				174	297	170	117	278	105	51	51	...
26....				182	264	135	88	273	102	51	58	...
27....				206	297	129	170	264	98	51	62	...
28....				223	371	108	210	268	95	48	56	...
29....				250	410	105	328	264	88	45	52	...
30....			206	302	416	105	376	149	78	45	45	...
31....			190		393		612	66		76		...
Total			396	9365	5830	5721	8824	8421	3847	1846	1693	...
Mean.				312	188	191	285	272	128	59.5	56.4	...
Max..				628	416	365	628	1080	323	82	80	...
Min..				160	45	74	76	66	54	45	45	...
Acre-ft.				18600	11600	11400	17500	16700	7620	3660	3360	...

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

Discharge of South Fork of South Platte River at Lake George for 1920.
Drainage Area, 1,070 Square Miles. Altitude, 7,963 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....				45	85	162	132	307	117	54	264	
2....				45	92	190	100	283	102	54	259	
3....				50	108	152	74	241	90	51	135	
4....				52	98	132	86	319	80	51	56	
5....				52	85	111	149	259	80	51	54	
6....				58	80	98	120	328	80	51	54	
7....				60	78	95	74	223	80	132	57	
8....				70	76	102	60	186	100	182	62	
9....				78	72	186	60	170	105	194	60	
10....				78	92	241	58	182	92	228	72	
11....				85	82	241	56	236	80	254	60	
12....				80	76	174	88	297	74	259	57	
13....				85	76	194	105	307	66	268	52	
14....				95	72	194	78	292	62	264	45	
15....				98	72	210	64	259	60	264	45	
16....				80	72	198	80	250	57	264	18	
17....				80	114	170	88	236	54	268	11	
18....				120	95	163	129	214	62	264	22	
19....				210	76	142	149	232	60	264	57	
20....				105	85	100	100	297	76	264	48	
21....				70	100	74	78	319	78	264	45	
22....				50	126	60	74	292	70	264	45	
23....				58	186	54	82	264	62	264	45	
24....				60	241	57	82	241	56	264	25	
25....				56	223	57	371	228	54	264	12	
26....				60	210	57	760	214	54	264	38	
27....				54	178	64	1080	328	54	254	12	
28....				62	142	90	410	292	54	254	9	
29....				76	111	146	278	273	54	254	9	
30....				92	105	120	307	219	54	254	5	
31....					142	....	307	142	....	254	....	
Total				2264	3450	4034	5673	7930	2167	6535	1733	
Mean.				75.5	111	134	183	256	72.2	211	57.8	
Max.				210	241	241	1080	328	117	268	264	
Min.				45	72	54	56	142	54	51	5	
Acre-ft.				4490	6820	7970	11300	15700	4300	13000	3440	

Discharge of North Fork of South Platte River at South Platte for 1919.
Drainage Area, 450 Square Miles. Altitude, 6,097 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....				112	400	530	220	530	123	112	82	
2....				92	485	400	285	420	123	112	77	
3....				106	575	380	420	485	206	117	92	
4....				86	620	360	400	440	193	134	82	
5....				123	575	340	360	360	150	138	92	
6....				134	530	320	328	302	145	138	102	
7....				82	575	320	313	285	141	134	96	
8....				82	575	400	292	320	134	134	102	
9....				82	575	420	257	285	145	130	82	
10....				60	575	380	244	250	150	123	74	
11....				92	530	360	244	250	163	123	74	
12....				98	530	360	220	250	168	123	68	
13....				92	530	340	235	220	168	123	66	
14....				123	575	320	250	220	285	112	66	
15....				106	620	360	340	206	285	112	68	
16....				102	552	320	360	220	193	108	68	
17....				106	575	340	285	206	168	102	70	
18....				134	575	360	285	193	168	92	70	
19....			103	168	620	440	598	193	168	102	68	
20....			88	193	670	360	552	193	163	96	68	
21....			72	250	720	400	340	493	150	102	67	
22....			54	285	575	328	320	168	143	92	66	
23....			54	285	620	313	285	168	130	92	74	
24....			49	285	620	268	250	168	127	92	74	
25....			60	360	575	257	220	168	115	92	77	
26....			39	285	620	226	220	168	115	92	70	
27....			60	340	620	244	220	156	115	96	68	
28....			63	268	575	220	340	193	115	74	65	
29....			82	285	620	220	235	156	115	92	62	
30....			102	360	620	220	302	141	115	112	65	
31....			119	....	530	....	285	134	....	82	....	
Total			945	5126	17957	10106	9505	7641	4679	3383	2255	
Mean.			72.7	171	579	337	307	246	156	109	75.2	
Max.			119	360	720	530	598	530	285	138	102	
Min.			39	60	400	220	220	134	115	74	62	
Acre-ft.			1870	10200	35600	20100	18900	15100	9280	6700	4470	

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

Discharge of North Fork of South Platte River at South Platte for 1920.
Drainage Area, 450 Square Miles. Altitude, 6,097 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....				63	320	795	485	320	193	134	102	102
2.....				34	508	645	462	320	193	128	92	112
3.....				46	598	598	440	268	193	123	102	134
4.....				28	575	598	440	285	193	123	102	112
5.....				55	598	695	400	285	193	119	102	
6.....				55	530	720	400	250	193	112	112	
7.....				55	552	720	380	220	193	112	92	
8.....				74	575	820	320	193	220	112	82	
9.....				63	552	770	320	193	193	112	79	
10.....				74	530	770	302	250	193	112	66	
11.....				92	440	720	320	220	180	112	74	
12.....				55	440	720	320	250	168	112	63	
13.....				92	440	720	320	285	168	123	63	
14.....				92	360	720	320	220	168	134	119	
15.....				92	360	670	302	193	150	134	112	
16.....			21	102	360	695	285	220	145	141	82	
17.....			46	123	360	645	302	220	150	127	134	
18.....			46	82	440	645	320	193	150	123	119	
19.....			30	74	552	598	360	206	150	123	119	
20.....			46	92	575	553	320	360	180	119	112	
21.....			52	112	645	530	320	420	163	123	66	
22.....			69	102	820	508	285	360	150	112	63	
23.....			63	98	795	530	285	285	141	123	74	
24.....			50	123	870	508	340	235	141	106	102	
25.....			39	102	1000	485	420	220	141	112	106	
26.....			52	86	845	462	485	193	141	123	112	
27.....			55	86	695	552	360	250	141	123	134	
28.....			39	106	695	552	320	235	134	127	79	
29.....			25	156	745	552	302	220	134	127	98	
30.....			36	220	795	508	285	206	134	119	82	
31.....			52		745		285	206		112		
Total			721	2634	18315	19004	10805	7781	4986	3742	2844	
Mean.			45.1	87.8	591	633	349	251	166	121	94.8	
Max..			69	220	1000	820	485	420	220	141	134	
Min...			21	28	320	462	285	193	134	106	63	
Acre-ft.			1430	5220	36300	37700	21500	15400	9880	7440	5640	

Discharge of South Platte River at South Platte for 1919.
Drainage Area, 2,610 Square Miles. Altitude, 6,097 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....				226	1210	1570	1240	1450	474	216	120	
2.....				130	1360	1450	970	1570	452	156	122	
3.....				218	1300	1210	1090	1640	452	140	122	
4.....				184	1240	1180	1270	1450	396	134	122	
5.....				240	1180	1120	1360	1030	384	142	124	
6.....				262	1180	1090	1360	850	346	134	118	
7.....				850	1150	850	1120	700	338	136	120	
8.....				675	1090	800	910	825	306	456	114	
9.....				542	1030	800	892	1120	303	184	118	
10.....				400	1060	880	740	1660	320	372	118	
11.....				412	940	850	537	970	320	357	118	
12.....				456	910	825	424	785	310	126	126	
13.....				625	880	800	447	600	380	122	128	
14.....				940	880	675	578	550	542	122	132	
15.....				1030	910	725	825	528	775	120	130	
16.....				750	880	940	1120	514	850	126	132	
17.....				578	880	940	880	501	850	132	130	
18.....				600	880	1030	800	483	825	142	132	
19.....				725	940	1120	1000	600	650	132	128	
20.....				825	940	1300	940	650	600	138	118	
21.....				800	1000	1270	1210	650	550	130	118	
22.....				750	1120	1270	940	625	519	132	116	
23.....				750	1330	1210	750	600	474	130	116	
24.....				750	1390	1210	750	578	438	130	115	
25.....				825	1390	1150	650	700	416	130	115	
26.....				800	1450	1150	625	850	408	128	115	
27.....				880	1450	1180	555	880	384	126	125	
28.....				940	1510	1150	650	940	353	124	60	
29.....				880	1570	1150	800	650	320	126	75	
30.....				1060	1640	1150	880	625	317	113	120	
31.....					1640		1090	488		122		
Total				19093	36270	32045	27403	25462	14052	4968	3547	4681
Mean.				636	1170	1070	884	821	468	160	118	151
Max..				1060	1640	1570	1360	1640	850	456	132	
Min...				130	880	675	424	483	303	113	60	
Acre-ft.				37800	71900	63700	54400	50500	27800	9840	7020	9280

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

Discharge of South Platte River at South Platte for 1920.
Drainage Area, 2,610 Square Miles. Altitude, 6,097 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....			106	109	725	940	510	1120	600	222	210	111
2.....			120	77	850	775	700	1060	620	262	160	156
3.....			133	104	880	725	700	880	620	272	149	151
4.....			84	79	850	750	700	880	620	269	153	134
5.....			113	86	850	970	600	880	600	269	136	128
6.....			89	102	850	1060	600	825	525	266	138	130
7.....			56	96	850	1150	650	800	800	262	132	107
8.....			88	124	825	1210	850	775	800	246	126	95
9.....			120	120	825	1150	850	675	775	246	122	
10.....			102	128	850	1210	1060	625	775	243	100	
11.....			115	147	775	1210	1060	600	775	240	105	
12.....			90	130	700	1210	1060	650	775	578	93	
13.....			149	160	725	1270	1060	800	725	800	95	
14.....			189	179	675	1330	1060	775	625	429	130	
15.....			157	420	625	1330	940	775	357	279	122	
16.....			72	452	600	1330	940	775	331	246	104	
17.....			107	488	555	1330	1030	750	342	250	114	
18.....			107	388	578	1330	800	750	346	240	120	
19.....			75	388	625	1330	850	825	338	234	114	
20.....			93	416	750	1210	825	1060	353	225	104	
21.....			102	324	775	1150	880	940	365	228	86	
22.....			128	187	910	1000	850	970	384	228	67	
23.....			122	207	940	970	750	1000	380	207	80	
24.....			100	231	940	850	850	970	380	202	65	
25.....			89	210	1120	825	910	940	342	210	65	
26.....			96	192	1180	775	1180	750	338	222	84	
27.....			100	182	1030	825	1150	750	299	222	93	
28.....			77	222	1060	825	1360	850	286	216	74	
29.....			64	296	1120	775	1360	880	282	222	50	
30.....			93	510	1030	675	1300	775	243	219	58	
31.....			100		970		1060	700		231		
Total	4154	3132	3236	6754	26038	31540	28495	25805	15001	8485	3249	
Mean.	134	108	104	225	840	1050	919	832	500	274	108	
Max.			189	510	1180	1330	1360	1120	800	800	210	
Min.			56	77	555	675	510	600	243	202	50	
Acre-ft.	8240	6210	6400	13400	51600	62500	56500	51200	29800	16800	6430	

Discharge of South Platte River at Denver for 1919.
Drainage Area, 3,840 Square Miles. Altitude, 5,240 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	80	152	122	286	1650	1470	1070	2620	350	131	128	178
2.....	114	161	143	290	1910	1380	1070	2440	294	128	125	156
3.....	158	149	168	230	2040	1100	821	2980	1320	128	125	154
4.....	158	114	251	259	1890	898	1080	2800	940	154	125	149
5.....	175	131	152	244	1790	842	1170	1790	500	169	122	144
6.....	158	149	137	319	1650	712	1060	1210	390	154	126	139
7.....	158	152	122	520	1570	758	884	926	440	133	139	134
8.....	158	149	117	905	1470	598	556	658	390	121	156	130
9.....	165	149	114	664	1260	550	556	912	350	271	165	126
10.....	161	161	88	468	1140	670	658	1060	277	176	176	126
11.....	185	158	95	267	1090	670	550	754	262	335	190	185
12.....	189	152	106	271	947	598	526	518	312	226	190	205
13.....	185	143	134	431	961	580	538	430	262	167	202	147
14.....	158	128	152	640	772	474	370	430	560	136	221	150
15.....	155	131	106	870	744	417	426	362	560	124	197	167
16.....	165	134	131	786	828	538	682	342	730	125	169	161
17.....	172	137	117	568	856	580	849	323	620	111	152	171
18.....	178	146	128	375	814	628	622	323	530	114	140	192
19.....	206	143	185	398	835	751	652	302	530	122	129	176
20.....	206	125	244	496	828	947	744	281	294	129	126	165
21.....	199	100	230	586	786	1100	793	294	262	126	128	165
22.....	175	108	212	640	765	1160	718	308	294	121	120	171
23.....	168	111	199	586	863	1100	426	320	232	125	121	161
24.....	168	100	212	538	1090	1070	336	339	205	128	124	150
25.....	161	111	199	568	1230	1090	479	335	180	137	122	154
26.....	158	108	185	658	1130	1040	402	400	169	137	109	154
27.....	165	128	182	884	1160	1120	453	548	150	150	101	147
28.....	152	100	165	1590	1150	1140	538	648	134	142	100	152
29.....	155		161	1240	1280	1160	688	730	134	140	120	148
30.....	149		219	1320	1350	1120	598	370	117	134	183	148
31.....	149		226		1430		856	312		131		140
Total	5983	3720	5002	17897	37279	26271	21171	26065	11788	4625	4331	4845
Mean.	164	133	161	597	1200	876	683	841	393	149	144	156
Max.	206	161	251	1590	2040	1470	1170	2980	1320	335	221	205
Min.	80	100	88	230	744	417	370	281	117	111	100	126
Acre-ft.	10100	7390	9900	35500	73800	52100	42000	51700	23400	9160	8570	9590

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

Discharge of South Platte River at Denver for 1920.
Drainage Area, 3,840 Square Miles. Altitude, 5,240 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	117	136	100	61	1460	495	470	985	246	203	177	100
2.....	107	141	100	57	2000	397	335	1070	393	179	163	129
3.....	119	129	100	56	2230	335	435	942	490	174	154	134
4.....	136	119	84	62	2180	335	485	808	454	160	163	124
5.....	154	119	77	61	2010	389	444	784	470	149	163	126
6.....	157	117	70	78	1850	696	512	752	449	147	154	136
7.....	119	112	64	73	1860	744	495	696	444	144	152	179
8.....	117	144	119	68	1890	610	645	736	439	141	139	185
9.....	124	131	139	72	1810	480	470	680	435	129	139	197
10.....	117	126	129	68	2020	522	470	617	430	134	131	191
11.....	139	121	141	96	1750	485	659	574	406	144	134	171
12.....	144	116	126	80	1600	485	776	752	384	114	131	182
13.....	144	112	105	66	1460	512	808	720	323	363	131	154
14.....	144	106	84	68	1400	598	1810	688	269	430	147	129
15.....	157	100	144	70	1280	610	1390	506	200	227	185	100
16.....	152	129	105	114	1080	624	728	384	177	157	168	134
17.....	154	141	93	136	942	580	816	367	160	149	165	149
18.....	171	131	93	185	882	562	539	327	165	136	177	157
19.....	177	131	96	420	882	624	592	279	200	139	171	157
20.....	185	119	102	562	882	617	480	631	259	121	154	165
21.....	163	126	96	550	925	485	430	857	283	119	157	147
22.....	168	96	126	485	925	397	406	680	246	117	152	121
23.....	164	112	144	388	1120	539	331	624	279	114	147	129
24.....	160	112	136	380	1220	279	240	568	279	114	149	141
25.....	157	100	93	371	1110	240	416	500	283	107	136	139
26.....	157	74	68	358	1100	230	1560	424	283	109	129	149
27.....	154	89	68	338	985	262	1100	354	276	147	136	136
28.....	150	91	70	354	760	550	1100	380	246	164	136	126
29.....	147	96	52	500	666	1100	1380	430	230	154	126	141
30.....	144	....	52	840	696	925	1360	393	234	149	102	160
31.....	140	....	47	....	680	....	1250	276	....	174	....	157
Total	4538	3376	3023	7017	41655	15705	22932	18784	9432	5008	4468	4545
Mean.	146	116	97.5	234	1340	523	740	606	314	162	149	147
Max..	185	144	144	840	2230	1100	1810	1070	490	430	185	197
Min..	107	74	47	56	666	230	240	276	160	107	102	160
Acre-ft.	8980	6670	6000	13900	82400	31100	45500	37300	18700	9960	8870	9040

Discharge of South Platte River near Kersey for 1919.
Altitude, 4,612 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	880	860	620	380	780	157	208	95	100	254	666	....
2.....	880	820	620	380	860	380	134	1600	110	234	666	....
3.....	880	780	620	420	1080	380	157	2030	150	221	666	....
4.....	860	780	700	460	1390	235	134	1900	415	218	654	....
5.....	860	780	700	460	1390	117	134	1720	457	264	649	....
6.....	860	820	780	460	1300	100	180	1240	365	344	654	....
7.....	860	780	780	500	1120	86	180	765	277	435	654	....
8.....	900	860	780	540	940	100	135	436	224	495	671	....
9.....	900	860	700	620	780	100	122	264	166	535	700	....
10.....	920	860	620	700	700	86	106	273	147	540	725	....
11.....	940	940	580	780	540	100	95	198	138	565	738	....
12.....	940	940	540	780	420	100	98	140	134	590	712	....
13.....	940	940	460	780	305	72	104	127	136	660	725	....
14.....	940	860	460	780	208	72	141	116	140	590	745	....
15.....	940	860	460	780	134	72	152	103	147	560	812	....
16.....	900	860	460	860	100	72	155	90	228	545	839	....
17.....	860	860	500	940	100	72	169	98	297	515	888	....
18.....	940	860	540	860	72	72	183	96	340	476	853	....
19.....	1030	780	500	740	72	72	176	95	316	458	805	....
20.....	1030	820	500	660	51	86	176	94	286	462	805	....
21.....	985	780	460	620	51	100	210	93	282	458	778	....
22.....	940	700	460	540	62	100	172	93	290	472	738	....
23.....	940	700	500	420	72	86	127	94	290	510	666	....
24.....	940	700	460	380	72	83	117	94	297	520	649	....
25.....	940	620	460	305	86	83	111	95	297	525	600	....
26.....	940	620	460	305	86	83	111	94	294	525	550	....
27.....	940	620	460	235	100	83	93	94	297	545	500	....
28.....	940	620	420	305	72	82	100	94	286	515	430	....
29.....	860	....	380	820	72	83	93	94	286	540	400	....
30.....	900	....	380	1030	100	100	91	94	272	535	430	....
31.....	860	....	342	....	100	....	93	98	....	600	....	....
Total	28445	22280	16702	17840	13215	3414	4257	12517	7464	14706	20368	....
Mean.	918	796	539	595	426	114	137	404	249	474	679	....
Max..	1030	940	780	1030	1390	380	210	2030	457	660	888	....
Min..	860	620	342	235	51	72	91	93	100	218	400	....
Acre-ft.	56400	44200	33100	35400	26200	6780	8420	24800	14800	29100	40400	....

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

Discharge of South Platte River near Kersey for 1920.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	504	612	435	425	1590	576	973	912	270	405	828	588
2....	504	612	435	460	2020	681	688	800	242	450	828	618
3....	475	606	420	492	2780	375	435	765	226	462	824	636
4....	504	570	415	492	3860	350	330	673	219	460	816	648
5....	534	564	410	492	3890	354	250	491	242	447	808	642
6....	546	558	362	498	3390	358	207	376	250	407	830	624
7....	504	558	362	492	3270	358	172	400	298	432	872	618
8....	470	570	370	487	3430	674	160	476	418	425	904	618
9....	440	570	370	457	3230	928	152	516	507	435	880	606
10....	445	561	438	464	3110	1270	147	455	522	504	848	630
11....	475	530	475	525	3380	977	157	400	534	537	856	624
12....	475	540	475	576	3110	920	178	369	516	525	880	630
13....	475	552	450	645	2610	872	166	465	478	549	864	612
14....	475	555	430	709	2210	1030	195	665	438	555	888	570
15....	475	528	400	713	1980	904	195	709	358	709	880	552
16....	482	522	380	650	1780	1130	314	677	320	848	816	545
17....	498	510	380	594	1680	1550	203	516	272	808	800	545
18....	534	528	370	617	1640	1780	195	342	250	804	800	600
19....	588	540	366	488	1680	1710	234	233	258	786	800	600
20....	624	540	366	465	1880	1500	296	211	244	769	779	702
21....	582	540	370	904	2250	1180	235	250	219	779	744	660
22....	540	534	375	1480	2610	912	160	765	211	800	779	642
23....	498	534	350	1480	3070	1100	145	688	195	808	758	642
24....	475	522	314	1540	3480	1540	138	528	184	800	688	630
25....	504	510	302	1550	3120	1550	166	415	234	786	688	606
26....	534	498	294	1540	2590	1620	290	340	294	772	674	630
27....	570	458	290	1480	2760	1320	629	294	336	723	660	688
28....	594	460	298	1400	1330	1090	609	294	380	702	667	1160
29....	606	450	354	1480	698	1160	525	353	390	702	642	1290
30....	606	....	410	1540	558	1170	720	420	390	709	618	1090
31....	606	....	410	....	581	....	772	328	....	772	....	648
Total	16142	15632	11876	25115	75567	30939	10036	15126	9689	19670	23719	20894
Mean.	521	539	383	837	2440	1030	324	488	323	635	791	674
Max.	624	612	475	1550	3890	1780	973	912	534	848	904	1290
Min.	440	450	290	425	358	350	138	211	184	405	618	545
Acre-ft.	32000	31000	23600	49800	150000	61300	19900	30000	19200	39000	47100	41400

Discharge of South Platte River at Balzac for 1919.
Altitude, 4,090 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	270	1040	463	71	28	51	184	210	116	232	220	338
2....	210	974	239	41	28	51	189	89	148	210	180	332
3....	150	950	164	39	27	49	215	124	189	189	180	327
4....	100	990	114	48	21	49	292	352	347	175	175	321
5....	130	1020	94	66	44	48	263	950	376	175	105	316
6....	160	934	91	54	101	48	167	990	434	192	69	310
7....	200	982	77	54	204	51	181	830	443	220	65	305
8....	230	942	61	539	624	52	175	522	285	246	55	299
9....	260	950	61	568	624	66	189	281	192	256	81	294
10....	300	878	60	598	385	148	161	198	172	266	116	288
11....	335	934	58	631	158	143	140	172	172	319	265	283
12....	347	982	54	666	44	128	153	140	143	347	415	277
13....	360	1040	54	592	20	126	143	136	133	368	527	272
14....	372	1030	54	385	49	121	183	148	148	389	540	267
15....	384	870	52	232	57	121	213	183	169	398	550	262
16....	396	862	49	87	49	119	256	236	166	398	560	256
17....	408	870	45	45	94	128	256	226	180	355	600	249
18....	420	878	39	36	150	138	204	236	201	311	750	266
19....	468	736	37	42	87	359	186	198	198	300	708	249
20....	539	687	33	30	74	285	195	175	204	300	673	210
21....	556	694	35	30	63	252	201	175	232	285	617	208
22....	652	604	33	30	52	256	166	192	273	263	550	206
23....	758	562	39	29	48	256	121	189	307	256	493	204
24....	830	574	40	29	48	223	100	186	300	252	493	201
25....	854	550	37	26	48	177	112	183	304	252	434	207
26....	870	510	37	29	24	148	129	148	296	260	364	210
27....	798	488	35	29	24	175	146	130	307	277	359	216
28....	822	814	35	28	24	169	150	156	372	266	354	216
29....	830	....	34	28	29	150	156	148	381	260	348	242
30....	846	....	33	28	41	161	189	105	288	252	343	232
31....	950	....	39	....	52	....	289	84	....	249	....	232
Total	14805	23345	2296	5113	3321	4248	5705	8092	7476	8518	11189	8095
Mean.	478	834	74.1	170	107	142	184	261	249	275	373	261
Max.	950	1040	463	666	624	359	292	990	443	398	750	338
Min.	100	488	33	28	21	48	100	84	116	175	55	201
Acre-ft.	29400	46300	4560	10100	6580	8450	11300	16000	14800	16900	22200	16000

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

Discharge of South Platte River at Balzac for 1920.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	187	22	25	16	214	62	59	353	172	205	333	43
2....	108	24	23	18	129	50	94	400	160	199	390	46
3....	98	19	21	18	205	64	131	380	160	217	410	48
4....	163	22	25	24	361	175	175	289	187	226	405	48
5....	193	26	19	22	955	175	235	229	211	211	349	48
6....	112	28	52	19	1860	157	196	190	223	211	309	53
7....	50	25	30	16	2070	151	178	175	226	217	321	56
8....	50	30	31	19	2200	142	190	226	244	232	265	50
9....	50	32	38	21	2090	136	187	333	385	253	169	50
10....	50	28	21	24	2090	232	214	380	535	265	142	46
11....	50	24	16	53	1780	505	208	345	460	289	131	50
12....	50	24	16	84	1730	440	226	261	385	293	120	54
13....	50	20	18	40	1810	329	226	199	337	293	148	53
14....	50	22	18	24	1520	559	232	178	289	293	151	43
15....	50	26	19	19	1280	607	253	217	321	345	178	46
16....	42	31	19	16	1080	577	345	329	365	390	151	40
17....	52	25	19	33	901	799	214	305	349	577	163	43
18....	64	22	18	200	655	910	277	196	305	643	175	50
19....	42	22	16	200	547	885	325	181	277	420	126	62
20....	34	22	18	400	321	430	269	166	261	325	126	100
21....	34	22	16	785	349	136	250	154	202	309	122	72
22....	46	19	16	500	637	80	244	181	175	305	92	92
23....	34	22	14	172	1080	64	235	247	166	301	53	157
24....	19	19	12	370	1350	60	273	361	154	301	46	187
25....	26	19	13	460	1440	62	329	241	145	313	52	199
26....	21	22	13	475	1320	70	293	169	163	329	58	285
27....	16	21	14	465	1040	70	269	181	196	349	48	317
28....	18	21	16	450	792	92	250	229	211	313	46	108
29....	19	28	16	390	415	120	353	217	208	281	44	72
30....	22	....	14	250	96	56	365	235	199	261	42	84
31....	21	....	13	....	74	....	273	217	....	289	....	124
Total	1821	687	618	5583	32465	8195	7359	7764	7671	9455	5165	2726
Mean.	58.7	23.7	19.9	186	1050	273	237	250	256	305	172	87.9
Max..	187	32	52	785	2200	910	365	400	535	643	410	317
Min..	16	19	12	16	74	50	50	154	145	199	42	40
Acre-ft.	3610	1360	1220	11100	64600	16200	14600	15400	15200	18800	10200	5400

Discharge of South Platte River at Julesburg for 1919.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....			1180	316	338	49	24	22	24	393	506	....
2....			1380	362	301	44	24	22	26	404	506	....
3....			1710	341	259	38	24	22	87	438	506	....
4....			1690	360	240	83	24	22	63	422	506	....
5....			1200	324	209	84	23	22	48	423	506	....
6....			997	348	270	69	22	14	46	448	492	....
7....			763	428	290	65	22	14	60	425	479	....
8....			682	285	367	65	22	14	70	422	473	....
9....			546	232	482	77	22	14	76	418	410	....
10....			532	455	903	76	22	22	121	418	362	....
11....			538	678	1180	63	22	20	169	418	....	....
12....			453	1020	921	55	22	20	159	350	....	....
13....			381	993	681	49	22	20	148	468	....	....
14....			374	1030	558	49	22	20	113	498	....	....
15....			343	1000	451	39	22	20	112	607	....	....
16....			336	326	384	44	22	20	146	607	....	....
17....			298	818	287	38	22	20	146	628	....	....
18....			237	661	265	47	22	18	142	685	....	....
19....			313	568	215	47	22	18	154	664	....	....
20....			252	533	183	37	22	18	154	652	....	....
21....			215	402	123	37	22	18	141	640	....	....
22....			198	409	106	36	22	22	146	659	....	....
23....			190	383	87	36	22	22	202	615	....	....
24....			189	345	80	31	22	17	208	605	....	....
25....			170	345	72	31	22	25	221	600	....	....
26....			175	361	59	22	22	24	234	554	....	....
27....			172	328	52	30	22	24	237	542	....	....
28....			161	396	42	30	22	24	307	535	....	....
29....			154	424	36	30	22	23	322	528	....	....
30....			153	420	40	34	22	22	364	528	....	....
31....			191	....	40	....	22	22	....	506	....	....
Total			16173	15491	9521	1435	691	625	4446	16100	4746	....
Mean.			522	516	307	47.8	22.3	20.2	148	519	475	....
Max..			1710	1030	1180	84	24	25	364	685	....	....
Min..			153	232	36	22	22	14	24	393	....	....
Acre-ft.			32100	30700	18900	2840	1370	1240	8810	31900	9420	....

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

Discharge of South Platte River at Julesburg for 1920.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	300	300	282	302	1080	811	274	18	371	296	268	390
2....	300	300	302	336	953	596	308	78	357	343	322	390
3....	300	300	343	262	850	448	274	74	357	371	463	390
4....	300	300	350	196	941	343	244	15	378	364	420	390
5....	300	300	357	296	963	244	208	18	413	364	378	390
6....	300	300	357	364	910	168	168	54	427	343	371	390
7....	300	300	357	302	1020	118	173	74	441	314	364	390
8....	300	300	357	268	1560	70	158	70	420	308	322	390
9....	300	300	357	308	2090	38	163	70	371	308	282	390
10....	300	300	357	364	2340	42	90	66	413	302	274	390
11....	275	300	357	214	2430	38	66	54	441	322	268	390
12....	275	300	357	256	2490	42	54	34	455	350	202	390
13....	275	300	357	508	2220	42	70	21	463	364	196	390
14....	275	300	357	580	2110	38	54	18	471	385	256	390
15....	275	300	357	564	2070	28	38	21	479	420	196	300
16....	275	300	357	564	1890	28	50	82	434	427	256	250
17....	275	300	357	900	1740	58	58	38	413	434	256	200
18....	275	220	357	890	1620	208	50	28	385	448	256	190
19....	275	178	357	803	1470	441	54	28	371	479	256	180
20....	275	173	336	758	1320	758	42	38	343	503	256	175
21....	250	163	314	820	1200	930	38	28	371	508	196	175
22....	250	143	314	1100	1080	900	31	18	378	441	143	172
23....	250	128	329	1420	1010	722	25	21	302	371	143	175
24....	250	123	350	1520	996	556	21	31	250	314	196	175
25....	250	123	357	1420	1030	479	18	25	214	288	256	200
26....	250	133	357	1230	1280	350	18	21	226	256	256	200
27....	250	241	343	1180	1410	336	18	34	232	238	392	225
28....	250	226	371	1170	1400	296	9	163	238	238	392	225
29....	250	256	336	1180	1280	256	6	238	238	220	392	250
30....	250	....	302	1140	1110	232	9	268	226	214	392	250
31....	250	....	268	....	1010	....	15	357	....	208	....	275
Total	8500	7207	10609	21215	44873	9616	2804	2103	10880	10741	8620	9077
Mean.	274	248	342	707	1450	321	90.5	67.8	363	346	287	293
Max.	....	....	371	1520	2490	930	308	357	479	508	463	....
Min.	....	....	268	196	850	28	6	15	214	208	143	....
Acre-ft.	16800	14300	21000	42000	89200	19100	5560	4170	21600	21300	17100	18000

Discharge of Bear Creek at Starbuck for 1919.

Drainage Area, 111 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....										36	27	19
2....										36	24	19
3....										36	24	12
4....										36	24	14
5....										35	22	14
6....										35	22	15
7....										35	19	17
8....										34	22	17
9....										34	30	16
10....										34	24	16
11....										33	22	16
12....										33	22	16
13....										33	24	16
14....										32	27	16
15....										32	27	16
16....										32	24	16
17....										32	24	16
18....										31	22	15
19....										30	24	15
20....										30	22	15
21....										30	16	17
22....										30	19	15
23....										30	16	15
24....										27	16	17
25....										27	16	15
26....										27	16	14
27....										27	7	13
28....										19	12	14
29....										22	15	15
30....										27	17	14
31....										27	....	14
Total										961	626	478
Mean.										31.0	20.9	15.4
Max.										36	30	19
Min.										19	7	12
Acre-ft.										1910	1240	947

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

Discharge of Bear Creek at Starbuck for 1920.

Drainage Area, 111 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	15	15	18	7	248	193	140	62	87	38	23	20
2....	13	15	21	13	276	193	140	62	87	33	14	20
3....	13	13	21	11	304	234	128	56	78	33	20	20
4....	11	13	18	8	316	206	96	56	78	33	23	17
5....	13	13	15	13	316	180	96	56	78	33	27	17
6....	13	13	13	11	332	180	87	56	78	33	31	17
7....	15	15	33	10	332	180	96	56	78	33	17	17
8....	15	13	56	18	276	160	96	56	78	33	17	17
9....	15	13	38	24	248	140	78	62	96	33	17	17
10....	15	13	24	21	276	128	78	70	96	33	23	17
11....	15	15	21	18	262	128	78	78	96	32	17	18
12....	15	18	18	10	276	128	78	78	96	32	20	18
13....	15	21	24	21	262	153	62	70	87	32	17	18
14....	15	24	33	28	262	153	62	56	78	42	20	18
15....	15	21	11	24	206	153	62	67	78	32	20	18
16....	15	21	18	21	248	166	70	78	68	37	31	18
17....	15	18	18	21	206	166	70	78	54	37	31	18
18....	15	18	15	21	193	153	70	70	61	37	27	19
19....	15	18	18	49	206	140	62	96	61	37	27	19
20....	15	21	13	49	220	128	62	96	59	37	20	22
21....	15	24	15	38	206	116	56	128	53	36	27	20
22....	15	18	21	24	206	140	49	96	53	31	20	18
23....	15	18	13	38	193	128	49	96	53	27	14	18
24....	15	15	15	28	193	128	62	96	46	27	20	19
25....	15	15	13	21	180	116	78	96	46	17	17	19
26....	15	21	13	21	193	116	87	96	46	23	14	20
27....	18	18	13	33	166	153	78	96	40	23	20	18
28....	18	15	11	38	180	140	78	96	39	23	20	18
29....	18	13	6	96	193	140	62	96	39	23	17	20
30....	18	....	15	116	166	153	62	96	39	23	20	23
31....	15	....	13	....	180	....	62	87	....	23	....	22
Total	465	488	594	851	7321	4592	2434	2438	2026	966	631	580
Mean.	15.0	16.8	19.2	28.4	236	153	78.5	78.6	67.5	31.2	21.0	18.7
Max..	18	24	56	116	332	234	140	128	96	42	31	....
Min..	11	13	6	7	166	116	49	56	39	17	14	....
Acre-ft.	922	966	1180	1690	14500	9100	4830	4830	4020	1920	1250	1150

Discharge of Clear Creek near Golden for 1919.

Drainage Area, 380 Square Miles. Altitude, 5,620 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....				76	243	650	494	460	157	114	76	....
2....				75	271	564	592	494	165	112	90	....
3....				73	257	520	660	502	197	112	90	....
4....				71	246	460	612	418	200	128	87	....
5....				78	257	418	468	354	140	123	87	....
6....				82	313	390	439	330	135	118	87	....
7....				68	313	366	520	330	132	118	80	....
8....				60	316	404	439	320	130	118	87	....
9....				61	327	397	390	309	140	116	68	....
10....				61	320	446	354	270	150	114	57	....
11....				65	302	528	330	257	160	109	71	....
12....				62	313	502	299	244	165	105	76	....
13....				61	338	564	325	225	168	105	80	....
14....				72	372	583	360	194	285	105	98	....
15....				60	397	612	348	207	290	105	96	....
16....				61	397	602	304	200	200	103	94	....
17....				64	468	621	294	200	190	101	81	....
18....				73	545	630	278	190	181	96	80	....
19....				83	620	621	446	190	175	94	80	....
20....				100	680	640	390	187	170	87	80	....
21....				125	760	650	325	174	165	83	81	....
22....				150	790	621	288	168	160	89	80	....
23....				175	800	545	265	165	150	89	87	....
24....				200	780	545	249	162	148	87	85	....
25....				225	810	574	274	165	148	81	76	....
26....				185	850	554	278	162	143	68	....	....
27....				200	810	536	299	160	138	65	....	....
28....				246	870	468	294	168	135	60	....	....
29....				226	910	486	229	171	130	87	....	....
30....				236	840	486	253	168	128	85	....	....
31....					740	....	354	165	....	83	....	....
Total				3375	16265	15983	11450	7699	4975	3060	2054	....
Mean.				112	525	533	369	248	166	98.7	82.2	....
Max..				246	910	650	660	502	290	128	98	....
Min..				60	243	366	229	160	128	60	57	....
Acre-ft.				6660	32300	31700	22700	15200	9880	6070	4080	....

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

Discharge of Clear Creek near Golden for 1920.

Discharge of Clear Creek Near Golden for 1920.												
Drainage Area, 380 Square Miles.				Altitude, 5,620 Feet Above Sea Level.								
Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....				56	184	1190	790	418	232	151	88	....
2.....				56	257	1040	790	404	222	140	88	....
3.....				54	278	990	840	348	204	140	....	....
4.....				52	278	940	740	348	194	138	....	....
5.....				62	288	990	790	348	200	133	....	....
6.....				58	299	1040	690	348	207	135	....	....
7.....				56	320	1190	640	336	249	133	....	....
8.....				72	320	1290	690	278	253	130	....	....
9.....				70	348	1290	690	288	218	128	....	....
10.....	55			70	397	1190	592	294	197	128	....	....
11.....				70	366	1190	592	294	197	118	72	....
12.....				75	325	1190	545	278	194	121	....	....
13.....				65	278	1140	502	274	187	118	....	....
14.....				70	366	1140	460	265	174	128	....	....
15.....				67	253	1190	460	236	168	126	....	....
16.....				74	253	1140	460	261	165	135	....	....
17.....				84	236	1090	502	253	162	133	....	....
18.....				82	288	990	502	236	160	130	....	....
19.....				67	425	890	453	240	168	126	....	....
20.....		58		74	502	740	418	304	168	123	....	....
21.....		58		74	592	790	378	418	171	130	....	....
22.....		56		76	690	840	360	366	174	123	....	....
23.....		56		86	690	890	366	320	171	109	....	....
24.....				88	740	890	545	304	168	116	....	....
25.....				78	940	890	545	304	168	133	....	....
26.....				70	1090	840	640	309	162	135	....	....
27.....				69	890	890	460	342	162	138	....	....
28.....				69	890	890	411	304	165	92	....	....
29.....				84	1040	890	397	274	160	90	....	....
30.....				104	1140	840	418	257	157	90	....	....
31.....				1140	1140	....	372	249	....	90	....	....
Total				2132	16103	30600	17038	9498	5577	3860	....	....
Mean.....				71.1	519	1020	550	306	186	125	....	....
Max.....				104	1140	1290	840	418	253	151	....	....
Min.....				52	184	740	360	236	157	90	....	....
Acre-ft.				4230	31900	60700	33800	18800	11100	7690	....	....

Discharge of South Boulder Creek at Eldorado Springs for 1919.

Drainage Area, 113 Square Miles. Altitude, 5,800 Feet Above Sea Level.												
Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....			8	44	215	218	103	201	19	15	7	12
2.....			8	44	220	180	114	201	30	15	10	12
3.....			8	41	220	156	126	150	40	15	19	12
4.....			8	46	195	150	146	83	36	23	10	12
5.....			8	56	185	126	103	74	21	23	10	12
6.....			8	61	202	126	103	57	18	23	12	11
7.....			8	48	195	126	93	430	18	19	10	11
8.....			8	41	194	150	83	72	21	19	10	11
9.....			9	38	182	150	74	83	18	19	8	10
10.....			9	41	207	175	65	62	19	15	16	10
11.....			9	41	182	175	65	36	23	15	13	10
12.....			9	41	182	162	65	36	52	15	13	10
13.....			9	41	180	162	65	36	52	15	12	9
14.....			9	51	220	158	74	36	52	15	12	9
15.....			9	41	207	170	65	36	52	15	12	9
16.....			9	41	182	158	65	36	36	15	12	9
17.....			9	41	218	158	65	31	36	15	6	9
18.....			9	47	235	158	49	27	36	15	10	9
19.....			10	68	257	146	93	27	30	18	12	9
20.....			11	83	244	146	74	44	30	15	10	9
21.....			11	83	257	150	65	36	23	15	12	10
22.....			11	93	257	138	49	30	23	15	10	10
23.....			19	113	257	126	43	30	23	12	10	10
24.....			19	128	257	126	43	30	23	12	12	10
25.....			19	149	241	126	40	23	23	12	12	10
26.....			19	146	255	126	32	23	23	15	7	11
27.....			19	171	241	126	37	23	19	12	3	11
28.....			19	149	255	103	65	30	19	8	4	11
29.....			21	169	255	103	43	30	19	12	15	11
30.....			26	202	255	103	37	19	15	15	13	11
31.....			31	227	227	....	214	19	....	10	....	11
Total			389	2358	6879	4377	2358	2051	849	477	322	320
Mean			12.5	78.6	222	146	76.1	66.2	28.3	15.4	10.7	10.3
Max..			31	202	257	218	214	430	52	23	16	12
Min..			8	38	180	103	32	19	15	8	3	9
Acre-ft.			769	4680	13700	8690	4680	4070	1680	947	637	633

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

Discharge of South Boulder Creek at Eldorado Springs for 1920.
Drainage Area, 125 Square Miles. Altitude, 5,800 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	11	11	11	18	240	459	215	62	36	18	18	6
2.....	11	10	11	12	317	388	202	55	36	18	18	8
3.....	10	9	10	18	319	373	188	55	36	18	18	8
4.....	9	8	9	4	351	393	175	55	31	18	18	7
5.....	10	7	8	20	353	343	163	62	31	15	12	7
6.....	12	7	7	27	329	358	155	48	26	15	12	7
7.....	12	7	12	32	342	407	132	48	48	15	12	8
8.....	12	7	18	42	342	430	132	42	48	15	12	8
9.....	12	7	13	52	386	399	143	48	42	15	12	9
10.....	12	7	10	62	383	399	120	48	36	15	12	9
11.....	12	9	8	42	383	383	120	48	31	15	12	10
12.....	12	11	15	64	330	349	120	62	26	15	12	10
13.....	12	13	17	63	307	309	109	61	26	15	10	12
14.....	12	13	6	72	272	325	109	48	26	22	18	8
15.....	12	13	5	82	262	360	98	70	26	44	18	6
16.....	12	13	7	87	207	360	109	62	26	18	15	6
17.....	12	11	9	47	212	306	120	48	26	18	15	7
18.....	12	10	9	42	269	291	120	42	26	18	15	7
19.....	12	10	7	52	349	262	120	42	26	20	12	8
20.....	12	12	8	70	385	245	98	95	22	18	12	8
21.....	12	13	38	87	404	245	98	113	22	18	12	8
22.....	12	12	48	70	454	245	78	109	22	18	10	8
23.....	12	9	53	82	475	245	78	88	22	18	8	8
24.....	12	9	48	82	454	215	78	80	22	18	8	7
25.....	12	9	43	77	491	215	98	65	22	18	12	6
26.....	13	11	38	82	509	215	134	58	22	18	8	10
27.....	13	10	48	92	405	229	78	58	18	17	7	10
28.....	13	9	33	132	529	229	78	58	18	18	7	10
29.....	13	8	33	195	529	229	70	52	18	18	4	10
30.....	13	.....	7	277	445	229	75	58	18	18	4	10
31.....	13	.....	18	.....	464	.....	48	36	.....	18	.....	10
Total	369	285	607	2089	11497	9435	3651	1876	835	542	363	256
Mean.	11.9	9.8	19.6	69.6	371	314	118	60.5	27.8	17.5	12.1	8.26
Max..	.....	.....	53	277	529	459	215	113	48	24	18	.....
Min..	.....	.....	.....	4	207	215	48	36	18	15	4	.....
Acre-ft.	732	564	1210	4140	22800	18700	7260	3720	1650	1080	720	508

Discharge of Boulder Creek near Ordeell for 1919.
Drainage Area, 105 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	32	58	40	49	91	239	175	350	21	20	40	13
2.....	47	46	37	46	92	196	220	456	30	19	15	11
3.....	40	55	52	40	90	175	220	605	36	29	32	12
4.....	38	57	48	40	58	147	239	350	27	37	38	13
5.....	34	64	63	50	83	138	189	135	45	32	46	12
6.....	61	43	56	33	97	126	189	106	39	27	50	11
7.....	59	58	51	28	90	181	170	85	25	21	46	14
8.....	58	53	40	36	81	162	170	96	24	15	42	12
9.....	56	37	53	37	78	251	164	78	28	16	37	15
10.....	57	57	51	34	81	235	145	64	35	16	38	18
11.....	57	47	40	28	48	259	138	51	35	12	24	20
12.....	40	47	40	29	70	263	132	48	35	44	42	15
13.....	58	43	34	20	74	271	106	44	26	20	54	16
14.....	62	42	35	22	78	292	128	48	33	18	48	29
15.....	58	44	25	21	83	275	142	60	35	20	42	42
16.....	57	29	28	17	90	259	138	43	38	16	26	17
17.....	50	44	31	23	100	271	120	43	32	17	32	26
18.....	61	49	30	49	71	292	122	34	33	18	40	22
19.....	38	44	35	38	110	259	115	43	28	13	29	21
20.....	61	55	33	34	170	231	108	36	23	17	28	14
21.....	57	49	35	57	247	239	113	32	20	17	21	9
22.....	64	42	44	63	275	231	112	32	32	18	19	12
23.....	57	37	47	69	308	231	98	37	26	17	20	13
24.....	56	46	42	69	308	224	96	25	25	25	19	12
25.....	64	53	40	69	325	235	97	50	53	27	17	9
26.....	49	55	40	69	312	196	94	44	25	13	17	9
27.....	64	48	39	69	304	167	98	36	23	34	19	11
28.....	62	38	38	83	304	175	90	27	32	30	21	28
29.....	56	.....	34	90	316	186	88	20	25	33	22	11
30.....	55	.....	27	94	346	186	88	29	22	40	15	17
31.....	58	.....	42	.....	304	.....	210	26	.....	35	.....	16
Total	1666	1340	1250	1406	5084	6592	4314	3133	911	716	941	500
Mean.	53.7	47.9	40.3	46.9	164	220	139	101	30.4	23.1	31.4	16.1
Max..	64	64	63	94	346	292	239	605	53	44	54	42
Min..	32	29	25	17	48	126	88	20	20	12	15	9
Acre-ft.	3300	2660	2480	2790	10100	13100	8550	6210	1810	1420	1870	990

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

Discharge of Boulder Creek near Orodell for 1920.
Drainage Area, 105 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	10	24	11	25	152	224	385	211	106	74	32	28
2....	24	16	20	26	193	200	385	198	100	44	36	26
3....	25	18	16	32	193	195	372	183	104	31	26	20
4....	3	16	16	7	178	224	333	190	100	31	26	9
5....	5	14	17	14	188	221	351	211	84	43	20	2
6....	11	10	16	10	203	221	333	200	84	50	29	3
7....	12	12	10	11	211	280	306	178	98	50	24	4
8....	16	8	13	23	190	354	291	157	97	42	21	4
9....	10	16	6	20	168	401	263	166	84	35	17	4
10....	13	15	12	20	185	413	260	157	89	18	11	8
11....	10	19	15	8	168	413	251	166	88	31	13	8
12....	16	28	8	17	188	413	257	178	76	55	24	4
13....	14	36	8	15	145	372	257	152	62	30	32	13
14....	15	37	13	19	130	354	243	132	79	29	26	12
15....	12	15	8	19	118	348	243	118	70	32	24	7
16....	28	30	20	19	102	354	288	150	68	31	22	8
17....	14	31	37	21	124	366	277	106	65	52	30	10
18....	4	28	29	6	148	369	243	122	68	40	24	8
19....	8	26	32	15	178	366	232	122	61	31	23	6
20....	7	19	24	21	193	312	227	168	74	37	20	16
21....	16	32	11	32	203	309	210	195	65	36	11	5
22....	12	35	10	28	211	306	230	159	57	36	5	8
23....	22	50	17	32	188	333	203	143	57	27	22	10
24....	17	20	28	35	190	363	211	108	76	26	18	5
25....	18	32	39	57	208	379	235	126	58	36	21	9
26....	12	26	18	38	216	379	333	118	47	36	21	5
27....	14	35	27	28	183	410	306	178	46	34	17	18
28....	12	22	17	34	183	394	240	195	70	62	5	55
29....	12	8	17	73	213	420	224	132	65	58	13	42
30....	23	....	20	130	183	401	219	116	74	48	27	38
31....	9	....	25	....	150	....	230	108	....	12	....	38
Total	424	678	560	835	5483	10094	8438	4843	2272	1197	640	493
Mean.	13.7	23.4	18.1	27.8	177	336	272	156	75.7	38.6	21.3	14.0
Max..	25	50	39	130	216	420	385	211	106	74	36	55
Min..	3	8	6	6	102	195	203	106	46	12	5	2
Acre-ft.	842	1350	1110	1650	10900	20000	16700	9590	4500	2370	1270	861

Discharge of St. Vrain Creek at Lyons for 1919.
Drainage Area, 206 Square Miles. Altitude, 5,349 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	12	9	5	40	95	289	204	475	62	54	5	10
2....	12	8	5	32	114	235	204	650	82	54	4	10
3....	12	9	5	28	114	204	235	950	67	54	7	9
4....	12	8	9	28	114	178	204	650	74	57	10	9
5....	12	8	7	78	114	178	204	200	74	57	10	10
6....	12	7	8	56	134	191	204	175	57	57	14	12
7....	12	7	9	28	114	204	178	163	54	82	12	10
8....	12	7	8	15	114	235	178	148	57	93	15	9
9....	12	9	7	19	114	270	178	163	47	78	15	7
10....	12	9	9	19	114	308	155	148	47	70	14	10
11....	12	9	8	19	114	329	144	135	47	40	12	7
12....	14	9	9	19	114	329	134	111	57	37	14	12
13....	12	12	9	22	134	329	134	111	54	34	14	9
14....	12	8	9	22	144	308	134	100	82	34	14	7
15....	12	7	9	25	178	350	134	91	122	28	12	8
16....	12	8	9	25	155	329	134	82	111	25	14	9
17....	12	7	7	25	204	329	104	82	91	23	12	8
18....	12	7	9	25	235	329	114	67	91	18	14	9
19....	12	7	12	25	270	329	144	67	82	18	12	8
20....	12	7	12	36	270	308	124	62	67	13	12	9
21....	12	5	10	50	308	289	114	62	74	12	10	8
22....	12	5	10	45	350	270	104	57	82	12	12	9
23....	12	5	14	63	329	252	95	62	74	14	10	8
24....	10	5	12	78	329	219	95	62	67	10	12	8
25....	9	5	12	95	350	235	95	67	62	12	10	9
26....	9	5	14	114	350	204	95	67	62	12	10	9
27....	10	5	12	124	350	204	104	67	57	14	8	10
28....	8	5	14	114	395	204	95	67	62	6	9	9
29....	8	....	15	86	445	204	500	62	57	9	10	8
30....	8	....	17	104	445	204	350	67	57	5	10	8
31....	9	....	22	....	350	....	575	57	....	6	....	7
Total	349	202	317	1459	6960	7846	5466	5327	2079	1038	337	275
Mean.	11.3	7.21	10.2	48.6	225	262	176	172	69.3	33.5	11.2	8.87
Max..	14	12	22	124	445	350	575	950	122	93	15	12
Min..	8	5	5	15	95	178	95	57	47	5	4	7
Acre-ft.	695	400	627	2890	13800	15600	10800	10600	4120	2060	666	545

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

Discharge of St. Vrain Creek at Lyons for 1920.
Drainage Area, 209 Square Miles. Altitude, 5,349 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	10	12	13	14	358	536	548	220	97	46	25	15
2.....	11	12	13	13	445	357	485	220	97	32	20	15
3.....	12	12	13	13	475	381	485	204	97	32	25	15
4.....	14	12	13	11	430	346	465	204	140	25	25	20
5.....	12	12	5	14	460	448	485	204	125	25	25	15
6.....	13	12	5	13	445	412	384	204	125	25	20	20
7.....	14	12	5	13	465	540	404	220	125	20	20	20
8.....	13	12	6	17	448	655	365	220	125	25	25	15
9.....	13	12	14	21	514	659	346	220	85	20	20	15
10.....	12	12	13	19	561	641	346	220	85	32	15	20
11.....	13	12	12	24	523	601	346	204	74	32	15	20
12.....	13	12	12	24	465	519	365	187	74	32	32	20
13.....	14	12	13	32	373	523	365	171	54	25	32	25
14.....	13	12	14	82	320	506	365	155	54	32	32	20
15.....	13	12	13	59	305	664	384	155	54	25	25	11
16.....	12	12	11	59	254	557	346	171	54	32	25	11
17.....	11	12	13	36	258	498	308	204	54	32	25	15
18.....	10	12	14	42	392	460	327	187	54	32	20	15
19.....	11	12	13	53	456	424	290	204	64	32	4	20
20.....	11	12	14	82	544	388	308	204	74	25	2	15
21.....	11	12	17	66	614	373	290	272	64	25	2	20
22.....	11	12	17	59	601	396	272	220	74	25	2	20
23.....	11	12	15	74	605	481	290	204	74	32	4	15
24.....	12	12	15	66	588	527	254	187	64	25	11	15
25.....	12	12	14	66	636	570	444	171	74	25	15	11
26.....	12	12	14	66	664	527	404	155	64	32	20	15
27.....	12	12	12	53	691	570	254	140	64	38	15	15
28.....	12	11	12	53	456	527	254	155	54	32	15	15
29.....	12	13	12	119	420	548	237	140	54	32	15	15
30.....	12	....	11	210	548	506	254	125	46	32	15	15
31.....	12	....	11	....	510	....	237	125	....	32	....	15
Total	374	348	379	1473	14842	15140	10907	5872	2343	911	546	513
Mean.	12.1	12.0	12.2	49.1	478	505	352	189	78.1	29.4	18.2	16.5
Max.	....	....	17	210	691	664	548	272	140	46	32	25
Min.	....	....	5	11	254	346	237	125	46	20	2	11
Acre-ft.	744	690	750	2920	29400	30000	21600	11600	4650	1810	1080	1010

Discharge of Big Thompson River near Drake for 1919.
Drainage Area, 305 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....			21	44	102	265	230	311	93	72	40	....
2.....			21	38	105	209	275	320	96	64	50	....
3.....			21	38	102	191	353	329	113	64	54	....
4.....			22	38	93	185	301	275	118	76	60	....
5.....		22	22	22	98	165	280	230	110	70	65	65
6.....			22	42	117	171	240	190	103	70	70	....
7.....	27	....	22	30	117	185	240	164	93	70	63	....
8.....			23	30	112	220	228	160	96	70	58	....
9.....			23	32	117	260	205	160	102	60	63	....
10.....			23	28	120	265	195	144	93	58	45	....
11.....			23	32	117	289	191	132	93	64	47	....
12.....			23	30	117	289	195	122	82	60	50	31
13.....			24	29	128	289	191	113	89	64	52	....
14.....			24	35	145	289	185	107	200	64	53	....
15.....		21	24	34	179	301	185	99	238	70	54	....
16.....			28	32	175	280	199	96	176	68	55	....
17.....			28	30	205	301	220	92	150	64	52	....
18.....			29	34	240	310	205	93	128	60	48	....
19.....			29	38	319	310	195	93	122	60	50	....
20.....			30	48	342	310	179	93	113	58	57	....
21.....			32	59	360	301	165	89	107	60	50	50
22.....			29	64	400	289	151	82	113	60	44	51
23.....	27	....	26	80	400	265	139	76	107	56	47	57
24.....			26	105	432	260	139	72	99	53	47	55
25.....			28	128	420	255	145	76	93	46	45	53
26.....			26	139	440	225	155	80	85	48	26	43
27.....			24	135	408	220	175	82	80	50	8	41
28.....			28	128	450	215	171	85	76	48	5	38
29.....			29	105	465	215	171	82	76	33	10	41
30.....			30	102	450	215	252	76	76	33	15	39
31.....	24	....	38	....	360	....	490	76	....	35	....	37
Total			798	1749	7635	7544	6645	4199	3320	1828	1383	505
Mean.	26.0	21.5	25.7	58.3	246	251	214	135	111	59	46.1	35.9
Max.			38	139	465	310	490	329	238	76	70	57
Min.			21	28	93	165	139	72	76	33	5	16
Acre-ft.	1600	1190	1580	3470	15100	14900	13200	8300	6600	3630	2740	2210

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

Discharge of Big Thompson River near Drake for 1920.
Drainage Area, 305 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	35				128	559	935	465	268	110	44	....
2.....	31				170	682	830	402	270	103	44	....
3.....	31				190	349	760	357	284	96	48	....
4.....	33				210	630	754	349	296	96	48	....
5.....	31				219	1000	682	345	308	96	48	....
6.....	28				246	1210	624	324	302	93	44	....
7.....	26				273	1280	582	294	274	90	44	....
8.....	28				280	1320	526	294	246	88	44	....
9.....	30				301	1500	500	317	218	86	....	....
10.....	28				345	1360	554	317	190	84	....	....
11.....	26				328	1260	480	341	160	82	....	....
12.....	24				244	1260	520	341	132	82	....	....
13.....	26				273	1280	480	301	132	80	....	....
14.....	28				256	1260	455	266	132	78	....	....
15.....	31				240	1260	445	250	132	80	....	....
16.....	32				243	1250	537	250	132	80	....	....
17.....	33				246	1230	485	250	131	80	....	....
18.....	34				249	1000	532	250	140	80	....	....
19.....	36				252	870	475	250	144	78	....	....
20.....	38				255	537	420	290	132	76	....	....
21.....	34				258	480	384	430	134	76	....	....
22.....	34				261	537	379	379	134	76	....	....
23.....	33				264	747	455	317	136	76	....	....
24.....	32				267	900	445	280	134	76	....	....
25.....	34				270	1020	542	259	134	76	....	....
26.....	36				273	921	594	253	132	58	....	....
27.....	36				288	740	515	253	132	48	....	....
28.....	34				440	734	445	256	118	47	....	....
29.....	33				510	907	402	253	103	46	....	....
30.....	33				576	991	388	253	106	44	....	....
31.....	33				582	....	384	263	....	44	....	....
Total	981				8995	29144	16509	9449	5286	2405	....	....
Mean...	31.6	34	23	40	290	971	533	305	176	77.6	....	....
Max....	38				582	1500	935	465	308	110	....	....
Min....	24				126	349	379	250	103	44	....	....
Acres-ft	1940	1960	1410	2380	17800	57800	32800	18800	10500	4770	....	....

Discharge of Cache La Poudre River at Mouth of Canon for 1919.
Drainage Area, 1,060 Square Miles. Altitude, 5,070 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....				61	210	956	574	532	151	74	56	50
2.....				61	234	750	595	546	182	69	56	50
3.....				60	234	625	686	553	121	69	69	52
4.....				56	238	610	655	310	116	80	65	52
5.....				67	250	625	518	277	118	84	60	52
6.....				78	295	618	448	305	100	76	60	56
7.....				74	310	670	436	325	95	74	58	60
8.....				52	356	718	473	295	100	72	63	54
9.....				49	295	742	454	315	178	69	78	48
10.....				52	310	766	424	300	118	72	74	54
11.....				63	320	750	406	310	106	70	56	48
12.....				74	320	734	394	272	104	72	60	52
13.....				65	310	848	424	182	111	74	65	58
14.....				74	325	875	400	132	192	74	69	54
15.....				89	820	902	412	178	295	76	70	52
16.....				84	512	920	400	186	222	80	65	54
17.....				78	574	929	394	192	172	76	68	55
18.....				87	694	929	325	200	151	70	67	54
19.....				92	768	947	282	200	132	76	66	52
20.....				97	883	902	234	242	121	74	65	53
21.....				102	992	875	200	286	123	65	62	53
22.....				112	1180	822	178	230	137	56	60	52
23.....				106	1050	758	145	234	132	58	62	51
24.....				148	1110	678	140	242	116	58	64	54
25.....				218	1190	670	149	246	109	58	61	56
26.....				386	1200	406	145	320	97	69	58	56
27.....				330	1280	372	145	460	95	70	50	56
28.....				310	1250	378	169	512	95	60	44	56
29.....				224	1500	400	182	512	95	52	40	52
30.....				200	1460	581	367	424	89	67	45	48
31.....					1180	....	610	492	....	63	....	45
Total				3454	21700	21756	11855	9810	3973	2157	1826	1639
Mean...				115	700	725	366	316	132	69.6	61.2	52.9
Max....				320	1500	956	686	553	295	84	....	....
Min....				49	279	572	140	132	89	52	....	....
Acres-ft				6840	43000	43100	22500	19400	7860	4280	3640	3250

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

Discharge of Cache La Poudre River at Mouth of Canon for 1920.
Drainage Area, 1,060 Square Miles. Altitude, 5,070 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	35	54	32	28	325	2640	2290	600	366	93	93	40
2.....	30	55	36	23	565	2090	2200	600	335	90	79	40
3.....	34	56	38	35	675	2330	2070	518	330	86	84	40
4.....	36	57	37	50	705	2120	2030	512	366	79	88	40
5.....	34	58	36	50	750	2570	1940	470	377	77	79	40
6.....	36	59	35	40	782	2540	1650	428	377	73	82	40
7.....	38	60	34	31	734	3160	1430	440	404	70	93	40
8.....	40	61	33	32	690	3490	1340	394	393	70	88	50
9.....	40	62	32	48	698	3830	1340	416	410	73	75	50
10.....	42	63	31	46	734	3400	1300	416	416	77	70	50
11.....	42	64	31	68	705	3490	1320	410	452	79	100	55
12.....	40	60	31	59	660	3400	1320	398	261	95	100	60
13.....	40	50	31	66	720	3400	1180	335	214	93	100	50
14.....	38	40	31	70	728	3220	1090	296	192	103	90	40
15.....	35	42	31	75	675	3320	1030	296	168	115	90	40
16.....	35	40	31	84	728	3160	992	305	152	115	90	48
17.....	36	40	31	115	728	2760	1010	292	143	115	90	55
18.....	37	40	31	79	848	2580	1080	279	152	110	80	55
19.....	38	38	32	152	1010	1120	992	301	172	90	70	55
20.....	39	38	34	126	1180	1850	902	446	175	84	60	55
21.....	40	36	50	182	1220	1870	848	660	162	86	28	50
22.....	41	36	52	155	1360	2160	766	500	155	90	28	45
23.....	42	36	52	155	1410	2430	830	464	155	84	28	45
24.....	43	34	41	159	1610	2540	848	360	138	82	40	45
25.....	44	34	35	159	1810	2840	911	388	123	93	50	45
26.....	45	32	35	165	2130	2620	893	377	123	102	45	45
27.....	50	30	40	146	1650	2200	735	464	112	97	40	45
28.....	51	30	36	168	1630	2360	645	476	100	88	40	45
29.....	52	31	30	229	1970	2200	544	464	97	93	40	45
30.....	53	.....	32	305	2370	2470	565	372	90	97	40	45
31.....	54	.....	35	.....	2500	.....	551	404	.....	110	.....	45
Total	1260	1336	1096	3090	34300	80160	36642	13081	7110	2809	2080	1443
Mean.	40.6	46.1	35.4	103	1110	2670	1180	422	237	90.6	69.3	46.5
Max..	.....	.....	.....	305	2500	3830	2290	600	452	115	.....	.....
Min..	.....	.....	.....	23	325	1120	551	279	90	70	.....	.....
Acre-ft.	2500	2650	2180	6130	68200	159000	72600	25900	14100	5570	4120	2860

Discharge of Cache La Poudre River at Mouth for 1919.
Drainage Area, ... Square Miles. Altitude, 4,664 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....		153	129	110	62	30	29	34	34	29	86	78
2.....		155	132	112	64	28	39	44	35	28	86	78
3.....		146	142	115	76	22	39	58	35	27	86	78
4.....		129	134	112	115	22	39	39	180	27	90	78
5.....		123	125	104	94	22	41	55	112	27	91	78
6.....		127	129	100	47	23	48	41	104	26	93	78
7.....		142	131	104	35	23	41	37	99	27	93	78
8.....		142	129	104	47	23	39	33	90	28	93	78
9.....		148	136	100	45	20	39	29	66	28	86	78
10.....		153	140	102	36	19	35	31	33	29	86	86
11.....		153	138	102	30	16	35	29	31	39	83	86
12.....		165	127	100	28	19	35	29	31	60	76	86
13.....		152	123	100	25	22	35	27	31	67	80	86
14.....		161	134	127	100	25	22	35	25	30	78	81
15.....		150	131	132	93	25	25	35	29	90	88	78
16.....		142	142	132	85	25	48	35	28	29	91	78
17.....		142	148	138	78	28	57	29	24	28	91	78
18.....		144	150	132	71	30	57	35	25	29	91	86
19.....		146	142	142	67	31	57	35	27	29	93	83
20.....		153	142	142	67	33	57	48	27	29	95	78
21.....		159	134	142	67	25	42	55	25	27	100	81
22.....		157	134	142	64	25	33	70	25	24	89	81
23.....		153	132	157	58	25	25	62	25	24	95	81
24.....		153	132	138	58	25	25	62	30	24	90	80
25.....		155	131	123	58	25	25	55	31	27	83	81
26.....		152	142	123	58	25	27	48	31	29	83	83
27.....		159	142	123	64	25	28	41	31	29	83	81
28.....		138	140	123	64	23	30	48	33	29	86	80
29.....		148	.....	121	62	23	30	35	34	29	86	80
30.....		153	.....	117	62	22	30	35	34	29	90	78
31.....		155	.....	114	.....	25	.....	35	34	.....	90	.....
Total	2720	3964	4083	2541	1169	907	1292	1004	1355	2056	2537	1363
Mean.	151	142	132	84.7	37.7	30.2	41.7	32.4	45.2	66.3	84.6	80.2
Max..	161	165	157	115	115	57	70	58	180	100	95	86
Min..	138	123	114	58	22	16	29	24	24	26	76	78
Acre-ft.	4390	7890	8120	5040	2320	1800	2560	1990	2690	4080	5030	2700

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

Discharge of North Platte River near North Gate for 1919.
Drainage Area, 1,440 Square Miles. Altitude, 7,600 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....					780	1340	184	244	74	70	....	....
2....					740	1060	184	315	74	70	....	....
3....					740	865	184	310	82	76	....	....
4....					670	670	192	295	114	99	....	....
5....					670	565	177	252	123	126	....	....
6....					780	500	159	224	120	150	....	....
7....					820	440	150	200	114	153	....	....
8....					705	470	138	184	96	165	....	....
9....					565	500	126	180	96	159	....	....
10....					530	500	117	177	96	159	....	....
11....					500	500	111	171	96	162	....	....
12....					500	530	108	159	90	159	....	....
13....					500	500	120	144	90	156	....	....
14....					500	470	126	138	105	171	....	....
15....					500	500	126	132	120	192	....	....
16....					500	530	123	120	120	224	....	....
17....					500	500	138	114	108	216	....	....
18....					565	565	470	138	99	204	....	....
19....					865	670	470	126	108	196	....	....
20....					1010	740	470	120	108	188	....	....
21....					1060	780	440	108	102	177	....	....
22....					1120	865	405	102	99	168	....	....
23....					1180	910	370	99	93	165	....	....
24....					1280	1010	350	99	90	156	....	....
25....					1400	1060	320	126	88	153	....	....
26....					1400	1120	300	138	86	165	....	....
27....					1400	1180	285	138	84	168	....	....
28....					1230	1230	270	132	82	155	....	....
29....					960	1280	240	123	80	142	....	....
30....					820	1450	216	171	78	129	....	....
31....					1570	1570	204	76	114	129	....	....
Total					14790	24930	15046	4287	4641	2819	4802	....
Mean....					1060	804	502	138	150	94.0	155	....
Max....					1400	1570	1340	204	315	224	....	....
Min....					500	500	216	99	76	70	....	....
Acre-ft.					29400	49400	29900	8480	9220	5590	9530	....

Discharge of North Platte River near North Gate for 1920.
Drainage Area, 1,440 Square Miles. Altitude, 7,600 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....						2870	1860	500	277	229	....	....
2....						3000	1630	535	257	225	....	....
3....						2740	1520	535	245	213	....	....
4....						2350	1410	535	237	205	....	....
5....						2220	1300	535	245	205	....	....
6....						2350	1410	470	245	198	....	....
7....						2350	1300	440	273	191	....	....
8....						2480	1140	410	285	184	....	....
9....						2870	990	375	298	177	....	....
10....						3130	945	440	290	174	....	....
11....						3260	990	440	281	170	....	....
12....						3000	1040	470	245	174	....	....
13....						2870	855	410	229	198	....	....
14....						2480	2870	770	370	229	....	....
15....						2610	3130	730	380	170	245	....
16....						2870	3130	730	360	160	249	....
17....						2480	2870	810	340	151	229	....
18....						2220	2610	810	340	141	209	....
19....						2480	2350	730	335	138	209	....
20....						3130	2100	650	380	138	205	....
21....						3390	1740	650	500	170	217	....
22....						3260	1740	610	500	188	237	....
23....						3130	1740	610	440	209	237	....
24....						2870	1740	610	375	221	269	....
25....						2870	1860	690	330	241	316	....
26....						3130	1860	730	308	277	330	....
27....						3390	1860	730	298	285	326	....
28....						3000	1860	650	308	269	312	....
29....						2610	2100	610	380	257	308	....
30....						2740	1980	535	360	245	300	....
31....						2870	1980	500	312	245	300	....
Total						51530	73030	28545	12711	6858	7270	....
Mean....						2860	2430	921	410	229	235	....
Max....						3390	3260	1860	535	298	330	....
Min....						2220	1740	500	298	138	170	....
Acre-ft.						102000	145000	56600	25200	13600	14400	....

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

Discharge of Laramie River at Glendevay for 1919.
Drainage Area, 101 Square Miles. Altitude, 8,231 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....					92	240	48	28	18			
2.....					82	220	48	42	19			
3.....					107	190	50	45				
4.....					140	150	46	26				
5.....					160	120	40	23				
6.....					171	116	39	22				
7.....					150	112	38	22				
8.....					150	120	33	22				
9.....					150	133	28	21				
10.....					150	136	27	21				
11.....					150	142	26	21				
12.....					150	140	28	20				
13.....					150	138	27	20				
14.....					160	126	28	20				
15.....					180	136	27	19				
16.....					210	117	21	19				
17.....					237	123	21	20				
18.....					260	110	21	21				
19.....					270	100	23	21				
20.....					290	87	21	19				
21.....					300	74	20	19				
22.....					300	63	17	18				
23.....					295	57	16	19				
24.....					285	57	16	19				
25.....					300	52	16	20				
26.....				130	310	50	16	18				
27.....				104	300	48	17	17				
28.....				69	290	50	18	14				
29.....				52	280	48	19	17				
30.....				63	270	48	28	18				
31.....					260		34	18				
Total.....					6599	3303	857	669				
Mean.....					213	110	27.6	21.6				
Acre-ft.....					13100	6550	1700	1330				

NOTE—Record for 1919 is very poor owing to lack of gage heights.

Discharge of Laramie River at Glendevay for 1920.
Drainage Area, 101 Square Miles. Altitude, 8,231 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....						565	429	80	34	31	20	6
2.....						452	410	74	34	31	19	6
3.....						452	350	75	37	31	19	
4.....						452	291	81	35	33	16	
5.....						588	227	73	36	32	13	
6.....						730	191	66	44	29	10	
7.....						805	166	64	44	27	9	
8.....						930	156	62	45	24	8	
9.....						955	149	74	44	24	8	
10.....						830	154	74	55	21	10	
11.....						880	149	62	51	22	6	
12.....						855	147	69	45	23	7	
13.....						780	133	52	44	27	7	
14.....						680	125	50	41	30	7	
15.....						610	142	52	40	29	7	
16.....						588	132	51	39	34	6	
17.....						492	136	49	54	27	6	
18.....						472	140	45	76	26	6	
19.....						432	152	45	50	26	6	
20.....						359	122	79	42	28	6	
21.....						410	117	90	41	29	6	
22.....						470	100	74	47	24	9	
23.....						520	108	66	50	24	6	
24.....						520	108	56	44	20	6	
25.....						500	127	47	47	21	7	
26.....						440	122	45	44	23	6	
27.....						420	96	55	35	22	8	
28.....					480	395	81	70	34	20	6	
29.....					565	370	75	80	32	22	6	
30.....					588	432	79	56	30	22	6	
31.....					610		79	45		20		
Total.....					2243	17384	4993	1961	1294	802	262	
Mean.....					561	579	161	63.3	43.1	25.9	8.7	
Max.....					610	955	429	90	76	34	20	
Min.....					480	359	75	45	30	20	6	
Acre-ft.....					4450	34500	9900	3890	2560	1590	518	

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

Discharge of Laramie River near Jelm, Wyo., for 1919.
Drainage Area, 297 Square Miles. Altitude, 7,730 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....					185	497	142	107	28	36		
2.....					198	448	180	114	28	35		
3.....					225	415	190	109	29	34		
4.....					245	370	180	95	29	38		
5.....					260	309	140	78	30	38		
6.....					265	305	123	69	30	38		
7.....					255	309	111	64	30	39		
8.....					245	325	104	62	31	39		
9.....					245	334	95	66	31	40		
10.....					245	334	86	67	38	40		
11.....					215	330	80	64	38	41		
12.....					250	325	75	57	36	41		
13.....					265	317	74	53	36	42		
14.....					280	301	73	50	50	42		
15.....					320	305	72	50	72	43		
16.....					380	297	71	48	70	44		
17.....					420	278	70	46	68	45		
18.....					442	274	70	40	66	46		
19.....					530	268	69	48	67	46		
20.....					542	250	66	41	67	46		
21.....					554	234	60	38	67	47		
22.....					578	222	67	36	67	50		
23.....					618	210	66	36	48	48		
24.....					646	198	60	36	40	48		
25.....				250	700	185	55	38	37	50		
26.....				301	692	182	52	36	38			
27.....				317	676	174	50	33	38			
28.....				244	708	162	53	33	33			
29.....				198	692	154	64	31	34			
30.....				182	692	147	107	29	37			
31.....					584		140	28				
Total.....				1492	13182	8459	2845	1702	1313	1056		
Mean.....				249	425	282	91.8	54.9	43.8	42.2		
Max.....				317	708	497	190	114	72	50		
Min.....				182	185	147	50	28	28	34		
Acre-ft.....				2960	26100	16800	5640	3380	2610	2090		

Discharge of Laramie River near Jelm, Wyo., for 1920.
Drainage Area, 297 Square Miles. Altitude, 7,730 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....					100	1480	756	130	73	57		
2.....					100	1340	708	244	73	55		
3.....					120	1280	611	395	73	53		
4.....					150	1320	500	348	73	55		
5.....					200	1500	430	247	73	55		
6.....					240	1600	430	159	73	53		
7.....					230	1750	380	135	73	55		
8.....					234	1920	310	123	72	53		
9.....					285	2130	300	123	70	53		
10.....					317	2050	280	116	68	55		
11.....					285	2000	244	107	70	57		
12.....					264	2020	224	104	75	66		
13.....					247	1950	212	102	75	75		
14.....					240	1880	201	98	74	73		
15.....					240	1710	193	98	70	71		
16.....					247	1560	207	98	64	67		
17.....					274	1360	250	107	62	66		
18.....					390	1240	234	313	114	67		
19.....					448	1120	212	289	91	67		
20.....					548	1010	193	224	78	73		
21.....					716	1020	193	118	73	64		
22.....					910	970	180	100	86	62		
23.....					865	1090	182	85	93	60		
24.....					990	1090	190	75	95	55		
25.....					1200	1050	212	68	89	55		
26.....					1500	930	204	80	80	58		
27.....					1160	920	180	85	74	56		
28.....					1270	883	162	100	71	54		
29.....					1520	812	152	120	64	54		
30.....					1500	796	142	105	58	54		
31.....					1500		138	84		52		
Total.....					18290	41781	8810	4580	2277	1850		
Mean.....					590	1390	284	148	75.9	59.7		
Max.....					1520	2130	756	395	114	75		
Min.....					100	796	138	68	58	52		
Acre-ft.....					36300	82700	17500	9160	4520	3670		

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

RIO GRANDE DRAINAGE

H. D. Amsley, Hydrographer

RIO GRANDE RIVER AT THIRTY-MILE BRIDGE, NEAR CREEDE

Location.—In the Rio Grande National Forest, about 30 miles southwest of Creede, in Sec. 13, T. 40 N., R. 4 W.; a short distance above mouth of Squaw Creek.

Records Available.—June 18, 1909, to December 31, 1920.

Drainage Area.—163 square miles.

Gage.—Staff gage. In still well.

Channel.—Section is gradually filling in.

Discharge Measurements.—Made from car and cable except during low stages, when they are made by wading.

Winter Flow.—Ice causes backwater during the winter months and records are discontinued.

Diversions.—So far as known, no water is diverted above the station.

Artificial Control.—A short distance above the station the San Luis Valley Irrigation District has constructed the large Rio Grande Reservoir, which materially modifies the flow of the river; also Lost Lake Reservoir.

Accuracy.—Results considered good.

Co-operation.—Station maintained in co-operation with San Luis Valley Irrigation District.

RIO GRANDE AT WASON, NEAR CREEDE

Location.—In the Rio Grande National Forest, at a highway bridge in about Sec. 8, T. 41 N., R. 1 E., a quarter of a mile from Wason siding and 3 miles southeast of Creede. Nearest tributary, Willow or Goblin Creek, enters a short distance upstream.

Records Available.—April 24, 1907, to December 31, 1920.

Drainage Area.—689 square miles.

Gage.—An automatic recording gage.

Channel.—Practically permanent.

Discharge Measurements.—Made from bridge.

Winter Flow.—River frozen over during winter months; ice causes backwater at gage.

Reservoirs.—Daily, monthly and annual discharges modified by storage in the Rio Grande and Santa Maria Reservoirs, 30 miles above.

Diversions.—There are no court decrees for diversions from the Rio Grande above this station, but for diversions of 39 second-feet from tributaries.

Accuracy.—Good.

RIO GRANDE NEAR DEL NORTE

Location.—At highway bridge in about Sec. 30, T. 40 N., R. 5 E., 6 miles west of Del Norte, a short distance below the mouth of Wolf Creek. From October 11, 1889, to November 30, 1906, a station was maintained about 4 miles below the present station and just above Los Pinos Creek. The flow at the two points is comparable, if a few small ditches are disregarded.

Records Available.—May 16, 1908, to December 31, 1920.

Drainage Area.—1,400 square miles.

Gage.—Automatic recording gage. The gage is referred to the same datum as was the chain gage installed May 16, 1908.

Channel.—Slightly shifting at sides from silt deposition at low water.

Discharge Measurements.—Made from bridge.

Winter Flow.—River is frozen over during the winter months.

Reservoirs.—Daily, monthly and annual discharges modified by storage in Beaver Park, Santa Maria and Rio Grande Reservoirs.

Diversions.—There are court decrees for diversions of 101 second-feet from the Rio Grande between the Creede station and Del Norte, and for diversions of 162 second-feet from intervening tributaries.

RIO GRANDE AT ALAMOSA

Location.—At Concrete road bridge in Alamosa, one-third of a mile above D. & R. G. Railroad bridge, where station was originally established in 1894, discontinued in 1895, and re-established in 1912. The flow at the two points is comparable, except for one small ditch diversion. Records initiated by State of Colorado April 19, 1914.

Records Available.—Discharge measurements and gage heights September 24, 1894, to December 31, 1895. Miscellaneous measurements, 1903 and 1910. Daily discharges May 15, 1912, to December 31, 1920.

Drainage Area.—Not measured.

Gage.—An automatic recording gage.

Channel.—Shifting sand.

Discharge Measurements.—From concrete road bridge at high water and by wading at low water.

Winter Flow.—Ice cover forms during winter months.

Diversions.—Below all but one of the large diversions from the Rio Grande.

RIO GRANDE NEAR LOBATOS

Location.—At highway bridge in Sec. 22, T. 33 N., R. 11 E., 10 miles east of Lobatos and a few miles above the Colorado-New Mexico line; 17 miles below mouth of Conejos River.

Records Available.—June 28, 1899, to December 31, 1920.

Drainage Area.—7,700 square miles.

Gage.—Automatic recording gage. This gage is referred to the datum of the original gage.

Channel.—A gash cut in lava rock; shifting blanket of sand.

Discharge Measurements.—Made from bridge during high stages and by wading at low stages.

Winter Flow.—Ice causes backwater varying in amount during the three winter months.

Diversions.—There are court decrees for diversions from the Rio Grande of 5,134 second-feet between the Del Norte station and this one. There are also decrees for diversions from the following tributaries: Minor tributaries above Alamosa, 464 second-feet; Alamosa and tributaries, 2,116 second-feet; Conejos and tributaries, 3,464 second-feet; Culebra and tributaries, 177 second-feet.

SOUTH FORK OF RIO GRANDE AT SOUTH FORK

Location.—At highway bridge half a mile west of South Fork station, in Sec. 34, T. 40 N., R. 3 E. No tributaries between the station and the mouth and none for several miles above.

Records Available.—August 9, 1910, to December 31, 1920. Also a number of discharge measurements made in 1909 by the United States Geological Survey.

Drainage Area.—216 square miles.

Gage.—Chain gage established May 12, 1912, at the side of the original gage, but referred to a different datum. The original gage was washed out by flood October 5, 1911, and was replaced by an inclined staff gage at the railroad bridge at different datum, October 16, 1911. This gage was read until May 12, 1912.

Channel.—Gradually getting lower.

Discharge Measurements.—Made from bridge.

Winter Flow.—Ice causes backwater during the winter months.

Reservoirs.—Daily and monthly discharges modified by storage in Beaver Park Reservoir.

Diversions.—There are court decrees for diversions of 11 second-feet from South Fork above the station; none below.

PINOS CREEK NEAR DEL NORTE

Location.—In Sec. 32, T. 39 N., R. 5 E. N. M. P. M., at Kernens Ranch, about 10 miles southwest of Del Norte. Bennett Creek enters 1,000 feet above station.

Drainage Area.—53 square miles.

Records Available.—May 1, 1919, to October 31, 1920.

Gage.—Vertical staff gage 200 feet southwest of barn at Kernens Ranch. Gage during 1919 was located 150 feet below this point.

Discharge Measurements.—Made from footbridge during high water and wading at low stages.

Accuracy.—Results considered good.

ROCK CREEK NEAR MONTE VISTA

Location.—In Sec. 32, T. 38 N., R. 7 E., at the Cadle Ranch, 9 miles southwest of Monte Vista.

Records Available.—April 1, 1919, to October 31, 1920.

Drainage Area.—38 square miles.

Gage.—Vertical staff 75 feet below wagon bridge at Cadle Ranch.

Discharge Measurements.—Wading at all stages for years 1919 and 1920.

Winter Flow.—Complete ice cover in winter. No records kept.

Accuracy.—Records considered good.

ALAMOSA RIVER ABOVE TERRACE RESERVOIR

Location.—Four miles above Terrace Dam in Sec. 8, T. 36 N., R. 6 E. of New Mexico meridian.

Records Available.—April 25, 1914, to October 31, 1919. For records of flow of Alamosa River prior to April 25, 1914, see station below reservoir.

Gage.—Vertical staff bolted to cribbing support for cable. Datum has remained unchanged. Bristol recording gage installed May 7, 1915. Referred to staff gage.

Channel.—Shifts during high water.

Discharge Measurements.—Made from cable and car at high stages and by wading at low stages.

Winter Flow.—Affected by ice and station discontinued during the winter months.

Diversions.—There are no decreed diversions above this station.

Accuracy.—Although the channel shifts somewhat, enough measurements have been obtained to make the estimates of discharge reliable.

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

ALAMOSA RIVER BELOW TERRACE RESERVOIR

Location.—One-fourth mile below Terrace Dam in Sec. 23, T. 36 N., R. 6 E. of New Mexico meridian.

Records Available.—April 18, 1909, to November 30, 1912; April 1, 1915, to October 31, 1915; February 1, 1917, to October 31, 1920.

Gage.—Vertical staff gage bolted to left cliff at station. Gage location has been changed several times since station was established. Bristol gage installed May 7, 1915, referred to staff gage.

Channel.—Shifting during high water.

Discharge Measurements.—Made from cable at high stages and by wading at low stages.

Winter Flow.—Ice causes backwater effect and station is discontinued during the winter months.

Diversions.—There are no decreed diversions above this station.

Accuracy.—Although channel shifts somewhat, enough measurements have been made to make the estimates of discharge reliable.

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

LA JARA CREEK NEAR CAPULIN

Location.—In Sec. 29, T. 34 N., R. 7 E., 13 miles above Capulin.

Records Available.—April, 1916, to November 30, 1917; April 1, 1919, to November 30, 1920.

Drainage Area.—73 square miles.

Gage.—Bristol automatic.

Channel.—Fairly permanent.

Discharge Measurements.—By wading 25 to 40 feet below gage, except at extreme high water, when measurements are made from highway bridge, $1\frac{1}{2}$ miles below. Two small ditches of not to exceed 6 cubic feet per second capacity divert water between gage and bridge.

Diversions.—Station is above all decreed ditches.

Regulation.—Flow is regulated to some extent by the La Jara Reservoir.

CONEJOS RIVER NEAR MOGOTE

Location.—At highway bridge about 5 miles above Mogote. From September 1, 1899, to March 31, 1900, and from April 17, 1903, to October 31, 1905, a station was maintained about 4 miles above Mogote. From March 21, 1907, to October 5, 1911, a station was maintained at Jacob's Ranch, 8 miles above Mogote.

Records Available.—January 1, 1912, to December 31, 1920.

Drainage Area.—282 square miles.

Gage.—An automatic recording gage.

Channel.—Shifts some at left side.

Discharge Measurements.—Made from bridge at high stages and by wading 75 feet to 150 feet below at low stages.

Winter Flow.—Ice causes backwater during the winter months.

Diversions.—There are court decrees for diversions of 3,476 second-feet from Conejos River, all but 66 second-feet being diverted below the present station.

Reservoirs.—No reservoirs have been constructed on the Conejos above this station.

LOS PINOS CREEK NEAR ORTIZ, COLO.

Location.—At a small semi-circular flume supported by cables, $2\frac{1}{2}$ miles above Ortiz, Colorado.

Records Available.—January 1, 1914, to November 30, 1920.

Drainage Area.—167 square miles.

Gage.—Bristol automatic.

Channel.—Slightly shifting.

Discharge Measurements.—Made by wading, except during high water, when they are made from flume.

Diversions.—One small ditch diverts water above the station in Colorado.

SAN ANTONIO RIVER AT ORTIZ

Location.—In Sec. 19, T. 32 N., R. 9 E. New Mexico principal meridian. One-half mile southeast of Ortiz and 100 feet north of Colorado-New Mexico line. Nearest tributary, Los Pinos Creek, enters 600 feet below station.

Drainage Area.—45 square miles.

Records Available.—May 1, 1919, to October 31, 1920. Discharge estimated from spot measurements, February 17 to October 31, 1915.

Gage.—Vertical staff gage nailed to south pier of foot bridge on lower side.

Discharge Measurements.—Wading at low stages and from foot bridge during high water.

Accuracy.—Results considered good.

LA GARITA CREEK NEAR LA GARITA

Location.—In Sec. 10, T. 41 N., R. 6 E. New Mexico principal meridian, at Curby's Ranch, 5 miles southwest of La Garita Postoffice.

Drainage Area.—61 square miles.

Records Available.—April 1, 1919, to October 31, 1920.

Gage.—Vertical staff.

Discharge Measurements.—Made by wading at all stages.

Accuracy.—Results considered good.

CARNERO CREEK NEAR LA GARITA

Location.—In Sec. 26, T. 42 N., R. 6 E. New Mexico principal meridian, at Hart's Ranch, 3 miles northwest of La Garita Postoffice.

Drainage Area.—117 square miles.

Records Available.—April 1, 1919, to October 31, 1920.

Gage.—Vertical staff and automatic gages.

Discharge Measurements.—Wading at all stages.

Accuracy.—Results considered good.

SAGUACHE CREEK NEAR SAGUACHE

Location.—At Ward's Ranch below the dam site of the Stark-Hagadorn Irrigation Co., 10 miles above Saguache. Ford Creek, the nearest important tributary, enters some distance below.

Records Available.—August 7, 1910, to September 23, 1912; June 1, 1914, to November 30, 1920.

Drainage Area.—595 square miles.

Gage.—An automatic recording gage.

Channel.—Shifting.

Discharge Measurements.—Made from footbridge during high water and by wading at ordinary stages.

Winter Flow.—Ice causes backwater during the winter months.

Diversions.—There are court decrees for diversions of 46 second-feet from Saguache Creek above the station, and 365 second-feet below.

HYDROGRAPHIC DATA OF THE CARMEL AND RIO GRANDE DRAINAGE DISTRICTS

CARMEL DRAINAGE DISTRICT

This district comprises 5,040 acres situated in Township 36 North and Ranges 8 and 9 East of New Mexico principal meridian.

Records from January 1, 1915, to May 31, 1916, were obtained by the Office of Public Roads and Rural Engineering. From June 1, 1916, to December 31, 1920, the records were obtained by the State Engineer's office.

Discharge Measurements were made at a point on the main outlet at the center of the west line of Section 5, Township 36 North, Range 9 East of the New Mexico principal meridian, at intervals of about 20 days. The discharge was interpolated directly between the measurements.

RIO GRANDE DRAINAGE DISTRICT

This district is situated in Townships 39, 40 and 41 North, Range 8 East of the New Mexico principal meridian. The center of the district lies about 9 miles northeast of Monte Vista and comprises 30,000 acres. There are about 4,000 acres not included in the district that will be drained by open ditches of the Rio Grande lateral system.

The laterals are placed one mile apart. The depth of the outlet and lateral system varies from 4.5 to 7.0 feet.

Some of the water developed by the district is used in the Prairie Ditch and is diverted in Section 8, Township 39 North, Range 9 East.

During 1919, measurements were made in the diversion ditch of the Prairie Ditch, but this was found to be unsatisfactory. In 1920 two new stations were established, one about 100 feet below the Prairie Ditch diversion and one at a point one-half mile above.

The amount diverted by the Prairie Ditch may be found by subtracting the discharge at the station below the Prairie Ditch from the discharge of the station above.

The station near the mouth has been maintained at a point in the south half of Section 34, Township 39 North, Range 9 East of the New Mexico principal meridian since established in 1917.

The following table shows the amount of completed outlet and covered drain for each three-month period since January 1, 1919.

Date	Main Outlet Open Ditch Miles Constructed	Main Outlet Covered Drains Miles Constructed	Laterals Covered Drains Miles Constructed
January 1, 1919.....	13.1 complete.....	2.1 complete.....	13.00
April 1, 1919.....			13.00
July 1, 1919.....			16.55
October 1, 1919.....			22.14
November 1, 1919.....			25.24
April 1, 1920.....			25.24
July 1, 1920.....			30.81
October 1, 1920.....			37.40
October 23, 1920.....			38.63

Discharge of Rio Grande at Thirty Mile Bridge for 1919.
Drainage Area, 163 Square Miles. Altitude, 9,380 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	2	5	5	5	182	182	584	680	328	60	140	4
2....	2	5	5	5	168	8	822	822	328	53	46	4
3....	2	5	5	5	168	4	1060	822	328	53	4	4
4....	2	5	5	5	168	4	1060	822	266	46	4	4
5....	2	5	5	5	140	4	1060	822	105	40	4	4
6....	2	5	5	5	140	4	860	784	95	34	4	4
7....	2	5	5	5	140	8	524	748	95	34	4	4
8....	3	5	5	5	140	11	524	680	95	46	4	4
9....	3	5	5	5	140	14	524	616	95	46	4	4
10....	3	5	5	5	140	76	524	554	95	46	4	4
11....	3	5	5	5	140	554	496	496	95	53	4	4
12....	3	5	5	5	140	648	470	444	95	53	4	4
13....	3	5	5	5	140	748	444	306	95	68	4	4
14....	3	5	5	5	140	822	470	214	105	68	4	4
15....	3	5	5	5	154	940	496	214	105	68	4	4
16....	4	5	5	5	198	1060	496	214	105	68	4	4
17....	4	5	5	5	496	1110	496	350	105	68	4	4
18....	4	5	5	5	680	1190	496	1020	105	116	4	4
19....	4	5	5	5	1020	1150	496	822	105	168	4	4
20....	4	5	5	5	1150	980	496	372	105	140	4	4
21....	4	5	5	5	1640	900	420	350	105	140	4	4
22....	4	5	5	34	1640	860	286	328	105	140	4	4
23....	5	5	5	154	1640	822	248	306	105	140	4	4
24....	5	5	5	154	1640	748	214	328	105	140	4	4
25....	5	5	5	160	1380	784	182	350	105	140	4	4
26....	5	5	5	160	1190	784	182	350	105	140	4	4
27....	5	5	5	165	1190	784	248	350	105	140	4	4
28....	5	5	5	165	1190	680	372	350	105	140	4	4
29....	5	....	5	170	1150	648	420	350	105	140	4	4
30....	5	....	5	175	616	616	444	350	95	140	4	4
31....	5	....	5	....	306	....	496	328	....	140	....	4
Total	111	140	155	1442	19366	17143	15910	15542	3890	2868	298	124
Mean.	3.58	5.0	5.0	48.1	625	571	513	501	130	92.5	10.0	4.0
Max..	5	5	5	175	1640	1190	1060	1020	328	140	140	4
Min..	2	5	5	5	140	4	182	214	95	34	4	4
Acro-ft.	220	278	307	2860	38400	34000	31500	30800	7740	5690	595	246

Discharge of Rio Grande at Thirty Mile Bridge for 1920.
Drainage Area, 163 Square Miles. Altitude, 9,380 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	4	4	4	4	121	1310	1230	662	194	109	86	8
2....	4	4	4	4	124	1310	1150	600	194	109	86	8
3....	4	4	4	4	134	1310	1080	600	194	109	86	8
4....	4	4	4	4	211	1310	1080	571	194	109	86	8
5....	4	4	4	4	249	1310	1080	542	194	109	86	8
6....	4	4	4	4	270	1230	1040	514	194	109	86	8
7....	4	4	4	4	314	1000	934	486	194	109	86	8
8....	4	4	4	4	384	600	830	409	194	109	8	8
9....	4	4	4	4	571	796	695	384	194	97	8	8
10....	4	4	4	4	600	1470	662	384	162	97	8	8
11....	4	4	4	4	600	1860	631	360	147	97	8	8
12....	4	4	4	4	600	1810	631	314	134	97	8	8
13....	4	4	4	4	542	1680	600	270	109	97	8	8
14....	4	4	4	4	542	1630	571	249	86	97	8	8
15....	4	4	4	4	486	1550	571	249	66	86	8	8
16....	4	4	4	4	409	1470	542	230	57	86	8	8
17....	4	4	4	4	384	1470	662	230	57	86	8	8
18....	4	4	4	4	384	1390	762	211	57	86	8	8
19....	4	4	4	4	384	1310	830	211	57	147	8	8
20....	4	4	4	4	409	1080	864	211	57	230	8	8
21....	4	4	4	4	600	1110	934	211	66	230	8	8
22....	4	4	4	4	600	1230	934	211	66	211	8	8
23....	4	4	4	4	314	1230	934	211	75	147	8	8
24....	4	4	4	4	314	1230	934	211	97	86	8	8
25....	4	4	4	4	486	1230	934	211	97	86	8	8
26....	4	4	4	4	830	1270	899	211	109	86	8	8
27....	4	4	4	6	830	1250	899	211	109	86	8	8
28....	4	4	4	24	830	1430	899	211	109	86	8	8
29....	4	4	4	75	830	1430	830	211	109	86	8	8
30....	4	....	4	86	864	1350	728	194	109	86	8	8
31....	4	....	4	....	1150	....	728	194	....	86	....	8
Total	124	116	124	295	15376	39756	26098	9974	3681	3451	786	248
Mean.	4.00	4.00	4.00	9.83	496	1330	842	322	123	111	26.2	8.00
Max..	....	....	....	86	1150	1860	1230	662	194	230	86	....
Min..	....	....	....	4	121	600	542	194	57	86	8	....
Acro-ft.	246	230	246	585	30500	79100	51800	19800	7320	6820	1560	492

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

Discharge of Rio Grande at Wason for 1919.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	95	105	100	135	1110	1480	1686	1530	616	242	280	112
2....	95	105	100	135	1160	1110	2330	1840	586	208	301	112
3....	95	105	100	145	1110	982	2280	1840	586	193	208	112
4....	95	105	100	155	1200	899	1940	1730	586	193	167	112
5....	95	105	100	167	1340	940	1780	1620	393	193	155	112
6....	95	105	105	155	1430	982	1290	1530	368	193	145	112
7....	95	110	105	145	1430	982	1250	1430	445	193	155	112
8....	90	110	105	135	1250	1020	1200	1340	445	208	167	112
9....	90	110	105	135	1250	1070	1160	1290	393	225	145	112
10....	90	110	105	135	1200	1430	1110	1250	393	225	145	120
11....	90	110	105	155	1110	2160	1070	1160	418	225	135	120
12....	90	115	105	208	1110	2390	1070	1070	472	242	135	120
13....	90	115	105	280	1290	2280	1160	999	500	261	126	120
14....	91	115	110	280	1480	2330	1430	710	472	261	135	120
15....	90	115	110	242	1680	2450	1630	710	418	242	145	130
16....	90	115	110	301	1940	2510	1780	678	368	242	145	125
17....	95	116	110	418	2110	2570	1680	678	368	225	135	125
18....	95	115	110	557	2450	2570	1530	1200	368	225	135	125
19....	95	115	110	616	2800	2390	1580	1250	368	322	118	125
20....	95	115	110	616	2990	2160	1480	745	345	280	112	125
21....	95	110	110	678	3520	2000	1250	678	345	301	105	120
22....	95	110	110	858	3450	2050	1110	646	322	280	105	120
23....	100	110	110	1020	3390	2000	940	646	301	280	112	120
24....	100	110	*97	1070	3120	2000	745	616	280	280	112	120
25....	100	110	111	1200	2930	1940	745	646	280	280	112	120
26....	100	105	111	1160	2930	1840	819	646	301	280	112	120
27....	100	105	118	1110	3120	1780	1020	646	301	280	105	120
28....	100	105	118	1070	3050	1680	1110	646	322	242	105	120
29....	100	....	126	1020	2800	1580	1160	616	322	242	112	120
30....	100	....	126	982	2740	1580	1160	616	280	261	112	120
31....	100	....	126	....	2220	....	1290	616	....	242	....	120
Total	2946	3081	3373	15283	64710	53155	41779	31628	11962	7566	4281	3683
Mean.	95.0	110	109	509	2090	1770	1350	1020	399	244	143	119
Max.	....	....	....	1200	3520	2570	2330	1840	616	322	....	....
Min.	....	....	....	135	1110	899	745	616	280	193	....	....
Acre-ft.	5840	6110	6700	30300	129000	105000	83000	62790	23700	15000	8510	7320

Discharge of Rio Grande at Wason for 1920.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....			120	120	628	4630	2880	1530	501	312	312	183
2....			120	131	698	4350	2760	1580	501	291	291	183
3....			109	131	808	4210	2700	1430	501	291	270	183
4....			98	131	927	4140	2640	1380	501	312	270	183
5....			109	131	1100	4070	2520	1290	501	312	291	180
6....			109	155	1100	4140	2340	1240	501	291	312	150
7....			109	183	1140	4210	2070	1140	472	270	312	156
8....			109	198	1430	3650	1960	1050	472	270	312	145
9....			120	251	1850	3930	1740	1050	472	270	291	145
10....			109	291	2070	4630	1630	968	410	270	270	145
11....			109	251	1850	4560	1630	886	380	270	270	153
12....			109	232	1850	4350	1530	847	350	270	270	145
13....			109	291	1960	4280	1530	734	320	270	232	140
14....			120	337	1900	4000	1430	698	320	270	183	161
15....			98	337	1530	3790	1380	698	270	270	168	171
16....			109	337	1290	3790	1380	734	251	270	183	180
17....			109	291	1190	3460	1430	628	251	270	168	192
18....			98	251	1330	3130	1580	594	251	270	168	185
19....			120	232	1680	2940	1580	594	251	291	183	174
20....			109	215	2290	2760	1530	628	270	444	183	160
21....			120	215	3060	2820	1580	628	270	444	168	142
22....			155	168	4070	2940	1630	594	270	416	168	150
23....			131	183	3200	2880	1630	530	291	416	168	143
24....			120	198	3260	2880	1630	501	312	362	155	140
25....			109	215	3580	2820	1740	501	337	312	168	140
26....			131	215	4350	3260	1850	472	337	312	168	150
27....			120	232	3790	4280	1740	472	337	291	168	150
28....			120	215	3650	3930	1630	472	337	291	168	150
29....			120	312	3860	3320	1630	472	312	291	155	150
30....			120	472	4070	3060	1580	501	312	312	183	150
31....			120	....	4280	....	1530	501	....	312	....	150
Total			3568	6921	74071	111210	56410	26483	10861	9543	6608	4930
Mean.			115	231	2390	3710	1820	854	362	308	220	159
Max.			155	472	4350	4630	2880	1580	501	444	312	....
Min.			98	120	628	2760	1380	472	251	270	155	....
Acre-ft.			7070	13700	147000	221000	112000	52500	21500	18900	13100	9780

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

Discharge of Rio Grande near Del Norte for 1919.

Drainage Area, 1,400 Square Miles. Altitude, 7,868 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	200	215	215	390	1880	3010	2090	1880	735	430	400	300
2....	200	215	215	400	2020	2450	2930	2160	695	400	460	300
3....	200	215	215	410	1950	2090	3100	2230	695	375	350	280
4....	200	215	220	420	2160	1880	2850	2230	655	350	310	280
5....	200	215	220	430	2530	1810	2610	2020	620	350	310	280
6....	200	215	220	440	2850	1810	2160	1880	562	350	310	280
7....	200	210	225	450	2850	1880	1950	1880	562	350	310	280
8....	200	210	230	460	2300	1880	1810	1680	562	375	310	280
9....	200	210	240	460	2230	1950	1740	1620	520	375	310	280
10....	200	210	250	460	2090	2020	1680	1560	490	375	290	250
11....	205	210	260	460	1950	2930	1500	1440	490	375	310	250
12....	205	210	270	520	2020	3440	1560	1330	520	375	310	250
13....	208	210	270	870	2300	3530	1560	1220	562	400	290	250
14....	205	210	275	695	2850	3350	1880	965	695	375	270	230
15....	205	210	275	585	3180	3720	2230	915	620	400	290	230
16....	205	210	280	552	3350	3910	2610	825	585	375	290	230
17....	205	210	280	780	3820	4010	2380	825	520	430	310	200
18....	205	211	290	1120	4010	3620	2160	1060	490	430	310	230
19....	205	210	290	1440	4630	3530	2160	1560	490	430	310	230
20....	205	210	300	1500	4960	3260	2090	1120	490	460	310	230
21....	205	210	310	1440	5420	2930	1740	870	490	400	310	230
22....	205	210	320	1880	5770	2850	1560	870	460	430	230	230
23....	205	210	330	2090	5770	2850	1330	780	460	430	230	225
24....	205	210	360	2160	5190	2770	1220	780	430	430	310	220
25....	210	210	390	2450	4520	2610	1120	780	430	430	310	220
26....	210	210	405	2020	4960	2450	1120	780	400	430	310	220
27....	210	210	400	1740	5190	2450	1330	780	400	460	310	220
28....	210	210	380	1560	5300	2380	1330	735	430	430	270	220
29....	210	....	362	1500	5080	2230	1440	735	460	430	310	220
30....	210	....	370	1560	5190	2090	1500	735	430	460	310	220
31....	210	....	380	....	4110	....	1560	695	....	460	....	220
Total	6343	5911	9047	31242	112430	81690	58300	38940	15948	12570	9260	7585
Mean.	205	211	292	1040	3630	2720	1880	1260	532	405	308	245
Max.	....	....	....	2450	5770	4010	3100	2230	735	460	460	....
Min.	....	....	....	....	1880	1810	1120	695	400	350	230	....
Acre-ft.	12600	11700	18000	61900	223000	162000	116000	77500	31700	24900	18300	15100

Discharge of Rio Grande near Del Norte for 1920.

Drainage Area, 1400 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	220	260	250	310	1170	7710	4420	1880	620	430	460	270
2....	220	260	265	310	1280	7440	4310	1950	620	430	430	270
3....	220	260	265	290	1560	7300	4110	1810	585	430	430	270
4....	220	260	275	230	1740	6910	4010	1740	585	430	430	270
5....	220	260	275	250	2020	7040	3820	1620	585	400	460	270
6....	225	270	275	310	2090	6650	3440	1620	655	400	460	260
7....	225	270	265	430	2230	6910	3180	1500	620	400	460	235
8....	225	270	275	490	2690	6910	2930	1380	620	400	430	240
9....	225	270	265	585	3260	6520	2610	1380	620	375	430	235
10....	225	270	265	735	4010	6910	2460	1280	552	375	400	235
11....	225	275	270	552	3180	7040	2460	1220	520	375	400	245
12....	230	275	270	552	3100	6780	2300	1170	490	375	430	235
13....	230	280	270	552	3260	6910	2230	1170	460	375	400	235
14....	230	275	270	780	3260	6390	2090	1060	460	400	350	250
15....	230	270	250	825	3010	5890	1950	1060	400	375	310	250
16....	230	265	250	780	2230	5890	1950	1020	400	375	310	260
17....	230	270	250	655	2160	5550	2020	915	375	400	350	270
18....	230	270	250	655	2300	4960	2090	870	375	400	350	285
19....	240	275	290	490	2930	4740	2090	870	375	400	350	270
20....	278	275	290	460	4110	4310	2090	870	375	490	350	260
21....	260	280	270	460	5190	4520	2090	915	375	585	310	250
22....	250	275	250	460	7300	4740	2090	870	430	585	310	235
23....	250	280	290	460	6390	4520	2090	825	430	585	310	250
24....	250	270	290	460	6260	4630	2090	735	430	520	310	235
25....	250	250	270	460	6910	4520	2160	695	490	460	270	235
26....	250	275	270	460	7440	4520	2300	695	460	460	270	240
27....	250	326	270	460	7170	6520	2230	655	460	430	270	260
28....	250	275	270	490	6650	6140	2020	655	460	430	270	260
29....	250	275	270	490	6650	5300	2090	655	430	400	230	260
30....	250	....	290	780	7170	4850	2020	620	430	430	270	260
31....	250	....	310	....	7580	....	1950	620	....	490	....	260
Total	7338	7886	8385	15221	126300	179020	79690	34325	14687	13410	10810	7860
Mean.	237	272	270	507	4070	5970	2570	1110	490	433	369	254
Max.	....	....	310	825	7580	7710	4420	1950	655	585	460	....
Min.	....	....	....	230	1170	4310	1950	620	375	375	230	....
Acre-ft.	14600	15600	16600	30200	250000	355000	158000	68200	29200	26600	21400	15600

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

Discharge of Rio Grande at Alamosa for 1919.

Drainage Area, ... Square Miles. Altitude, 7,550 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	200	195	210	565	1250	2070	145	112	29	29	205	271
2....	200	195	210	638	1380	1170	124	190	29	29	289	318
3....	200	195	210	633	1470	852	302	352	29	29	292	318
4....	200	195	220	627	1380	649	472	525	24	34	280	318
5....	200	195	220	649	1460	496	570	525	24	46	265	318
6....	195	190	230	665	1700	388	388	459	24	60	283	302
7....	195	190	240	687	1900	428	286	377	24	60	286	300
8....	195	190	250	550	1940	428	271	345	24	60	302	300
9....	195	190	260	496	1590	428	228	280	29	60	289	300
10....	195	190	270	424	1410	450	202	234	29	85	292	300
11....	190	190	280	463	1230	428	178	207	40	94	292	300
12....	190	190	290	459	1070	472	145	218	40	94	280	300
13....	190	185	300	501	1000	622	145	180	34	114	283	337
14....	190	185	300	704	1070	596	134	134	40	124	283	300
15....	190	185	310	591	1300	596	134	114	34	124	271	275
16....	185	185	310	510	1530	570	231	102	46	106	274	275
17....	185	185	320	459	1570	676	575	90	40	106	289	275
18....	185	185	320	601	1870	676	633	89	34	118	292	260
19....	185	185	330	821	1960	596	555	78	34	118	292	260
20....	185	185	330	911	2180	450	560	192	34	130	295	260
21....	185	190	340	1120	2470	370	560	202	34	154	280	260
22....	185	190	350	1160	2780	302	424	114	34	154	283	260
23....	185	190	360	1410	3170	256	299	74	34	145	299	254
24....	185	190	370	1630	3360	228	190	65	34	126	302	250
25....	185	190	400	1730	3170	215	167	56	29	108	302	250
26....	190	200	428	1930	2780	190	126	54	29	108	318	250
27....	190	200	446	1820	2780	167	106	46	29	110	318	250
28....	190	200	441	1570	2910	167	98	40	29	110	302	250
29....	190	....	416	1390	2910	178	80	40	29	112	242	250
30....	190	....	392	1260	2720	178	81	34	29	114	215	250
31....	190	....	472	....	2650	....	90	29	....	114	....	250
Total	5915	5335	9825	26974	61950	15292	8499	5557	951	2975	8495	8676
Mean.	191	191	317	899	2000	510	274	179	31.7	96.0	283	280
Max.	....	....	....	1930	3360	2070	633	525	46	154	318	....
Min.	....	....	....	424	1000	167	80	29	24	29	205	....
Acre-ft.	11700	10600	19500	53500	123000	30300	16800	11000	1890	5900	16800	17200

Discharge of Rio Grande at Alamosa for 1920.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	250	280	332	314	58	5580	3800	120	102	146	314	340
2....	245	280	332	332	199	5660	3360	120	90	146	392	340
3....	245	280	297	280	246	5640	3070	135	80	135	392	325
4....	245	280	314	280	332	5340	2810	122	69	135	377	300
5....	245	280	314	297	350	5050	2620	125	69	122	396	300
6....	245	290	332	314	430	4680	2370	125	71	164	422	300
7....	245	290	332	350	452	4580	1980	138	71	151	465	300
8....	245	290	332	430	474	4820	1610	140	82	151	470	275
9....	245	290	314	496	564	4980	1300	114	85	153	474	260
10....	245	290	314	541	962	4780	1050	104	85	153	456	260
11....	245	300	332	610	1380	5130	836	130	99	170	439	270
12....	250	300	314	564	1200	5290	644	117	99	143	422	270
13....	250	300	314	564	962	5090	487	107	102	173	402	300
14....	250	310	314	518	990	4890	380	120	102	202	409	325
15....	250	300	314	430	1020	4700	307	122	104	236	392	325
16....	250	295	314	332	806	4250	240	122	104	236	358	300
17....	270	290	297	350	587	3900	224	122	104	256	343	300
18....	280	295	314	350	388	3660	205	112	94	290	365	280
19....	246	295	297	350	314	3320	190	112	82	260	369	280
20....	250	300	280	314	518	2960	190	114	85	260	392	260
21....	265	300	297	388	1110	2810	176	114	85	332	380	280
22....	280	310	332	496	1810	2670	162	130	73	409	360	280
23....	270	300	388	388	2750	2670	146	130	87	413	360	280
24....	269	310	388	214	4390	2520	159	130	76	413	360	260
25....	270	297	350	184	4390	2590	202	133	90	358	360	250
26....	270	263	350	156	4560	2580	217	133	102	339	360	225
27....	270	297	350	117	5090	2580	187	122	143	306	340	240
28....	270	297	314	80	5430	3430	184	122	170	273	340	225
29....	270	297	280	80	5070	4640	170	122	184	259	340	225
30....	270	....	332	58	4960	4440	143	125	173	227	360	230
31....	270	....	314	....	5230	....	133	112	....	246	....	230
Total	7970	8506	9998	10177	57022	125230	29552	3794	2962	7257	11609	8635
Mean.	257	293	323	339	1840	4170	953	122	98.7	234	387	279
Max.	....	....	388	610	5430	5660	3800	140	184	413	474	....
Min.	....	....	280	58	58	2520	133	104	69	122	314	....
Acre-ft	15800	16900	19900	20200	113000	248000	58600	7500	5870	14400	23000	17200

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

Discharge of Rio Grande near Lobatos for 1919.

Drainage Area, 7,700 Square Miles. Altitude, 7,440 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	300	265	325	1110	2760	4450	378	218	124	218	500	
2....	300	265	325	1220	2980	3500	320	266	108	124	266	500
3....	300	265	325	1280	3420	2340	320	293	94	124	349	500
4....	290	265	325	1280	3730	1740	689	473	80	124	440	490
5....	290	265	325	1280	3810	1220	1000	650	80	124	506	480
6....	290	270	350	1280	3970	950	1110	689	80	124	378	465
7....	290	270	350	1380	4290	728	1110	650	80	140	378	450
8....	280	270	350	1280	4450	769	1000	576	94	158	409	440
9....	280	270	400	1160	3810	769	769	613	94	158	409	430
10....	280	270	400	1000	3580	728	613	473	108	158	440	420
11....	280	270	400	950	3200	769	473	409	94	176	409	410
12....	270	270	450	900	2900	769	409	378	108	176	409	400
13....	270	270	450	1060	2760	810	320	409	124	197	440	390
14....	270	270	450	1110	2830	900	293	349	124	197	506	400
15....	270	270	500	1330	2830	900	293	320	124	218	440	370
16....	260	275	500	1330	3120	1060	440	293	124	218	409	360
17....	260	275	500	1220	3350	1110	769	242	140	242	409	350
18....	259	275	550	1280	3500	1160	900	242	158	242	440	347
19....	260	275	550	1500	3810	1160	950	218	140	242	440	345
20....	260	273	600	2000	4050	1000	855	218	140	266	473	340
21....	260	290	600	2620	4050	855	900	293	158	266	473	330
22....	260	290	650	2830	4210	728	855	349	140	266	473	320
23....	260	290	650	3200	4530	613	650	293	140	266	473	310
24....	260	290	700	3730	4850	506	541	218	124	266	440	300
25....	260	290	750	4210	5090	473	409	176	124	242	440	300
26....	265	300	800	4530	4850	440	349	176	124	218	440	300
27....	265	300	850	4530	4450	378	266	176	124	218	473	320
28....	265	300	950	3970	4450	378	242	158	140	218	541	320
29....	265	....	1000	3280	4530	409	218	140	140	218	540	320
30....	265	....	1000	2900	4770	378	218	140	140	218	540	330
31....	265	....	1060	....	4850	....	320	140	....	218	....	330
Total	8449	7748	17435	60750	119780	31990	17979	10238	3572	6146	13001	11867
Mean.	273	277	562	2020	3860	1070	580	330	119	198	433	383
Max.	....	....	1060	4530	5090	4450	1110	689	158	266	541	....
Min.	....	....	....	900	2760	378	218	140	80	124	218	....
Acre-ft.	16800	15400	34600	120000	237000	63700	35700	20300	7080	12200	25800	23600

Discharge of Rio Grande near Lobatos for 1920.

Drainage Area, 7,700 Square Miles. Altitude, 7,440 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	330	410	505	505	310	9030	6560	280	310	340	505	505
2....	340	410	540	470	540	9030	6370	280	280	310	540	610
3....	340	410	540	470	915	9220	5740	280	280	280	575	610
4....	340	410	470	505	1220	9220	5320	280	280	280	610	575
5....	340	420	470	505	1270	9220	5060	310	255	255	610	505
6....	350	420	470	505	1610	9120	4810	280	255	255	650	610
7....	350	420	470	505	1870	8460	4380	310	255	255	690	540
8....	350	430	470	505	2210	8180	3810	340	280	255	780	540
9....	350	430	470	610	2880	8080	2880	340	280	255	735	540
10....	350	430	470	780	3260	8360	2070	340	280	280	735	470
11....	360	440	470	870	4220	7980	1680	310	310	280	735	505
12....	360	440	470	915	4130	7800	1440	340	340	280	735	525
13....	360	450	470	825	3490	7800	1270	340	340	255	690	550
14....	370	435	505	690	3410	7800	1160	400	310	280	690	600
15....	370	505	505	650	3490	7420	1160	470	280	340	690	600
16....	380	575	470	690	3030	6940	915	470	280	340	650	630
17....	380	435	470	650	2280	6460	505	435	280	400	610	630
18....	390	470	470	650	2070	5920	505	400	280	435	610	600
19....	390	470	470	610	2430	5580	470	400	280	470	610	600
20....	400	505	470	650	3030	5320	470	400	280	435	610	570
21....	420	540	470	735	4050	4980	400	400	255	435	610	570
22....	400	610	540	575	5320	4720	340	400	230	435	610	570
23....	420	575	610	435	7220	4470	280	435	255	470	610	570
24....	400	610	610	340	7600	4470	400	435	230	505	575	570
25....	400	575	610	340	8080	4380	280	400	255	540	575	570
26....	400	540	540	340	9030	4300	310	400	230	575	575	500
27....	400	505	575	370	9320	4560	340	370	230	540	575	450
28....	400	505	540	340	9120	4980	340	340	280	470	575	425
29....	400	470	540	310	8740	5660	400	340	280	470	540	450
30....	400	....	505	280	8840	6280	310	310	310	470	540	425
31....	400	....	505	....	8840	....	280	310	....	505	....	425
Total	11640	13845	15690	16625	133825	205820	60255	11145	8570	11695	18845	16810
Mean.	375	477	506	554	4320	6860	1940	360	286	377	628	542
Max.	....	610	610	915	9320	9220	6560	470	340	575	780	....
Min.	....	....	470	280	310	4300	280	280	230	255	505	....
Acre-ft	23190	27400	31100	33000	266000	408000	119000	22100	17000	23200	37400	33300

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

Discharge of South Fork Rio Grande at South Fork for 1919.
Drainage Area, 216 Square Miles. Altitude, 8,176 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....				72	516	898	365	205	64	52	93	58
2....				75	541	769	492	218	58	52	101	58
3....				78	516	593	446	205	58	52	85	58
4....				82	593	492	384	181	52	52	78	58
5....				86	678	492	328	181	52	52	71	58
6....				90	769	492	310	159	58	52	71	58
7....				93	708	468	310	159	78	58	71	58
8....				93	566	516	261	148	78	64	78	58
9....				106	516	541	232	148	78	64	71	58
10....				119	492	541	205	170	64	52	71	60
11....				148	468	593	218	205	64	58	85	60
12....				192	492	708	232	170	58	58	93	60
13....				246	566	708	246	138	64	64	101	60
14....				232	593	708	276	128	85	64	85	60
15....				232	649	769	328	119	64	64	71	65
16....				232	708	800	404	119	64	58	64	60
17....				310	932	832	365	119	64	58	58	60
18....				365	1040	769	328	119	64	52	52	60
19....				492	1110	708	310	110	64	52	58	60
20....				566	1150	738	293	85	64	47	52	60
21....				593	1270	678	261	85	58	42	50	60
22....				738	1310	593	232	85	58	52	50	60
23....				649	1310	541	192	85	52	47	58	60
24....				708	1150	492	181	85	52	47	58	60
25....				678	1000	468	181	71	52	52	58	60
26....				516	1150	446	181	78	58	52	58	60
27....			52	446	1150	446	181	78	58	52	52	60
28....			56	404	1190	424	181	71	71	58	58	60
29....			60	404	1270	424	218	71	78	78	58	60
30....			64	446	1350	424	246	71	64	85	58	60
31....			68	....	1190	404	218	71	....	85	....	60
Total				9491	26943	18051	8605	3937	1896	1775	2067	1847
Mean.				316	869	602	278	127	63.2	57.3	68.9	59.6
Max.				738	1350	898	492	218	85	85	101	....
Min.				72	468	404	181	71	52	42	....	....
Acre-ft.				18800	53400	35800	17100	7810	3760	3520	4100	3660

Discharge of South Fork Rio Grande at South Fork for 1920.
Drainage Area, 216 Square Miles. Altitude, 8,176 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....				48	324	2100	1280	225	85	44	72	58
2....				48	404	2100	1280	212	85	44	72	58
3....				48	494	1980	1180	200	75	44	72	58
4....				45	544	1880	1060	188	72	48	72	58
5....				45	626	1820	980	176	72	53	72	55
6....				45	683	1930	902	200	75	58	72	50
7....				100	774	2040	828	176	80	53	65	50
8....				135	916	2100	762	164	75	53	58	48
9....				170	1120	2150	732	176	65	48	51	48
10....				183	1080	2040	674	164	58	44	51	48
11....				146	879	1980	646	153	55	44	58	50
12....				146	842	1930	566	148	50	44	58	48
13....				196	879	1820	566	142	45	44	44	45
14....				216	842	1680	516	132	45	50	44	50
15....				233	683	1660	469	113	44	55	44	50
16....				211	544	1610	469	104	44	60	58	55
17....				170	544	1510	446	113	44	65	51	58
18....				170	683	1360	425	122	44	63	51	58
19....				146	955	1360	404	122	48	60	58	55
20....				135	1300	1360	404	113	54	58	58	50
21....				124	1890	1460	366	122	60	65	51	48
22....				124	2040	1320	349	113	65	72	58	48
23....				135	1910	1320	332	113	65	66	65	48
24....				135	1950	1320	316	104	65	60	62	45
25....				170	2110	1280	300	104	72	51	60	45
26....				146	2040	1460	316	104	65	53	58	48
27....				146	1820	1820	300	104	65	55	58	48
28....				146	1820	1560	253	96	60	58	58	48
29....				196	1880	1410	238	96	50	65	58	45
30....				250	2040	1320	225	88	44	72	58	45
31....					2150	....	225	85	....	72	....	45
Total				4208	36766	50660	17809	4272	1826	1721	1767	1563
Mean.				140	1190	1690	574	138	60.9	55.5	58.9	50.4
Max.				250	2150	2150	1280	225	85	72	72	....
Min.				45	324	1280	225	85	44	44	44	....
Acre-ft.				8330	73200	101000	35300	8480	3620	3410	3500	3100

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

Discharge of Pinos Creek near Del Norte for 1919.

Drainage Area, 53 Square Miles. Altitude, ... Feet Above Sea Level.												
Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....					88	122	101	51	15	12	12	....
2....					92	101	92	41	15	10	12	....
3....					88	101	84	41	15	10	12	....
4....					101	101	84	36	15	10	15	....
5....					115	92	69	31	15	10	12	....
6....					131	92	69	31	12	10	12	....
7....					135	84	69	36	15	12	12	....
8....					111	84	63	31	20	12	12	....
9....					101	84	63	36	17	10	12	....
10....					92	84	57	63	15	10	15	....
11....					101	92	57	46	15	10	15	....
12....					111	101	63	36	20	12	15	....
13....					111	101	57	31	17	12	15	....
14....					122	101	69	27	36	12	15	....
15....					135	101	84	27	27	12	15	....
16....					148	111	92	27	23	12	12	....
17....					163	111	76	23	23	12	12	....
18....					148	101	69	23	20	12	12	....
19....					148	101	69	20	17	12	12	....
20....					178	101	69	20	17	10	12	....
21....					163	101	69	20	15	12	10	....
22....					163	101	63	20	12	12	10	....
23....					163	92	57	17	12	15	10	....
24....					135	84	57	17	12	12	10	....
25....					135	84	57	17	10	12	10	....
26....					163	84	51	17	10	12	8	....
27....					178	84	46	17	10	12	8	....
28....					178	84	46	17	10	12	8	....
29....					195	76	46	17	12	12	8	....
30....					195	76	57	17	10	12	8	....
31....					163	....	57	15	....	12	....	....
Total					4250	2832	2062	868	482	357	351	....
Mean				54.0	137	94.4	66.5	28.0	16.1	11.5	11.7	....
Max..					195	122	101	63	36	12	15	....
Min..					88	76	46	15	10	10	8	....
Acre-ft.				3210	8420	5620	4090	1720	958	707	696	....

Discharge of Pinos Creek near Del Norte for 1920.

Discharge of Pinos Creek Near Del Norte 1912-20.												
Drainage Area, 53 Square Miles. Altitude, ... Feet Above Sea Level.												
Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....				12	59	479	194	49	17	12		
2.....				15	66	439	180	43	14	10		
3.....				12	74	401	178	38	12	10		
4.....				12	89	385	175	43	12	12		
5.....				15	95	369	162	43	12	10		
6.....				13	102	414	160	38	17	10		
7.....				22	118	418	137	33	14	10		
8.....				26	135	422	124	24	14	10		
9.....				26	238	426	105	24	12	10		
10.....				26	247	389	104	24	12	10		
11.....				19	210	397	95	24	12	10		
12.....				19	180	401	86	43	12	12		
13.....				23	139	397	78	49	10	12		
14.....				27	172	397	69	28	10	12		
15.....				28	122	373	69	28	7	12		
16.....				32	84	369	69	24	7	12		
17.....				28	82	345	62	20	7	10		
18.....				23	113	322	62	20	7	12		
19.....				20	175	303	62	24	10	12		
20.....				20	228	281	49	20	10	12		
21.....				23	20	405	264	49	20	12	12	
22.....				23	20	488	261	43	17	12	10	
23.....				19	21	397	257	43	17	10	10	
24.....				14	21	401	254	43	17	10	10	
25.....				14	21	448	250	49	17	12	10	
26.....				14	21	389	247	69	17	12	12	
27.....				12	18	334	264	55	17	12	12	
28.....				12	22	318	244	43	17	12	12	
29.....				14	26	341	210	55	17	12	12	
30.....				14	45	385	196	43	14	12	12	
31.....				12		410		43	14		12	
Total					653	7044	10174	2755	823	344	344	
Mean.					21.8	227	339	88.9	26.5	11.5	11.1	
Max..					45	488	479	194	49	17	12	
Min..					12	59	196	43	14	7	10	
Acre-ft.				1300	14000	20200	5470	1630	684	682		

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

Discharge of Rock Creek near Monte Vista for 1919.
Drainage Area, 38 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....				9	58	64	37	58	8.4	5.6	6.8	...
2....				10	69	64	42	25	6.8	4.8	6.8	...
3....				10	81	52	118	21	6.8	4.8	5.6	...
4....				14	87	47	37	21	6.8	4.8	6.8	...
5....				16	93	42	37	21	6.8	4.8	8.4	...
6....				13	93	42	29	21	6.8	5.6	6.8	...
7....				10	87	42	33	15	6.8	6.8	8.4	...
8....				10	75	37	29	21	6.8	6.8	8.4	...
9....				8	69	42	33	18	5.6	6.8	8.4	...
10....				9	58	42	29	18	6.8	6.8	8.4	...
11....				10	58	37	29	21	6.8	6.8	9	...
12....				17	58	42	25	18	6.8	6.8	9	...
13....				21	58	42	21	15	6.8	5.6	10	...
14....				21	58	42	29	18	6.8	6.8	10	...
15....				18	69	47	29	21	6.8	6.8	10	...
16....				27	69	42	29	18	6.8	6.8	12	...
17....				36	69	42	33	15	6.8	5.6	12	...
18....				48	69	47	33	15	5.6	5.6	12	...
19....				61	69	42	37	13	6.8	5.6	10	...
20....				80	69	42	33	10	6.8	6.8	10	...
21....				120	69	42	29	13	5.6	5.6	8	...
22....				100	87	42	33	10	5.6	6.8	8	...
23....				90	75	37	33	10	6.8	5.6	8	...
24....				87	69	42	29	10	6.8	5.6	8	...
25....				81	69	42	29	10	5.6	6.8	8	...
26....				81	81	37	21	10	6.8	5.6	8	...
27....				64	81	37	25	15	4.8	5.6	8	...
28....				58	81	37	21	13	4.8	6.8	8	...
29....				52	75	37	25	6.8	4.8	6.8	8	...
30....				52	69	37	29	6.8	4.8	6.8	8	...
31....				...	69	...	21	6.8	...	6.8	...	...
Total				1233	2241	1289	1017	514.4	191.6	189.6	258.8	...
Mean.				41.1	72.3	43.0	32.8	16.6	6.39	6.12	8.63	...
Max.				...	93	64	118	58	8.4	6.8	12	...
Min.				...	58	37	21	6.8	4.8	4.8	5.6	...
Acre-ft.				2450	4450	2560	2020	1020	380	376	514	...

Discharge of Rock Creek near Monte Vista for 1920.
Drainage Area, 38 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....			4.1	6.3	34	133	51	29	9	6.7	...	...
2....			4.1	6.3	38	126	51	25	9	6.7	...	...
3....			4.1	6.3	43	110	46	21	9	4.7	...	...
4....			4.1	4.1	43	97	46	21	9	4.7	...	...
5....			4.1	8.1	52	91	42	18	6.7	4.7	...	...
6....			4.1	8.1	57	91	42	18	9	4.7	...	...
7....			4.1	8.1	62	91	37	18	12	4.7	...	...
8....			4.1	17	79	85	37	18	9	4.7	...	...
9....			6.3	20	96	85	33	18	9	4.7	...	...
10....			6.3	20	120	91	33	18	6.7	4.7	...	...
11....			6.3	14	120	85	33	18	6.7	4.7	...	...
12....			6.3	14	93	85	29	18	6.7	4.7	...	...
13....			6.3	14	74	85	25	21	6.7	3.2	...	...
14....			6.3	17	68	85	25	18	6.7	3.2	...	...
15....			8.5	17	56	79	25	15	6.7	4.7	...	...
16....			8.5	19	45	79	25	15	6.7	6.7	...	...
17....			6.3	13	44	79	25	15	6.7	4.7	...	...
18....			6.3	16	53	73	25	15	6.7	3.2	...	...
19....			6.3	16	81	73	25	15	6.7	3.2	...	...
20....			6.4	10	104	67	21	18	6.7	4.7	...	...
21....			6.4	10	123	67	21	18	6.7	4.7	...	...
22....			8.5	13	165	62	21	15	6.7	6.7	...	...
23....			8.5	10	150	62	18	12	6.7	6.7	...	...
24....			8.5	13	148	62	18	12	6.7	9	...	...
25....			8.5	13	162	56	21	15	6.7	12	...	...
26....			4.4	13	161	56	25	15	6.7	12	...	...
27....			4.4	10	131	62	18	12	6.7	9	...	...
28....			6.3	13	116	62	21	12	6.7	12	...	...
29....			8.5	16	116	56	21	12	6.7	12	...	...
30....			8.5	22	129	51	25	9	6.7	12	...	...
31....			6.3	...	127	...	25	9	...	12	...	...
Total			191.7	387.3	2890	2386	910	513	222.4	202.1	...	...
Mean.			6.18	12.9	93.2	79.5	29.4	16.5	7.41	6.52	...	...
Max.			...	22	165	133	51	29	12	12	...	...
Min.			...	4.1	34	51	18	9	6.7	3.2	...	...
Acre-ft.			380	768	5730	4730	1810	1010	441	401	...	...

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

Discharge of Alamosa River above Terrace Reservoir for 1919.
Drainage Area, 102 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....				26	338	425	310	202	36	22	.....	.....
2.....				29	310	310	365	184	29	17	.....	.....
3.....				29	338	286	310	169	29	17	.....	.....
4.....				39	395	286	262	141	22	17	.....	.....
5.....				43	490	310	241	117	22	17	.....	.....
6.....				35	490	338	241	106	29	17	.....	.....
7.....				29	490	365	262	106	52	17	.....	.....
8.....				29	338	395	220	106	52	17	.....	.....
9.....				24	310	365	262	106	52	22	.....	.....
10.....				26	262	395	184	154	44	22	.....	.....
11.....				29	262	425	169	106	32	22	.....	.....
12.....				47	338	458	154	106	32	22	.....	.....
13.....				68	365	458	141	86	36	22	.....	.....
14.....				52	395	425	184	77	60	22	.....	.....
15.....				86	560	490	241	68	44	17	.....	.....
16.....				96	596	560	310	77	29	17	.....	.....
17.....				141	709	560	241	68	29	17	.....	.....
18.....				220	749	490	202	60	22	17	.....	.....
19.....				241	749	425	202	68	22	17	.....	.....
20.....				262	749	395	169	68	17	12	.....	.....
21.....				262	831	365	154	68	22	12	.....	.....
22.....				338	789	365	141	60	29	12	.....	.....
23.....				395	709	338	117	52	36	12	.....	.....
24.....				425	560	338	117	52	36	12	.....	.....
25.....				395	560	338	128	60	36	12	.....	.....
26.....				286	671	310	141	52	36	12	.....	.....
27.....				286	709	338	141	60	36	12	.....	.....
28.....				220	789	365	154	60	29	12	.....	.....
29.....				262	873	310	141	68	29	12	.....	.....
30.....				286	831	310	154	52	22	12	.....	.....
31.....					633	.....	169	52	.....	12	.....	.....
Total				4706	17188	11538	6227	2811	1001	502	.....	.....
Mean.				157	554	385	201	90.7	33.4	16.2	.....	.....
Max..				425	873	560	365	202	60	22	.....	.....
Min..				24	262	286	117	52	17	12	.....	.....
Acre-ft.				9340	34100	22900	12400	5580	1990	996	.....	.....

Discharge of Alamosa River below Terrace Reservoir for 1919.
Drainage Area, 120 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....					206	656	302	178	36	32	.....	.....
2.....					254	459	386	152	29	27	.....	.....
3.....					286	404	254	108	29	32	.....	.....
4.....					334	440	128	152	22	32	.....	.....
5.....					351	478	90	140	22	17	.....	.....
6.....					404	440	90	128	27	17	.....	.....
7.....					152	334	178	108	32	17	.....	.....
8.....					58	334	222	108	58	17	.....	.....
9.....					556	497	222	108	51	22	.....	.....
10.....					536	478	238	82	44	32	.....	.....
11.....					422	478	192	82	32	32	.....	.....
12.....					318	516	206	90	32	32	.....	.....
13.....					318	478	108	90	44	32	.....	.....
14.....					318	497	286	82	51	32	.....	.....
15.....					351	334	254	99	58	32	.....	.....
16.....					368	536	178	99	44	32	.....	.....
17.....					478	616	222	99	38	25	.....	.....
18.....					497	596	222	99	38	17	.....	.....
19.....					478	497	192	90	38	17	.....	.....
20.....					459	404	128	90	38	12	.....	.....
21.....					440	368	238	82	27	12	.....	.....
22.....					108	556	270	206	82	27	12	.....
23.....					108	596	386	222	55	36	12	.....
24.....					108	536	422	206	55	36	12	.....
25.....					118	497	386	206	55	36	12	.....
26.....					128	459	386	222	55	36	12	.....
27.....					128	616	386	128	55	36	12	.....
28.....					140	636	386	206	60	27	12	.....
29.....					152	656	422	192	68	27	12	.....
30.....					178	676	368	165	52	32	12	.....
31.....						696	.....	178	52	.....	12	.....
Total					1168	13508	13252	6267	2855	1083	640	.....
Mean.					130	436	442	202	92.1	36.1	20.6	.....
Max..						696	656	386	178	58	32	.....
Min..						58	270	90	52	22	12	.....
Acre-ft.						26800	26200	12400	5660	2150	1270	.....

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

Discharge of Alamosa River below Terrace Reservoir for 1920.
Drainage Area, 120 Square Miles. Altitude, ... Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....					142	900	833	142	130	50	.....	.....
2.....					142	1020	792	368	130	50	.....	.....
3.....					155	1150	635	274	130	50	.....	.....
4.....					194	1290	524	289	130	50	.....	.....
5.....					260	1220	488	107	118	50	.....	.....
6.....					368	1130	352	320	107	50	.....	.....
7.....					368	1110	402	289	107	50	.....	.....
8.....					289	1020	524	76	107	50	.....	.....
9.....					246	917	578	304	107	50	.....	.....
10.....					320	792	506	260	96	36	.....	.....
11.....					402	732	402	246	76	36	.....	.....
12.....					402	712	635	402	76	36	.....	.....
13.....					419	673	616	304	76	36	.....	.....
14.....					453	812	616	220	76	36	.....	.....
15.....					436	812	597	67	76	36	.....	.....
16.....					336	896	578	220	76	36	.....	.....
17.....					352	959	385	155	76	36	.....	.....
18.....					436	917	142	130	58	36	.....	.....
19.....					506	833	352	142	58	36	.....	.....
20.....					542	772	385	130	58	36	.....	.....
21.....					635	732	352	130	58	36	.....	.....
22.....					597	812	506	76	58	36	.....	.....
23.....					524	772	506	155	58	36	.....	.....
24.....					542	772	402	155	58	36	.....	.....
25.....					542	772	181	155	58	36	.....	.....
26.....					616	772	304	168	50	36	.....	.....
27.....					616	792	385	168	50	36	.....	.....
28.....					654	854	419	168	36	36	.....	.....
29.....					673	854	436	168	36	36	.....	.....
30.....					700	854	436	130	50	36	.....	.....
31.....					800	.....	402	130	.....	36	.....	.....
Total					13667	26653	14671	6048	2380	1242	.....	.....
Mean.					441	888	473	195	79.3	40.1	.....	.....
Acre-ft.					27100	52800	29100	12000	4720	2470	.....	.....

Discharge of La Jara Creek near Capulin for 1919.
Drainage Area, 73 Square Miles. Altitude, 8,800 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....				23	115	32	109	42	8	11	11	.....
2.....				26	125	61	109	54	11	11	11	.....
3.....				26	130	83	109	37	8	11	11	.....
4.....				35	137	83	109	20	11	11	14	.....
5.....				39	157	83	100	14	11	11	14	.....
6.....				32	157	68	100	14	11	11	11	.....
7.....				26	147	42	100	14	11	11	14	.....
8.....				26	109	42	100	14	11	11	11	.....
9.....				21	100	83	91	14	11	11	11	.....
10.....				24	91	100	91	17	11	11	12	.....
11.....				26	83	100	100	14	11	11	14	.....
12.....				43	100	109	100	11	11	11	16	.....
13.....				51	109	118	68	11	17	11	16	.....
14.....				51	100	118	28	11	17	11	18	.....
15.....				51	100	118	32	11	14	11	18	.....
16.....				47	100	118	48	8	11	11	20	.....
17.....				67	100	118	28	8	11	11	24	.....
18.....				91	83	109	24	8	11	11	20	.....
19.....				119	83	109	24	5	11	11	11	.....
20.....				151	75	109	24	5	11	11	8	.....
21.....				200	68	118	48	5	11	11	10	.....
22.....				348	68	127	42	5	11	11	10	.....
23.....				286	91	127	17	5	11	11	10	.....
24.....				271	83	127	17	5	11	11	10	.....
25.....				240	68	127	17	5	11	11	10	.....
26.....				209	61	118	17	5	11	11	10	.....
27.....				170	54	118	17	5	11	11	10	.....
28.....				151	48	118	17	5	11	11	10	.....
29.....				106	48	118	24	5	11	11	10	.....
30.....				104	42	109	42	5	11	11	10	.....
31.....					37	.....	37	8	.....	11	.....	.....
Total				3060	2869	3010	1789	390	339	341	385	.....
Mean.				102	92.5	100	57.7	12.6	11.3	11.0	128	.....
Max.				348	157	127	109	54	17	11	24	.....
Min.				21	37	32	17	5	8	11	8	.....
Acre-ft.				6070	5690	5950	3550	775	672	676	762	.....

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

Discharge of La Jara River near Capulin for 1920.

	Drainage Area, 73 Square Miles.				Altitude, ... Feet Above Sea Level.							
Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....				10	67	118	32	109	17	14	17	....
2.....				10	81	109	32	109	20	17	17	....
3.....				10	98	91	32	109	20	17	19	....
4.....				10	107	91	32	109	20	17	27	....
5.....				12	133	75	32	109	20	17	19	....
6.....				12	153	68	32	109	24	17	16	....
7.....				15	186	68	32	100	20	17	15	....
8.....				18	238	61	28	91	20	17	15	....
9.....				22	265	54	28	100	20	17	15	....
10.....				22	238	54	28	100	20	17	15	....
11.....				18	184	48	28	100	20	17	17	....
12.....				22	172	42	28	91	20	17	16	....
13.....				30	196	42	28	68	20	17	16	....
14.....				39	184	37	68	17	17	17	15	....
15.....				39	141	54	75	17	17	17	18	....
16.....				38	113	68	75	17	14	17	17	....
17.....				33	120	61	75	17	17	17	17	....
18.....				33	159	54	75	14	17	17	15	....
19.....				33	220	54	75	14	14	14	13	....
20.....				33	259	48	75	14	17	14	11	....
21.....				29	304	42	83	14	14	14	10	....
22.....				28	304	42	83	14	17	14	10	....
23.....				24	204	42	75	14	17	14	10	....
24.....				24	204	42	75	14	17	17	10	....
25.....				24	204	42	83	17	17	14	10	....
26.....				20	204	42	83	17	17	11	10	....
27.....				17	168	42	83	17	14	11	10	....
28.....				16	137	42	91	17	14	14	10	....
29.....				23	127	37	100	17	14	11	10	....
30.....				47	137	37	100	17	14	14	10	....
31.....					127	....	100	17	....	14	....	....
Total				711	5434	1707	1866	1589	529	479	430	....
Mean.				23.7	175	56.9	60.2	51.3	17.6	15.5	14.3	....
Max.					304	118	100	109	24	17	....	....
Min.					67	37	28	14	14	11	....	....
Acre-ft.				1410	10800	3390	3700	3150	1050	953	851	....

Discharge of Conejos River near Mogote for 1919.

	Drainage Area, 282 Square Miles.				Altitude, ... Feet Above Sea Level.							
Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....				100	810	1260	880	386	89	73	56	65
2.....				98	890	970	1090	356	89	66	56	65
3.....				98	930	820	940	326	80	66	56	65
4.....				138	1030	724	840	299	80	66	56	65
5.....				153	1210	724	743	248	73	66	56	65
6.....				126	1210	810	610	224	73	66	58	65
7.....				102	1200	860	653	204	135	73	58	65
8.....				105	920	1010	619	204	167	80	58	65
9.....				85	870	1010	578	204	150	80	58	65
10.....				96	771	1120	500	248	120	80	58	65
11.....				107	715	1170	500	248	109	80	60	65
12.....				184	762	1230	434	204	109	80	60	65
13.....				224	1010	1230	434	184	109	80	60	65
14.....				229	1070	1230	434	167	120	80	60	65
15.....				229	1250	1380	546	150	109	80	60	65
16.....				212	1300	1380	594	150	98	80	60	65
17.....				315	1430	1440	594	167	109	80	60	65
18.....				447	1490	1310	554	150	109	80	66	67
19.....				602	1430	1120	515	150	98	73	80	60
20.....				790	1490	1080	447	135	98	73	70	60
21.....				990	1700	1020	380	120	89	66	70	60
22.....				1230	1770	970	380	109	80	66	70	60
23.....				1170	1770	920	326	89	73	66	70	60
24.....				1280	1620	920	272	80	73	66	70	60
25.....				1400	1620	930	272	80	89	66	70	60
26.....				1200	1830	880	272	80	80	73	70	60
27.....				960	1760	880	272	80	80	66	70	60
28.....				850	2000	930	326	89	80	66	70	60
29.....				696	2180	880	272	120	73	54	70	60
30.....				679	2370	880	272	98	73	54	70	60
31.....					1910	....	299	89	....	54	....	60
Total				14895	42318	31088	15848	5438	2914	2199	1906	1952
Mean.				496	1370	1040	511	175	97.1	70.9	63.5	63.0
Max.				1400	2370	1440	1090	386	167	80	....	....
Min.				85	715	724	272	80	73	54	....	....
Acre-ft.				29500	84200	61900	31400	10800	5780	4360	3780	3870

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

Discharge of Conejos River near Mogote for 1920.

Drainage Area, 282 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....			50	74	446	3830	2380	479	128	92	74	55
2.....			50	74	526	3720	2290	555	128	92	74	55
3.....			55	74	608	3500	2290	485	128	82	74	55
4.....			55	76	705	3500	2120	459	128	82	84	55
5.....			58	76	860	3390	2120	428	106	82	84	55
6.....			68	86	1040	3180	1710	562	106	82	82	50
7.....			68	96	1230	3500	1490	499	117	82	82	50
8.....			78	128	1500	3720	1360	466	117	82	92	48
9.....			88	153	1840	3940	1360	541	106	82	82	48
10.....			88	194	2010	3500	1230	505	106	82	82	48
11.....			88	155	1710	3390	1170	410	104	82	70	50
12.....			80	155	1390	3506	1060	446	94	82	70	48
13.....			80	197	1490	3500	950	416	94	82	60	48
14.....			100	234	1320	2970	850	330	94	82	60	50
15.....			90	234	1050	2970	750	310	84	82	60	50
16.....			100	234	760	3080	900	336	84	82	60	55
17.....			100	214	780	2870	900	263	84	92	60	60
18.....			80	174	1170	2670	900	267	84	92	60	60
19.....			90	158	1820	2670	850	267	84	90	60	57
20.....			102	158	2360	2770	750	267	94	90	60	52
21.....			102	158	2810	2770	660	251	94	90	50	50
22.....			112	158	3390	2870	624	231	125	78	60	50
23.....			92	158	2170	2670	705	231	125	78	50	50
24.....			92	160	2590	2870	660	211	125	68	60	45
25.....			92	160	3160	2770	705	211	125	78	60	45
26.....			92	160	3430	2870	584	211	114	86	60	50
27.....			84	160	2770	3390	512	194	114	76	55	50
28.....			84	161	2670	3080	446	168	114	86	55	50
29.....			94	207	3180	2870	479	153	104	86	55	50
30.....			84	325	3390	2570	479	140	104	86	55	50
31.....			84	....	3720	....	479	140	....	86	....	50
Total			2580	4751	57895	94900	33763	10432	3214	2594	1990	1589
Mean.			83.2	158	1870	3160	1090	337	107	83.7	66.3	51.3
Max..				325	3720	3940	2380	562	128	92	....	....
Min..				74	446	2570	446	140	84	68	....	....
Acre-ft.			5120	9400	115000	188000	67000	20700	6370	5150	3950	2150

Discharge of Los Pinos Creek near Ortiz for 1919.

Drainage Area, 167 Square Miles. Altitude, 8,100 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....				88	562	510	226	90	104	12	16	....
2.....				99	707	414	364	83	112	12	16	....
3.....				99	936	332	256	77	104	12	7	....
4.....				133	1110	301	214	65	90	12	12	....
5.....				147	1140	271	158	53	59	16	12	....
6.....				120	1200	286	129	47	47	20	12	....
7.....				99	1080	301	168	47	37	24	12	....
8.....				99	775	316	138	65	28	42	10	....
9.....				81	750	316	112	53	24	37	10	....
10.....				90	634	316	90	83	12	32	10	....
11.....				99	634	316	83	65	53	42	10	....
12.....				161	702	332	97	53	47	37	10	....
13.....				193	881	348	83	42	24	42	10	....
14.....				193	854	332	97	37	20	28	10	....
15.....				193	936	348	97	59	12	24	16	....
16.....				177	992	348	129	71	10	24	20	....
17.....				252	992	348	148	71	12	24	24	....
18.....				344	1020	316	112	65	12	24	20	....
19.....				450	992	286	129	168	12	24	24	....
20.....				570	964	271	120	190	12	20	24	....
21.....				694	936	241	90	120	12	12	25	....
22.....				830	992	241	90	77	12	12	25	....
23.....				822	936	226	77	65	12	12	25	....
24.....				947	908	214	71	53	12	16	25	....
25.....				964	702	190	71	59	12	16	25	....
26.....				925	775	178	71	59	10	10	30	....
27.....				638	726	178	71	71	10	7	30	....
28.....				506	702	178	129	83	16	7	30	....
29.....				387	775	168	83	83	24	24	30	....
30.....				450	775	148	104	83	16	24	30	....
31.....					679	....	104	90	....	24	....	....
Total				10850	26767	8570	3911	2327	967	672	560	....
Mean.				362	863	286	126	75.1	32.2	21.7	18.7	....
Max..				964	1200	510	364	190	112	42	30	....
Min..				81	562	148	71	37	10	7	7	....
Acre-ft.				21500	53100	17000	7750	4620	1920	1330	1110	....

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

Discharge of Los Pinos Creek near Ortiz for 1920.

Drainage Area, 167 Square Miles. Altitude, 8,100 Feet Above Sea Level.												
Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....			12	54	419	1340	363	74	15	12	6	
2.....			12	54	498	1240	329	118	12	12	5	
3.....			14	36	566	1190	315	74	12	10	13	
4.....			14	42	640	1170	301	60	12	10	16	
5.....			15	36	850	1150	287	54	12	12	20	
6.....			15	60	966	1100	261	67	15	12	20	
7.....			14	90	1160	1060	236	60	15	12	17	
8.....			14	138	1360	1020	212	67	12	15	17	
9.....			13	170	1390	975	201	74	12	12	11	
10.....			13	181	1360	933	181	54	12	12	17	
11.....			13	159	1190	828	170	54	12	12	18	
12.....			12	159	1120	815	159	54	10	12	20	
13.....			12	203	1220	777	148	82	7	10	20	
14.....			12	226	1120	701	128	54	7	10	18	
15.....			12	238	850	684	118	36	7	10	18	
16.....			12	214	743	688	118	36	7	10	16	
17.....			14	192	850	656	110	31	7	12	15	
18.....			16	170	1220	610	110	31	10	18	15	
19.....			18	148	1570	584	101	31	7	18	15	
20.....			31	138	1730	559	103	31	7	18	15	
21.....			74	128	1900	552	85	26	7	15	14	
22.....			67	118	2240	546	77	22	15	15	14	
23.....			54	118	1670	522	87	22	15	12	13	
24.....			60	138	1690	515	79	22	22	12	13	
25.....			67	148	1700	476	79	22	22	13	13	
26.....			74	138	1600	501	80	22	22	13	12	
27.....			74	128	1310	563	80	18	18	13	12	
28.....			67	138	1340	488	66	18	18	13	12	
29.....			60	192	1380	450	67	18	15	13	12	
30.....			60	304	1450	398	74	15	15	16	12	
31.....			54	....	1460	....	60	15	....	16	....	
Total			999	4258	38562	23091	4785	1362	379	400	439	
Mean.....			32.2	142	1240	770	154	43.9	12.6	12.9	14.6	
Max.....				304	2240	1340	363	118	22	18	20	
Min.....				36	419	398	60	15	7	10	5	
Acre-ft.			1980	8450	76200	45800	9470	2700	750	793	869	

Discharge of San Antone at Ortiz for 1919.

Drainage Area, 45 Square Miles.					Altitude,		Feet Above Sea Level.					
Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....					375	46	9	20	22	1.8	...	...
2.....					366	38	94	32	9.4	1.4	...	...
3.....					350	31	65	5.8	3.2	1.4	...	...
4.....					366	31	34	3.6	2.6	1.4	...	...
5.....					366	25	16	3.6	2.0	1.4	...	...
6.....					334	25	14	4.8	1.6	11	...	...
7.....					238	19	9	11	15	14	...	...
8.....					180	16	14	16	11	19	...	...
9.....					189	19	57	7	1.7	14	...	...
10.....					189	19	7.4	5	1.8	14	...	...
11.....					162	14	6.6	5.4	129	14	...	...
12.....					171	14	15	4.2	5	9	...	...
13.....					198	9	9	2.5	4	9	...	...
14.....					180	11	28	1.6	2.4	9	...	...
15.....					153	11	36	1.2	2.4	7	...	...
16.....					153	9	20	2.8	1.8	7	...	...
17.....					129	9	55	8.2	14	5	...	...
18.....					108	9	41	6.6	9	5	...	...
19.....					115	11	26	2.9	9	4	...	...
20.....					101	11	20	3.0	7	4	...	...
21.....					76	19	13	1.0	4	4	...	...
22.....					88	16	13	0.6	3	2.4	...	...
23.....					101	16	10	0.4	3	2.4	...	...
24.....					144	19	6.6	0.4	3	2.4	...	...
25.....					122	19	4.8	0.3	1.8	2.4	...	...
26.....					101	11	4.8	0.1	1.8	1.8	...	...
27.....					38	25	7	0.2	1.8	1.8	...	...
28.....					70	25	14	0.1	1.8	1.8	...	...
29.....					65	25	94	0.2	1.8	4	...	...
30.....					60	25	56	0.2	1.8	4	...	...
31.....					46	...	77	0.1	...	1.8	...	...
Total					1851	5334	577	876.2	150.8	277.7	181.2	...
Mean.....					61.7	172	19.2	28.3	4.86	926	5.85	...
Max.....					375	46	94	32	129	19	...	...
Min.....					38	9	4.8	0.1	1.7	1.4	...	...
Acre-ft.					3670	10600	1140	1740	299	551	360	...

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

Discharge of San Antone at Ortiz for 1920.

	Drainage Area, 45 Square Miles.				Altitude, Feet Above Sea Level							
Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1			7	31	498	330	7	9	13	8		
2			7	31	498	300	6	10	8	8		
3			7	9	518	272	6	10	8	7		
4			7	14	518	259	7	14	8	7		
5			7	32	539	133	7	12	8	7		
6			9	138	557	133	6	9	8	7		
7			9	254	719	124	6	9	8	7		
8			9	391	719	114	6	9	8	7		
9			9	406	723	99	6	9	6	7		
10			9	410	680	98	6	13	6	7		
11			8	205	670	91	9	13	6	5		
12			8	277	532	71	9	31	6	5		
13			8	484	515	65	9	24	6	5		
14			101	451	481	59	8	19	6	5		
15			9	336	240	59	8	16	6	5		
16			9	222	240	53	32	14	6	5		
17			9	236	464	28	44	14	6	9		
18			22	248	532	24	14	15	6	9		
19			31	262	629	23	26	16	8	9		
20			238	56	676	19	11	14	8	9		
21			82	57	843	18	9	14	8	9		
22			38	73	1200	10	9	14	8	9		
23			25	80	680	10	9	14	8	9		
24			28	93	690	9	10	12	8	9		
25			31	109	700	7	8	12	8	9		
26			31	117	600	42	8	12	8	9		
27			22	143	300	45	7	12	8	9		
28			31	162	321	12	7	12	8	9		
29			28	461	269	9	7	16	8	6		
30			31	495	283	6	8	14	8	6		
31			31	....	316	....	9	14	....	6		
Total			901	6283	17150	2522	324	426	225	228		
Mean.			29.1	209	553	84.1	10.5	13.7	7.50	7.35		
Max.				495	1200	330	44	31	13	9		
Min.				9	240	6	7	9	6	6		
Acre-ft.			1790	12400	34000	5000	646	842	* 446	452		

Discharge of La Garita Creek near La Garita for 1919.

Drainage Area, 61 Square Miles.				Altitude, Feet Above Sea Level.								
Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....				15	34	108	34	47	13	8		
2.....				15	47	84	64	64	13	8		
3.....				15	74	74	96	84	13	8		
4.....				15	96	64	96	96	10	8		
5.....				15	122	47	64	74	8	8		
6.....				20	152	47	55	64	8	8		
7.....				16	152	40	47	47	8	8		
8.....				20	64	55	40	47	8	8		
9.....				16	84	40	40	40	8	6		
10.....				16	96	47	24	34	8	4.5		
11.....				20	84	47	40	29	8	4.5		
12.....				30	74	40	40	29	10	8		
13.....				30	84	40	55	29	16	8		
14.....				40	84	29	47	20	20	6		
15.....				40	152	40	55	29	16	6		
16.....				30	136	34	64	34	13	6		
17.....				30	169	34	64	40	13	4.5		
18.....				40	152	40	64	29	10	4.5		
19.....				50	188	47	64	29	10	4.5		
20.....				60	208	55	55	29	10	4.5		
21.....				60	229	55	55	29	8	4.5		
22.....				65	229	40	47	24	8	4.5		
23.....				70	229	29	40	24	8	4.5		
24.....				75	208	34	40	20	8	6		
25.....				84	208	40	34	20	8	6		
26.....				74	152	34	29	20	8	8		
27.....				55	208	29	34	20	8	8		
28.....				55	252	40	29	20	8	8		
29.....				47	252	34	29	16	8	6		
30.....				47	252	29	29	13	8	6		
31.....					208	....	47	13	....	8		
Total				1165	4679	1376	1531	1113	303	200.5		
Mean.				38.8	151	45.9	49.4	35.9	10.1	6.47		
Max..					252	108	96	96	20	8		
Min..					34	29	29	13	8	4.5		
Acre-ft.				2310	9280	2730	3040	2210	601	398		

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

Discharge of La Garita Creek near La Garita for 1920.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....			5	3	9	113	30	26	12	5	.....	.....
2....			5	3	9	113	30	30	9	5	.....	.....
3....			5	3	15	106	30	39	9	5	.....	.....
4....			5	5	18	99	30	30	12	5	.....	.....
5....			5	5	26	99	26	34	12	5	.....	.....
6....			5	7	39	99	22	30	15	5	.....	.....
7....			5	7	50	99	22	30	15	5	.....	.....
8....			5	7	61	92	26	26	12	5	.....	.....
9....			5	7	61	85	18	30	12	5	.....	.....
10....			9	10	61	85	18	22	12	5	.....	.....
11....			7	7	61	73	15	15	12	5	.....	.....
12....			5	9	61	67	15	15	9	5	.....	.....
13....			5	9	67	67	15	15	9	5	.....	.....
14....			5	9	67	61	15	15	9	5	.....	.....
15....			7	12	56	56	15	15	9	5	.....	.....
16....			15	12	61	50	15	18	9	5	.....	.....
17....			5	18	61	44	15	22	12	5	.....	.....
18....			7	15	61	44	15	18	9	5	.....	.....
19....			9	12	56	39	15	15	9	5	.....	.....
20....			9	12	61	39	15	18	9	5	.....	.....
21....			9	12	85	39	15	30	9	5	.....	.....
22....			7	12	113	39	15	26	12	5	.....	.....
23....			7	12	137	34	12	18	9	5	.....	.....
24....			7	9	163	39	12	18	9	5	.....	.....
25....			5	9	163	34	9	15	9	5	.....	.....
26....			5	12	173	30	9	15	9	5	.....	.....
27....			4	12	154	39	9	15	9	5	.....	.....
28....			4	9	145	39	15	15	7	5	.....	.....
29....			4	9	137	39	12	18	7	5	.....	.....
30....			3	9	137	34	15	15	5	5	.....	.....
31....			3	.....	129	.....	18	15	.....	5	.....	.....
Total			186	277	2497	1896	543	663	301	155	.....	.....
Mean...			6.0	9.22	80.5	63.2	17.5	21.4	10.0	5.0	.....	.....
Max...			15	18	173	113	30	34	15	5	.....	.....
Min...			3	3	9	30	9	15	5	5	.....	.....
Acre-ft.			309	549	4950	3760	1080	1320	595	307	.....	.....

Discharge of Carnero Creek near La Garita for 1919.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....				12	150	77	26	58	10	8	.....	.....
2....				12	160	70	84	36	9	8	.....	.....
3....				12	140	64	106	31	9	8	.....	.....
4....				12	192	64	41	26	9	8	.....	.....
5....				12	251	52	31	22	8	8	.....	.....
6....				15	226	52	31	18	8	8	.....	.....
7....				17	150	52	31	18	8	8	.....	.....
8....				15	140	52	31	18	8	8	.....	.....
9....				14	131	64	31	22	8	8	.....	.....
10....				12	122	52	22	26	8	8	.....	.....
11....				14	114	46	22	22	8	8	.....	.....
12....				17	106	41	22	15	52	9	.....	.....
13....				17	114	41	22	15	10	10	.....	.....
14....				25	122	41	31	12	15	9	.....	.....
15....				20	122	41	36	15	10	8	.....	.....
16....				20	114	46	31	10	9	7	.....	.....
17....				20	122	41	36	10	9	8	.....	.....
18....				30	114	46	26	12	8	8	.....	.....
19....				50	114	41	26	10	8	8	.....	.....
20....				70	122	41	22	10	8	6	.....	.....
21....				90	106	41	22	10	8	7	.....	.....
22....				100	106	36	22	10	8	7	.....	.....
23....				120	140	36	18	10	8	8	.....	.....
24....				140	122	31	18	10	8	8	.....	.....
25....				150	98	31	22	10	8	8	.....	.....
26....				114	106	31	15	10	8	8	.....	.....
27....				122	106	31	15	10	8	8	.....	.....
28....				84	114	31	22	9	8	7	.....	.....
29....				84	91	31	26	9	8	7	.....	.....
30....				98	91	26	31	9	8	10	.....	.....
31....					91	.....	46	9	.....	10	.....	.....
Total				1518	3997	1319	965	512	302	249	.....	.....
Mean...				50.6	129	45.0	31.1	16.5	10.1	8.03	.....	.....
Max...					251	77	106	58	52	10	.....	.....
Min...					91	26	15	9	8	6	.....	.....
Acre-ft.				3010	7930	2680	1910	1010	601	494	.....	.....

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

Discharge of Cornero Creek near La Garita for 1920.
Drainage Area, 117 Square Miles. Altitude, Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....			12	12	31	80	21	15	7	7	....	....
2....			12	12	31	74	20	18	7	7	....	....
3....			12	10	31	74	20	15	6	7	....	....
4....			12	10	31	74	16	22	6	7	....	....
5....			12	8	31	81	16	22	7	7	....	....
6....			15	10	36	74	16	15	7	7	....	....
7....			15	12	36	62	16	10	8	6	....	....
8....			15	10	41	60	16	10	8	6	....	....
9....			15	31	58	60	16	12	10	6	....	....
10....			20	31	58	54	13	12	8	6	....	....
11....			18	15	46	49	13	12	7	6	....	....
12....			15	12	41	49	12	12	7	6	....	....
13....			15	12	41	49	10	15	7	6	....	....
14....			15	15	46	48	10	10	7	6	....	....
15....			18	15	52	48	10	10	7	8	....	....
16....			18	15	46	48	15	12	6	8	....	....
17....			15	15	58	37	15	12	7	8	....	....
18....			15	15	77	42	12	10	7	7	....	....
19....			15	12	85	37	12	12	7	7	....	....
20....			26	10	85	31	10	18	10	7	....	....
21....			31	8	94	31	8	18	10	6	....	....
22....			15	7	146	31	8	15	8	7	....	....
23....			18	8	96	26	8	10	7	7	....	....
24....			18	12	103	26	7	10	7	10	....	....
25....			22	10	104	26	8	8	7	15	....	....
26....			10	10	104	26	10	8	7	8	....	....
27....			12	12	106	26	12	10	7	7	....	....
28....			15	12	98	25	10	8	7	8	....	....
29....			22	15	92	25	8	7	7	8	....	....
30....			12	31	78	21	10	7	7	7	....	....
31....			10	....	80	....	12	7	....	7	....	....
Total			495	407	2062	1394	390	382	220	225	....	....
Mean.			16.0	13.6	66.5	46.5	12.6	12.3	7.33	7.26	....	....
Max..			31	31	146	81	21	22	10	15	....	....
Min..			10	7	31	21	7	6	6	6	....	....
Acre-ft.			984	809	4090	2770	775	756	436	446	....	....

Discharge of Saguache Creek near Saguache for 1919.
Drainage Area, 595 Square Miles. Altitude, 7,800 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....				20	177	453	197	187	52	43	20	....
2....				20	209	372	207	197	52	41	52	....
3....				24	229	320	294	187	52	41	45	....
4....				24	229	270	307	167	52	41	45	....
5....				28	275	248	307	140	52	40	32	....
6....				32	312	227	217	122	59	40	32	....
7....				38	325	237	207	113	67	40	26	....
8....				32	277	237	207	122	59	38	32	....
9....				26	255	294	197	122	59	38	26	....
10....				20	289	259	207	122	59	38	40	....
11....				26	255	237	167	122	52	37	40	....
12....				38	225	237	167	122	59	44	40	....
13....				38	257	248	177	97	67	44	42	....
14....				60	294	259	187	97	74	37	42	....
15....				52	294	270	207	89	88	36	44	....
16....				38	372	294	217	82	73	36	45	....
17....				38	346	307	197	82	65	36	52	....
18....				68	385	307	167	82	64	41	60	....
19....				145	385	294	158	82	64	41	84	....
20....				241	425	282	158	82	56	34	92	....
21....				221	439	248	140	74	55	27	84	....
22....				231	516	237	140	74	47	26	84	....
23....				277	572	237	131	67	47	26	80	....
24....				277	552	227	122	67	46	33	75	....
25....				277	468	227	113	67	46	31	75	....
26....				246	411	237	113	67	46	31	70	....
27....				195	425	217	122	67	44	38	70	....
28....				175	425	207	131	67	44	68	60	....
29....				177	483	187	177	59	44	45	60	....
30....				158	534	197	167	52	43	32	50	....
31....					552	....	177	52	....	32	....	....
Total				3242	11192	7873	5682	3129	1687	1175	1599	....
Mean.				108	361	262	183	101	56.2	37.9	53.3	....
Max..				277	572	453	307	197	88	68	92	....
Min..				20	177	187	113	52	43	26	20	....
Acre-ft.				6430	22200	15600	11300	6210	3340	2330	3170	....

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

Discharge of Saguache Creek near Saguache for 1920.
Drainage Area, 595 Square Miles. Altitude, 7,800 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....			50	52	66	523	192	158	52	51	54	....
2....			50	52	79	523	192	149	48	51	50	....
3....			50	52	86	496	174	118	48	52	50	....
4....			50	57	94	480	165	110	48	52	50	....
5....			52	57	102	465	156	102	48	52	59	....
6....			52	62	126	465	139	87	57	52	64	....
7....			57	57	128	450	124	81	57	52	64	....
8....			57	67	122	436	124	75	57	52	59	....
9....			57	67	163	436	116	75	58	52	54	....
10....			62	85	200	450	108	75	53	52	50	....
11....			62	73	174	421	116	68	49	52	50	....
12....			57	57	156	366	108	68	49	52	50	....
13....			57	62	167	352	101	68	49	52	50	....
14....			62	62	279	352	101	68	49	52	54	....
15....			67	62	216	339	101	63	49	57	54	....
16....			67	62	178	313	114	62	49	57	50	....
17....			62	57	161	288	114	57	50	52	50	....
18....			62	57	170	276	107	57	50	52	50	....
19....			62	52	220	232	100	57	50	53	50	....
20....			67	52	323	212	100	67	50	53	50	....
21....			73	52	404	212	91	66	50	53	48	....
22....			67	52	496	192	85	61	50	53	48	....
23....			67	52	526	192	85	56	50	49	48	....
24....			62	52	483	202	85	56	54	49	48	....
25....			62	48	499	183	98	56	55	53	48	....
26....			52	48	533	202	97	61	55	53	45	....
27....			57	48	580	232	97	61	55	54	45	....
28....			57	48	533	254	83	56	51	50	45	....
29....			57	48	489	232	97	56	51	50	45	....
30....			57	52	489	202	104	52	51	54	45	....
31....			57	....	505	....	119	52	....	59	....	....
Total			1830	1704	8747	9978	3593	2298	1542	1627	1527	....
Mean			59.0	56.8	282	333	116	74.1	51.4	52.5	50.9	....
Max...				85	580	523	192	158	58	59	64	....
Min...				48	66	183	83	52	48	49	45	....
Acre-ft.			3630	3380	17300	19800	7130	4560	3060	3230	3030	....

Discharge of Carmel Drainage District, Main Outlet, for 1919.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	6.4	4.4	4.5	5.8	7.3	12.2	22.3	18.6	11.8	11.1	8.6	7.1
2....	6.4	4.4	4.5	5.8	7.3	12.5	22.6	18.4	11.6	11.0	8.6	7.0
3....	6.3	4.3	4.5	5.9	7.4	12.8	*22.6	18.2	*11.4	10.8	8.5	7.0
4....	6.2	4.2	4.6	5.9	7.4	13.1	22.6	18.0	11.5	10.6	8.5	6.9
5....	6.2	4.2	4.6	6.0	7.5	13.4	22.6	17.7	11.7	10.4	8.5	6.9
6....	6.1	4.1	4.6	6.0	7.5	13.7	22.5	17.5	11.8	10.2	8.4	6.8
7....	6.0	4.0	4.6	6.1	7.6	14.1	22.5	17.3	12.0	10.0	8.4	6.8
8....	6.0	4.0	4.7	6.1	7.6	14.5	22.5	17.1	12.1	9.8	8.3	6.7
9....	5.9	*3.9	4.7	6.2	7.7	14.8	22.5	16.9	12.3	9.6	8.3	6.7
10....	5.8	3.9	*4.7	6.2	7.7	15.1	22.4	16.6	12.5	9.4	8.2	6.7
11....	5.8	3.9	4.7	6.3	7.8	15.4	22.4	16.4	12.6	9.2	8.2	6.6
12....	5.7	4.0	4.8	6.3	7.8	15.7	22.4	16.2	12.8	9.0	8.1	6.6
13....	5.6	4.0	4.8	6.4	7.9	16.1	22.3	16.0	12.9	8.9	8.1	6.6
14....	5.6	4.0	4.9	6.4	7.9	16.5	22.3	15.8	13.0	8.8	8.0	*6.5
15....	5.5	4.1	4.9	6.5	8.0	16.8	*22.3	15.5	13.2	*8.7	8.0	6.5
16....	5.4	4.1	5.0	6.5	8.1	17.1	22.1	15.3	13.3	8.7	8.0	6.5
17....	5.4	4.1	5.0	6.6	8.2	17.4	21.9	15.1	13.4	8.8	7.9	6.4
18....	5.3	4.2	5.1	6.6	8.2	17.8	21.7	14.9	*13.5	8.9	7.9	6.4
19....	*5.3	4.2	5.1	6.7	8.3	18.1	21.4	14.7	13.4	8.9	7.8	6.3
20....	5.2	4.2	5.2	6.7	*8.3	18.4	21.2	14.4	13.2	9.0	*7.8	6.3
21....	5.2	4.3	5.2	6.8	8.6	18.7	21.0	14.2	13.0	*9.1	7.7	6.2
22....	5.1	4.3	5.3	6.8	8.9	19.0	20.8	14.0	12.8	9.0	7.6	6.2
23....	5.0	4.3	5.3	6.9	9.2	19.4	20.6	13.8	12.6	9.0	7.6	6.2
24....	5.0	4.4	5.4	6.9	9.6	19.7	20.4	13.6	12.4	8.9	7.5	6.1
25....	4.9	4.4	5.4	7.0	9.9	20.0	20.1	13.4	12.2	8.9	7.4	6.1
26....	4.8	4.4	5.5	7.0	10.2	20.4	19.9	13.1	12.0	8.9	7.4	6.0
27....	4.8	4.4	5.5	7.1	10.5	20.8	19.7	12.9	11.9	8.8	7.3	6.0
28....	4.7	4.5	5.6	7.1	10.8	21.2	19.5	12.7	11.7	8.8	7.2	5.9
29....	4.6	....	5.6	7.2	11.2	21.6	19.3	12.5	11.5	8.7	7.2	5.9
30....	4.6	....	5.7	7.2	11.5	22.0	19.0	12.3	11.3	8.7	7.1	5.8
31....	4.5	....	5.7	....	11.8	....	18.8	12.1	....	8.7	....	5.8
Total	169.3	117.2	155.7	195.0	267.7	508.3	664.2	475.2	371.4	289.3	238.1	199.5
Mean	5.46	4.19	5.02	6.50	8.61	16.9	21.4	15.3	12.4	9.33	7.94	6.44
Acre-ft.	336	233	309	387	531	1010	1320	941	738	574	472	396

* Measurement.

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

Discharge of Carmel Drainage District, Main Outlet, for 1920.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	5.8	5.2	6.3	5.6	5.4	15.0	18.9	13.2	12.4	9.0	8.9	8.1
2.....	5.8	5.2	6.3	5.6	5.8	15.3	18.7	13.2	12.3	8.8	8.8	8.1
3.....	5.8	5.5	6.3	5.6	6.2	15.6	18.5	13.2	12.2	8.6	8.8	8.0
4.....	5.7	5.3	6.4	5.5	6.6	15.8	18.3	13.2	12.1	8.6	8.7	7.9
5.....	5.7	5.4	6.4	5.5	7.0	16.1	18.1	13.2	12.0	8.7	8.7	7.9
6.....	5.7	5.4	6.4	5.5	7.4	16.4	17.9	13.3	11.8	8.7	8.6	7.8
7.....	5.6	5.5	6.4	5.5	7.8	16.6	17.7	13.3	11.7	8.8	8.6	7.7
8.....	5.6	5.5	6.4	5.4	8.2	16.9	17.5	13.3	11.6	8.8	8.6	7.7
9.....	5.5	5.6	6.4	5.4	8.6	17.2	17.3	13.3	11.5	8.9	8.6	7.6
10.....	5.5	5.6	6.4	5.4	9.0	17.5	17.1	13.3	11.4	8.9	8.6	7.5
11.....	5.5	5.6	6.3	5.4	9.4	17.7	16.9	13.3	11.3	9.0	8.6	7.5
12.....	5.4	5.7	6.3	5.4	9.7	18.0	16.7	13.3	11.2	9.0	8.6	7.4
13.....	5.4	5.7	6.3	5.4	10.0	18.2	16.5	13.4	11.1	9.1	8.6	7.3
14.....	5.3	5.8	6.2	5.4	10.3	18.4	16.3	13.4	11.0	9.2	8.6	7.3
15.....	5.3	5.8	6.2	5.4	10.6	18.7	16.1	13.4	10.9	9.2	8.6	7.2
16.....	5.3	5.9	6.2	5.4	10.9	18.9	15.9	13.4	10.8	9.3	8.5	7.1
17.....	5.2	5.9	6.1	5.4	11.2	19.2	15.7	13.4	10.7	9.4	8.5	7.1
18.....	5.2	6.0	6.1	5.4	11.4	19.5	15.5	13.5	10.6	9.5	8.5	7.0
19.....	5.1	6.0	6.1	5.4	11.7	19.8	15.3	13.5	10.5	9.5	8.5	6.9
20.....	5.1	6.0	6.0	5.4	12.0	20.1	15.1	13.5	10.4	9.6	8.5	6.9
21.....	5.0	6.1	6.0	5.4	12.3	20.3	14.9	13.5	10.3	9.6	8.5	6.8
22.....	5.0	6.1	6.0	5.4	12.6	20.5	14.7	13.5	10.2	9.5	8.4	6.7
23.....	4.9	6.1	5.9	5.4	12.8	20.5	14.5	13.4	10.1	9.4	8.4	6.7
24.....	4.9	6.2	5.9	5.4	13.1	20.3	14.3	13.3	10.0	9.4	8.4	6.6
25.....	4.9	6.2	5.9	5.4	13.4	20.1	14.1	13.2	9.9	9.3	8.3	6.5
26.....	5.0	6.3	5.8	5.4	13.6	19.9	13.9	13.1	9.8	9.2	8.3	6.5
27.....	5.0	6.3	5.8	5.4	13.9	19.7	13.7	13.0	9.7	9.2	8.3	6.4
28.....	5.0	6.3	5.8	5.4	14.2	19.5	13.5	12.9	9.6	9.1	8.2	6.3
29.....	5.1	6.3	5.7	5.4	14.5	19.3	13.3	12.8	9.4	9.0	8.2	6.3
30.....	5.1	.....	5.7	5.4	14.8	19.1	13.2	12.7	9.2	9.0	8.2	6.2
31.....	5.1	.....	5.7	.....	14.9	.....	13.2	12.6	.....	8.9	.....	6.1
Total	164.5	168.3	189.7	163.0	329.3	550.1	493.3	410.6	325.7	282.2	255.6	221.1
Mean	5.31	5.80	6.12	5.43	10.6	18.3	15.9	13.2	10.9	9.10	8.52	7.13
Acre-ft.	326	334	376	323	652	1090	978	812	649	560	507	438

Discharge of Rio Grande Drainage Outlet near Mouth for 1919.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....						50	35.3	18.2	4.6	6.9	32.7	24.0
2.....						50	34.7	17.7	4.1	7.5	32.4	23.5
3.....						30	34.1	17.2	3.6	8.1	32.2	23.0
4.....						30	33.5	16.7	3.4	8.7	31.9	22.5
5.....						31	32.9	16.2	3.4	9.3	31.6	22.0
6.....						31	32.3	15.7	3.0	8.4	31.3	21.5
7.....						32	31.7	15.2	3.0	9.0	31.0	21.0
8.....						32	31.1	14.7	5.3	9.6	30.8	20.5
9.....						33	30.5	14.2	4.8	10.2	30.5	20.0
10.....						33	29.9	13.7	4.3	10.8	30.2	19.5
11.....						34	29.6	13.2	3.7	11.4	29.9	19.0
12.....						35	29.0	12.7	5.4	10.2	29.6	18.5
13.....						36	28.6	12.2	6.4	10.8	29.3	18.0
14.....						36	28.2	11.7	6.5	11.4	29.1	17.5
15.....						37	27.8	11.2	6.5	12.0	28.8	17.3
16.....						38	27.5	10.8	8.1	12.0	28.5	17.1
17.....						39	26.7	10.4	8.1	11.8	28.3	16.9
18.....						40	26.2	10.0	8.2	11.6	28.0	16.7
19.....						41	25.7	9.6	8.2	11.4	27.8	16.5
20.....						42.3	25.2	9.2	6.8	11.2	27.6	16.3
21.....						41.0	24.7	8.8	6.8	10.9	27.4	16.1
22.....						40.6	24.2	8.4	6.9	10.6	27.2	15.9
23.....						40.1	23.7	8.0	6.9	10.3	27.0	15.7
24.....						39.5	23.2	7.7	7.0	10.0	26.8	15.5
25.....						38.9	22.7	7.4	7.0	9.6	26.6	15.3
26.....						38.3	21.2	7.1	7.0	34.4	26.4	15.1
27.....						37.7	20.7	6.9	7.0	34.1	26.0	14.9
28.....						37.1	20.2	6.9	7.0	33.8	25.5	14.7
29.....						36.5	19.7	6.4	7.0	33.5	25.0	14.5
30.....						35.9	19.2	5.8	7.0	33.3	24.5	14.3
31.....							18.7	5.2	.....	33.0	.....	14.1
Total						1115.9	838.7	349.1	177.0	455.8	895.5	557.4
Mean						37.2	27.1	11.3	5.90	14.7	29.8	18.0
Acre-ft.						2210	1670	695	351	904	1770	1110

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

Discharge of Rio Grande Drainage Outlet near Mouth for 1920.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	14.0	10.9	19.2	21.6	10.5	59.6	58.8	20.3	16.7	26.4	43.2	30.7
2....	13.8	11.2	19.4	21.6	10.7	61.6	58.5	20.2	16.6	26.5	43.1	30.3
3....	13.6	11.5	19.5	21.7	25.0	62.3	54.6	40.0	16.6	26.7	43.0	29.8
4....	13.4	11.8	19.8	21.7	25.0	64.5	54.3	39.9	16.5	26.8	42.9	29.4
5....	13.2	12.1	20.0	21.8	25.0	64.8	54.0	39.8	16.5	26.9	42.8	29.0
6....	13.0	12.4	20.1	21.8	25.0	65.1	53.7	39.7	16.4	27.0	42.6	28.6
7....	12.8	12.7	20.2	21.9	25.0	65.4	25.6	42.6	25.4	27.1	42.5	28.2
8....	12.6	13.0	20.3	21.9	25.0	67.6	25.4	42.5	25.6	27.4	42.4	27.8
9....	12.4	13.3	20.4	22.0	28.8	67.9	25.2	42.4	25.7	27.5	42.0	27.4
10....	12.2	13.6	20.5	22.2	29.1	70.2	25.0	39.3	25.9	42.0	41.4	27.0
11....	12.0	13.9	20.5	22.4	29.4	70.5	24.8	36.2	26.1	42.2	40.8	26.6
12....	11.8	14.2	20.6	22.6	31.2	70.8	24.7	39.1	26.3	42.4	40.2	26.2
13....	11.6	14.5	20.6	22.8	31.5	77.0	24.6	39.0	26.5	42.6	39.6	25.7
14....	11.4	14.8	20.7	23.0	31.8	77.0	24.5	36.0	26.7	42.8	39.0	25.3
15....	11.2	15.1	20.7	23.2	32.1	79.3	24.4	35.9	26.9	43.0	38.4	24.9
16....	11.0	15.4	20.8	23.4	32.4	79.6	24.3	35.8	15.2	43.2	37.8	24.5
17....	10.8	15.7	20.8	23.6	32.7	79.9	24.1	35.7	15.4	43.4	37.2	24.0
18....	10.6	16.0	20.9	23.8	33.0	78.1	15.6	32.6	15.6	43.6	36.6	23.6
19....	10.4	16.3	20.9	24.0	47.8	78.4	15.4	32.5	15.8	43.8	36.0	23.2
20....	10.2	16.6	21.0	24.2	48.1	73.0	15.3	32.3	16.0	44.1	35.3	22.8
21....	10.0	16.9	21.0	7.6	48.4	73.5	15.1	32.1	16.2	44.3	34.7	22.4
22....	9.8	17.2	21.1	7.9	48.7	73.2	16.4	31.9	16.4	44.6	34.3	22.0
23....	9.6	17.5	21.1	8.2	54.7	74.6	16.2	31.7	16.6	44.5	33.9	21.6
24....	9.4	17.7	21.2	8.5	55.0	74.3	16.1	31.4	16.8	44.3	33.5	21.1
25....	9.1	17.9	21.2	8.8	55.3	76.0	19.9	16.8	17.0	44.2	33.0	20.7
26....	9.3	18.1	21.3	9.1	55.6	75.7	19.8	16.8	17.2	44.0	32.6	20.3
27....	9.5	18.4	21.3	9.4	59.3	75.2	19.6	16.7	26.3	43.9	32.4	19.9
28....	9.7	18.6	21.4	9.7	59.6	71.0	20.8	16.7	26.5	43.8	32.0	19.5
29....	10.0	19.0	21.4	10.0	59.9	66.8	20.6	16.8	26.4	43.6	31.6	19.0
30....	10.3	....	21.5	10.3	58.6	62.8	20.5	16.8	26.4	43.5	31.1	18.6
31....	10.6	....	21.5	....	59.1	....	20.4	16.7	....	43.3	....	18.2
Total	349.3	436.3	641.0	540.7	1193.3	2135.7	858.2	983	618.2	1199.4	1135.9	758.3
Mean.	11.3	15.0	20.7	18.0	38.5	71.2	27.7	31.7	20.6	38.7	37.9	24.5
Acre-ft.	695	863	1270	1070	2370	4240	1700	1950	1230	2380	2260	1510

Discharge of Rio Grande Drainage Outlet, Diversion into Prairie Ditch for 1919.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....							25.7	28.0	20.7	13.5	....	....
2....							26.2	27.7	20.7	13.5	....	....
3....						20.0	26.7	27.4	20.7	13.5	....	....
4....						20.0	27.2	27.1	20.7	13.5	....	....
5....						20.0	27.7	26.8	20.7	13.5	....	....
6....						20.0	28.2	26.5	20.7	15.0	....	....
7....						20.0	28.7	26.2	20.7	15.0	....	....
8....						20.0	29.2	25.9	16.8	15.0	....	....
9....						20.0	29.7	25.6	16.8	15.0	....	....
10....						20.0	30.2	25.3	16.8	15.0	....	....
11....						20.0	30.7	25.0	16.8	15.0	....	....
12....						20.0	31.2	24.7	14.5	16.8	....	....
13....						20.0	31.7	24.3	13.5	16.8	....	....
14....						20.0	32.0	24.0	13.5	16.8	....	....
15....					10	20.0	32.3	23.7	13.5	16.8	....	....
16....					10	20.0	32.5	23.4	12.0	17.6	....	....
17....					10	20.2	32.5	23.1	12.0	18.4	....	....
18....						20.4	32.2	22.8	12.0	19.2	....	....
19....						20.6	31.9	22.5	12.0	20.0	....	....
20....						20.9	31.6	22.2	13.5	20.8	....	....
21....						21.1	31.3	21.9	13.5	21.6	....	....
22....						21.3	31.0	21.6	13.5	22.4	....	....
23....						21.7	30.7	21.3	13.5	23.2	....	....
24....						22.2	30.4	21.3	13.5	24.0	....	....
25....						22.7	30.1	21.0	13.5	24.8	....	....
26....						23.2	29.8	21.0	13.5	....	....	....
27....				20	....	23.7	29.5	20.7	13.5	....	....	....
28....				20	....	24.2	29.2	20.7	13.5	....	....	....
29....				20	....	24.7	28.9	20.7	13.5	....	....	....
30....				10	....	25.2	28.6	20.7	13.5	....	....	....
31....							28.3	20.7	....	....	....	....
Total				70	30	592.1	925.9	733.8	463.6	436.7	....	....
Mean.				2.33	0.97	19.7	29.8	23.7	15.5	14.1	....	....
Acre-ft.				139	59.6	1170	1830	1460	922	867	....	....

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

Discharge of Rio Grande Drainage Canal below Prairie Ditch for 1920.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....			15.5	15.8	1.0	44.5	40.8	7.5	7.0	12.6	.....	.....
2.....			15.5	15.8	16.7	46.3	40.8	7.5	7.0	12.9	.....	.....
3.....			15.5	15.8	16.7	46.3	37.2	27.3	7.0	13.3	.....	.....
4.....			15.5	15.9	16.7	48.2	37.2	27.3	7.0	13.6	.....	.....
5.....			15.5	15.9	16.7	48.2	37.2	27.3	7.0	13.9	.....	.....
6.....			15.5	15.9	16.7	48.2	37.2	27.3	15.9	14.3	.....	.....
7.....			15.5	15.9	16.7	48.2	9.4	30.3	15.9	14.7	.....	.....
8.....			15.5	15.9	16.7	50.1	9.4	30.3	15.9	15.0	.....	.....
9.....			15.5	16.0	21.2	50.1	9.4	30.3	15.9	15.4	.....	.....
10.....			15.6	16.2	21.2	52.1	9.4	27.3	15.9	30.0	.....	.....
11.....			15.6	16.3	21.2	52.1	9.4	24.3	15.9	30.3	.....	.....
12.....			15.6	16.5	22.7	52.1	9.4	27.3	15.9	30.7	.....	.....
13.....			15.6	16.6	22.7	58.0	9.4	27.3	15.9	31.0	.....	.....
14.....			15.6	16.8	22.7	58.0	9.4	24.3	15.9	31.4	.....	.....
15.....			15.6	16.9	22.7	60.0	9.4	24.3	15.9	31.7	.....	.....
16.....			15.6	17.1	22.7	60.0	9.4	24.3	4.0	32.1	.....	.....
17.....			15.6	17.2	22.7	60.0	9.4	24.3	4.0	32.4	.....	.....
18.....			15.6	17.4	22.7	58.0	1.0	21.3	4.0	32.8	.....	.....
19.....			15.6	17.5	37.2	58.0	1.0	21.3	4.0	33.2	.....	.....
20.....			15.7	17.7	37.2	52.1	1.0	21.3	4.0	33.7	.....	.....
21.....			15.7	1.0	37.2	52.1	1.0	21.3	4.0	34.2	.....	.....
22.....			15.7	1.0	37.2	52.1	2.4	21.3	4.0	34.7	.....	.....
23.....			15.7	1.0	42.9	54.0	2.4	21.3	4.0	34.8	.....	.....
24.....			15.7	1.0	42.9	54.0	2.4	21.3	4.0	34.8	.....	.....
25.....			15.7	1.0	42.9	56.0	6.2	6.8	4.0	34.9	.....	.....
26.....			15.7	1.0	42.9	56.0	6.2	6.8	4.0	34.9	.....	.....
27.....			15.7	1.0	46.3	56.0	6.2	6.8	13.0	35.0	.....	.....
28.....			15.7	1.0	46.3	52.1	7.5	6.8	13.0	35.0	.....	.....
29.....			15.8	1.0	46.3	48.2	7.5	7.0	12.8	35.0	.....	.....
30.....			15.8	1.0	44.5	44.5	7.5	7.0	12.8	35.0	.....	.....
31.....			15.8	.....	44.5	.....	7.5	7.0	.....	35.0	.....	.....
Total			483.5	339.1	888.7	1575.5	393.6	615.8	289.6	858.3	.....	.....
Mean.			15.6	11.3	28.7	52.5	12.7	19.9	9.65	27.7	.....	.....
Acre-ft.			959	672	1760	3120	781	1220	574	1700	.....	.....

Discharge of Rio Grande Drainage Canal above Prairie Ditch for 1920.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....			15.5	15.8	17.8	45.3	39.9	39.9	29.0	27.0	.....	.....
2.....			15.5	15.8	20.5	45.3	36.4	39.9	28.7	27.3	.....	.....
3.....			15.5	15.8	20.5	46.5	33.0	39.9	28.4	27.7	.....	.....
4.....			15.5	15.9	20.5	47.2	33.0	39.9	28.1	28.0	.....	.....
5.....			15.5	15.9	20.5	49.0	33.0	39.9	27.8	28.3	.....	.....
6.....			15.5	15.9	21.9	49.0	33.0	39.9	27.5	28.7	.....	.....
7.....			15.5	15.9	21.9	49.0	33.0	36.0	27.5	29.0	.....	.....
8.....			15.5	15.9	21.9	49.0	33.1	36.0	27.5	29.3	.....	.....
9.....			15.5	16.0	21.9	49.0	36.7	37.9	27.5	29.7	.....	.....
10.....			15.6	16.2	21.9	49.0	36.7	39.9	27.5	30.0	.....	.....
11.....			15.6	16.3	23.4	49.0	36.7	41.9	27.4	30.3	.....	.....
12.....			15.6	16.5	23.4	52.7	36.7	41.9	27.4	30.7	.....	.....
13.....			15.6	16.6	23.4	54.6	36.7	41.9	27.4	31.0	.....	.....
14.....			15.6	16.8	28.1	54.6	36.7	39.9	27.4	31.4	.....	.....
15.....			15.6	16.9	28.1	56.5	36.4	39.9	27.4	31.7	.....	.....
16.....			15.6	17.1	34.7	56.5	38.0	39.9	27.3	32.1	.....	.....
17.....			15.6	17.2	34.7	54.6	37.7	37.9	27.3	32.4	.....	.....
18.....			15.6	17.4	34.7	54.6	35.5	36.0	27.3	32.8	.....	.....
19.....			15.6	17.5	34.7	52.7	35.2	36.0	27.3	33.2	.....	.....
20.....			15.7	17.7	34.7	54.6	38.7	36.0	27.3	33.7	.....	.....
21.....			15.7	17.8	34.7	54.6	38.4	36.0	27.2	34.2	.....	.....
22.....			15.7	17.8	34.7	54.6	38.1	34.5	27.2	34.7	.....	.....
23.....			15.7	17.8	39.9	54.6	37.8	33.0	27.2	34.8	.....	.....
24.....			15.7	17.8	39.9	56.5	37.5	31.4	27.2	34.8	.....	.....
25.....			15.7	17.8	39.9	58.5	39.2	31.1	27.2	34.9	.....	.....
26.....			15.7	17.8	39.9	58.5	38.9	30.8	27.1	34.9	.....	.....
27.....			15.7	17.8	43.5	50.9	36.6	30.5	27.1	35.0	.....	.....
28.....			15.7	17.8	43.5	47.2	32.4	30.2	27.1	35.0	.....	.....
29.....			15.8	17.8	43.5	43.5	36.0	29.9	27.1	35.0	.....	.....
30.....			15.8	17.8	45.3	39.9	36.0	29.6	27.1	35.0	.....	.....
31.....			15.8	.....	45.3	.....	39.9	29.3	.....	35.0	.....	.....
Total			484.2	507.1	959.3	1537.5	1126.9	1126.8	824.5	987.6	.....	.....
Mean.			15.6	16.9	30.9	51.3	36.4	36.3	27.5	31.9	.....	.....
Acre-ft.			959	1010	1900	3050	2240	2230	1640	1960	.....	.....

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

SAN JUAN DRAINAGE

SAN JUAN RIVER AT ARBOLES

Location.—At Arboles, about one-fourth mile above the mouth of Piedra River, near the center of T. 33 N., R. 5 W.

Records Available.—From 1895 to 1899, and August 21, 1910, to November 30, 1920.

Drainage Area.—1,394 square miles.

Gage.—Chain gage.

Channel.—Likely to shift at high stages.

Discharge Measurements.—Made from car and cable or by wading.

Winter Conditions.—Ice generally interferes from December to March.

Diversions.—There are court decrees for the diversion of 23 second-feet between Arboles and Pagosa Springs, Colorado, and 61 second-feet from the intervening tributaries.

Floods.—The highest gage height recorded since the station was established was 17 feet on October 1, 1911, when the discharge was 40,000 second-feet.

Co-operation.—Records furnished by the State Engineer of New Mexico.

NAVAJO RIVER AT EDITH

Location.—Six miles northeast of Lumberton, New Mexico, at the highway bridge on the Lumberton-Edith road, one-eighth mile east of Edith, a short distance north of the New Mexico-Colorado State line, near the southwest corner of T. 33 N., R. 1 E., about 5 miles downstream from the confluence of Navajo and Little Navajo Rivers. A small tributary enters from the north about one-fourth mile below the station.

Records Available.—September 21, 1912, to November 30, 1920.

Drainage Area.—Not measured.

Gage.—Vertical staff.

Channel.—Liable to small shifts.

Discharge Measurements.—Made from the bridge or by wading.

Winter Conditions.—Ice forms during the winter months.

Diversions.—Water is diverted for irrigation above the station.

Co-operation.—Records furnished by State Engineer of New Mexico.

PIEDRA RIVER AT ARBOLES

Location.—At the Denver & Rio Grande Railroad bridge at Arboles, in Sec. 16, T. 33 N., R. 5 W. The Piedra empties into the San Juan one-half mile below the station.

Records Available.—June 19, 1895, to September 30, 1899; August 21, 1910, to November 30, 1920.

Drainage Area.—650 square miles.

Gage.—Chain gage.

Channel.—Permanent except during high water.

Discharge Measurements.—Made from the railroad bridge or by wading.

Diversions.—There are a number of small diversions for irrigation above the station.

Co-operation.—Records furnished by the State Engineer of New Mexico.

LOS PINOS RIVER NEAR IGNACIO

Location.—At the highway bridge at the Southern Ute Indian Agency, near Sec. 8, T. 33 N., R. 7 W. The nearest tributary is a small stream entering from the west about 2 miles below the station.

Records Available.—April 22, 1899, to October 31, 1903; September 1, 1910, to November 30, 1912; March 10, 1913, to November 30, 1920.

Drainage Area.—450 square miles.

Gage.—Chain.

Channel.—Shifting.

Discharge Measurements.—Made from the bridge or by wading.

Winter Conditions.—The gage height and discharge relation may be affected by ice during winter months.

Diversions.—Irrigation is continuous from a point several miles above Bayfield, Colorado, to the station.

Co-operation.—Records furnished by the State Engineer of New Mexico.

ANIMAS RIVER AT DURANGO

Location.—At the footbridge at the foot of Fourteenth Street in Durango, near the power plant of the San Juan Water & Power Co. Junction Creek enters about three-fourths of a mile above, and Lightner Creek about the same distance below the station.

Records Available.—June 20, 1895, to December 31, 1905; January 1, 1910, to November 30, 1920.

Drainage Area.—694 square miles (from Hayden's Atlas).

Gage.—Vertical staff.

Channel.—Permanent.

Discharge Measurements.—Made from cable.

Winter Conditions.—Ice rarely forms.

Diversions.—Water is diverted for irrigation for about 15 miles above the station.

Floods.—The maximum observed gage height was 13.6 feet in October, 1911.

Co-operation.—Records furnished by the State Engineer of New Mexico.

HERMOS CREEK AT HERMOSA

Location.—In Sec. 34, T. 37 N., R. 9 W., at private highway bridge just below Lee's Ranch about one mile above Hermosa.

Records Available.—April 18, 1920, to November 30, 1920.

Drainage Area.—168 square miles.

Gage.—Automatic and staff gages.

Channel.—Boulders and cobbles.

Discharge Measurements.—Wading at low stages and from bridge at high stages.

FLORIDA RIVER NEAR DURANGO

Location.—At wagon bridge on the Upper Florida River about eight miles from Durango.

Records Available.—May 21, 1899, July 31, 1899; April 1, 1901, October 5, 1903; September 18, 1910, November 30, 1920.

Drainage Area.—96 square miles.

Gage.—Vertical staff. This gage has no relation to gage established September 18, 1910.

Channel.—Probably shifting.

Discharge Measurement.—Made from bridge or by wading.

Winter Conditions.—Ice forms during winter months.

Co-operation.—Maintained in co-operation with the State Engineer of New Mexico.

LA PLATA RIVER AT HESPERUS

Location.—At railroad bridge on Upper La Plata about 800 feet northwest of Hesperus railroad station.

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 December 31, 1920.

Drainage Area.—37 square miles.

Gage.—Vertical staff and automatic gages.

Channel.—Probably shifts.

Winter Conditions.—Ice forms during winter months.

Co-operation.—Maintained in co-operation with the State Engineer of New Mexico.

Discharge of San Juan River at Arboles for 1919.
Drainage Area, 1,394 Square Miles. Altitude, 6,000 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	47	60	82	1050	1750	3230	1410	1120	108	130	205	266
2....	45	86	120	1110	1580	2970	1740	1620	114	112	208	275
3....	44	80	75	1300	1520	2650	1990	1640	112	104	192	250
4....	43	85	210	920	1420	2340	1450	917	102	117	192	250
5....	41	82	270	920	1820	2150	1430	722	102	122	192	275
6....	40	85	235	940	2330	2000	1140	596	114	112	192	275
7....	39	90	285	920	2400	1650	1540	575	176	171	192	300
8....	37	90	255	880	1920	1500	1690	554	917	250	192	275
9....	36	85	215	920	1760	1380	1320	596	484	171	208	275
10....	34	85	260	1040	2830	1600	1020	610	470	202	176	275
11....	33	85	240	870	1550	1970	745	554	300	163	176	355
12....	32	80	230	1080	1550	2060	890	470	410	208	176	355
13....	70	80	270	990	1500	2140	1020	399	260	275	150	355
14....	115	75	295	970	1650	1920	1540	366	610	217	150	355
15....	115	85	280	920	1680	2240	1740	311	328	217	150	355
16....	85	60	260	1000	1800	2590	1690	328	275	202	163	345
17....	115	75	270	1070	2030	2020	1920	382	275	155	208	340
18....	150	90	280	1700	2030	2210	2060	300	260	150	208	334
19....	140	140	495	1620	1840	1860	2360	217	217	150	230	329
20....	90	85	515	1810	2240	1920	1540	242	202	155	208	324
21....	75	94	1080	2100	2480	1590	1410	171	182	127	250	319
22....	75	90	1090	2380	2450	1560	881	140	176	122	208	314
23....	90	82	620	2450	2450	1480	730	155	155	122	176	309
24....	110	75	650	2620	2680	1450	692	155	155	127	192	303
25....	85	55	370	2570	2850	1480	745	146	150	163	176	298
26....	85	80	350	1660	3090	1510	670	134	146	300	300	293
27....	80	80	430	2350	3450	1380	596	163	130	250	328	288
28....	65	75	680	2130	3200	1450	1100	140	117	192	260	283
29....	60	....	650	2120	2980	1480	802	122	127	195	250	278
30....	65	....	730	2250	2750	1320	845	122	127	198	258	272
31....	60	....	1030	....	2970	....	917	108	....	202	....	267
Total	2201	2308	12952	44950	68550	57100	39623	14075	7301	5381	6166	9382
Mean.	71.0	82.4	418	1500	2210	1900	1280	454	243	174	206	303
Max..	150	140	1090	2620	3450	3230	2360	1640	917	300	328	355
Min..	32	55	82	870	1420	1320	596	108	102	104	150	250
Acre-ft.	4360	4580	25700	89100	136000	113000	78600	27900	14500	10700	12200	18600

Discharge of San Juan River at Arboles for 1920.
Drainage Area, 1,394 Square Miles. Altitude, 6,000 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	262	602	452	720	3320	5540	3820	780	235	255	286	....
2....	257	624	760	682	2940	5460	3150	860	235	260	235	....
3....	252	647	908	630	3520	5200	3270	870	230	245	195	....
4....	247	670	535	682	3530	5500	3000	820	225	225	259	....
5....	241	692	514	908	4340	5500	2730	780	230	209	231	....
6....	236	715	585	1350	3550	5420	2630	800	225	205	461	....
7....	231	737	488	1740	3960	5540	2800	820	222	177	360	....
8....	226	760	380	2320	3860	5590	2700	840	230	150	230	....
9....	221	890	428	2720	3770	5420	2600	840	225	141	282	....
10....	216	630	488	3260	3720	5290	2500	900	225	183	338	....
11....	210	452	440	2770	4640	5140	2670	835	222	135	324	....
12....	205	440	410	2320	4250	5090	2350	595	215	174	225	....
13....	200	310	488	1960	3860	4920	2400	395	210	194	239	....
14....	195	248	630	1890	3420	4900	2150	355	215	172	222	....
15....	218	248	500	1780	3550	4760	2120	330	208	192	207	....
16....	240	225	428	1740	3660	4740	1980	325	210	223	199	....
17....	263	171	440	1710	3810	4620	2080	315	215	202	195	....
18....	285	201	800	1640	4010	4400	1930	325	220	180	199	....
19....	308	219	720	1780	4100	4010	1850	315	210	215	199	....
20....	331	248	1320	1600	4330	3680	1590	300	213	228	195	....
21....	353	535	2200	1580	9990	3730	1280	330	215	259	215	....
22....	376	1420	5000	1890	7680	3770	1190	320	225	229	207	....
23....	398	3230	1860	1780	7250	3850	950	310	225	207	192	....
24....	421	2570	1350	1960	7160	3980	840	270	222	338	192	....
25....	444	1860	1220	1860	7030	3920	800	275	230	164	200	....
26....	466	1150	2020	1560	6700	4070	720	250	240	203	192	....
27....	489	872	818	1390	6510	4210	720	260	235	235	183	....
28....	511	440	736	1560	6460	3910	865	250	250	232	207	....
29....	534	440	845	2080	6180	4010	950	252	255	237	216	....
30....	557	....	784	2800	5460	3490	800	250	248	238	196	....
31....	579	....	682	....	5570	....	730	245	....	390	....	....
Total	9972	22246	29229	52662	152130	139720	60165	15412	6765	6697	7081	....
Mean.	322	767	943	1420	4910	4660	1940	497	225	216	236	....
Max..	579	3230	5000	3260	9990	5590	3820	900	255	390	461	....
Min..	195	171	410	630	2940	3490	720	245	208	135	183	....
Acre-ft.	19700	44000	58000	104000	302000	277000	119000	30600	13400	13300	14000	....

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

Discharge of Navajo River at Edith for 1919.

Drainage Area, . . . Square Miles. Altitude, 7,100 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	33	45	50	144	372	459	336	237	38	88	76	62
2....	33	46	49	177	414	372	306	255	30	92	76	62
3....	33	47	48	201	372	459	1380	189	18	74	62	62
4....	33	47	48	336	372	237	459	134	18	74	70	62
5....	33	48	47	369	372	306	336	153	55	76	70	109
6....	33	49	46	237	804	306	336	153	91	81	70	62
7....	33	49	45	153	954	336	178	144	91	67	62	92
8....	33	50	45	177	372	372	97	134	97	90	109	126
9....	33	51	44	153	954	336	177	134	74	99	168	75
10....	33	51	43	103	372	372	282	153	74	107	70	147
11....	33	52	42	117	372	282	155	134	74	67	75	75
12....	33	52	42	144	165	306	336	124	89	67	75	75
13....	33	53	41	189	88	306	189	134	91	76	75	168
14....	34	54	40	204	585	372	180	189	255	76	77	180
15....	34	54	39	177	459	876	282	74	74	76	77	62
16....	35	55	39	134	372	1520	255	89	38	76	77	62
17....	36	56	38	165	372	655	336	97	74	81	70	63
18....	36	56	120	306	876	414	336	115	83	62	70	70
19....	37	57	201	459	1020	372	204	115	89	81	56	70
20....	38	56	282	513	1450	336	372	74	89	62	62	66
21....	38	56	414	513	1020	306	165	74	89	49	62	67
22....	39	55	585	732	1100	372	136	74	89	45	62	65
23....	40	54	459	1320	1020	336	144	74	89	45	62	65
24....	40	53	336	954	585	282	236	74	89	81	62	64
25....	41	53	255	1020	513	336	144	105	89	116	193	63
26....	41	52	255	655	1380	282	237	21	55	156	193	62
27....	42	51	189	558	1100	306	414	115	55	67	62	61
28....	43	50	153	372	1300	306	134	38	61	67	62	60
29....	43	....	144	372	1380	306	105	21	89	76	62	59
30....	44	....	126	372	1380	306	153	30	55	67	62	58
31....	45	....	144	....	954	....	177	21	....	99	....	57
Total	1135	1452	4409	11326	22849	12132	8577	3478	2302	2440	2429	2434
Mean.	36.6	51.9	142	378	737	404	277	112	76.7	78.7	81.0	78.5
Max..	45	57	585	1320	1450	1520	1380	255	255	156	193	180
Min...	33	45	38	103	88	237	97	21	18	45	56	57
Acre-ft.	2250	2880	8740	22500	45300	24100	17000	6900	4560	4840	4820	4830

Discharge of Navajo River at Edith for 1920.

Drainage Area, . . . Square Miles. Altitude, 7,100 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	56	43	181	541	878	984	736	220	57	44	44	....
2....	55	43	193	552	889	984	698	310	57	44	44	....
3....	54	43	204	564	900	942	564	265	57	44	44	....
4....	53	43	216	575	1190	984	564	220	57	44	44	....
5....	52	43	227	587	1150	942	564	204	110	44	44	....
6....	51	43	239	599	1320	984	310	204	110	44	44	....
7....	51	43	251	610	1190	984	265	204	110	44	44	....
8....	50	43	262	622	1280	1030	220	187	110	44	44	....
9....	49	43	274	633	1780	1030	220	187	70	44	44	....
10....	48	42	285	645	1450	900	220	187	57	44	45	....
11....	47	42	297	657	1280	862	220	187	54	44	45	....
12....	46	42	309	668	1110	862	220	156	46	44	45	....
13....	45	42	320	680	984	816	220	156	44	44	45	....
14....	44	42	332	691	1070	780	220	142	44	44	45	....
15....	44	42	343	703	1190	654	220	130	44	44	45	....
16....	44	42	355	715	1120	654	220	132	44	44	45	....
17....	44	42	367	726	900	654	220	130	44	44	45	....
18....	44	42	378	738	1150	611	220	130	44	44	45	....
19....	44	54	390	749	1150	611	220	130	44	44	45	....
20....	44	65	401	761	1610	611	220	126	44	44	45	....
21....	44	77	413	773	2160	564	220	120	51	44	45	....
22....	44	88	425	784	1950	611	220	110	64	44	45	....
23....	44	100	436	795	1910	611	220	110	57	44	45	....
24....	44	112	448	806	1740	611	220	110	46	44	45	....
25....	43	123	459	816	1240	611	220	110	44	44	45	....
26....	43	135	471	825	1320	611	220	110	44	44	45	....
27....	43	146	483	836	1030	736	220	110	44	44	45	....
28....	43	158	494	846	1070	736	220	110	44	44	45	....
29....	43	170	506	857	1150	654	220	34	44	44	45	....
30....	43	....	517	867	1070	816	220	82	44	44	45	....
31....	43	....	529	....	1240	....	220	64	....	44	....	....
Total	1442	1993	11005	21221	39471	23440	8981	4677	1729	1364	1342	....
Mean.	46.5	71.2	355	707	1270	781	290	151	57.6	44	44.7	....
Max..	56	170	529	867	2160	1030	736	310	110	....	....	....
Min...	43	42	181	541	878	564	220	34	44	....	....	....
Acre-ft.	2860	3950	21800	42100	78300	46500	17800	9270	3430	2710	2660	....

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

Discharge of Piedra River at Arboles for 1919.

	Drainage Area, 650 Square Miles.				Altitude, 6,000 Feet Above Sea Level.							
Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	61	60	125	575	1310	1620	720	1120	130	116	87	182
2.....	60	60	131	770	1640	1470	1020	1710	110	116	75	200
3.....	59	61	137	863	1430	1400	906	1790	115	120	64	200
4.....	58	61	144	1020	1420	1290	832	1280	95	109	81	170
5.....	57	61	150	708	1640	1180	697	1080	112	94	98	144
6.....	56	62	156	863	1680	1180	697	882	135	98	115	120
7.....	56	62	162	956	1730	1120	677	801	250	125	132	170
8.....	55	63	169	956	1600	1080	586	758	410	165	144	170
9.....	54	63	175	988	1330	1140	506	739	220	149	144	170
10.....	53	64	162	1100	1270	1150	720	720	110	170	120	139
11.....	52	64	167	988	1210	1210	361	720	70	125	120	232
12.....	51	65	150	1080	1250	1180	361	428	260	165	120	267
13.....	51	65	130	1140	1310	1210	480	374	270	194	157	265
14.....	52	65	125	1250	1360	1250	532	332	590	139	132	263
15.....	52	66	135	1180	1400	1310	1080	309	435	139	120	260
16.....	53	66	140	1280	1430	1350	1250	284	330	125	120	258
17.....	53	67	140	1340	1420	1210	1290	295	290	144	170	256
18.....	54	67	170	1620	1430	1210	1280	250	208	139	144	254
19.....	54	68	170	1750	1450	1210	1310	232	188	116	144	252
20.....	54	68	176	1710	1520	1120	988	260	226	116	120	250
21.....	55	74	393	1790	1760	956	844	250	200	102	120	248
22.....	55	81	708	2070	1680	925	801	185	176	102	120	246
23.....	56	87	616	2360	1770	882	758	144	139	102	120	243
24.....	56	93	1010	2960	1790	863	758	149	144	109	125	241
25.....	57	100	988	2620	1770	863	634	139	144	170	120	239
26.....	57	106	506	2570	1810	801	490	157	125	309	120	237
27.....	58	112	374	2100	1880	782	470	157	120	194	480	235
28.....	58	118	216	2110	1830	832	1030	170	120	125	149	233
29.....	58	....	340	1680	1770	801	832	125	125	120	144	230
30.....	59	....	480	1360	1720	658	832	125	120	109	163	228
31.....	59	....	559	....	1650	....	844	120	....	98	....	226
Total	1723	2049	9204	43757	48200	33253	24586	16085	5967	4204	4068	6828
Mean.	55.6	73.2	297	1460	1560	1110	793	519	199	136	136	220
Max..	61	118	1010	2960	1880	1620	1310	1790	590	309	480	267
Min..	51	60	125	575	1210	658	361	120	70	94	64	120
Acre-ft.	3420	4060	18200	\$6800	95600	65900	48700	31900	11800	8340	8070	13500

Discharge of Piedra River at Arboles for 1920.

	Drainage Area, 650 Square Miles.				Altitude, 6,000 Feet Above Sea Level.							
Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	224	267	361	697	3180	2860	2530	810	155	120	214	....
2.....	222	302	543	586	2310	2860	2220	780	135	120	180	....
3.....	220	274	708	634	2820	2830	2150	760	120	105	180	....
4.....	218	250	391	720	2430	2780	1980	760	120	110	156	....
5.....	215	284	374	708	3430	2800	1890	650	110	116	184	....
6.....	213	284	321	894	2940	2840	1900	660	120	110	214	....
7.....	211	340	321	1080	2900	2770	2210	680	128	108	290	....
8.....	209	332	302	1270	2810	2740	1730	607	110	105	370	....
9.....	207	267	405	2040	2910	2710	1600	390	113	114	268	....
10.....	205	284	374	2830	3070	2720	1510	500	130	117	187	....
11.....	202	260	391	2380	3450	2770	1480	408	130	120	176	....
12.....	200	250	340	1950	3050	2800	1420	410	135	106	190	....
13.....	198	250	321	1730	2960	2790	1370	450	120	106	176	....
14.....	196	226	274	1680	2900	2740	1250	393	108	128	168	....
15.....	194	206	332	1560	2920	2720	1090	393	100	128	168	....
16.....	192	194	321	1500	2900	2770	1040	390	109	152	176	....
17.....	190	239	321	1430	2910	2720	1000	400	115	136	180	....
18.....	188	232	428	1680	2980	2660	1060	350	122	120	176	....
19.....	184	216	428	1730	3180	2650	980	350	115	120	176	....
20.....	182	250	820	1650	3820	2560	965	350	115	147	180	....
21.....	180	295	733	1520	5900	2520	870	345	127	156	160	....
22.....	178	616	1680	1360	4590	2400	910	357	118	156	168	....
23.....	176	925	1230	1270	4330	2380	860	330	140	168	168	....
24.....	174	616	646	1330	4020	2400	830	310	170	162	168	....
25.....	172	522	708	1290	3790	2360	915	300	140	156	160	....
26.....	170	419	720	1290	3620	2480	860	270	135	132	168	....
27.....	232	419	634	1230	4210	2570	910	248	160	140	152	....
28.....	267	361	598	1400	3570	2700	900	244	140	128	128	....
29.....	250	309	532	2070	3660	2320	780	225	138	128	104	....
30.....	232	....	470	2540	3640	2430	770	220	128	147	104	....
31.....	267	....	559	....	3740	....	720	205	....	210	....	....
Total	6368	9689	16586	44049	104940	79650	40680	13545	3806	4071	5489	....
Mean.	205	334	535	1470	3380	2660	1310	437	127	131	183	....
Max..	267	925	1680	2830	5900	2860	2530	810	170	210	370	....
Min..	170	194	274	586	2310	2320	720	205	100	105	104	....
Acre-ft.	12600	19200	32900	87300	208000	158000	80700	26900	7550	8060	10900	....

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

Discharge of Los Pinos River at Ignacio for 1919.
Drainage Area, 450 Square Miles. Altitude, 6,480 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	83	80	76	410	1040	1490	470	1100	8	20	130	80
2....	84	80	77	328	1120	1290	1010	1210	7	15	128	88
3....	85	79	73	350	1056	1100	1190	1390	7	12	128	103
4....	86	78	78	358	1120	1130	950	1080	5	19	130	188
5....	87	78	79	386	1240	1110	810	780	5	22	140	272
6....	88	77	80	403	1360	1280	570	590	7	20	130	230
7....	89	76	81	310	1470	1020	840	570	10	46	137	180
8....	91	76	82	318	1280	925	700	640	90	65	132	219
9....	92	75	83	320	1210	880	630	530	130	40	137	177
10....	93	74	84	270	1060	1000	570	510	90	54	110	152
11....	94	74	85	318	985	1210	420	420	60	27	137	226
12....	93	73	85	338	910	1360	400	330	120	32	135	226
13....	93	73	86	397	1080	1340	780	255	180	33	126	184
14....	92	72	87	424	1300	1380	1040	195	265	20	120	106
15....	91	71	88	435	1490	1480	1610	220	290	19	122	142
16....	91	71	95	429	1460	1460	1800	180	230	18	118	198
17....	90	70	100	468	1700	1640	1500	140	215	19	120	198
18....	89	69	176	580	1910	1410	1640	120	160	19	98	177
19....	89	69	172	820	2160	1090	1300	80	112	19	110	184
20....	88	68	180	1110	2260	1120	1100	40	115	59	122	156
21....	88	69	302	1030	2220	1110	860	30	92	140	120	208
22....	87	70	255	1380	2150	1020	700	20	78	124	114	188
23....	86	71	248	1540	2120	950	590	19	63	105	110	177
24....	86	71	248	1580	1770	1000	470	18	60	95	112	194
25....	85	72	218	1840	1610	910	380	12	45	258	127	156
26....	84	73	202	1540	2180	770	370	10	35	175	156	188
27....	84	74	192	1240	2190	650	330	10	31	163	256	180
28....	83	75	218	1060	2210	640	460	9	33	140	142	191
29....	82	....	235	960	2320	600	690	10	40	146	56	184
30....	82	....	279	880	2500	510	630	8	28	147	48	170
31....	81	....	300	....	2030	....	700	8	....	147	....	170
Total	2716	2058	4649	21822	50505	32875	25510	10534	2611	2218	3751	5502
Mean.	87.6	73.5	150	727	1630	1100	823	340	87.0	71.5	125	177
Max.	94	80	302	1840	2500	1640	1800	1390	290	258	256	272
Min.	81	68	76	270	910	510	330	8	5	12	48	80
Acre-ft.	5390	4080	9220	43300	100000	65200	50600	20900	5180	4400	7440	10900

Discharge of Los Pinos River at Ignacio for 1920.
Drainage Area, 450 Square Miles. Altitude, 6,480 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	163	234	298	430	1600	2550	1970	382	20	16	265	....
2....	139	257	360	425	1490	2390	1960	473	20	17	210	....
3....	174	243	430	376	1680	2430	1840	419	19	17	170	....
4....	210	266	284	331	1700	2310	1890	371	19	19	200	....
5....	219	220	275	355	1790	2220	1790	360	19	10	220	....
6....	207	238	248	392	1780	2120	1710	243	20	20	295	....
7....	226	176	252	606	1900	2310	1600	376	40	30	400	....
8....	163	266	248	794	1950	2400	1470	284	117	21	376	....
9....	139	275	271	952	2050	2420	1370	312	119	20	326	....
10....	148	275	294	1220	2090	2390	1290	275	82	14	295	....
11....	174	261	257	944	1920	2260	1220	248	12	17	250	....
12....	230	202	238	836	1680	2100	1110	189	10	16	250	....
13....	203	180	243	968	1690	2290	1110	169	10	17	228	....
14....	145	173	303	1220	1780	2150	1020	162	9	21	134	....
15....	166	198	284	1140	1750	2100	928	136	9	19	58	....
16....	169	194	284	1130	1600	2150	1060	100	8	48	48	....
17....	173	166	317	1140	1450	2030	883	80	9	122	35	....
18....	152	162	303	992	1620	1780	853	95	8	134	22	....
19....	166	156	331	868	1780	1920	710	67	8	138	48	....
20....	189	220	312	820	2030	1850	826	80	9	184	68	....
21....	202	317	580	745	2400	1930	780	85	9	158	80	....
22....	185	500	992	631	2910	1940	625	78	12	142	72	....
23....	225	618	670	738	2580	1860	697	60	11	168	90	....
24....	159	500	517	836	2410	1840	612	48	11	160	90	....
25....	159	284	500	890	2480	1800	526	40	12	154	90	....
26....	202	243	506	806	2560	2020	517	40	32	168	80	....
27....	156	238	479	780	2390	2750	522	30	30	176	83	....
28....	149	289	392	806	2420	2510	441	31	30	168	115	....
29....	185	271	365	1060	2560	2200	490	25	35	176	110	....
30....	198	....	403	1260	2510	2040	457	26	35	184	140	....
31....	202	....	430	....	2510	....	392	20	....	228	....	....
Total	5577	7622	11666	24491	63060	65090	32700	5304	784	2782	4848	....
Mean.	180	263	376	816	2030	2170	1050	171	26.1	89.7	162	....
Max.	226	618	992	1260	2910	2750	1970	473	119	228	400	....
Min.	139	162	243	331	1450	1780	392	20	8	10	22	....
Acre-ft.	11100	15100	23100	48600	125000	129000	64800	10500	1550	5520	9640	....

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

Discharge of Animas River at Durango for 1919.

Drainage Area, 694 Square Miles. Altitude, 6,550 Feet Above Sea Level

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	207	191	192	450	1800	2450	2050	1400	325	348	305	285
2....	202	191	192	465	2050	2100	2300	1520	325	325	305	285
3....	198	191	192	500	2270	2100	2560	1900	305	334	305	285
4....	194	191	195	520	2380	2100	2160	1680	285	398	305	278
5....	189	191	200	585	2600	2050	1950	1400	257	305	285	268
6....	189	191	200	645	2750	2050	1730	1170	250	285	285	268
7....	189	191	220	670	2920	1950	1840	1040	425	325	285	250
8....	189	191	220	590	2870	1950	1950	1040	740	398	285	224
9....	189	191	245	580	2450	1980	1950	1000	788	348	285	250
10....	189	191	245	595	1960	2160	1650	972	722	348	285	268
11....	189	191	245	660	1660	2520	1470	972	605	348	285	268
12....	189	191	245	690	1590	2680	1440	880	582	348	285	268
13....	189	191	245	720	1960	2750	1420	722	759	348	285	268
14....	190	192	245	760	2380	2880	1620	668	907	325	285	268
15....	190	192	245	780	2750	3530	1950	650	1000	325	285	268
16....	190	192	245	900	3310	3650	2050	565	880	325	278	268
17....	190	192	245	1120	3570	3580	1950	565	788	325	268	285
18....	190	192	245	1610	4070	3250	1930	565	633	325	268	285
19....	190	192	245	1920	4780	3000	1730	528	565	325	268	285
20....	190	192	245	2220	4550	2750	1620	458	565	325	268	285
21....	190	192	270	2180	4950	2750	1500	477	477	325	268	285
22....	190	192	300	2690	4520	2800	1340	414	438	325	268	285
23....	190	192	331	2750	4520	2640	1140	381	425	325	268	293
24....	190	192	340	2450	4200	2750	1120	361	414	325	268	305
25....	190	192	320	2180	3900	2500	1040	325	381	325	268	305
26....	190	192	320	2050	4620	2050	972	381	370	325	278	305
27....	190	192	320	1850	5080	2050	972	370	370	325	285	305
28....	190	192	400	1770	5600	1950	972	348	348	305	285	305
29....	191	....	400	1620	5420	2250	1100	325	348	305	285	305
30....	191	....	385	1770	5300	2050	1120	325	348	305	285	305
31....	191	....	450	....	3900	....	1170	348	....	305	....	305
Total	5925	5363	8387	38290	106680	75250	49766	23750	15628	10228	8463	8712
Mean.	191	192	271	1280	3440	2510	1600	766	521	330	282	281
Max..	207	192	450	2750	5600	3650	2560	1900	1000	398	305	305
Min..	789	191	192	450	1590	1950	972	325	250	285	268	224
Acre-ft.	11700	10600	16600	75900	212000	149000	98700	47100	31000	20300	16800	17300

Discharge of Animas River at Durango for 1920.

Drainage Area, 694 Square Miles. Altitude, 6,550 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	296	353	376	508	1540	8120	4240	1240	420	500	420	....
2....	296	353	376	479	2020	7520	4070	1260	410	480	420	....
3....	306	353	376	479	2620	6900	3690	1110	370	450	420	....
4....	313	353	425	479	2780	6300	3300	990	360	450	420	....
5....	300	353	462	542	3080	5760	3360	990	350	420	425	....
6....	296	353	450	590	3080	5510	3300	950	360	410	450	....
7....	287	353	450	840	3320	6140	2970	950	370	370	480	....
8....	280	353	425	935	3590	6650	2610	820	420	370	465	....
9....	267	333	400	982	4390	6650	2410	820	420	370	430	....
10....	254	333	400	982	4580	6780	2270	820	360	360	370	....
11....	254	333	376	982	3290	6380	2150	820	360	360	355	....
12....	272	313	376	1180	2730	5500	2080	820	360	360	355	....
13....	275	313	376	1180	2850	5500	2000	800	425	360	355	....
14....	280	313	362	1130	3360	5240	1900	780	420	360	355	....
15....	280	321	353	935	2700	4730	1780	680	370	360	355	....
16....	280	333	353	916	2410	5170	1780	670	420	360	355	....
17....	280	333	362	840	2340	4730	1780	670	370	370	355	....
18....	287	345	376	840	2820	4140	1720	700	360	370	355	....
19....	296	353	376	795	4240	4330	1720	750	360	410	355	....
20....	333	376	391	795	5700	4240	1670	760	360	420	355	....
21....	313	376	450	795	7250	4430	1670	760	355	420	340	....
22....	313	376	450	795	9260	4430	1570	750	310	370	340	....
23....	313	376	479	768	7250	4330	1570	670	370	370	310	....
24....	313	376	580	750	6780	4330	1570	670	460	360	315	....
25....	313	376	596	750	7390	4200	1540	640	545	370	320	....
26....	313	376	566	840	8250	3950	1490	570	500	420	320	....
27....	321	376	522	935	7390	5980	1400	500	500	420	310	....
28....	333	376	508	935	7000	5840	1280	480	545	420	310	....
29....	345	376	508	982	7900	4520	1260	450	545	420	310	....
30....	353	....	508	1220	8120	4140	1240	420	545	420	310	....
31....	353	....	508	....	8500	....	1200	420	....	420	....	....
Total	9315	10207	13516	25179	164170	162450	66590	23730	12320	12320	11935	....
Mean.	300	352	436	839	5300	5420	2150	765	411	397	368	....
Max..	345	376	596	1220	9260	8120	4240	1260	545	500	480	....
Min..	254	313	353	479	1540	3950	1200	420	310	360	310	....
Acre-ft.	18500	20200	26800	49900	326000	322000	133000	47100	24400	24400	21900	....

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

Discharge of Hermosa Creek at Hermosa for 1920.

Drainage Area, 168 Square Miles. Altitude, 6,700 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....					822	1560	380	108	41	36	36	.....
2.....					994	1480	350	108	41	36	36	.....
3.....					1070	1250	320	114	41	36	36	.....
4.....					1150	1190	290	108	36	36	36	.....
5.....					1280	1130	260	90	36	32	36	.....
6.....					1230	1130	250	85	41	32	44	.....
7.....					1230	1190	230	80	41	32	42	.....
8.....					1600	1160	211	75	36	28	42	.....
9.....					1800	1130	194	90	36	28	40	.....
10.....					1600	1040	186	90	36	28	40	.....
11.....					1070	946	178	70	32	28	40	.....
12.....					790	886	162	65	32	28	38	.....
13.....					854	828	147	65	32	28	40	.....
14.....					1230	749	133	60	32	28	36	.....
15.....					958	724	126	60	32	32	36	.....
16.....					790	653	126	60	32	36	36	.....
17.....					854	586	120	65	28	36	36	.....
18.....				270	1150	586	114	70	32	36	36	.....
19.....				220	1960	546	114	60	36	36	36	.....
20.....				209	3120	510	102	60	32	36	36	.....
21.....				198	4060	493	102	55	32	40	36	.....
22.....				168	6420	476	102	50	50	42	36	.....
23.....				198	5350	444	96	50	45	40	36	.....
24.....				220	4280	412	102	45	45	38	38	.....
25.....				244	2580	412	102	45	41	36	40	.....
26.....				209	2180	586	96	50	36	36	42	.....
27.....				232	1930	749	90	50	32	36	40	.....
28.....				232	1700	586	80	50	36	36	40	.....
29.....				364	1650	460	80	45	36	36	34	.....
30.....				674	1600	412	85	45	36	36	32	.....
31.....					1600	.....	80	41	.....	36	.....	.....
Total.....				3438	58902	24304	5088	2109	1094	1060	1132	.....
Mean.....				264	1900	810	162	68	36.5	34.2	37.7	.....
Max.....					6420	1560	380	114	50	.....	.....	.....
Min.....					822	412	80	41	28	.....	.....	.....
Acre-ft.....				6820	11700	48200	9960	4180	2170	2100	2240	.....

Discharge of Florida River near Durango for 1919.

Drainage Area, 96 Square Miles. Altitude, Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	10	8.2	7.0	71	245	495	234	295	50	48	34	52
2.....	11	7.5	4.5	71	260	420	645	520	50	46	34	52
3.....	11	6.2	10	76	260	420	370	405	45	44	34	50
4.....	11	7.5	9.5	84	295	420	355	280	41	48	34	47
5.....	10	7.5	3.1	86	380	495	245	207	47	48	34	50
6.....	8.2	8.8	3.1	78	420	510	217	180	49	46	34	47
7.....	6.8	8.2	5.0	67	435	380	298	164	81	48	32	67
8.....	5.4	7.8	2.5	67	350	340	230	177	168	48	28	77
9.....	6.0	7.2	2.5	57	315	375	234	170	95	50	28	87
10.....	5.8	7.2	4.5	36	267	405	242	160	83	48	28	87
11.....	8.2	7.5	2.5	64	260	450	198	130	72	46	40	87
12.....	7.5	7.2	2.5	81	280	495	245	120	93	56	41	87
13.....	9.5	5.4	7.5	100	340	532	303	104	83	53	43	60
14.....	6.0	5.8	8.2	110	450	532	370	90	130	53	37	50
15.....	6.8	4.0	7.0	102	470	560	435	82	108	50	34	77
16.....	6.2	5.8	4.5	110	520	510	480	81	90	50	28	87
17.....	5.4	5.4	2.5	123	580	510	425	90	85	50	28	52
18.....	5.8	5.8	7.0	170	565	465	450	90	81	50	23	52
19.....	8.2	7.5	16	234	675	435	435	80	75	50	23	40
20.....	7.5	5.6	16	263	590	405	340	68	71	50	23	40
21.....	6.8	5.8	14	273	775	340	240	65	65	34	22	50
22.....	5.8	2.0	16	355	685	340	207	63	65	34	22	41
23.....	7.5	7.0	16	450	645	295	170	60	64	34	23	40
24.....	7.2	6.5	20	480	645	280	158	63	60	37	23	42
25.....	6.0	1.0	15	500	635	280	133	55	50	40	23	38
26.....	7.5	1.8	8.2	420	810	230	120	55	50	40	30	45
27.....	6.5	5.0	7.5	335	915	230	111	56	50	40	60	42
28.....	6.0	3.5	16	267	880	207	295	56	53	40	60	42
29.....	7.2	.....	32	230	985	207	340	53	50	37	46	45
30.....	6.5	.....	40	230	885	207	280	50	50	35	52	50
31.....	6.8	.....	57	.....	720	.....	280	49	.....	34	.....	50
Total.....	239.1	168.7	367.1	5590	16637	11770	9088	4118	2154	1387	1001	1733
Mean.....	7.12	6.02	11.8	186	537	392	293	133	71.8	44.7	33.4	55.9
Max.....	11	8.8	57	500	985	560	645	520	168	56	60	87
Min.....	5.4	1.0	2.5	36	245	207	111	49	41	34	22	38
Acre-ft.....	456	334	728	11100	33000	23300	18000	8160	4270	2750	1980	3440

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

Discharge of Florida River near Durango for 1920.

Drainage Area, 96 Square Miles. Altitude, . . . Feet Above Sea Level.												
Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	50	38	47	59	560	1120	673	88	25	22	22	....
2....	49	38	40	78	560	1090	673	88	22	22	23	....
3....	47	39	42	68	598	1090	598	99	22	22	22	....
4....	46	39	35	68	673	1010	560	88	23	22	23	....
5....	44	40	40	78	710	936	560	88	25	25	27	....
6....	42	40	47	78	785	898	486	88	23	22	32	....
7....	39	41	37	99	785	936	410	68	24	21	29	....
8....	37	41	37	99	748	1010	336	68	22	21	29	....
9....	35	42	40	265	823	973	265	68	22	22	27	....
10....	32	42	44	300	785	973	230	59	23	23	27	....
11....	30	43	40	205	710	936	205	68	22	22	27	....
12....	28	43	32	230	560	973	230	59	23	22	26	....
13....	28	44	35	265	598	936	205	50	22	23	27	....
14....	29	44	40	336	673	936	180	50	21	21	23	....
15....	29	45	32	265	486	936	180	44	21	22	23	....
16....	30	45	37	265	560	860	160	50	22	22	22	....
17....	30	46	44	265	486	785	160	37	26	22	22	....
18....	31	46	44	205	598	785	140	44	27	22	22	....
19....	31	47	44	160	785	748	125	44	25	22	22	....
20....	32	47	50	140	898	748	125	37	22	22	22	....
21....	32	48	78	125	1010	792	110	37	23	26	22	....
22....	33	48	88	140	1870	785	99	37	22	27	22	....
23....	33	49	78	140	898	748	99	37	22	26	22	....
24....	34	44	88	160	936	748	99	32	20	25	22	....
25....	34	44	78	160	973	710	110	27	34	22	23	....
26....	35	59	59	180	1010	936	99	27	37	22	23	....
27....	35	59	78	205	1010	1050	110	27	32	23	24	....
28....	36	44	59	230	973	898	125	27	27	22	23	....
29....	36	44	59	336	1010	748	110	27	26	25	21	....
30....	37	....	68	448	1010	673	88	26	26	22	21	....
31....	37	....	84	....	1120	....	99	25	....	22	....	....
Total	1101	1289	1624	5652	25201	26767	7649	1614	731	704	720	....
Mean.	35.5	44.4	52.4	188	813	892	247	52.1	24.4	22.7	24.0	....
Max..	50	59	88	448	1870	1120	673	99	37	27	32	....
Min..	28	38	32	59	486	673	88	25	20	21	21	....
Acre-ft.	2180	2560	3220	11200	50000	53100	15200	3200	1450	1400	1430	....

Discharge of La Plata River at Hesperus for 1919.

	Drainage Area, 37 Square Miles.					Altitude, 8,113 Feet Above Sea Level.						
Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	9.5	7.7	6.1	9.6	114	143	58	107	7.5	10	6	15
2.....	9.5	7.6	6.1	13	125	99	139	145	5.3	9.5	9	15
3.....	9.5	7.5	6.2	17	162	91	84	137	5.0	10	9	15
4.....	9.6	7.4	6.2	19	228	88	70	92	5.3	10	9	14
5.....	9.6	7.4	6.3	26	268	92	58	66	5.6	9.0	10	14
6.....	9.7	7.3	6.3	21	243	97	52	55	6.0	8.5	10	14
7.....	9.6	7.2	6.4	24	148	96	64	49	15	8.5	11	14
8.....	9.5	7.1	6.4	24	184	80	55	50	8.0	8.0	12	14
9.....	9.5	7.0	6.5	20	187	78	57	43	45	8.0	12	14
10.....	9.4	7.0	6.5	23	143	68	52	43	38	10	11	13
11.....	9.3	6.9	6.6	29	177	78	58	38	29	9.5	11	13
12.....	9.2	6.8	6.7	48	125	86	59	34	29	10	12	13
13.....	9.2	6.7	6.7	48	253	94	70	31	33	8.5	12	13
14.....	9.1	6.7	6.8	50	253	97	78	28	43	8.0	12	13
15.....	9.0	6.6	6.8	68	343	107	97	26	48	7.5	12	13
16.....	8.9	6.5	6.9	74	313	106	172	24	39	7.5	12	12
17.....	8.8	6.4	6.9	102	313	113	147	29	34	8.0	11	12
18.....	8.8	6.3	7.0	137	388	94	118	28	29	8.0	11	12
19.....	8.7	6.3	7.0	283	346	92	100	24	26	6.5	12	12
20.....	8.6	6.2	7.2	328	349	86	80	22	24	6.0	14	12
21.....	8.5	6.1	7.4	403	298	71	66	15	22	5.6	16	12
22.....	8.4	6.0	7.6	463	268	63	64	14	17	5.6	16	12
23.....	8.4	6.0	7.8	523	236	59	54	13	16	6.0	16	12
24.....	8.3	5.9	8.0	298	259	61	48	12	15	7.5	16	12
25.....	8.2	5.8	8.2	373	165	61	43	12	14	9.5	16	12
26.....	8.1	5.9	8.3	298	239	55	39	13	14	9.0	16	12
27.....	8.1	5.9	8.5	160	319	58	36	14	13	7.0	16	12
28.....	8.0	6.0	9.0	148	289	61	46	13	14	6.0	15	12
29.....	7.9	.....	12	92	259	52	48	12	12	5.6	15	12
30.....	7.8	.....	10	114	289	48	45	11	10	6.0	15	12
31.....	7.8	.....	12	.....	210	.....	51	9.5	.....	6.5	.....	12
Total	274.5	186.2	230.4	4235.6	7593	2472	2208	1209.5	693.7	245.3	375	399
Mean.	8.85	6.65	7.43	141	245	82.4	71.2	39.0	23.1	7.91	12.5	12.9
Max..	9.7	7.7	12	523	388	143	147	145	80	10	16	15
Min..	7.8	5.8	6.1	9.6	114	48	36	9.5	5.0	5.6	6	12
Acre-ft	544	369	457	8400	15100	4900	4380	2400	1370	486	744	793

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

Discharge of La Plata River at Hesperus for 1920.
Drainage Area, 37 Square Miles. Altitude, 8,113 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	13	18	17	26	265	378	232	30	9.4	7.8	7.8	7.8
2....	14	17	14	23	279	493	207	33	9.4	7.8	7.8	7.8
3....	15	17	12	20	293	519	192	30	9.4	7.8	7.8	7.8
4....	16	17	14	34	307	468	177	30	7.8	7.8	9.4	7.8
5....	17	17	12	23	322	445	163	27	7.8	7.8	9.4	7.0
6....	18	20	13	23	371	445	126	24	7.8	7.8	9.4	7.0
7....	19	20	15	26	420	422	115	30	7.8	7.8	11	7.0
8....	20	17	17	34	468	400	105	27	7.8	7.8	11	7.0
9....	21	17	14	61	402	493	95	30	7.8	7.8	11	7.0
10....	22	17	12	83	301	493	95	37	7.8	7.8	11	7.0
11....	22	20	12	61	213	422	87	33	7.8	7.8	10	7.0
12....	22	20	10	61	157	336	79	30	7.8	7.8	10	7.0
13....	21	23	12	92	173	378	72	27	7.8	7.8	10	6.5
14....	21	23	12	101	175	315	58	24	7	7.8	9.4	6.0
15....	21	26	10	83	163	336	58	24	7	7.8	9.4	5.0
16....	21	30	14	83	142	336	58	18	7	7.8	9.4	6.0
17....	21	30	14	68	143	275	52	18	7.8	7.8	7.8	7.0
18....	20	23	14	55	199	275	42	24	7	7.0	7.8	7.0
19....	20	20	14	55	351	275	37	21	7	7.0	7.0	7.0
20....	20	14	17	55	493	257	37	24	7	7.8	7.0	8.0
21....	20	10	20	49	571	239	33	21	7.8	7.0	7.0	8.0
22....	20	14	20	49	571	239	30	18	7.8	7.8	7.0	7.0
23....	19	14	23	49	422	222	30	15	7.8	7.8	7.0	5.0
24....	19	14	20	55	445	207	33	15	7	7.0	7.0	5.0
25....	19	23	26	55	545	177	27	13	7	7.0	7.8	7.0
26....	19	23	23	68	357	275	24	13	7	7.0	7.8	4.0
27....	19	23	20	75	378	294	27	13	7	7.0	9.4	3.0
28....	18	23	30	101	357	222	24	11	7	7.8	9.4	3.0
29....	18	20	23	131	422	239	30	11	7	7.8	9.4	4.0
30....	18	....	23	198	468	257	27	9.4	7.8	7.8	9.4	5.0
31....	18	....	20	....	545	....	24	9.4	....	9.4	....	6.5
Total	591	570	517	1897	10718	10132	2396	689.8	229.2	237.8	264.6	197.2
Mean.	19.1	19.7	16.7	63.2	346	338	77.3	22.3	7.64	7.67	8.82	6.3
Max...	....	30	30	198	571	519	232	37	9.4	....	....	....
Min...	....	110	10	20	142	177	24	9.4	7	....	....	....

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

YAMPA AND WHITE DRAINAGE

B. T. Chase, Irrigation Division Engineer

YAMPA RIVER AT STEAMBOAT SPRINGS

Location.—This station was moved from the lower steel bridge to the Fifth Street bridge at Steamboat Springs on April 26, 1915. It is about one-quarter mile below Spring Creek and one-half mile above Soda Creek.

Records Available.—May 3, 1904, to October 31, 1906; March 1, 1910, to December 31, 1920.

Drainage Area.—500 square miles.

Gage.—Automatic recording gage and vertical staff gage.

Channel.—Practically permanent.

Discharge Measurements.—Made from highway bridge.

Winter Flow.—Hot Springs above keep the river practically open during the winter months.

Diversions.—There are court decrees for diversions of 115 second-feet from the Yampa River between Yampa and Steamboat Springs, and diversions of 231 second-feet from intervening tributaries. There are decrees for 258 second-feet above Yampa.

YAMPA RIVER NEAR MAYBELL

Location.—At highway bridge about three miles above Maybell in Sec. 2, T. 6 N., R. 95 W. Nearest tributary, Deception Creek, enters about one mile below.

Records Available.—April 24, 1916, to December 31, 1920. From April 17, 1904, to October 31, 1905, and from June 12, 1910, to November 30, 1912, a station was maintained at the Thornburg bridge, about nine miles below Maybell. The present station was established April 25, 1916.

Gage.—Slope and automatic gages.

Channel.—Permanent.

Winter Flow.—Discharge estimated from measurements during winter months.

Diversions.—Between this station and Craig there are decrees for diversions of 131 second-feet from the Yampa River and 3,269 second-feet from intervening tributaries.

Co-operation.—Station maintained in co-operation with the United States Geological Survey during 1917.

FISH CREEK NEAR STEAMBOAT SPRINGS

Location.—In Sec. 21, T. 6 N., R. 84 W., two miles southeast of Steamboat Springs and one-fourth mile above crossing of main highway.

Records Available.—April 22, 1919, to October 31, 1920.

Drainage Area.—26 square miles.

Gage.—Chain gage on foot bridge.

Discharge Measurements.—Made from footbridge during high water and wading at low stages.

Channel.—Rough, but permanent.

SODA CREEK AT STEAMBOAT SPRINGS

Location.—At the Main Street bridge at Steamboat Springs, below all tributaries, the nearest being a small creek that enters from the east about 2 miles above.

Records Available.—June 8, 1910, to August 31, 1911; April 24, 1913, to November 15, 1919.

Drainage Area.—47 square miles.

Gage.—Chain gage.

Channel.—Practically permanent.

Discharge Measurements.—Made from highway bridge.

ELK RIVER NEAR CLARK

Location.—At Kinney's Ranch, 2 miles above Clark Postoffice.

Records Available.—May 1, 1910, to November 20, 1920.

Drainage Area.—206 square miles.

Gage.—Chain gage.

Channel.—Rough but permanent.

Diversions.—There are court decrees for diversions of 4 second-feet from Elk River above this station and 25 second-feet from the tributaries entering above.

Co-operation.—The State Engineer maintains the station in co-operation with the Elk River Irrigation & Construction Co.

ELK RIVER NEAR TRULL

Location.—Two miles southwest of Trull Postoffice on the road between Steamboat Springs and Hayden; below all tributaries; none above the station for several miles.

Records Available.—May 2, 1904, to August 16, 1906; May 1, 1910, to December 30, 1920.

Drainage Area.—415 square miles.

Gage.—Chain gage.

Channel.—Fairly permanent.

Discharge Measurements.—Made from highway bridge.

Winter Flow.—Discharge estimated from measurements.

Diversions.—Between this station and that near Clark there are court decrees for diversions of 111 second-feet from Elk River and 62 second-feet from intervening tributaries. There are no decrees for diversions below the station.

BIG CREEK NEAR STEAMBOAT SPRINGS—AT MOUTH

Location.—At footbridge, 300 feet above mouth.

Records Available.—May 11, 1918, to November 10, 1919.

Drainage Area.—41 square miles.

Gage.—Vertical staff.

Channel.—Practically permanent.

Discharge Measurements.—Made from footbridge at Purce's Ranch.

Accuracy.—Conditions are favorable for accurate results.

NORTH FORK ELK HEAD CREEK AT HAYES RANCH

Location.—In Sec. 17, T. 9 N., R. 87 W., fifteen miles north of Hayden, near road to Bears' Ears Ranger Station and one-fourth mile above confluence with the East Fork of Elk Head Creek.

Records Available.—January 1, 1910, to November 30, 1910; May 5, 1920, to November 30, 1920.

Drainage Area.—26 square miles.

Gage.—Automatic recording gage and vertical staff.

Channel.—Rough but practically permanent.

Discharge Measurements.—Made from log across stream.

Co-operation.—The State Engineer maintains the station in co-operation with The Great Northern Irrigation and Power Co.

EAST FORK ELK HEAD CREEK AT HAYES RANCH

Location.—In Sec. 17, T. 9 N., R. 87 W., fifteen miles north of Hayden at footbridge near the buildings of the old Hayes Place and about one-fourth mile above the confluence with the North Fork of Elk Head Creek.

Records Available.—January 1, 1910, to November 30, 1910; May 5, 1920, to November 30, 1920.

Gage.—Automatic recording gage and vertical staff.

Drainage Area.—22 square miles.

Channel.—Fairly permanent.

Discharge Measurements.—Made from footbridge.

Co-operation.—The State Engineer maintains the station in co-operation with The Great Northern Irrigation and Power Co.

WILLIAMS RIVER AT HAMILTON

Location.—Near Hamilton, at highway bridge, on the road from Meeker to Craig. Morapos Creek, the nearest tributary, enters some distance below the station.

Records Available.—April 29, 1904, to October 31, 1906; April 15, 1910, to November 30, 1920.

Drainage Area.—341 square miles.

Gage.—Chain gage.

Channel.—Shifting.

Discharge Measurements.—Made from highway bridge.

Winter Flow.—Discharge estimates from measurements.

Diversions.—There are court decrees for diversions of 40 second-feet from Williams River above the station, and 7 second-feet below. There are also decrees for diversions of 87 second-feet from tributaries entering above.

MIDDLE FORK OF LITTLE SNAKE RIVER AT GARDNER'S RANCH

Location.—At Gardner's Ranch, in Sec. 21, T. 12 N., R. 86 W., on the county road bridge, 10 miles above Battle Creek.

Records Available.—May 8, 1916, to November 17, 1920.

Drainage Area.—152 square miles.

Gage.—Bristol automatic gage.

Channel.—Practically permanent.

Discharge Measurements.—From bridge.

Co-operation.—The State Engineer maintains the station in co-operation with the Elk River Irrigation & Construction Co.

SOUTH FORK OF LITTLE SNAKE RIVER AT GARDNER'S RANCH

Location.—At Gardner's Ranch, in Sec. 28, T. 12 N., R. 86 W., 10 miles above Battle Creek. No important tributary between the station and the mouth.

Records Available.—May 8, 1916, to December 1, 1920.

Drainage Area.—46 square miles.

Gage.—Bristol automatic gage.

Channel.—Practically permanent.

Discharge Measurements.—From bridge.

Diversions.—There are decrees for diversions of 8 second-feet from the South Fork.

Co-operation.—The State Engineer maintains the station in co-operation with the Elk River Irrigation & Construction Co.

SLATER CREEK AT BAXTER'S RANCH, NEAR SLATER

Location.—At Baxter's Ranch, in Sec. 22, T. 11 N., R. 89 W., 10 miles south of Slater.

Records Available.—May 6, 1912, to October 23, 1920.

Drainage Area.—80 square miles.

Gage.—Bristol automatic gage and vertical staff.

Channel.—Rough, but permanent.

Discharge Measurements.—From bridge.

Diversions.—There are court decrees for diversions of 14 second-feet from Slater Creek, all below the station.

Co-operation.—The State Engineer maintains the station in co-operation with the Elk River Irrigation & Construction Co.

SAVERY CREEK NEAR SAVERY, WYO.

Location.—At bridge on road about one-half mile southeast of Savery, Wyo., and about one and one-half miles above mouth.

Records Available.—May 1, 1915, to November 17, 1916; April 5, 1918, to November 8, 1920.

Drainage Area.—354 square miles.

Gage.—Vertical staff.

Channel.—Practically permanent.

Discharge Measurements.—Made from bridge at high water and by wading at low stages.

Winter Flow.—Records discontinued during the winter months.

Accuracy.—Records considered good.

LITTLE SNAKE RIVER NEAR DIXON, WYO.

Location.—One mile west of Dixon, Wyo., in Sec. 6, T. 12 N., R. 90 W. Nearest tributaries are Cottonwood Creek, which enters a short distance east of Dixon, and Willow Creek, which enters a mile or less downstream.

Records Available.—May 27, 1910, to November 30, 1920.

Drainage Area.—1,294 square miles.

Gage.—Chain gage.

Channel.—Slightly shifting during high water.

WILLOW CREEK AT RYAN'S RANCH, NEAR BAGGS, WYO.

Location.—In Colorado, about Sec. 26, T. 11 N., R. 90 W., 2 miles northeast of Ryan's ranch house and 22 miles southeast of Baggs, Wyo. No important tributary between the station and the mouth of Willow Creek.

Records Available.—May 4, 1912, to October 31, 1920.

Drainage Area.—Approximately 5 square miles.

Gage.—Bristol automatic gage.

Channel.—Small cobblestones, placed especially for the station.

Discharge Measurements.—Made from footbridge.

Co-operation.—Station maintained by the State Engineer in co-operation with the Elk River Irrigation & Construction Co.

FOUR-MILE CREEK AT RANGER STATION, NEAR BAGGS, WYO.

Location.—In Colorado, at forest ranger station near Ryan's Ranch, in Sec. 9, T. 10 N., R. 90 W., 20 miles south east of Baggs, Wyo.

Records Available.—May 1, 1912, to October 31, 1920.

Drainage Area.—Approximately 4 square miles.

Gage.—Bristol automatic gage.

Channel.—Probably permanent.

Discharge Measurements.—Made from footbridge.

Co-operation.—The State Engineer maintains the station in co-operation with the Elk River Irrigation & Construction Co.

NORTH FORK OF WHITE RIVER AT BUFORD

Location.—In Sec. 9, T. 1 S., R. 91 W. At private bridge 100 yards above old Buford Postoffice. Location of station from 1910-1915 located about one and one-half miles above present station.

Drainage Area.—240 square miles.

Records Available.—July 29, 1903, to October 31, 1906; May 24, 1910, to December 7, 1915; July 1, 1919, to October 9, 1920.

Gage.—Staff on downstream side of bridge.

Channel.—Boulders and cobbles; permanent.

SOUTH FORK OF WHITE RIVER NEAR BUFORD

Location.—In Sec. 21, T. 1 S., R. 91 W., at private road bridge. Station from 1910 to 1915 located about 5 miles above this station.

Drainage Area.—170 square miles.

Records Available.—July 26, 1903, to October 31, 1906; June 1, 1910, to November 30, 1915; July 1, 1919, to October 31, 1920.

Gage.—Staff gage spiked to northeast abutment of bridge.

Channel.—Boulders and cobbles; permanent.

WHITE RIVER NEAR MEEKER

Location.—At the Rees Ranch, $3\frac{1}{2}$ miles east of Meeker, in Sec. 24, T. 1 N., R. 93 W. Nearest tributary above is Curtis Creek; nearest below is Sulphur Creek. Station moved from Van Cleave's to Rees' Ranch October 20, 1913.

Records Available.—May 7, 1910, to November 30, 1920. From April 12, 1904, to October 31, 1906, a station was maintained 2.5 miles below this point by the United States Geological Survey.

Drainage Area.—634 square miles.

Gage.—Automatic recording gage.

Channel.—Practically permanent.

Discharge Measurements.—Made from private road bridge.

Winter Flow.—Discharge estimates from measurements during winter months.

Diversions.—There are court decrees for diversions of 186 second-feet from White River above the station and 59 second-feet from tributaries entering above. Below there are decrees for diversions of 198 second-feet from White River.

NOTE.—Station moved to get above the head of the Meeker Power Canal. Diversion started during winter of 1912-1913.

1913 records prior to October 20 corrected for the diversion. Average diversion about 90 second-feet.

Discharge of Yampa River at Steamboat Springs for 1919.
Drainage Area, 500 Square Miles. Altitude, 6,680 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....				1220	1240	222	65	53	40	58	98	
2.....				1280	1110	175	65	50	40	65	96	
3.....				1200	1150	157	75	50	40	85	94	
4.....				1290	1150	145	75	53	40	115	92	
5.....				1380	1130	145	65	50	45	115	90	
6.....				1520	1200	151	65	50	50	130	87	
7.....				1460	1060	151	75	53	75	130	84	
8.....				1350	1060	145	75	53	75	115	81	
9.....				395	1500	1100	139	85	81	130	78	
10.....				370	1380	1060	139	91	50	85	130	76
11.....				345	1360	1060	145	100	50	65	115	74
12.....				330	1380	980	145	85	50	65	100	60
13.....				360	1380	1060	115	85	50	75	115	50
14.....				370	1590	900	109	85	65	69	115	52
15.....				380	1990	860	100	75	75	69	115	56
16.....				390	2170	780	85	58	75	75	121	58
17.....				400	2570	740	85	53	65	69	121	60
18.....				410	2930	705	75	58	69	85	109	56
19.....				432	3040	670	65	53	69	85	100	62
20.....				964	2960	570	65	50	69	100	115	63
21.....				1060	2630	510	59	48	65	75	121	64
22.....				1070	2960	480	58	48	75	69	116	66
23.....				1260	3040	420	53	45	65	75	114	70
24.....				1360	2820	370	58	48	50	81	112	60
25.....				1360	2930	370	62	45	50	85	110	60
26.....				1360	2960	345	65	45	40	100	108	60
27.....				1300	2990	300	65	42	35	58	106	60
28.....				1250	2790	280	65	45	35	40	104	60
29.....				1170	2790	272	62	45	35	40	102	60
30.....				1150	2540	260	58	45	40	50	100	56
31.....					1690	.....	62	50	.....	50	.....	64
Total				17586	65090	23192	3225	1944	1642	2051	3292	2147
Mean				799	2100	773	104	62.7	54.7	66.2	110	69.3
Max.					3040	1240	222	100	75	100	130	98
Min.				22 days	1200	260	53	42	35	40	58	50
Acre-ft.				34800	129000	46000	6400	3860	3250	4070	6540	4260

Discharge of Yampa River at Steamboat Springs for 1920.
Drainage Area, 500 Square Miles. Altitude, 6,680 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....	64			132	1090	4110	1530	210	132	120	172	152
2.....				145	2080	3720	1460	186	132	120	172	160
3.....				145	2440	3500	1160	306	132	120	172	153
4.....				158	2450	3560	1150	318	132	120	172	151
5.....				158	2650	3730	982	302	137	120	172	155
6.....				172	2790	3700	815	243	142	120	172	137
7.....				172	2320	4290	739	213	148	120	172	139
8.....				216	2160	4550	661	207	153	127	164	165
9.....				279	2170	4630	326	207	158	127	158	138
10.....				361	2380	4340	294	223	158	132	164	138
11.....				481	2390	4080	352	219	164	132	169	150
12.....				515	2520	4000	335	201	153	137	172	140
13.....			112	586	2170	3880	318	216	140	142	172	150
14.....				692	2270	3740	310	204	130	142	172	120
15.....				699	2370	3630	302	201	122	145	172	120
16.....				712	2190	3350	294	186	115	145	180	130
17.....				574	2040	2930	294	186	113	145	186	140
18.....				449	2310	2610	286	186	110	153	186	102
19.....				394	2450	2310	282	233	108	153	186	145
20.....				361	3060	2170	261	302	108	158	180	140
21.....				339	3280	2410	233	268	108	158	180	118
22.....				308	3400	2410	210	223	120	158	180	116
23.....				294	3290	2380	204	192	132	164	172	120
24.....	92			279	3330	2370	268	170	132	172	172	126
25.....				268	3390	2260	574	158	145	172	172	132
26.....				261	4040	1800	428	132	164	172	172	110
27.....				264	3610	1870	330	132	158	172	158	121
28.....				279	3680	1870	275	132	145	172	158	128
29.....				348	3940	1620	247	132	132	172	158	128
30.....				519	4100	1640	223	132	120	172	153	130
31.....			132	.....	4210	.....	207	132	.....	172	.....	126
Total				10560	86570	93460	15350	6352	4043	4534	5140	4220
Mean	75	100	115	352	2790	3120	495	205	135	146	171	136
Max.				712	4210	4630	1530	318	164	172	186	.....
Min.				132	1090	1620	207	132	108	120	153	.....
Acre-ft.	4610	5750	7070	20900	172000	186000	30400	12600	8030	8980	10200	8360

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

Discharge of Yampa River near Maybell for 1919.

Drainage Area, 3,670 Square Miles. Altitude, 5,900 Feet Above Sea Level

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....				2980	5380	5490	950	247	183	175	265	300
2....				2830	5610	4270	890	247	207	183	275	300
3....				2830	6370	3540	830	247	175	235	295	300
4....				2690	5990	2920	776	247	195	235	320	300
5....				2550	6160	2800	708	247	187	235	320	300
6....				2550	6790	2630	646	235	187	235	345	294
7....				2410	6960	2700	590	235	183	247	350	294
8....				1790	6160	2920	534	235	195	247	370	294
9....				1230	5760	2890	460	235	195	242	350	286
10....				1330	5680	2830	395	235	175	223	350	278
11....				1330	5650	2980	335	231	183	207	335	270
12....				1330	5270	2980	280	231	179	207	320	262
13....				1330	5000	2980	280	231	179	219	335	254
14....				1330	5340	2860	280	231	207	215	330	246
15....				1330	6080	2800	270	231	231	219	350	238
16....				1330	6620	2750	265	239	211	235	335	230
17....				1330	6660	2690	265	231	231	219	340	222
18....				1650	7210	2480	265	223	211	235	330	214
19....				2430	7210	2440	255	223	211	239	320	220
20....				3080	7500	2430	255	223	207	260	335	220
21....				3880	7550	2350	255	207	207	235	330	220
22....				4240	7420	1600	255	183	215	231	325	222
23....				4620	7340	1280	255	175	195	235	320	222
24....				6080	7420	1250	255	175	175	247	320	222
25....				6870	7250	1250	255	183	175	251	320	220
26....				6750	7210	1250	255	183	140	251	305	218
27....				6370	7210	1180	255	175	168	251	305	216
28....			2130	6160	7080	1130	255	175	195	247	305	212
29....			2410	5340	7290	1070	255	175	168	251	305	210
30....			2980	5190	7250	1010	255	175	175	260	305	210
31....			2550		7210		255	175		260		206
Total			10070	95160	203630	73750	12334	6685	5745	7231	9710	7700
Mean.				3170	6570	2460	398	216	191	233	324	248
Max..				6870	7550	5490	950	247	231	260	370	300
Min..				1230	5000	1010	255	175	140	175	265	206
Acre-ft.				189000	404000	146000	24500	13300	11400	14300	19300	15200

Discharge of Yampa River near Maybell for 1920.

Drainage Area, 3,670 Square Miles. Altitude, 5,900 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	206			520	1970	14300	4900	785	435	360	385	490
2....				508	3300	13800	4620	740	420	360	380	500
3....				496	2900	11900	4770	676	410	360	390	510
4....				490	5760	10600	4960	740	400	360	385	485
5....				490	6370	10100	3700	785	385	360	385	498
6....				590	6370	10200	2830	830	390	360	385	470
7....				660	7840	10400	2440	785	410	360	385	460
8....				830	8840	10900	2440	700	400	360	385	475
9....				1230	8770	11800	2440	646	385	370	385	450
10....				1230	9460	12300	2410	625	335	370	385	470
11....				1230	10800	12300	2320	590	350	385	385	485
12....				1230	10600	10900	2380	555	360	385	385	465
13....				1230	10900	10400	1910	520	400	390	385	440
14....				1230	11000	10200	1440	520	385	390	410	475
15....				1230	12100	9720	1460	490	370	400	410	425
16....				1230	12100	8960	1500	490	385	400	440	445
17....				1230	11700	8270	1500	460	360	410	435	440
18....				1280	11200	7630	1500	450	360	410	450	445
19....				1330	12300	7100	1440	490	360	410	450	440
20....				1330	13600	7520	1330	534	360	410	460	450
21....				1230	14700	7520	1180	508	360	410	460	390
22....				1230	15200	7320	1160	576	370	410	472	385
23....				1230	15400	7380	970	625	385	410	472	375
24....				1210	15800	7040	980	590	385	410	484	365
25....				1210	14900	6680	1030	576	400	410	484	410
26....		386	590	1130	15000	6370	1210	520	410	410	490	375
27....			576	1090	15800	6480	1330	490	400	400	490	350
28....			562	1110	14900	5480	1130	508	400	390	490	390
29....			555	1080	13400	5040	1030	460	385	390	490	420
30....			548	1310	13900	5190	950	450	385	390	490	395
31....			534		14300		980	440		385		460
Total				31424	341180	273800	64240	18154	11540	12025	12882	13653
Mean.	244	308	393	1050	11000	9130	2070	586	385	388	429	440
Max..				1330	15800	14300	4900	830	435	410	490	
Min..				490	1970	5040	950	440	335	360	380	
Acre-ft.	15000	17700	24200	62500	676000	548000	127000	36000	22900	23900	25500	27100

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

Discharge of Fish Creek at Steamboat Springs for 1919.
Drainage Area, 26 Square Miles. Altitude, 6,700 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....				195	195	35	28	2	3			
2....				195	195	28	35	4	4			
3....				170	195	28	22	22	4			
4....				170	170	22	16	16	6			
5....				220	245	22	16	6	6			
6....				220	295	16	9	6	6			
7....				195	498	22	6	9	9			
8....				150	536	16	6	9	9			
9....				170	690	16	4	9	9			
10....				170	536	12	4	9	6			
11....				170	498	9	3	6	6			
12....				132	612	12	3	9	6			
13....				150	325	12	3	9	6			
14....				220	270	12	3	16	9			
15....				390	270	12	3	16	9			
16....				425	270	6	3	12	9			
17....				425	220	6	3	12	12			
18....				498	170	6	3	9	12			
19....				574	170	6	3	9	12			
20....				574	132	4	2	6	9			
21....				82	612	114	4	2	6			
22....				114	612	98	3	2	6			
23....				150	574	82	3	3	4			
24....				195	574	82	3	3	6			
25....				220	650	68	3	2	4			
26....				220	536	68	3	2	4			
27....				195	574	55	2	3	22			
28....				170	690	44	2	2	3			
29....				170	690	44	3	2	3			
30....				220	650	44	35	3	12			
31....				245	....	....	28	3	12			
Total				1736	11820	7191	391	202	239	267		
Mean				174	381	240	12.6	6.52	7.97	8.61		
Max.					690	690	35	35	22	22		
Min.				10 days	132	44	2	2	2	3		
Acre-ft.				3440	23400	14300	775	401	474	529		

Discharge of Fish Creek at Steamboat Springs for 1920.
Drainage Area, 26 Square Miles. Altitude, 6,700 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....				49	663	904	28	9	18			
2....				75	566	740	32	6	16			
3....				90	613	688	28	6	16			
4....				106	714	408	40	6	14			
5....				12	132	794	295	28	6			
6....				14	170	960	258	28	6			
7....				16	160	1080	220	18	6			
8....				25	182	990	170	28	6			
9....				36	170	1110	182	28	6			
10....				44	195	990	160	18	6			
11....				49	208	1110	150	16	6			
12....				49	220	1140	160	22	6			
13....				49	182	1080	141	32	6			
14....				44	208	1080	114	22	6			
15....				32	208	1170	106	14	6			
16....				32	182	1110	75	16	6			
17....				28	195	794	75	12	6			
18....				36	258	566	68	9	6			
19....				36	301	522	60	82	5			
20....				32	340	588	54	44	5			
21....				28	325	821	49	32	6			
22....				22	372	922	44	12	8			
23....				18	714	990	36	10	12			
24....				18	767	876	44	12	28			
25....				18	663	848	98	9	36			
26....				18	638	663	106	9	32			
27....				16	480	821	40	9	28			
28....				16	613	821	36	9	32			
29....				16	638	767	28	6	28			
30....				16	714	794	28	9	22			
31....				714	....	....	28	9	28			
Total				720	10269	25963	5565	671	353	502		
Mean				27.7	331	865	180	21.6	11.8	16.2		
Max.					767	1170	904	82	36	28		
Min.					49	522	28	6	5	9		
Acre-ft.				1430	20400	51500	11100	1330	702	996		

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

Discharge of Soda Creek at Steamboat Springs for 1919.

Discharge of Soda Creek at Steamboat Springs for 1913.												
Drainage Area, 47 Square Miles.					Altitude, 6,680 Feet Above Sea Level.							
Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....					205	179	29	0	0	.5	3.2	.....
2.....					214	133	27	0	0	.5	3.2	.....
3.....					205	146	27	0	0	.5	3.2	.....
4.....					210	127	22	0	0	.5	5	.....
5.....					196	114	21	0	0	1.5	5	.....
6.....					175	106	21	0	0	1.5	5	.....
7.....					165	110	17	0	0	1.5	5	.....
8.....					159	119	15	0	0	1.5	5	.....
9.....					138	149	13	0	0	1.5	5	.....
10.....					133	178	11	0	0	1.5	3.2	.....
11.....					133	162	11	0	0	1.5	5	.....
12.....					119	149	10	0	0	1.5	5	.....
13.....					133	143	10	0	0	1.5	5	.....
14.....					187	143	10	0	0	1.5	5	.....
15.....					187	130	10	0	0	1.5	5	.....
16.....					207	119	8	0	0	1.5	.....	.....
17.....					224	106	1.5	0	0	1.5	.....	.....
18.....					280	94	1.5	0	0	1.5	.....	.....
19.....					352	84	1.5	0	0	1.5	.....	.....
20.....					127	358	74	1.5	0	0	3.2	.....
21.....					138	358	70	1.5	0	0	3.2	.....
22.....					182	340	66	1.5	0	0	3.2	.....
23.....					205	358	54	1.5	0	0	5	.....
24.....					210	358	50	1.5	0	0	5	.....
25.....					222	349	45	.5	0	0	5	.....
26.....					224	334	43	.5	0	0	5	.....
27.....					210	320	41	.5	0	0	5	.....
28.....					175	306	37	.5	0	0	5	.....
29.....					178	268	35	.5	0	0	5	.....
30.....					189	238	30	0	0	0	5	.....
31.....					210	.....	0	0	0	5	.....	.....
Total					2060	7419	3027	276.5	0	0	79.1	67.3
Mean...					187	239	101	8.92	0	0	2.55	4.49
Max...					358	170	29	0	0	5.0	15 days	.....
Min...				11 days	119	30	.....	0	0	.5	.....	.....
Acre-ft.					4080	14700	6010	548	0	0	157	134

Discharge of Elk River near Clark for 1919.

Drainage Area, 206 Square Miles. Altitude, 7,300 Feet Above Sea Level.												
Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....					1800	956	450	150	60	50	86	.....
2.....					1630	860	390	150	60	46	86	.....
3.....					1530	860	380	122	122	42	79	.....
4.....					1800	776	360	72	62	42	79	.....
5.....					1380	762	360	89	60	42	79	.....
6.....					1340	790	310	60	60	42	79	.....
7.....					1220	846	310	66	60	42	79	.....
8.....					1190	832	242	66	60	50	79	.....
9.....					1220	860	236	70	60	50	79	.....
10.....					1190	956	210	72	55	50	79	.....
11.....					1190	980	210	70	50	60	.....	.....
12.....					1220	980	198	66	50	60	.....	.....
13.....					1380	988	195	60	60	60	.....	.....
14.....					1580	940	186	55	60	60	.....	.....
15.....					1580	876	186	50	60	60	.....	.....
16.....					1620	801	174	42	60	60	.....	.....
17.....					1800	762	174	55	60	72	.....	.....
18.....					1800	706	150	62	60	72	.....	.....
19.....					1840	650	150	58	60	66	.....	.....
20.....					1800	594	150	56	55	60	.....	.....
21.....					1730	538	122	58	55	60	.....	.....
22.....					1640	552	106	55	55	60	.....	.....
23.....					1820	510	102	52	55	60	.....	.....
24.....					1800	510	102	56	55	60	.....	.....
25.....					1790	462	102	58	55	60	.....	.....
26.....					1820	450	102	58	50	60	.....	.....
27.....					1900	450	102	60	50	72	.....	.....
28.....					1960	440	102	60	50	86	.....	.....
29.....					1920	450	122	60	50	86	.....	.....
30.....					1700	410	122	60	50	79	.....	.....
31.....					1270	.....	150	60	50	86	.....	.....
Total					49460	21550	6255	2134	1759	1855	804	.....
Mean.....					1660	718	202	68.8	58.6	59.8	80.4	.....
Max.....					1960	988	450	150	122	86	.....	.....
Min.....					1190	410	102	42	50	42	.....	.....
Acre-ft.					98400	42700	12400	4230	3490	3680	.....	.....

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

Discharge of Elk River near Clark for 1920.

Drainage Area, 206 Square Miles. Altitude, 7,300 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....					210	3100	1930	293	102	136	86	....
2....					259	2920	1980	330	102	122	86	....
3....					450	2820	1840	293	79	102	102	....
4....					654	2730	1880	310	102	102	94	....
5....					694	2780	1550	276	102	102	94	....
6....					1230	3010	1510	293	122	102	79	....
7....					1510	3150	1000	242	122	94	79	....
8....					1600	3290	865	242	122	86	79	....
9....					1980	3390	777	242	150	72	79	....
10....					2160	3250	820	226	150	72	86	....
11....					1790	3290	955	242	122	86	79	....
12....					1740	3250	865	210	112	86	72	....
13....					2350	2960	955	210	94	94	86	....
14....					2120	2960	910	180	86	102	72	....
15....					2120	2730	865	180	86	102	72	....
16....					2920	2680	955	150	86	102	79	....
17....					2590	2350	910	165	86	102	102	....
18....					2920	2120	820	150	86	112	102	....
19....					3200	1930	955	150	86	102	94	....
20....					3340	1980	694	226	86	102	94	....
21....					3620	2020	546	165	94	102	....	....
22....					3620	1930	512	165	112	102	....	....
23....					3200	2070	450	150	112	102	....	....
24....					3340	2210	481	150	122	122	....	....
25....					3620	2260	580	150	136	102	....	....
26....					3480	1930	450	150	122	102	....	....
27....					3150	1880	423	150	122	112	....	....
28....				86	3250	1980	350	165	122	102	....	....
29....				86	3100	1930	293	165	122	94	....	....
30....				122	3340	1880	310	136	136	102	....	....
31....				3480	....	....	310	122	....	79	....	....
Total				294	73037	76230	27741	6278	3283	3101	1716	....
Mean.				98	2360	2540	895	203	109	100	85.8	....
Max.					3620	3390	1980	330	150	136	....	....
Min.					210	1880	293	122	79	72	....	....
Acre-ft.				583	145000	151000	55000	12500	6490	6150	3400	....

Discharge of Elk River near Trull for 1919.

Drainage Area, 415 Square Miles. Altitude, 6,650 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....				1040	2080	1710	745	168	46	50	69	68
2....				938	2300	1380	595	168	69	50	69	68
3....				905	2080	1300	495	142	56	50	69	78
4....				872	1960	1300	495	155	56	61	69	78
5....				775	2300	1340	375	130	56	70	69	80
6....				775	1760	1220	375	130	56	70	70	70
7....				808	1710	1180	295	130	46	65	70	60
8....				808	1560	1220	295	130	56	61	74	60
9....				840	1520	1220	258	130	56	68	76	60
10....				840	1760	1300	258	142	42	68	80	70
11....				905	1520	1300	225	142	50	61	80	78
12....				905	1520	1380	225	120	46	61	80	76
13....				938	1560	1480	195	130	46	68	80	74
14....				840	1760	1480	168	101	46	65	82	60
15....				872	2020	1480	155	84	56	75	86	60
16....				970	2180	1380	130	84	50	79	86	64
17....				938	2240	1300	130	101	62	70	86	72
18....				1000	2300	1300	130	84	56	65	84	68
19....				1000	2420	1260	120	84	56	65	84	70
20....				1180	2480	1110	101	62	55	75	84	70
21....				1260	2540	905	92	62	55	68	84	76
22....				1340	2540	905	84	76	55	65	82	70
23....				1560	2420	808	92	56	50	68	80	70
24....				1660	2360	775	84	50	48	68	80	70
25....				1910	2360	715	84	50	49	70	76	68
26....				2180	2420	745	84	56	48	79	74	66
27....				2240	2540	685	84	50	47	75	72	68
28....				2300	1760	745	84	56	52	79	72	70
29....				1910	1810	625	84	69	68	76	68	72
30....				1910	1760	625	120	62	61	76	68	66
31....					1810	....	142	56	....	69	....	62
Total				36419	63150	34173	6799	3060	1595	2090	2303	2142
Mean.				1210	2040	1140	219	98.7	53.2	67.4	76.8	69.1
Max.				2300	2540	1710	745	168	69	79	86	80
Min.				775	1520	625	84	50	42	50	68	60
Acre-ft.				72000	125000	67800	13500	6070	3170	4140	4570	4250

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

Discharge of Elk River near Trull for 1920.

Drainage Area, 415 Square Miles. Altitude, 6,650 Feet Above Sea Level.											
Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov. Dec.
1....	62			190	1510	4560	2650	363	160	182	137 126
2....				190	2220	4000	2280	359	152	175	133 130
3....				190	2190	3630	2340	377	148	160	120 125
4....				190	2280	3680	2160	405	142	150	128 125
5....				200	2630	3900	2080	391	139	146	130 128
6....				210	3030	3870	1700	333	148	140	130 112
7....				210	2940	4350	1510	301	152	139	131 116
8....				260	3210	4590	1420	274	160	139	140 130
9....				310	3580	4680	1370	285	175	133	140 118
10....				400	4020	4280	1300	289	191	130	130 116
11....				540	3810	4180	1320	274	168	142	120 126
12....				580	3650	4160	1300	274	148	152	137 118
13....				850	3760	4020	1210	254	133	152	148 125
14....				750	4270	3900	1060	231	126	156	142 98
15....				768	3920	3940	952	216	120	156	123 100
16....				720	3600	3780	885	213	116	152	133 112
17....				590	3950	3390	920	208	113	148	142 120
18....				455	4590	3000	864	210	115	150	137 122
19....				410	4810	2720	774	216	115	154	133 124
20....				363	4770	2480	708	250	113	160	144 120
21....				340	4880	2520	642	233	116	168	144 106
22....	60			297	5200	2770	612	247	130	164	140 106
23....			98	289	5040	2850	580	203	140	148	148 108
24....				282	5030	2980	550	191	158	152	118 114
25....				274	5220	3060	612	182	188	152	126 120
26....				285	5160	2820	530	179	184	152	150 96
27....				304	4456	2490	455	179	168	152	137 98
28....				485	4730	2700	450	196	177	148	126 109
29....				696	4910	2480	410	216	191	148	126 110
30....				836	4990	2500	391	193	179	144	126 112
31....				4950	.....	.....	377	173	.....	144	 114
Total				12464	123300	104280	34412	8015	4465	4688	4019 3574
Mean.	60	82	95	415	3980	3480	1110	259	149	151	134 115
Max..				850	5220	4680	2650	405	191	182	148
Min..				.....	1510	2480	377	173	113	130	118
Acre-ft.	3690	4720	5840	24700	245000	207000	68200	15900	8870	9280	7970 7070

Discharge of Big Creek at Steamboat Springs for 1919.

Drainage Area, 41 Square Miles. Altitude, 6,740 Feet Above Sea Level.											
Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov. Dec.
1....				31	160	182	72	41	7	7	31
2....				31	140	122	65	46	15	7	31
3....				31	140	122	58	31	22	7	36
4....				31	150	131	58	26	15	10	36
5....				36	160	113	58	22	15	12	41
6....				31	131	113	58	18	12	12	46
7....				31	131	131	52	18	7	18	46
8....				22	122	140	46	15	7	12	46
9....				26	122	131	41	18	7	12	46
10....				26	122	182	36	18	7	12	52
11....				22	122	194	36	18	7	12	.....
12....				18	122	160	36	12	7	10	.....
13....				26	122	182	41	6	7	10	.....
14....				36	160	182	31	3	7	12	.....
15....				26	182	171	31	2	7	7	.....
16....				31	182	171	31	6	7	12	.....
17....				41	182	182	26	4	7	12	.....
18....				65	194	160	26	4	7	12	.....
19....				113	232	150	22	7	7	12	.....
20....				140	246	150	18	12	7	12	.....
21....				150	219	140	18	7	7	12	.....
22....				182	260	131	18	7	7	12	.....
23....				219	260	113	18	7	7	12	.....
24....				219	275	104	18	7	7	12	.....
25....				206	275	96	18	7	7	15	.....
26....				206	290	104	18	7	7	22	.....
27....				194	320	104	18	7	7	26	.....
28....				160	350	80	15	7	6	26	.....
29....				150	350	80	18	7	12	31	.....
30....				160	320	72	41	7	10	31	.....
31....					260	.....	31	7	.....	36	.....
Total				2660	6301	4093	1073	404	261	455	.....
Mean.				88.7	203	136	34.6	13.0	8.7	14.7	.....
Max..				219	350	194	72	46	22	36	.....
Min..				18	122	72	15	2	6	7	.....
Acre-ft.				5280	12500	8090	2130	799	518	904	.....

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

Discharge of North Fork Elk Head Creek at Hays' Ranch for 1920.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....					222	10	0.5	0.5	1.0	6		
2.....					176	10	0.5	0.5	0.8	5		
3.....					176	9	0.4	0.5	0.7	4.8		
4.....						154	8	0.4	0.6	0.7	4.4	
5.....					235	134	9	0.4	0.6	0.8	4.8	
6.....					165	114	8	0.4	0.6	1.0	4.0	
7.....					185	198	6	0.4	0.5	1.2	4	
8.....					194	82	6	0.4	0.8	1.2	4.4	
9.....					270	75	5	0.4	1.0	1.3	4.4	
10.....					187	68	5	0.4	1.8	1.6	5.0	
11.....					210	62	4	0.4	2.8	4.0	4	
12.....					270	56	4	0.4	2.8	4.2	3.6	
13.....					289	51	3	0.4	2.8	3.8	4.4	
14.....					198	46	3	0.4	2.0	4.0	4.2	
15.....					198	42	1	0.4	2	3.6	4.0	
16.....					289	34	1.5	0.4	3	4.2	3.6	
17.....					308	34	1.0	0.3	3	4.8	3.6	
18.....					452	27	1	0.4	2	4.4	3.0	
19.....					542	27	1	0.5	2.4	4.0	2.4	
20.....					506	24	1	0.8	2.8	4.8	3.0	
21.....					470	21	1	0.8	2.0	3.6	2	
22.....					488	21	0.8	0.9	2.4	3.2	2.6	
23.....					488	16	0.8	0.5	4.2	4.4	3.4	
24.....					470	18	0.8	0.3	4.4	6.0	2.8	
25.....					434	16	0.8	0.3	5.6	7	2.0	
26.....					398	16	1.0	0.4	4.4	5.6	1.8	
27.....					380	16	1	0.9	5.0	4.4	2.0	
28.....					362	12	0.8	1.5	5.6	5.0	3.2	
29.....					344	12	0.6	0.9	4.4	5.2	1.8	
30.....					344	12	0.6	0.5	2.4	4.4	1.8	
31.....					276		0.5	0.5		5.8		
Total					8952	1962	105.2	16.1	73.4	106.7	106.0	
Mean.					332	65.4	3.39	0.52	2.45	3.44	3.53	
Max..						222	10	1.5	5.6	5.8	6.0	
Min..						12	0.5	0.3	0.5	0.7	1.8	
Acre-ft.					17900	3890	208	32.0	141	212	210	

Discharge of East Fork Elk Head Creek at Hays' Ranch for 1920.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....						510	50	4	3	5	18	
2.....						456	50	4	3	5	24	
3.....						382	50	3	3	5	24	
4.....						368	45	3	4	5	18	
5.....					267	382	45	3	4	5	21	
6.....					358	349	45	3	4	5	32	
7.....					446	358	32	3	3	5	18	
8.....					541	336	24	3	5	5	18	
9.....					657	336	24	3	4	5	12	
10.....					734	336	21	3	7	5	15	
11.....					642	232	18	3	3	5	18	
12.....					750	208	18	3	4	12	21	
13.....					782	208	18	3	4	9	36	
14.....					814	208	12	3	4	8	32	
15.....					680	208	12	3	4	8	28	
16.....					680	171	12	3	4	10	18	
17.....					880	160	12	4	4	10	12	
18.....					1440	122	12	4	4	10	12	
19.....					1410	104	12	8	4	12	10	
20.....					1500	104	12	10	4	12	12	
21.....					1220	94	12	12	4	12	12	
22.....					1660	94	8	10	4	12	8	
23.....					1310	88	8	6	11	12	8	
24.....					1140	74	8	5	7	12	6	
25.....					1080	74	24	4	6	12	8	
26.....					1040	68	15	5	6	12	8	
27.....					1000	62	12	7	5	12	8	
28.....					1000	56	12	6	5	18	8	
29.....					1000	56	8	5	5	18	8	
30.....					880	50	5	3	5	18	8	
31.....					718		5	3		18		
Total					24629	6254	641	142	137	302	481	
Mean.					912	208	20.7	4.58	4.57	9.74	16.0	
Max..					1660	510	50	12	11	18	36	
Min..					267	50	5	3	3	5	8	
Acre-ft.					48800	12400	1270	282	272	599	952	

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

Discharge of Williams River at Hamilton for 1919.

Drainage Area, 341 Square Miles. Altitude, 6,400 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....				134	520	443	89	42	32	32	96	110
2....				146	570	363	68	46	31	32	96	100
3....				139	605	350	82	62	31	33	96	98
4....				126	692	342	71	54	32	33	96	96
5....				129	745	337	68	46	32	35	96	94
6....				151	785	337	51	38	33	35	96	100
7....				126	817	332	42	38	33	35	96	95
8....				110	675	311	42	46	37	35	103	90
9....				110	622	298	42	62	33	33	110	85
10....				110	570	298	42	51	33	35	110	80
11....				103	520	311	38	46	33	38	110	70
12....				93	488	337	38	40	33	38	110	70
13....				95	536	324	38	38	33	42	110	68
14....				113	710	298	38	33	48	42	107	74
15....				123	825	280	40	32	46	42	99	65
16....				129	765	272	38	32	42	46	103	60
17....				160	785	238	33	32	42	46	107	60
18....				198	887	228	42	32	42	46	110	55
19....				272	950	198	46	32	42	46	110	55
20....				337	846	194	44	32	42	56	110	53
21....				402	753	194	38	32	42	56	110	51
22....				510	692	178	38	32	42	56	110	50
23....				622	692	194	38	32	35	56	110	51
24....				785	710	188	38	32	35	56	110	52
25....				728	710	160	32	32	35	56	110	52
26....				598	675	142	32	32	35	142	110	52
27....				536	668	118	32	35	35	82	110	50
28....				473	675	110	32	38	32	89	110	48
29....				443	640	96	32	38	32	96	110	48
30....				415	605	96	46	32	32	96	110	48
31....					536		46	32		96		46
Total				8417	21269	7567	1396	1201	1085	1661	3171	2126
Mean				281	686	252	45.0	38.7	36.2	53.6	106	68.6
Max.				785	950	443	89	62	48	142	110	110
Min.				93	488	96	32	32	31	32	96	46
Acre-ft.				16700	42200	15000	2770	2380	2150	3300	6310	4220

Discharge of Williams River at Hamilton for 1920.

Drainage Area, 341 Square Miles. Altitude, 6,400 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	46			110	388	1920	494	53	50	50	50	....
2....					388	1930	463	50	50	50	50	....
3....					388	1950	418	50	50	50	72	....
4....					625	1920	373	50	50	50	80	....
5....					696	1840	358	50	50	50	80	....
6....					714	1770	328	50	50	50	80	....
7....					678	1540	268	50	72	50	80	....
8....					678	1480	258	50	80	50	80	....
9....					940	1520	258	50	53	50	80	....
10....					1040	1330	238	50	50	50	80	....
11....					1010	1290	228	50	50	50	80	....
12....					883	1160	218	50	50	50	80	....
13....					788	1080	198	50	50	50	80	....
14....					642	1060	178	50	50	50	80	....
15....			86		696	1080	158	50	50	50	80	....
16....					696	1030	148	50	50	50	80	....
17....					883	988	139	88	50	50	80	....
18....					1580	921	121	104	50	50	80	....
19....					1810	883	130	48	50	50	80	....
20....					1900	864	188	53	50	50	80	....
21....					1990	826	148	50	50	50	78	....
22....					1990	883	188	50	50	50	78	....
23....					1990	845	228	50	50	50	86	....
24....					1860	788	188	50	50	50	86	....
25....			72		2060	714	168	50	50	50	86	....
26....					1920	678	130	50	50	50	80	....
27....					1790	615	130	50	50	57	76	....
28....					1820	608	72	50	50	61	74	....
29....					1860	510	57	50	50	57	66	....
30....	35			275	1900	526	50	50	50	57	68	....
31....					1900		53	50		57		....
Total					38503	34549	6574	1646	1555	1589	2378	....
Mean	41	56	92	225	1240	1150	212	53.1	51.8	51.3	76.7	66.0
Max.					1990	1950	494	104	80	61	....	....
Min.					388	510	50	50	50	50	....	....
Acre-ft.	2520	3220	5660	13400	76200	68400	13000	3260	3080	3150	4560	4060

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

Discharge of Middle Fork of Little Snake River at Gardner's Ranch for 1919.
Drainage Area, 152 Square Miles. Altitude, 7,000 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....					602	402	46	8	6	6	10	
2....					538	370	48	12	6	6	7	
3....					434	298	68	10	6	5	6	
4....					590	220	46	9	6	6	7	
5....					695	210	42	8	6	6	8	
6....					546	173	40	8	6	7	8	
7....					546	222	30	8	6	7	7	
8....					458	210	28	8	6	7	6	
9....					483	220	22	8	6	7	8	
10....					522	225	20	8	5	7	8	
11....					406	215	19	8	6	7	9	
12....					522	225	15	8	6	8	9	
13....					590	205	14	8	8	8	8	
14....					606	164	14	7	8	8	8	
15....					682	151	16	6	7	8	8	
16....					658	142	13	8	6	8	7	
17....					682	120	10	6	6	8	8	
18....				133	666	104	12	6	6	9	8	
19....				140	642	106	12	6	6	8	8	
20....				186	642	110	10	6	6	8	8	
21....				259	630	120	10	6	7	8	8	
22....				331	618	84	10	6	8	8	7	
23....				434	634	78	10	6	7	8	7	
24....				469	602	68	9	6	6	7	7	
25....				510	522	70	9	6	7	7	7	
26....				530	530	68	9	6	6	8	7	
27....				472	614	48	9	7	6	6	7	
28....				434	630	36	10	6	5	8	7	
29....				530	574	46	10	6	5	10	7	
30....				562	530	46	12	6	6	10	6	
31....					490		14	6		12		
Total				4990	17884	4756	637	223	187	236	226	
Mean...				384	577	159	20.5	7.19	6.23	7.61	7.53	
Max....					695	402	68	12	8	12	10	
Min....				13 days	406	36	9	6	5	5	6	
Acre-ft.				9900	35500	9460	1260	442	371	468	448	

Discharge of Middle Fork of Little Snake River at Gardner's Ranch for 1920.
Drainage Area, 152 Square Miles. Altitude, 7,000 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....					41	1460	131	10	8	14	13	
2....					44	1190	116	9	7	13	9	
3....					87	1070	104	12	7	9	9	
4....					116	1210	92	15	8	8	11	
5....					182	1190	77	15	8	8	11	
6....					234	1310	64	13	8	8	11	
7....					348	1420	68	12	8	8	10	
8....					506	1420	58	9	10	8	10	
9....					46	667	1310	58	8	9	8	
10....					46	728	1140	48	12	8	9	
11....					46	614	1070	41	10	8	10	
12....					36	486	952	38	10	8	12	
13....					36	596	850	30	13	7	14	
14....					28	667	752	30	9	7	13	
15....					28	654	658	28	8	6	24	
16....					28	658	592	32	8	6	12	
17....					28	850	526	30	8	7	14	
18....					26	1300	486	26	8	8		
19....					24	1750	450	26	8	7	14	
20....					22	1930	506	22	19	7	15	
21....					20	1900	548	13	26	8	16	
22....					15	2270	354	14	10	8	13	
23....					16	2080	249	14	10	10	13	
24....					24	2540	222	25	8	14	9	
25....					24	2760	222	38	8	14	12	
26....					17	2070	222	20	8	12	12	
27....					12	1960	229	14	8	12	12	
28....					11	2070	294	14	12	25	10	
29....					19	2160	324	14	8	26	9	
30....					28	2040	186	12	8	15	11	
31....						1850		12	8		14	
Total					580	36158	22412	1317	330	296	235	
Mean...					26.4	1170	747	42.5	10.6	9.87	11.5	
Max....						2760	1460	131	26	26	24	
Min....						41	186	12	8	6	8	
Acre-ft.					1150	71900	44500	2610	652	587	707	

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

Discharge of South Fork of Little Snake River at Gardner's Ranch for 1919.
Drainage Area, 46 Square Miles. Altitude, 7,000 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....					184	66	9	2.1	.5	1.2	.9	...
2....					144	64	9	1.5	.4	1.2	.9	...
3....					132	56	6	1.5	.4	1.5	.9	...
4....					144	56	2.1	1.5	.4	3.5	.9	...
5....					123	72	2	1.5	.4	3.5	.9	...
6....					102	56	2	1.1	.4	1.5	.9	...
7....					90	42	2.1	1.3	.4	1.5	.9	...
8....					86	26	2.7	1.5	.4	1.5	.9	...
9....					94	28	3.5	1.5	.4	.9	.9	...
10....					86	30	2.1	1.2	.4	.9	.9	...
11....					81	30	3.5	.9	.4	.9	.9	...
12....					86	50	2.7	.9	.4	.9	.9	...
13....					69	40	2.1	.6	.4	.9	.8	...
14....					90	30	2.1	.6	.5	1.5	.8	...
15....					90	20	3.5	.6	.5	1.5	.7	...
16....					100	15	2.1	.4	.6	1.2	.7	...
17....					106	12	2.1	.4	.7	1.5	.6	...
18....				110	90	28	5	.4	.8	1.5	.6	...
19....				90	94	16	3.3	.4	.8	.9	.5	...
20....				110	90	20	2.1	.4	1.2	.9	.4	...
21....				128	85	30	1.4	.5	1.8	1.5	.4	...
22....				119	76	30	1.5	.5	1.5	1.2	.5	...
23....				151	66	15	1.9	.5	2.1	1.2	.5	...
24....				154	56	10	1.7	.6	5	1.5	.6	...
25....				162	56	9	1.7	.6	5	1.2	.6	...
26....				154	56	5	1.7	.6	5	.9	.7	...
27....				167	56	8	1.5	.7	2.1	.9	.7	...
28....				146	81	4.4	1.5	.7	2.1	.9	.8	...
29....				184	72	2.7	1.8	.6	1.5	.9	.8	...
30....				173	86	5	2.0	.6	1.5	.9	.8	...
31....					81	...	3.3	.5	...	.9	...	...
Total				1848	2852	876.1	89.0	26.7	38.0	40.9	22.3	...
Mean...				142	92.0	29.2	2.87	0.86	1.27	1.32	.74	...
Max...					184	72	9.0	2.1	5.0	3.5	.9	...
Min...				13 days	56	2.7	1.4	.4	.4	.9	.4	...
Acre-ft.				3670	5660	1740	176	52.8	75.6	81.7	44.0	...

Discharge of South Fork of Little Snake River at Gardner's Ranch for 1920.
Drainage Area, 46 Square Miles. Altitude, 7,000 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....					42	89	16	16	1.1	.9	1.0	1.1
2....					66	118	16	16	1.2	.8	1.0	...
3....					80	130	16	15	1.2	.8	1.0	...
4....					98	142	13	14	1.5	.8	1.1	...
5....					130	142	13	14	1.5	.8	1.1	...
6....					142	142	10	14	1.5	.8	1.1	...
7....					142	142	10	13	1.4	.9	1.0	...
8....					366	142	10	13	1.4	.9	1.0	...
9....					760	158	10	13	1.3	.9	1.0	...
10....					393	170	11	12	1.2	.9	1.0	...
11....					170	130	10	11	1.2	.9	1.0	...
12....					187	98	8	10	1.1	1.0	1.0	...
13....					207	118	8	9.6	1.0	1.0	1.1	...
14....					221	142	6	8.4	1.0	1.0	1.2	...
15....					204	170	6	6.8	.9	1.0	1.3	...
16....					170	142	6	6	.9	1.1	1.4	...
17....					420	118	4.5	4.5	.8	1.0	1.4	...
18....					544	98	4.5	3	.8	1.0	1.4	...
19....					512	142	3	2.2	.8	1.0	1.5	...
20....					480	66	3	1.6	.8	1.0	1.5	...
21....					420	73	6	1.4	.8	1.0	1.5	...
22....					450	80	6	1.4	.9	1.0	1.5	...
23....					480	80	10	1.5	.9	1.0	1.5	...
24....					578	80	16	1.2	1.0	1.0	1.4	...
25....				16	684	80	24	1.0	1.0	1.1	1.3	...
26....				18	366	73	28	1.0	1.0	1.0	1.2	...
27....				19	512	66	20	1.0	1.0	1.0	1.2	...
28....				21	684	54	16	1.1	.9	1.0	1.2	...
29....				22	318	37	16	1.2	.9	.9	1.1	...
30....				24	158	24	16	1.1	.9	.9	1.1	...
31....					66	...	16	1.0	...	1.0	...	...
Total				120	10050	3246	358	216	31.9	29.4	36.1	...
Mean...				20.0	324	108	11.5	6.97	1.06	0.95	1.2	...
Max...					760	170	28	16	1.5	1.1	1.5	...
Min...					66	24	3	1	0.8	0.8	1.0	...
Acre-ft.				238	19900	6430	707	429	63.1	58.4	71.4	...

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

Discharge of Slater Creek at Baxter's Ranch for 1919.
Drainage Area, 80 Square Miles. Altitude, 7,000 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....				18	225	176	24	5.0	1.5	4	13	....
2.....				18	315	158	18	7	2.8	5	14	....
3.....				29	312	154	25	7.6	3.1	4	15	....
4.....				34	324	161	17	5.0	3.4	10	17	....
5.....				22	376	168	13	3.7	3.7	8	16	....
6.....				38	298	175	10	2.8	3.2	8	13	....
7.....				29	285	182	10	2.8	2.5	8	17	....
8.....				18	295	189	9	3.1	2.5	8	16	....
9.....				11	288	196	8	4.0	2.8	8	17	....
10.....				14	288	205	7	4.8	3.1	13	20	....
11.....				14	275	195	7	3.4	2.8	13	14	....
12.....				22	275	176	7	2.3	3.1	13	19	....
13.....				23	300	158	6	2.5	3.1	18	26	....
14.....				22	330	158	6	1.9	2.5	18	32	....
15.....				16	362	150	5.0	1.5	2.5	18	29	....
16.....				17	382	138	4.4	1.5	2.5	16	26	....
17.....				25	362	124	4.0	1.5	2.6	16	23	....
18.....				52	379	110	4.0	1.5	2.7	13	20	....
19.....				76	396	90	5.0	1.5	2.8	8	17	....
20.....				96	330	88	4.0	1.5	2.9	9	17	....
21.....				124	330	80	3.7	1.5	3.0	10	13	....
22.....				158	362	74	4.0	1.5	3.2	11	15	....
23.....				167	396	56	3.4	1.5	3.4	11	12	....
24.....				178	414	48	4.0	1.5	3.6	11	15	....
25.....				225	349	48	5.0	1.5	3.8	13	17	....
26.....				240	346	40	5.0	1.5	4.0	13	18	....
27.....				202	362	40	4.0	1.5	4.0	9	18	....
28.....				195	362	34	3.7	2.5	5.0	9	18	....
29.....				202	356	26	3.7	2.0	5.0	10	18	....
30.....				210	315	24	4.0	2.5	5.0	11	18	....
31.....					225	.....	6.0	1.7	.....	12	.....	....
Total				2495	10214	3621	239.9	84.1	96.1	335	543	....
Mean.				83.2	329	121	7.74	2.71	3.20	10.8	18.1	....
Max...				240	414	205	25	7.6	5.0	18	32	....
Min...				11	225	24	3.4	1.5	1.5	4	12	....
Acre-ft.				4950	20200	7200	478	167	190	664	1080	....

Discharge of Slater Creek at Baxter's Ranch for 1920.
Drainage Area, 80 Square Miles. Altitude, 7,000 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....					28	630	176	34	40	47	....	....
2.....					31	590	154	29	32	50	....	....
3.....					32	590	134	38	25	45	....	....
4.....					38	590	114	43	26	36	....	....
5.....					50	590	96	32	28	37	....	....
6.....					62	570	96	28	34	38	....	....
7.....					83	550	88	26	45	39	....	....
8.....					130	510	80	25	40	43	....	....
9.....					165	490	80	27	40	44	....	....
10.....					152	470	80	31	38	46	....	....
11.....					118	451	77	32	36	50	....	....
12.....					85	432	72	34	34	50	....	....
13.....					114	432	62	32	32	50	....	....
14.....					154	432	53	34	30	48	....	....
15.....					150	432	52	26	30	44	....	....
16.....					134	414	50	29	32	42	....	....
17.....					176	396	50	28	26	45	....	....
18.....					238	379	62	31	26	48	....	....
19.....					280	362	45	34	31	47	....	....
20.....					324	362	38	44	32	47	....	....
21.....					288	362	38	31	35	50	....	....
22.....					330	346	38	30	38	48	....	....
23.....					300	330	38	31	41	45	....	....
24.....					4	288	330	58	29	45	....	....
25.....					6	340	315	62	28	48	....	....
26.....					6	390	300	45	31	48	....	....
27.....					7	440	275	36	26	47	....	....
28.....					8	490	250	31	34	47	....	....
29.....					8	540	225	31	40	45	....	....
30.....					13	590	200	30	37	40	....	....
31.....						630	.....	31	38	.....	....	....
Total					52	7170	12605	2097	992	1091	1039	....
Mean.					7.43	231	420	67.6	32.0	36.4	45.2	....
Max...					630	630	176	44	48	....	....	....
Min...					28	200	30	25	25	....	....	....
Acre-ft.					103	14200	25000	4160	1970	2170	2060	....

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

Discharge of Savery Creek at Savery, Wyo., for 1919.
Drainage Area, 354 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....				870	630	254	2	Dry	Dry	24	18	....
2....				810	550	254	2	Dry	Dry	24	24	....
3....				690	470	220	2	Dry	Dry	40	24	....
4....				630	434	220	2	Dry	Dry	55	24	....
5....				630	470	152	2.5	Dry	Dry	60	24	....
6....				710	470	140	3	Dry	Dry	79	24	....
7....				237	470	130	3	Dry	Dry	86	24	....
8....				140	398	120	3	Dry	Dry	102	24	....
9....				130	362	120	3	Dry	Dry	102	24	....
10....				130	362	120	3	Dry	Dry	102	21	....
11....				140	362	120	3	Dry	Dry	102	21	....
12....				140	326	120	3	Dry	Dry	140	24	....
13....				130	326	120	3	Dry	Dry	140	24	....
14....				140	326	120	2	Dry	Dry	102	24	....
15....				111	326	130	2	Dry	Dry	60	18	....
16....				130	326	111	2	Dry	Dry	28	18	....
17....				140	326	86	2	Dry	Dry	18	28	....
18....				398	326	60	2	Dry	Dry	18	36	....
19....				670	326	55	2	Dry	Dry	18	40	....
20....				670	344	40	0	Dry	Dry	18	50	....
21....				830	362	28	0	Dry	Dry	24	50	....
22....				830	380	24	0	Dry	Dry	24	50	....
23....				750	398	21	0	Dry	Dry	24	50	....
24....				790	398	18	0	Dry	Dry	24	50	....
25....				870	344	13	0	Dry	Dry	32	50	....
26....				870	290	11	0	Dry	Dry	40	50	....
27....			830	710	254	9	0	Dry	Dry	40	50	....
28....			850	650	190	9	0	Dry	Dry	28	50	....
29....			830	630	220	5	0	Dry	Dry	24	50	....
30....			790	630	254	2	0	Dry	6	21	50	....
31....			870	....	190	....	0	Dry	....	21	....	....
Total			4170	15206	11200	2832	46.5	....	6	1620	1014	....
Mean.			834	507	362	94.4	1.50	....	.02	52.3	33.8	....
Max.				870	630	254	3	....	6	140	50	....
Min.			5 days	111	190	2	....	....	....	18	18	....
Acre-ft.			8280	30200	22300	5620	92.2	....	11.9	3220	2010	....

Discharge of Savery Creek at Savery, Wyo., for 1920.
Drainage Area, 354 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....					434	908	60	4	9	40	24	....
2....					650	650	36	3	9	40	24	....
3....					908	506	24	3	9	50	24	....
4....					1350	506	24	3	6	50	24	....
5....					908	506	24	13	6	50	24	....
6....					1220	506	24	13	6	24	24	....
7....					1350	525	24	9	6	24	24	....
8....					1050	542	18	9	6	24	24	....
9....				72	1100	578	13	3	3	24	....	....
10....				290	1100	578	6	2	3	24	....	....
11....				290	1350	578	6	2	4	24	....	....
12....				220	1650	506	6	2	4	24	....	....
13....				290	1650	506	4	2	4	24	....	....
14....				470	1150	506	4	2	6	32	....	....
15....				650	1100	506	4	2	6	32	....	....
16....				650	1100	398	4	3	6	40	....	....
17....				140	1200	398	4	3	9	32	....	....
18....				120	1710	290	4	3	9	32	....	....
19....				120	1770	190	4	6	9	40	....	....
20....				120	1650	190	4	6	9	40	....	....
21....				120	1770	164	4	6	9	40	....	....
22....				120	1770	102	4	6	16	40	....	....
23....				120	1100	60	4	3	24	40	....	....
24....				120	1100	60	4	3	24	40	....	....
25....				120	1100	60	4	3	24	40	....	....
26....				120	1000	60	4	6	24	40	....	....
27....				120	956	50	4	6	24	32	....	....
28....				120	956	50	4	6	24	32	....	....
29....				140	860	50	4	6	40	32	....	....
30....				164	860	50	4	9	40	32	....	....
31....					860	....	4	9	....	32	....	....
Total				4696	36732	10579	341	156	378	1070	....	....
Mean.				213	1180	353	11.0	5.0	12.6	34.5	24	....
Max.					1770	908	60	13	40	50	....	....
Min.					434	50	4	2	3	24	....	....
Acre-ft.				9310	72600	21000	676	307	750	2120	1430	....

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

Discharge of Little Snake River at Dixon, Wyo., for 1919.

Drainage Area, 1,294 Square Miles. Altitude, 6,300 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....				1820	3140	2510	161	43	6	230	124	....
2....				1560	3060	2040	97	30	6	283	133	....
3....				1460	2620	1920	97	30	24	337	124	....
4....				1460	2780	1640	97	30	8	283	147	....
5....				1690	2840	1460	90	38	8	230	147	....
6....				1220	2980	1380	85	13	7	180	147	....
7....				741	3060	1380	71	10	6	147	133	....
8....				534	2670	1380	38	6	6	97	124	....
9....				471	2410	1420	30	6	6	85	133	....
10....				553	2310	1420	13	7	6	66	133	....
11....				566	2360	1400	13	6	6	66	133	....
12....				411	2420	1400	8	6	6	66	147	....
13....				553	2560	1220	6	8	8	66	133	....
14....				515	2690	1220	6	6	6	71	133	....
15....				411	2460	1220	8	5	8	71	133	....
16....				440	2560	1100	7	6	12	71	....	....
17....				534	3060	1060	8	6	12	90	....	....
18....				1100	3260	900	10	6	12	90	....	....
19....				1760	3300	764	13	6	8	90	....	....
20....				2140	2840	688	5	6	8	107	....	....
21....				2280	3420	619	10	6	13	97	....	....
22....				2670	3240	502	10	6	8	117	....	....
23....				1870	2460	3340	428	8	6	13	124	....
24....				1490	3960	3360	354	16	6	10	124	....
25....				1020	3620	3300	220	8	6	16	147	....
26....				702	3900	3240	180	8	6	8	147	....
27....				820	3300	3060	180	8	6	8	133	....
28....				1020	2840	3100	195	13	6	20	133	....
29....				1300	2580	3020	170	13	6	85	147	....
30....				1870	3180	3000	133	16	6	170	133	....
31....				1960	....	2720	....	16	6	....	133	....
Total			12052	51129	90180	30503	989	338	524	4161	2024	....
Mean.				1700	2910	1020	31.9	10.9	17.5	134	135	....
Max.				3960	3420	2510	161	43	170	337	....	....
Min.			9 days	411	2310	133	5	5	6	66	15 days	....
Acre-ft.			23900	101000	179000	60700	1960	670	1040	8240	4010	....

Discharge of Little Snake River at Dixon, Wyo., for 1920

Drainage Area, 1,294 Square Miles. Altitude, 6,300 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....				155	860	6840	1230	76	100	155	270	....
2....				155	1780	5670	900	76	88	125	255	....
3....				155	1700	5400	900	56	88	140	240	....
4....				155	1950	5220	680	76	76	155	230	....
5....				172	2480	5040	680	76	76	140	240	....
6....				210	2680	5040	500	72	76	112	270	....
7....				230	3320	5400	500	60	76	100	290	....
8....				340	3590	5490	440	56	76	125	330	....
9....				470	4150	5580	380	66	105	155	280	....
10....				715	5490	5490	380	56	88	155	210	....
11....				860	5490	3800	330	56	81	155	125	....
12....				884	5400	3800	280	56	81	172	125	....
13....				820	5670	3800	280	56	81	172	155	....
14....				1060	6120	3800	280	56	81	190	172	....
15....				1060	6120	3800	230	56	76	155	210	....
16....				1180	5940	3800	230	76	66	155	240	....
17....				1060	5940	2920	155	76	66	155	280	....
18....				500	6660	2920	155	81	76	190	290	....
19....				470	7640	2860	210	88	76	190	330	....
20....				470	7860	2860	190	76	66	210	305	....
21....				410	7640	2500	155	100	66	280	290	....
22....				470	8300	2480	155	112	76	240	280	....
23....				440	8960	2420	155	100	76	210	240	....
24....				380	8300	2360	100	76	88	210	190	....
25....				330	8300	2360	100	76	100	190	172	....
26....				410	8300	2120	100	76	149	190	210	....
27....				380	7200	1060	100	76	162	190	290	....
28....				380	7200	1060	125	76	172	190	255	....
29....				410	7200	1600	125	100	162	210	255	....
30....				620	7200	1410	100	100	190	230	280	....
31....					7200	....	100	100	....	230	....	....
Total				15351	176640	108900	10245	2339	2840	5376	7359	....
Mean.				512	5700	3630	330	75.4	94.7	173	245	....
Max.				1180	8960	6840	1230	112	190	280	330	....
Min.				155	860	1060	100	56	66	100	125	....
Acre-ft.				30500	350000	216000	20300	4640	5640	10600	14600	....

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

Discharge of Willow Creek at Ryan's Ranch for 1919.
Drainage Area, 5 Square Miles. Altitude, 8,000 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....				8	35	35	16	10	12	6.5	8	...
2....				8.8	38	35	16	10	14	6.5	8	...
3....				8	42	35	16	13	14	6.5	7.4	...
4....				7.7	43	33	16	8.8	12	8	8	...
5....				10	39	30	16	8	12	6.5	8	...
6....				12	35	32	16	8	8	7.4	8.8	...
7....				14	30	35	17	8.8	8	6.5	...	...
8....				14	36	36	18	8.8	10	6.5	...	...
9....				12	39	36	18	8.8	12	6.5	...	...
10....				6.5	36	38	17	11	10.	6.5	...	...
11....				7.4	30	42	19	8.8	12	8	...	...
12....				8.8	35	36	18	8.8	12	6.5	...	...
13....				6.2	36	39	16	9.2	12	6.5	...	...
14....				7.4	35	39	15	8.8	12	6.5	...	...
15....				6.2	42	39	15	8	12	8	...	...
16....				7.4	46	38	14	8	12	6.5	...	...
17....				7.1	45	35	14	8	12	7.4	...	...
18....				17	49	34	13	8	12	5	...	...
19....				22	52	29	12	8	8	6.5	...	...
20....				18	55	30	12	8	6.5	8	...	...
21....				16	54	28	10	8	5	7.7	...	...
22....				26	51	28	11	8	5	7.4	...	...
23....				30	50	25	13	8	6.5	8	...	...
24....				34	51	24	10	8	6.5	7.4	...	...
25....				35	51	23	12	8	5.6	8	...	...
26....				33	50	24	16	8	6.5	8	...	...
27....				30	50	22	12	8	6.5	10	...	...
28....				28	49	20	12	8.8	12.0	8.8	...	...
29....				34	48	18	11	10	7.4	10	...	...
30....				34	48	14	11	10	6.5	8	...	...
31....				...	36	...	10	10	...	8	...	...
Total				508.5	1336	931	442	273.6	290	227.6	...	...
Mean.				17.0	43.1	31.0	14.3	8.83	9.67	7.34	...	...
Max..				35	55	42	19	13	14	10	...	...
Min...				6.2	30	14	10	8	5	5	...	...
Acre-ft.				1010	2650	1840	* 879	543	575	451	...	...

Discharge of Willow Creek at Ryan's Ranch for 1920.
Drainage Area, 5 Square Miles. Altitude, 8,000 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....						42	14	2.7	5	8.8	...	...
2....						40	13	4.8	4	8	...	...
3....						47	8	3.8	4	7.6	...	...
4....						50	8	3.8	5.6	7.6	...	...
5....						50	8	3	6.4	7.2	...	...
6....						74	8	2.8	7	8	...	...
7....						60	8	2.5	9.6	7.6	...	...
8....						56	8	2	8	5	...	...
9....						55	8	3	7.6	4	...	...
10....						52	8	2.8	9.2	5	...	...
11....						50	8	2.5	7.6	6	...	...
12....						45	7.2	2.5	7	7	...	...
13....						43	4.4	3	7.2	8	...	...
14....						39	4	3	7.6	10	...	...
15....						41	3.8	3.5	7.2	12	...	...
16....					32	39	4	3	6	14	...	...
17....					36	34	4	3.2	6.4	16	...	...
18....					30	30	4	3.4	7	15	...	...
19....					49	26	3.8	3.6	7	15	...	...
20....					45	21	3.7	3.8	7.4	14	...	...
21....					52	21	3.2	4	7.6	15	...	...
22....					53	20	3.5	4	7.6	17	...	...
23....					48	20	3.8	3.5	8.8	16	...	...
24....					64	20	4.4	3.8	8.8	22	...	...
25....					71	20	4	4	8.8	19	...	...
26....					62	20	4.4	3.5	8.8	18	...	...
27....					57	18	1.6	4.4	8	18	...	...
28....					68	15	2.5	6	7.6	16	...	...
29....					71	14	2.5	7.8	8.8	16	...	...
30....					69	16	2.8	5.6	8	16	...	...
31....					59	...	2.8	7	...	16	...	...
Total					866	1078	173.4	116.3	219.6	374.8	...	...
Mean.					54.1	35.9	5.60	3.75	7.32	12.1	...	...
Max..					...	74	14	7.8	8.8	22	...	...
Min...					...	14	1.6	2	4	4	...	...
Acre-ft.					1720	2140	344	231	436	744	...	...

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

Discharge of Four Mile Creek at Ranger Station for 1919.
Drainage Area, 4 Square Miles. Altitude, 7,800 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....				4.6	11	18	.40	.40	.40	.40	.20	....
2....				4.6	12	15	.40	.40	.40	.40	.30	....
3....				3.6	16	13	.60	.40	.40	.40	.10	....
4....				4.6	28	11	.40	.40	.40	.30	.10	....
5....				3.6	37	11	.40	.30	.40	.30	.10	....
6....				2.6	28	9.3	.40	.20	.40	.40	.20	....
7....				3.6	25	9.3	1.00	.20	.30	.30	....	....
8....				5.2	32	9.3	1.20	.20	.40	.40	....	....
9....				7.6	33	7.6	1.00	.20	.30	.40	....	....
10....				4.6	30	7.6	.90	.40	.40	.30	....	....
11....				4.6	22	9.3	.90	.30	.30	.60	....	....
12....				4.6	20	7.6	1.50	.30	.30	.40	....	....
13....				4.6	22	7	.80	.20	.40	.40	....	....
14....				2.6	20	5.2	.40	.20	.40	.40	....	....
15....				4.6	20	6.4	.40	.30	.40	.40	....	....
16....				3.0	20	6.4	.80	.30	.40	.30	....	....
17....				5.2	21	7	.80	.40	.40	.20	....	....
18....				10	20	6.4	.90	.40	.40	.40	....	....
19....				12	20	3.6	.80	.40	.40	.20	....	....
20....				15	24	2.6	.40	.60	.40	.40	....	....
21....				21	25	2.6	.40	.80	.40	.30	....	....
22....				16	22	2.5	.40	.70	.40	.20	....	....
23....				14	22	1.9	.20	.80	.40	.40	....	....
24....				13	23	1.2	.40	.40	.40	.40	....	....
25....				13	22	0.9	.40	.30	.30	.20	....	....
26....				15	20	1.2	.40	.40	.40	.20	....	....
27....				15	22	1.5	.40	.40	.40	.30	....	....
28....				12	21	2.0	.40	.30	.80	.30	....	....
29....				13	20	1.5	.20	.40	.40	.20	....	....
30....				13	18	1.2	.30	.30	.40	.30	....	....
31....					18	....	.40	.30	....	.30	....	....
Total				255.8	694	189.1	18.3	11.6	11.9	10.4	....	....
Mean				8.53	22.4	6.30	.59	.37	.40	.34	....	....
Max..				21	37	18	1.50	.80	.80	.60	....	....
Min..				2.6	11	0.9	.20	.20	.30	.20	....	....
Acre-ft.				508	1380	375	36.3	22.7	23.8	20.9	....	....

Discharge of Four Mile Creek at Ranger Station for 1920.
Drainage Area, 4 Square Miles. Altitude, 7,800 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....						21	10	1.0	1.3	1.4	....	....
2....						34	12	1.4	1.3	1.2	....	....
3....						37	11	1.4	1.4	1.1	....	....
4....						38	15	1.4	1.4	1.3	....	....
5....						39	3.4	1.4	1.7	1.4	....	....
6....						41	1.3	1.4	1.6	1.4	....	....
7....						45	3.4	1.4	1.7	1.4	....	....
8....						50	2.6	1.4	1.4	1.4	....	....
9....						37	1.7	1.4	1.4	1.2	....	....
10....						34	5.9	1.2	1.7	1.6	....	....
11....						33	3.4	1.1	1.7	1.4	....	....
12....						36	1.7	1.1	1.6	1.4	....	....
13....						23	1.6	1.3	1.4	1.6	....	....
14....						13	1.6	1.2	1.4	1.4	....	....
15....					32	13	1.7	1.2	1.7	1.3	....	....
16....					38	15	2.0	1.2	1.6	1.4	....	....
17....					42	11	1.7	1.2	1.3	1.6	....	....
18....					47	8	1.7	1.2	1.4	1.3	....	....
19....					50	8	1.4	1.2	1.3	1.4	....	....
20....					50	7.5	1.2	1.2	1.6	1.1	....	....
21....					41	8	1.2	1.2	1.5	1.0	....	....
22....					36	9.5	1.0	1.2	1.7	.9	....	....
23....					33	28	1.4	1.0	1.6	.9	....	....
24....					41	10	1.6	1.2	1.4	1.2	....	....
25....					33	9.8	1.6	1.2	1.2	1.1	....	....
26....					24	11	1.0	1.1	1.3	1.0	....	....
27....					21	11	1.2	1.1	1.4	1.0	....	....
28....					21	10	1.2	1.2	1.2	1.0	....	....
29....					28	9.5	1.1	1.3	1.4	1.4	....	....
30....					26	11	1.1	1.2	1.3	1.3	....	....
31....					21	....	1.1	1.2	....	1.0	....	....
Total					584	661.3	97.8	38.2	43.9	39.1	....	....
Mean					34.3	22.0	3.15	1.23	1.46	1.26	....	....
Max..						50	12	1.4	1.7	1.6	....	....
Min..						7.5	1.0	1.0	1.2	0.9	....	....
Acre-ft.					1160	1310	194	75.6	86.9	77.5	....	....

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

Discharge of North Fork of White River at Buford for 1919.
Drainage Area, 240 Square Miles. Altitude, 7,000 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....							236	165	155	155	155	....
2.....							264	186	190	172	155	....
3.....							236	175	172	172	155	....
4.....							208	175	155	130	155	....
5.....							208	165	155	130	155	....
6.....							208	154	155	130	155	....
7.....							208	154	142	130	155	....
8.....							208	154	130	130	155	....
9.....							208	154	142	155	155	....
10.....							208	154	130	155	155	....
11.....							208	148	130	155	155	....
12.....							208	143	172	155	155	....
13.....							208	148	155	155	155	....
14.....							208	143	190	155	155	....
15.....							208	132	155	155	155	....
16.....							208	132	155	155	155	....
17.....							208	121	155	155	155	....
18.....							208	132	155	155	155	....
19.....							208	143	155	155	155	....
20.....							208	155	155	155	155	....
21.....							197	155	155	155	155	....
22.....							185	155	155	155	155	....
23.....							174	155	155	155	155	....
24.....							174	155	155	155	155	....
25.....							163	155	155	155	155	....
26.....							163	130	155	172	155	....
27.....							163	155	155	172	155	....
28.....							185	155	155	155	155	....
29.....							185	130	155	155	155	....
30.....							208	130	155	155	155	....
31.....							174	142	....	155	....	....
Total.....							6243	4650	4653	4748	4650	....
Mean.....							201	150	155	153	155	....
Max.....							264	186	190	172	155	....
Min.....							163	121	130	130	155	....
Acre-ft.....							12400	9220	9220	9410	9220	....

Discharge of North Fork of White River at Buford for 1920.
Drainage Area, 240 Square Miles. Altitude, 7,000 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1.....			155	155	244	1400	870	365	223	223	....	....
2.....			155	155	244	1360	780	365	223	244	....	....
3.....			155	155	287	1320	780	365	223	244	....	....
4.....			155	155	265	1290	780	309	223	265	....	....
5.....			155	174	287	1290	750	332	223	223	....	....
6.....			155	203	332	1260	780	365	223	223	....	....
7.....			155	203	365	1320	780	332	223	223	....	....
8.....			155	203	389	1320	720	309	223	223	....	....
9.....			155	203	544	1320	660	309	223	223	....	....
10.....			155	183	572	1320	601	309	223	....	....	....
11.....			155	183	690	1260	572	332	223	....	....	....
12.....			155	174	780	1320	572	332	223	....	....	....
13.....			155	155	840	1260	572	332	223	....	....	....
14.....			155	155	870	1260	572	309	223	....	....	....
15.....			155	155	1020	1200	572	309	223	....	....	....
16.....			155	174	1260	1140	544	287	223	....	....	....
17.....			155	174	1400	1200	544	265	203	....	....	....
18.....			155	174	1570	1260	490	265	183	....	....	....
19.....			155	155	1570	1110	490	265	223	....	....	....
20.....			155	155	1710	960	490	265	203	....	....	....
21.....			155	155	1930	960	490	265	203	....	....	....
22.....			155	155	2110	990	463	265	183	....	....	....
23.....			155	155	2070	1020	438	265	183	....	....	....
24.....			155	155	2000	1110	438	265	183	....	....	....
25.....			155	155	1890	1140	389	244	183	....	....	....
26.....			155	155	1610	1200	413	223	223	....	....	....
27.....			155	155	1640	1080	413	223	223	....	....	....
28.....			155	155	1610	1140	389	223	223	....	....	....
29.....			155	155	1500	1140	365	223	223	....	....	....
30.....			155	203	1500	1080	365	223	223	....	....	....
31.....			155	....	1460	....	365	223	....	....	....	....
Total.....			4805	5041	34559	36030	17009	8963	6430	2091	....	....
Mean.....			155	168	1110	1200	549	289	214	232	....	....
Max.....			155	203	2110	1400	870	365	223	....	....	....
Min.....			155	155	244	960	365	223	183	....	....	....
Acre-ft.....			9530	10000	68200	71400	33800	17800	12700	4140	....	....

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

Discharge of South Fork of White River at Buford for 1919.
Drainage Area, 170 Square Miles. Altitude, 7,000 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....	2						228	154	122	110	98	
2....							253	150	110	110	110	
3....							228	148	110	110	110	
4....							200	148	110	110	115	
5....							200	139	110	110	110	
6....							200	130	110	110	110	
7....							200	130	110	110	110	
8....							200	130	110	110	122	
9....							200	130	150	110	98	
10....							200	130	135	110	110	
11....							200	126	122	110	110	
12....							200	121	135	110	110	
13....							200	126	135	110	75	
14....							200	121	135	110	75	
15....							200	112	135	122	85	
16....							200	112	135	115	110	
17....							200	103	135	130	110	
18....							200	112	135	115	110	
19....							189	121	122	122	110	
20....							178	130	110	110	110	
21....							167	110	110	110	110	
22....							167	110	110	110	110	
23....							156	110	110	110	110	
24....							156	110	110	110	110	
25....							156	110	110	110	105	
26....							178	110	110	110	105	
27....							178	110	110	110	105	
28....							200	110	110	98	105	
29....							167	110	110	110	105	
30....							156	110	110	135	105	
31....							156	110	....	135	....	
Total							5913	3783	3576	3502	3168	
Mean.							191	122	119	113	106	
Max..							253	154	150	135	122	
Min..							156	103	110	98	75	
Acre-ft.							11700	7500	7080	6950	6310	

Discharge of South Fork of White River near Buford for 1920.
Drainage Area, 170 Square Miles. Altitude, 7,000 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....			110	110	200	1200	1140	320	182	193	200	
2....			110	110	258	1240	1140	342	172	165	219	
3....			110	110	278	1300	1140	342	165	150	219	
4....			98	110	278	1360	1080	390	165	150	219	
5....			110	110	286	1390	1010	365	176	150	200	
6....			75	110	320	1360	904	314	165	150	200	
7....			65	122	342	1560	836	299	165	150	200	
8....			122	135	354	1660	738	320	150	150	193	
9....			115	150	415	1820	705	314	150	150	182	
10....			110	165	415	1820	738	329	150	150	165	
11....			110	165	441	1660	705	329	141	150	165	
12....			110	150	457	1660	641	314	135	165	150	
13....			110	150	415	1660	610	286	135	165	150	
14....			110	150	425	1470	550	299	135	165	135	
15....			110	110	415	1470	521	314	135	165	135	
16....			110	141	415	1500	550	286	135	165	135	
17....			110	135	415	1560	494	238	135	165	135	
18....			110	110	467	1560	467	238	135	165	165	
19....			122	110	415	1460	467	238	135	165	165	
20....			110	122	400	1390	467	246	135	165	165	
21....			122	135	360	1390	467	278	135	182	172	
22....			135	135	300	1390	467	270	135	182	172	
23....			110	135	470	1390	467	238	135	182	159	
24....			110	135	700	1390	365	208	135	182	159	
25....			110	135	940	1390	342	219	135	182	159	
26....			110	122	960	1310	342	200	141	182	165	
27....			110	110	980	1220	342	200	159	182	182	
28....			110	110	1020	1220	320	219	159	182	182	
29....			110	135	1060	1220	320	208	172	193	182	
30....			110	182	1100	1220	320	193	200	200	182	
31....			110	....	1200	....	320	193	....	200	....	
Total			3384	3909	16501	43240	18975	5549	4502	5242	5211	
Mean.			109	130	532	1440	612	276	150	169	174	
Max..			135	165	1200	1820	1140	390	200	200	219	
Min..			65	110	200	1200	320	193	135	150	135	
Acre-ft.			6700	7740	32700	85700	37600	17000	8930	10400	10400	

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

Discharge of White River near Meeker for 1919.
Drainage Area, 634 Square Miles. Altitude, 6,182 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....					1220	1240	390	325	285	345	365	290
2....					1290	1040	415	305	305	345	345	290
3....					1330	1000	463	345	325	345	365	290
4....					1370	876	415	325	325	365	365	292
5....					1420	822	365	325	345	345	365	295
6....					1410	822	365	305	345	325	365	300
7....					1290	860	365	285	325	345	365	300
8....					1290	860	365	285	357	365	365	285
9....					1290	860	365	285	415	345	365	255
10....					1290	860	365	285	390	345	365	255
11....					1180	940	365	285	333	345	365	295
12....				785	1190	988	365	277	325	345	365	275
13....				785	1190	980	365	265	325	345	345	275
14....				785	1390	940	365	277	325	365	345	280
15....				771	1500	860	365	265	365	390	325	280
16....				771	1500	860	365	245	357	365	325	280
17....				785	1570	900	365	245	357	365	325	282
18....				940	1630	860	365	225	345	365	325	282
19....				785	1590	845	365	245	357	365	345	285
20....				924	1610	715	345	265	357	365	345	290
21....				940	1610	595	325	285	325	365	345	300
22....				1120	1610	553	305	285	325	345	357	295
23....				1220	1610	505	305	285	365	345	345	290
24....				1290	1730	535	285	305	365	325	305	290
25....				1320	1730	565	285	293	345	345	317	300
26....				1290	1830	583	285	285	325	365	305	290
27....				1290	1830	583	325	245	345	365	285	290
28....				1120	1860	487	325	205	333	365	285	285
29....				1070	1930	390	365	225	345	365	285	290
30....				1100	1930	390	305	277	345	365	285	295
31....				1610	1610	285	285	285	365	365	305	305
Total				19091	46830	23314	10898	8639	10281	11000	10154	8906
Mean.				1000	1510	777	352	279	343	355	338	287
Max.				1930	1930	1240	463	345	415	390	365	305
Min.				19 days	1180	390	285	205	285	325	285	255
Acre-ft.				37700	92800	46200	21600	17200	20400	21800	20100	17600

Discharge of White River near Meeker for 1920.
Drainage Area, 634 Square Miles. Altitude, 6,182 Feet Above Sea Level.

Day	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1....		362	325	285	625	3180	2340	535	415	445	475	....
2....		362	333	345	685	3090	2280	535	415	445	475	....
3....		362	301	285	778	3000	2190	595	415	415	475	....
4....		362	285	277	785	3090	2070	715	427	390	475	....
5....		359	293	285	860	3280	1900	625	415	375	475	....
6....		354	285	309	1020	3460	1730	595	415	365	475	....
7....		330	277	325	1140	3600	1570	547	415	365	475	....
8....		338	285	365	1170	3790	1450	505	445	375	475	....
9....		348	345	415	1240	3950	1380	475	475	390	475	....
10....		358	325	487	1450	3990	1260	475	475	375	475	....
11....		358	317	410	1450	3850	1210	475	445	390	475	....
12....		324	277	365	1370	3660	1190	475	445	375	475	....
13....		340	321	390	1290	3460	1170	475	415	370	475	....
14....		324	365	390	1760	3370	1100	451	390	365	475	....
15....		320	301	415	1390	3280	1060	415	390	390	505	....
16....		316	293	475	1510	3370	872	415	415	390	535	....
17....		310	345	415	1790	3180	785	415	415	365	535	....
18....		300	289	345	2260	3000	750	427	405	365	535	....
19....		320	285	405	2790	2790	822	475	415	390	505	....
20....		357	325	390	3280	2570	822	505	365	390	505	....
21....		357	365	329	2820	2570	822	517	365	375	505	....
22....		361	463	293	2860	2740	715	487	385	390	505	....
23....		357	469	325	2490	2790	685	487	385	395	505	....
24....		325	365	325	2740	2740	703	475	390	390	487	....
25....		285	345	305	2930	2910	715	475	415	463	475	....
26....		273	365	301	3280	3000	685	475	463	475	475	....
27....		312	353	345	2910	2650	655	475	445	445	475	....
28....		329	289	333	3000	2520	595	475	390	390	475	....
29....		293	337	357	3040	2520	547	445	390	395	475	....
30....			325	415	2930	2420	583	415	390	475	475	....
31....			305	3180	3180	535	415	415	475	475	....	....
Total		9697	10153	10706	60823	93820	35171	15271	12430	12398	14622	....
Mean.	326	334	328	357	1960	3130	1130	493	414	400	487	410
Max.			469	487	3280	3990	2340	715	475	475	535	....
Min.			277	277	625	2420	535	415	365	365	475	....
Acre-ft.	20000	19200	20200	21200	121000	186000	69500	30300	24600	24600	29000	25200

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

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