DIVISION OF WATER RESOURCES

STATE ENGINEERS OFFICE

IRRIGATION DIVISION NO. 4

ANNUAL REPORT

1971 Water Year

JOHN A. LOVE
Governor

C. J. KUIPER
State Engineer

DIVISION OF WATER RESOURCES

RALPH V. KELLING, JR. P.E.
IRRIGATION DIVISION ENGINEER
P. O. BOX 456
MONTROSE, COLORADO 81401
OFFICE: 249-5812 HOME: 249-3823

November 4, 1971

Mr. C. J. Kuiper, State Engineer
Division of Water Resources
1845 Sherman Street
Denver, Colorado 80203

Dear Mr. Kuiper:

On behalf of the staff and field personnel of Irrigation Division No. 4, I submit herewith the annual report for the water year 1970-1971, together with the reports of the district water commissioners. This report is submitted as required under the provisions of Colorado law, as stated in C. R. S. 148-12-7, 1963.

Respectfully submitted,

Ralph V. Kelling, Jr.
Division Engineer

RVK/mm

ANNUAL REPORT 1971

IRRIGATION DIVISION NUMBER FOUR

INTRODUCTORY STATEMENT

Purpose:

The purpose of this report is to present in resume form at the annual meeting of division engineers a summary of division activities for the 1971 irrigation season, together with the reports of the district water commissioners.

Location:

The division is located in southwestern Colorado and is defined within the following drainage basins: Gunnison River, San Miguel River, Little Dolores River, Coates Creek, and that portion of the Dolores River within Mesa and Montrose Counties. Larger cities in the area include Gunnison, Montrose, and Delta.

As defined in the 1969 Annual Report, the division boundary has been modified by the recent legislation of "Senate Bill 81". Thus Division Number Four has been deleted of those land areas whose streams are tributary to the Colorado River within former Water District Forty-two - excepting the Gunnison River drainage basin.

Land and Climate:

Elevations range from 4,500 feet to in excess of 14,000 feet in the San Juan Mountain range. The climate is semi-

arid with precipitation varying from 10-15 inches per year. Recent precipitation minimums at Grand Junction have been less than six inches annually. In excess of 650,000 acres are irrigated annually, with major crops being hay, sugar beets, small grains, and mountain fruits. Beef cattle and sheep are the primary stock production.

Industry:

Agriculture and ranching are the mainstay of the local economy, with orchards, lumbering and mining being important areas of employment. Uranium, coal and silver are the major mineral resources, with oil and gas exploration being in a stage of infancy. Tourism is very significant to the area's economy. Of current interest are the following:

1. Apparent intent to develop a major ski facility and associated resort area near Telluride.
2. Preliminary surveys of Delta as a proposed location for a Russell Stover Candy Company plant which will employ between 400-500 people (80% women).
3. Firm dam-site location of the Ridgway Dam, Dallas Creek Project, on the Uncompahgre River near Ridgway.
4. Conditional reservoir decrees on the North Fork of the Gunnison River by several major oil companies interested in area coal reserves.

Water Resource Projects:

Existing projects are the Uncompahgre, and Paonia, Fruitgrowers, and Crawford reservoirs, all initially constructed by the U. S. Bureau of Reclamation. The Silverjack reservoir of the Bostwick Park Projects filled and spilled for the first time this year. Morrow Point reservoir of the Curecanti Unit has completed its first year of full power operations. Projects in various study phases by the Bureau of Reclamation include Grand Mesa, Fruitland Mesa, Dallas Creek, San Miguel and Upper Gunnison.

Land Use Planning:

One land planning agency in Division Number Four has become actively engaged in a critical phase of water rights determination, that concerning a requirement of adequate water supplies for planned unit developments and sub-divisions. Tourism and recreationism are major activities in Colorado West, and the Ouray County Planning Commission has recognized a public service responsibility in requiring that adequate water supplies be confirmed along with other specific zoning regulations under new land use proposals. In turn, such critical land use planning hopefully will protect the natural beauty of this regions distinctive environments, be it alpine,

foothills, valley or flood plain. The division engineer has become involved by defining in writing the adequacy of water supplies for subdivisions. A print of our first letter effort in this matter is attached for general information on page

Water Usage:

The economy is agriculturally oriented, and the major water usage is for irrigation. Farms and ranches are oriented to the regions drainage systems, and related water diversions are tied to the irrigable lands. Many major reservoirs are located on major rivers, and long canals and tunnels are required to transport available water to the point of use.

Recently greatly increased usage of water in the division furnishes electrical power, as generated at the Curecanti Unit reservoirs of the Colorado River Storage Project. Hydropower plants of the three dams will have a combined total installed capacity of 200,000 kilowatts.

The availability of water and power will undoubtedly help to promote the industrial development of the potentially vast supply of fossil fuels and mineral resources throughout the Upper Colorado River Basin.

PERSONNEL DATA SHEET

Personnel:

Name & Position	District	Months Worked/ Budgeted	Mileage
Division Engineer (W. R. E. IV) Ralph V. Kelling, Jr.	Staff	Annual	13,500
Assistant Division Engr. (W. R. E. III) Ronald I. Blewitt	Staff	Annual	10,500
Intermediate Clerk-Typist Melita Maten	Staff	Annual	--
Water Commissioners:			
Arlyn C. Davison	WD 28	Jan.-Dec.	6,500
Chalmer Garber	WD 61	Jan.-Dec.	7,200
Ralph W. Glendening	WD 41	Annual	12,000
Edwin S. Hofmann	WD 59-62	Jan.-Dec.	9,000
Howard G. Noble	WD 60-68	Jan.-Dec.	9,250
R. E. Robinson	WD 40	Annual	10,000
*W. W. Saunders	WD 63	Annual	15,000
Deputy Water Commissioners:			
Clifford G. Aldridge	WD 40	Apr. 22-Oct. 31	4,100
Richard Belden	WD 40	Apr. 22-Oct 31	2,800
Russell Bertram	WD 40	Apr. 15-Oct. 31	2,600
Roy Blair	WD 40	Apr. 15-Oct. 31	8,500
James E. Carr	WD 40	Apr. 15-Oct. 31	7,000
Lloyd Connell	WD 40	Apr. 22-Oct. 31	7,200
Harold D. Cyphers	WD 40	Apr. 22-Oct. 31	6,700
Warren Flint	WD 40	Apr. 22-Oct. 31	4,700
Silas Freshour	WD 40	Apr. 22-Oct. 31	1,900
*Douglas Gilbreath	WD 40	Apr. 15-Oct. 31	1,500
Mack Gorrod	WD 40	Apr. 22-Oct. 31	4,300
Maurice Lindsay	WD 42	Apr. 7 -Oct. 15	6,500
Dwayne C. Mansker	WD 60	Apr. 1 - Oct.31	10,000
Frank Peterson	WD 40	Apr. 15-Oct. 15	5,100
William E. Rhodes	WD 59	Apr. 15-Oct. 15	6,300
Elton J. Watson	WD 40	Apr. 15-Oct. 31	10,600
Charles E. Woolley	WD 40	Apr. 1 -Oct. 31	5,100

163 850

*These personnel have transferred to Irrigation Division No. 5 but are retained on Irrigation No. 4 roster as their duties are partially herein utilized. However, salary and mileage accounting are in Division No. 5.

WATER SUPPLY

Snow Pack:

The water supply outlook as of May 1, 1971, in Division No. 4 is taken from the Soil Conservation Service monthly water supply bulletins, the prints of pertinent pages being included as a reference in this report. Pertinent data are as follows:

Summary of Snow Measurements

Basin or Watershed	No. of Courses Averaged	This Years Snow Water as % of:	
		Last Yr.	Average
Gunnison	12	62	87
Surface Creek	3	76	96
Uncompahgre	3	56	88

Streamflow Forecasts (1000 Ac. Ft. - Apr - Sept.)

Forecast Point	Forecast	% of Avg.	Average
Gunnison River inflow-to Blue Mesa	560	73	767
Gunnison River near Grand Junction	950	84	1137
Surface Creek near Cedaredge	14	88	16
Uncompahgre River at Colona	85	66	129

Weather modification in the division consists of two programs, as follows:

1. A contract cloud seeding operation for the Grand Mesa watershed - by the Grand Mesa Water Users Association. (No definitive study of results is

available to date, however this areas annual snowpack is consistently among the best in the state.)

2. The U. S. Bureau of Reclamation and Colorado State University have been involved in studies of a seeding program in the headwaters of the Uncompahgre. Considerable local criticism was apparent, and to date there is no literature of any full scale operation or its results.

Run off from snow melt was somewhat variable, dependent upon watershed. The Uncompahgre river normally peaks twice during the spring run-off, normally latter May and latter June. Published U. S. G. S. records of various stations are not yet available for the current year, however the spring season was extremely dry regionally and presumably all run-off was earlier than normal.

Precipitation:

Drought conditions existed throughout this division during the year, interrupted by regional storms about the end of April and the end of August. An indication of the extent of the regional drought is the fact that Moab, Utah recorded 2 inches of total precipitation during the first 7 1/2 months of 1971; and at Blue Mesa reservoir 7.82 inches of precipitation were recorded from January thru October, 1971, in an area that averages from 15 - 18 inches annually. Normally summer rains are necessary

during the period of early July to early August in order to assure good crop yields; this in addition to the normal summer requirement supplied by irrigation water. Hydrometeorological data (including precipitation) for Blue Mesa reservoir are supplied for several recent years as a supplement to this report. No hail suppression work is being carried on in the division.

Figures of a general nature relating to effective water supply are as follows:

County	Avg. Mean Temperature, F.	Avg. Annual Rainfall, In.	Avg. Annual Snowfall, In.
Delta	51.0	7.75	18.5
Mesa	52.5	9.06	27.3
Montrose	49.6	9.11	28.4
Ouray	44.5	23.27	146.0
San Miguel	39.5	23.79	165.7
Gunnison	38.5	10.67	50.2
Hinsdale	36.5	20.00	145.0

Floods:

The only significant flooding in the division occurred the last week in August due to local cloudbursts. Resultant erosional damage to land and debris on highways was confined to a small area between Ridgway and Ouray, and more severe damage occurred in several areas of the West Paradox country.

Water Budget:

The divisions initial attempt to establish a water budget recognizes that records of diversions are obtained from only about 25 % of all decreed rights, and among these records are owners reports. The yields of the drainage areas from gaging station records are in most cases not compatible with the "common source" doctrine. Depletions by irrigation, municipalities, and by other uses are unknown quantities and consequently horseback figures appear in these statistical data. Diversions by municipalities are to a large extent unknown quantities due in part to poor municipal records. Selected districts with primarily agricultural diversions are:

DISCHARGE, A.F./YR. BY WATER DISTRICT

	28	60	68	59	62
Yield of drainage area	222,700	266,870*	238,600	667,900	340,540
Irrigation Diversions	343,134	321,294*	113,908	354,757	412,916
Depletion by Irrigation	85,784	57,824	28,477	88,689	103,299
Municipal Diversions	0	10,035	394	9,317	--
Depletion by Municipalities	0	--	--	--	--
Other Diversions	--	--	--	--	--
Other Depletions		--	--	--	--

* Reservoirs not included
* 1970 W. Y., Incl. Dry Creek

Attached to this report are flow records at selected river gaging stations, taken from the U. S. Geol. Survey publication "Water Resources Data for Colorado - Part I., Surface Water Records", for the year 1970.

Underground Water:

Aquifers of significance in the division are not well known at this time due to a paucity of ground water literature alternative and deep wells in the region. Potentially all formations above granite may prove productive, however to date most wells in the Montrose area produce from formations of the Dakota group. Presumably depths in this area vary from a few feet to almost 2,000 feet, with the average depth being about 600 feet. At this time most wells are domestic, and as such do not contribute to the areas economy. Of special significance is a report in preparation on the geology and ground water resources of the Montrose area by Mr. Ted Craig, graduate student in geology at the University of Missouri - Rolla. This thesis paper will be published in the Rocky Mountain Geologist during 1972, and will fill a distinct gap in the literature of this region. Mr. Craig's study brought to light the fact that about 35% of the areas wells contain erroneous legal descriptions, and consequently the Division No. 4 office published this information regionally in the public interest.

The U. S. Geological Survey publication "Water Resource Investigation in Colorado" contains references to selected publications of regional interest, and the Colorado Water Conservation Board is herein referenced as publishing numerous selected ground water papers.

TRANS-MOUNTAIN AND TRANS-BASIN DIVERSION

TRANS-MOUNTAIN:

NAME	SOURCE	RECIPIENT AND/OR CLAIMANT	ANNUAL AVG. DIVERSION A. F.	AMT. A. F.
Red Mountain Ditch	Mineral Crk.	Ouray Ditch	260	243
Carbon Lake Ditch	" "	" "	--	321
St. John Ditch	E. Fk. Animas-River	C. K. Charles, H. O. Gunn, W. Worley	--	No Diversion
Larkspur Ditch	Trib. of Tomichi Ck.	Rocky Ford Highline Canal Co.	125	448 *
Tabor	Cebolla Ck.	Colo. Game, Fish, & Parks Dept.	670 ('69 W.Y.)	1050 *
Tarbell	Cochetopa	Saguache Land & Water Company	410 ('69 W.Y.)	386 *
Divide Ck. High-line Feeder Ditch	Divide Ck.	--	2125	2000 Est.
Leon Lake	Leon Creek	Sam Oaks	1550	1550 Est.

* No record to date, published one yr. in arrears by USGS - Water Resources Data for Colorado, Part I - Surface Water Records 1971

TRANS-BASIN

Leopard Creek Ditch	Leopard Ck.	Harry McClure	1372	1000 Est.
North Fork of the Paxton Ditch	Cottonwood & Horsefly Cks.	Wm. Hofmann	30	10 Est.
Cimarron Feeder of the Garnet Ditch	West Fork of the Cimarron	Unc. Valley Water Users Assn.	2500	2516
Gunnison Tunnel	Gunnison River	" " "	350,000	346,729 ('65-70 Avg.) 335,850 (1971)
Head & Ferrier Ditch	Soap Ck.	H. Head & Ferrier	146	164 ('65-70 Avg.)
Lake Brennand		Town of Crested Butte	--	No Record

RECAPITULATION SHEET

CURECANTI UNIT RESERVOIRS - COLORADO RIVER STORAGE PROJECT

BLUE MESA RESERVOIR

WATER YEAR	CUMULATIVE DISCHARGE A. F.	PEAK STORAGE A. F.	CUMULATIVE STORAGE A. F. (10-1-66--12-31-66)
1966	50,110 (10-1-66--12-31-66)		
1967	473,535	574,900 (7-20-67)	360,100
1968	979,468	796,854 (8-30-68)	
1969	948,793	853,659 (11-2-69)	
1970	1,327,822	831,700 (7-8-70)	
1971	1,077,340	647,700 (1-1-71)	

MORROW POINT RESERVOIR

1971	1,483,974 (12-1-71--9-31-71)	118,700 (12-26-70)

CRYSTAL RESERVOIR

Initial bids have not been let, therefore construction is not underway.

BOSTWICK PARK PROJECT - SILVERJACK RESERVOIR

WATER YEAR	CUMULATIVE DISCHARGE, A. F.	DISCHARGE THRU OUTLET WORKS	DISCHARGE THRU SPILLWAY
1971	10,129 (July-Sept., Incl.)	6970	3159

Reservoir filled and spilled first time on May 24, 1971

Daily diversion records are kept at the local Power Operations office of the U. S. Bureau of Reclamation, and in turn furnished to the Division No. 4 office.

Agriculture:

Any account of agriculture should involve governmental programs and restrictions, supply and demand, distance from markets, and other economic factors which are not pertinent to a report on water rights administration. Suffice it to say that agriculture is the major source of income in the division, and consequently the area is economically depressed. The farm labor force is seasonal.

A brief resume by area is presented below:

County	Avg. Growing Season Days	Crop Production* Irrigated - Land			Livestock**	
		Barley	Beets	Corn	Cattle & Calves	Stock Sheep
Delta	146	62	16.5	77	41,700	31,000
Montrose	153	59	16.6	73	52,700	66,000
Mesa	188	57	18.1	95	67,500	57,000
Ouray	48	66	21.0	75	15,400	9,750
San Miguel	45	65	--	-	9,100	31,000
Gunnison	49	-	--	-	39,000	17,500
Hinsdale	45	-	--	-	3,200	5,200

* 1968; Colorado Agriculture Statistics, June 1970, in bu./Ac or tons/Ac.

** Number of head, 1968

Fruit production includes apples, peaches, pears, and sweet and tart cherries, all highly susceptible to frost and hail damage. No record of production for the current season is available. The above data have been extracted

from the following sources:

1971 Colorado Marketing Manual - C. I. G. Gas Company

1970 Colorado Agriculture Statistics - Colorado Department of Agriculture

Several crop dollar values for 1968 are as follows:

County	Corn	Sugar Beets	Barley	Hay
Delta	727,360	545,290	297,600	2,019,480
Montrose	800,320	961,280	649,700	2,031,620
Mesa	1,384,960	1,084,270	130,350	2,422,710
Ouray	8,800	14,460	17,620	640,320
San Miguel	13,860	--	42,250	625,810
Gunnison	1,840	--	--	1,907,740
Hinsdale	--	--	--	161,180

Fruit crop farm values in dollars (1968) is as follows:

Commercial apples - 4,366,000; peaches - 1,770,000; pears - 724,000; cherries, tart - 531,000; cherries sweet - 117,000

The above figures are the latest available from recent publications.

Land ownership by county is as follows:

	Ownership in Acres			
County	Private	Federal	State	County and Municipal
Delta	364,580	396,264	0	2,335
Montrose	512,679	1,241,684	70,345	157
Mesa	555,531	1,497,735	0	3,556
Ouray	208,183	160,390	1,920	49
San Miguel	384,539	476,240	16,479	0
Gunnison	426,501	1,624,900	13,388	200
Hinsdale	32,577	648,683	1,218	505

COLORADO RIVER COMPACTS

The Colorado River Compact of 1922 and the Upper Colorado River Basin Compact of 1948 are the definitive documents. The Upper Basin's share of Colorado River water is 7,500,000 acre feet per year, of which Colorado is allocated 51 3/4 %. The Lower Basin can put a call on the Upper Basin in any series of water short years, based on the long term average flow at Lee Ferry.

Although there apparently exists a wealth of information concerning these compacts on the Colorado River by various state, federal, and other agencies, there is not available operational criteria in the event of a "call" on the Colorado River. The fact that a call on the river has not occurred to date does not preclude than an operational plan should exist. By memorandum from the director of the Colorado Water Conservation Board dated July 30, 1969, proposed operating criteria for Colorado river reservoirs were submitted to board members and the advisory committee. Undoubtedly the operational experience of numerous interstate compacts will prove valuable in establishing these criteria for the Colorado River.

An internal document concerned with a potential water storage in the Upper Colorado River Basin during 1971-1972 is in preparation in the Division of Water Resources Surface Water Planning.

DAMS

A. Storage Reservoirs:

1. The Alta Lakes Reservoir No. 2 Dam in Water District 60 near Telluride failed June 7, 1971. Alta Lakes Reservoir No. 3 Dam downstream overtopped but did not fail. Considerable erosion and sediment damage occurred at and below Reservoir No. 3 to the reservoir, dam, watercourses and roads. Fortunately there was no loss of life. A stop order from the State Engineer of Colorado had been in effect for one year on both reservoirs, but it was not complied with. The State Attorney General had issued a complaint on behalf of the people of the State of Colorado in the matter of safety. After the failure of Res. No. 2, the owner lowered the emergency crest to Res. No. 2 dam to a point 2 ft. below the top of the dam.

2. Beaver Reservoir on the East Fork of Minnesota Creek in W D 40 near Paonia is under a stop order to gage elevation 62 ft. because of serious leakage. Plans have been prepared and construction of the earth blanket over the problem areas was begun in September.

3. Overland Reservoir in W D 40 has serious seepage

problems - about 5 cfs when the reservoir is near full.

4. Little Eggleston Lake Dam in Water District 40 was breached by the owners and the outlet conduit removed. They plan to store the water in their lower lying Eggleston Lake instead of making repairs.

5. Cedar Mesa Reservoir dam developed serious leakage in September from piping through many holes in the foundation under the dam. The owners plan to install a vinyl membrane over the problem area in the reservoir.

6. Deep Slough Reservoir developed a leakage from piping at the left abutment of the dam. Repairs were made by the owners in September.

7. Other reservoirs on which stop orders have been in effect prohibiting storage during the 1971 irrigation season are:

   a. Scale No. 3 Reservoir, W D 42. Repairs have been made and it is anticipated the stop order will be lifted soon.

   b. Grand Mesa No. 1 Reservoir W D 42 had a stop order limiting storage to gage 12 feet. Temporary repairs were made in June after which full storage was permitted only for the 1971 season. Repairs of a more permanent nature are now being planned by the owners.

LIVESTOCK WATER TANKS - PERMITS ISSUED 1971

NAME	STREAM	HEIGHT	CAPACITY	PERMIT NO.
Lenden Curfman	Uncompahgre River	19'	4 A. F.	12461
Craig Sabatke	Unnamed Trib. of Jay Creek	19'	3 A. F.	12527
Joe Adamson	Trib. of Uncompahgre River	14'	1/4 A. F.	12543
C. M. Mabie	Wash Trib. of Little Dolores	10'	1 A. F.	12607
Victor Zadra	Merling Creek	15'	2 A. F.	12645
R. W. Mitchell	Trib. to Cow Creek	19'	1.5 A. F.	12546
James D. Capps	Northwest	11.5'	1/2 A. F.	12653

No unusual problems were apparent in the above applications or brought to our attention on existing tanks. As identified above, a total of eight water tank applications were approved in the division. Data for these tanks is summarized as follows:

	RANGE	AVERAGE
Drainage Area, Ac.	30-300	113
Storage, Ac. Ft.	0.25-4.0	1.6
Height of Dam, Ft.	10-19	14.5
Elevation, Ft.	5350 to 9200	7140

WATER RIGHTS

Tabulation:

It has become apparent that a larger effort than that preceding the original tabulation will be involved during the 1972 water year, when division personnel will edit district tabulations for errors. And in this regard, additional employment of personnel may be required if we are to meet the April 30, 1972 deadline. Mr. Ron Blewitt, Assistant Division Engineer, in an initial review of the W. D. 61 tabulation has determined that errors are still plentiful, and that adjudication cards and instructions do not cover all situations. One example being that the Court granted numerous conditional water rights as portions of original decrees, and in subsequent adjudications had apparently considered these conditional rights abandoned, however without so stating abandonment.

Referees Findings and Decrees:

TYPE OF APPLICATION	TOTAL
1. Underground Water Right	24
2. Change of Water Right	11
3. Plan for Augmentation	0
4. Water Right	282
5. Diligence (Cond. Decrees)	0
6. Water Storage Right	59

None of the above wells are utilized as alternate points of diversion or are involved with augmentation. All well decrees granted

Irrigation Division No. 4

Water Conservation and Conservancy Districts

Upper Gunnison River Water Conservancy District, % Rial Lake, Chairman, Gunnison, Colorado 81230. (See Mrs. Patricia Williams at Courthouse - Clerk of the District Court).

Tri-County Water Conservancy District, % Dick Edmondson, Manager, 601 North Park Avenue, Montrose, Colorado 81401.

Crawford Water Conservancy District, % Oscar Linman, Manager, Crawford, 81415.

Southwest Colorado Water Conservancy District, % D. Lew Williams, Norwood, Colorado 81423.

Bostwick Park Water Conservancy District, % Dan King, Attorney, 209 North Townsend Ave., Montrose, Colorado 81401.

Grand Mesa Water Conservancy District, % Beryl Morris, President, Cedaredge, Colorado 81413.

North Fork Water Conservancy District, % John Neill, Secretary, Hotchkiss, Colorado 81419.

Water Related Organizations

Gunnison River Water Users Assn., % Jerry Goldsmith, Cedaredge, Colorado 81413.

Grand Mesa Water Users Assn., % Barbara Hood, Secretary, Cedaredge, Colorado 81413.

Water Related Organizations Cont'd

Big Ditch Company, % Miss Barbara Hood, Secretary, Cedaredge, Colorado 81413.

W. D. 28

Arch Ditch Co., % Deno Piloni, Gunnison, Colorado 81230.

Hot Springs Res. Co., % Taramarcaz Bros., Gunnison, Colorado 81230

Vouga Reservoir Co., % George Steenbergen, Gunnison, Colorado 81230

Needle Creek Res. Co., % Ty Watson, Gunnison, Colorado 81230

W. D. 40

Surface Creek Ditch & Res. Co., % R. M. Campbell, President, Cedaredge, Colorado 81413.

Leroux Creek Water Users Assn., % Raymond White, President, Hotchkiss, Colorado 81419

Stewart Mesa Domestic Water Company, % Ernest Eubank, Paonia, Colo. 81428

Bone Mesa Domestic Water Company, % Albert Barley, Paonia, Colo. 81428

Sunshine Mesa Domestic Water Company, Kenneth Mereditch, President, Rt. 1, Hotchkiss, Colorado 81419

Alfalfa Ditch Company, % Sam Oaks, President,

Orchard City Irrigation Dist., % Weslen England, Secretary, Austin, Colo.

Cedar Mesa Ditch & Res. Co., % Bob Phillips, Secretary, Cedaredge, Colo.

Bonafide Ditch Co.,

North Delta Canal Co., % Ray Hawkins, President, Delta, Colorado 81416

Hartland Canal Co.,

Relief
~~Rchef~~ Ditch Co., Gess Ensley,

Fire Mountain Canal Co., % John Neill, Secretary, Hotchkiss, Colo.

Overland Ditch Co., % John Neill, Secretary, Hotchkiss, Colorado

Water Related Organizations Cont'd

W. D. 41:

Uncompahgre Valley Water Users Assn., % Harold Anderson, Manager, Montrose, Colorado, 81401

Chipeta Water Company, % Chester Hicks, Manager, Olathe, Colo. 81425

Menoken Water Company, % Chester Hicks, Manager, Olathe, Colo. 81425

W. D. 42:

Redlands Water & Power Co., % Jim Rankin, Secretary, 768 North Ave., Grand Junction, Colorado 81501

Grand Mesa Reservoir Co., % John Whiting, Pres., Whitewater, Colo. 81527

W. D. 60:

Lilylands Canal and Reservoir Co., % Marshall Hughes, President, Norwood, Colorado 81423

Farmers Water Development Co., % Roy Davis, President, Norwood, Colo. 81423

Lone Cone Ditch and Res. Co., % Gordon Palmer, Secretary-Treasurer, Norwood, Colorado 81423

Colorado Cooperative Ditch Co., % Roy Knickerbocker, Secretary, Nucla, Colorado 81424

W. D. 61:

Paradox Valley Canal & Res. Co., % Wynonna Irish, Secretary, Paradox, Colorado 81429

Ray Ditch Company, % Kermit Redd, President, Paradox, Colorado 81429

W. D. 62:

Big Cimarron Canal & Reservoir Co., % Dan King, Attorney

209 No. Townsend Avenue, Montrose, Colorado 81401

ADDENDUM - W. D. 40:

Crawford Clipper Ditch Co., % Henry Hamilton, Secretary, Crawford, Colorado 81415

COLORADO WATER NEWS - FOR ANNUAL REPORT

March 1, 1971

A field office has been opened in Cedaredge, Colorado, located in former Water District 40. Mr. R. E. Robinson, Water Commissioner, is in charge of this office and he supervises 14 Deputy Water Commissioners. The address is P. O. Box 655, Cedaredge, Colorado 81413, and the telephone number is 856-8540.

The Division Engineer, Ralph V. Kelling, Jr., and Bureau of Reclamation personnel have been meeting with the Upper Gunnison Water Conservancy District in an attempt to solve the continuing problem of icing conditions on the Gunnison River near Gunnison, Colorado. Mr. Kelling tries to attend all of the meetings of the district in order to be of any assistance to them.

Snow pack in the Gunnison Basin is 109% of the average with Uncompahgre showing 122% and Surface Creek 128% of average. Reservoir storage is much above normal and the outlook for summer run off is good.

April 1, 1971

Flood rehabilitation programs in the division are nearing completion. Subject flooding occurred over Labor Day Weekend 1970, and caused extensive damage.

Local management personnel attended information sessions presented by the Public Employees Retirement Association at the State Home and Training School in Grand Junction on March 17, 1971.

The Water Commissioners Annual Meeting will be a joint affair this year between Divisions 4 and 5 to be held in Grand Junction on April 13, 1971. Personnel will be advised of the time and place.

Forecasted runoff for the Gunnison River is about 85% of normal with reservoir storage above normal.

May 1, 1971

Mr. Ron Blewitt will join Division 4 on June 1st as Assistant Division Engineer.

Mr. Steve Tuck, District Water Commissioner started work April 9th in Water District No. 40.

A total of 283 Water Right Applications have been received by the Water

Clerk in Division 4 as of April 15, 1971. Of this number, 29 new filings were submitted and 144 Applications were carried to Decree by the Court during the month of March.

March 10, 1971, the United States Bureau of Reclamation issued an Interim Operating Criteria for Blue Mesa and Morrow Point Reservoirs, Curecanti Unit-Colorado River Storage Project, concerned with operations prior to and including construction and initial filling of Crystal Reservoir.

The Bureau of Reclamation shall prepare and publish a Curecanti Unit Annual Plan of Operation each year during the month of April after a forecast of the April-July run-off, based on April 1st snow conditions, is available. A copy of the plan will be furnished to interested agencies and individuals.

On April 13, Divisions 4 and 5 held their Annual Meeting jointly at the Holiday Inn in Grand Junction. Bill Mattern, Glen Rogers and Lee Enewold from the Denver office were present to address the group and answer questions. Glen McCaslin was presented with a transistor radio as a retirement gift. 38 persons attended the meeting enjoying an excellent luncheon and all present wish to express their appreciation to the Denver office for the necessary cooperation in making this 1971 Annual Meeting a real success.

June 1, 1971

Mr. Ted W. Craig, graduate student in geology at the University of Missouri in Rolla, plans to spend the summer in the Montrose area. While here he will conduct various studies involved with a ground water paper on this area. We look forward to having Ted join us and hope the association may prove of mutual benefit.

The S.C.S. predicts that water supplies will be below average on the Gunnison River and its tributaries this year. Streamflow forecasts dropped 4% to 12% from last month's figures. Above average precipitation is needed to provide average streamflow. Storage in Taylor Park Reservoir is above average and Blue Mesa Reservoir is below last year.

First water released from the Silver Jack Reservoir was on May 4, 1971, to meet direct flow requirements of the Cimarron Canal Irrigation system. The Silver Jack Reservoir, located on the Big Cimarron River, 42 miles southeast of Montrose is a multi-purpose water resource development in the Gunnison River Basin. The project will develop unused flows of the Big Cimarron River for full irrigation supply for 1,315 acres and for supplemental supply for 4,293 acres that are now presently inadequately servied. At the present time, the reservoir is 9 feet from filling with 10,740 acre feet stored as of May 13 and a projected filing date of June 15.

July 1, 1971

The Alta Lakes Reservoir No. 2, a 79 acre foot capacity reservoir located near Telluride and in a very popular recreation area, filed June 7, 1971. Although it was extremely fortunate that no loss of human life was involved, considerable damage to lands and roads throughout the water-course did occur. The Alta No. 3 Reservoir, immediately downstream, was overtopped throughout a large portion of the dam crest and extensive additional erosion resulted to this dam. It is of interest to note that the owner has been under notice for a period of years of the hazards to public safety of these structures and further that a stop order from the State Engineer had been in effect for one year. Additionally, Mr. James Geissinger, on behalf of the People of the State of Colorado, had initiated a Complaint in the matter of safety in the public interest.

Margaret Loughnane, our office gal in Montrose, has been on leave since June 1, 1971. Margaret is now undergoing extensive tests at St. Marys Hospital in Grand Junction. We all wish her a speedy recovery of good health and look forward to having her back with us soon.

Mr. Ronald Blewitt, Assistant Division Engineer, attended a meeting in Grand Junction on June 16, 1971 relating to flood control studies and related water resource problems in the Upper Colorado River Basin. Subject meeting was sponsored by the Sacramento District Office, Corps of Engineers, U. S. Army, as one of a regional series relating to develop-ment of information in these matters.

The Tri-County Water Conservancy District, headquartered in Montrose and sponsoring agency of the Dallas Creek Project near Ridgway, which has been authorized by Congress, has given us a timely status report on their rural domestic water supply system. Mr. Harold Westesen, of Olathe, President of the Board of Directors, reports that pipeline installation has reached approximately 98% completion. This system will supply water to about 2000 individual taps throughout some 300 miles of rural lines. Most of the users under this system formerly had to rely entirely on water hauled by truck for their domestic needs. Mr. Westesen advises that the district anticipates that by August 1, 1971, entire system will be in complete service.

August 1, 1971

The Uncompahgre Valley Water Users Association, through their Project Office in Montrose, reports that releases from storage at Taylor Park reservoir have been stabilized at about 500 cfs for the remainder of the summer season. The reservoir spilled this year during the period from June 27, 1971, through July 16, 1971. Fisherman and related recreationists please note this accommodation to your summer fun in the Upper Gunnison Valley.

Western Colorado Power Company - an electric utility firm with offices

in Montrose Durango and servicing a regional area in southwestern Colorado and eastern Utah, is in process of clarifying their water rights in the Trout Lake area near Telluride. The company intent is in part to secure an orderly development of the areas domestic water supply for a recreational community of about 100 cabins. This effort will effectively remove the hodge-podge of individual water claims which otherwise would perhaps occur.

Mr. Ken Wilson, of the Power Operations Office of the Colorado River Storage Project in Montrose, reports that Blue Mesa Reservoir storage impoundmen from April 25, 1971, to July 19, 1971, totals 442,100 ac/ft. Present storage level is 627,600 ac/ft., while releases from storage during the above period have totaled almost 515,000 ac/ft. Precipitation at the reservoir in June was nil; this relates to the extremely dry conditions to date throughout the Division.

Margaret Loughnane has returned to the Valley Manor Nursing Home in Montrose, having successfully undergone brain surgery in Grand Junction. Recuperation of good health is expected to be a very slow and painful process, and we all wish Margaret God speed during this trying period.

September 1, 1971

State Engineer, C. J. Kuiper, and Montrose staff employees met in Ouray on August 6, 1971, with the Ouray County Planning Commission, representatives from the San Miguel Basin, and interested individuals, to discuss problems of water supply for new sub-divisions and other aspects of recent water legislation.

Assistant Division Engineer, Ron Blewitt, and District Commissioners R. E. Robinson, Chalmer Garber, and Ed Hofmann attended a joint meeting with Division 7 personnel in Durango on August 5, 1971, regarding initiation of a pilot program for a data bank record system of surface water diversions. Dr. J. A. Danielson of the Surface Water Branch is project manager.

The U, S. Forest Service has designated an area in the southern portion of the Uncompahgre National Forest as a Winter Sports Area. By means of this action, site development may proceed. Location is in the Prospect Basin area near Telluride.

Mrs. Melita Maten, is a recent and most welcome new member of the Montrose office staff.

October 1, 1971

One extremely significant primary benefit of Mr. Ted Craig's recent ground water study in the Montrose area is his determination that about 35% of all registered wells are mislocated. It is suggested that well owners may want to check their filing (which are legal documents) and make proper correction through the Ground Water Section. The benefits of such correction are self-evident.

Local cloud bursts occurred in scattered areas throughout Division No. 4 the last week in August. Considerable debris from the flash flooding covered sections of highway between Ridgway and Ouray and in the Paradox area. Total annual precipitation figures at Blue Mesa Reservoir (4.77 inches), and Moab, Utah (2.00 inches) prior to the above mentioned rains indicate the extent of regional drought conditions.

Mr. & Mrs. Henry Beale spent part of their summer in Colorado West where Henry gathered data toward a doctoral thesis in economics at the University of Chicago, specifically relating to land values and associated water rights. Ditches under the Crawford and Colbran project of the U.S. Bureau of Reclamation were selected for detailed study, and the records available were found to be quite sufficient to this purpose. Mr. Beale is an economics instructor at Georgetown University, Washingon D. C.

The Corps of Engineers and Bureau of Reclamation began clearing and snagging the reach of the Gunnison River just above Blue Mesa Reservoir on September 9, 1971, in an effort to reduce ice jams during the coming winter season. The Bureau of Reclamation is negotiating for purchase of ranch lands for flood easements in the affected area.

Division No. 4 personnel will attend area water meetings during the month of September as follows: Upper Gunnison River Water Conservation District - September 20th; San Miguel Basin Water Users - September 28th.

Personnel and staff officers from the dams and reservoirs section have recently covered many areas within the Division, involving both normal inspection operations and specific rehabilitation projects.

November 1, 1971

Irrigation Division 4 staff and field personnel attended a Norwood meeting on water matters sponsored by the South Western Colorado Water Conservancy District, on September 28, 1971. Messrs. Ed Wiscombe and Bob Tyner, representing the Durango office of the U. S. Bureau of Reclamation, spoke of the present status of the San Miguel Project. The meeting was well attended by area water users.

Cedar Mesa Reservoir (903 A.F.) in Water District 40, has developed a serious area of stress through substantial leakage of impounded storage into large holes in the abutment below the dam. The problem area was found by Deputy Water Commissioner Richard Belden, after identifying a downstream loss of 2 cfs natural flow at a time when storage water was being released. His subsequent timely investigation located numerous holes, both above and below the high water line. The company is presently clearing the area of repair and plans to install a vinyl membrane.

Silverjack Reservoir, in Water District 62 (Bostwick Park Project), filled and spilled this year for the first time. Reservoir storage is presently being drawn down at the rate of 120 cfs by the U. S. Bureau of Reclamation to allow the structure to go through the winter season unfilled and capable of controlling and storing spring runoff in '72.

Blanketing of Beaver Reservoir (1620 A.F.) in Water District 40, on Minnesota Creek has been completed by C. E. Mills Construction Company of Montrose, under supervision of Morcan Engineering of Delta. The reservoir has had a serious leakage problem for a number of years.

JOHN A. LOVE
Governor

C. J. KUIPER
State Engineer

DIVISION OF WATER RESOURCES

RALPH V. KELLING, JR. P.E.
IRRIGATION DIVISION ENGINEER
P. O. BOX 456
MONTROSE, COLORADO 81401
OFFICE: 249-5812 HOME: 249-3823

August 12, 1971

Ouray County Planning Commission
Ouray, Colorado 81427

Attention: Mr. Warren Comerer

Subject: Chalet Hayden Pipeline #2, Headgate # 3

Dear Mr. Comerer:

An inspection of the proposed domestic water supply was made on August 11, 1971, by the undersigned and Water Commissioner, Howard Noble, in company with Mr. McNulty.

The source of water is a developed spring in a mine tunnel, which is tributary to Canyon Creek which is tributary to the Uncompahgre River. Flow developed from this spring is 48 G.P.M., which is much more than that needed to serve the proposed approximately 60 homesites. Since the water from this spring is tributary to the Uncompahgre River, the water right which Mr. McNulty is seeking will have fairly junior priority and will be subject to curtailment upon a call by senior rights. Forty-eight gallons per minute probably would be adequate under such circumstances if sufficient carry-over storage facilities were available.

Applicant H. C. McNulty, has filed his Application for a Water Right with the Water Clerk in the District Court where subject Case # 309 is pending. A plat and filing claim statement for the Chalet Hayden Pipeline, was filed in the State Engineer's Office and recorded as # 21878 and approved on December 5, 1961.

There appears to be a sufficient and available water supply for the requested development if adequate storage capacity is made available, however, said application is subject to opposition until August 30, 1971, and further to the referees ruling and judgment by the Court.

Very truly yours,

Ralph V. Kelling, Jr.
Division Engineer

RVK/mm
cc: Mr. C. J. Kuiper, State Engineer
Mr. Elra Wilson, Water Referee, Water Division # 4
Mr. H. C. McNulty
Mr. M. W. Mattern

TABLE B1-1

MEAN, STANDARD DEVIATION, AND COEFFICIENT OF VARIATION OF ANNUAL PRECIPITATION OF CERTAIN STATIONS OF THE WESTERN MOUNTAIN REGION

Station	Mean (inches)	S.D.[a] (inches)	C.V.[b] (per cent)
Steamboat Springs	24.03	4.46	19
Fraser	18.94	4.15	22
Meeker	16.28	3.54	22
Crested Butte	23.40	7.25	31
Glenwood Springs	17.50	4.10	23
Rifle	11.25	2.60	23
Colbran	15.41	3.26	21
Paonia	15.87	3.82	24
Gunnison	10.54	2.21	21
Montrose	9.57	2.64	28
Delta	8.05	2.29	28
Grand Junction	8.59	2.15	25
Dillon	18.12	3.71	20

[a]Standard deviation.

[b]Coefficient of variation.

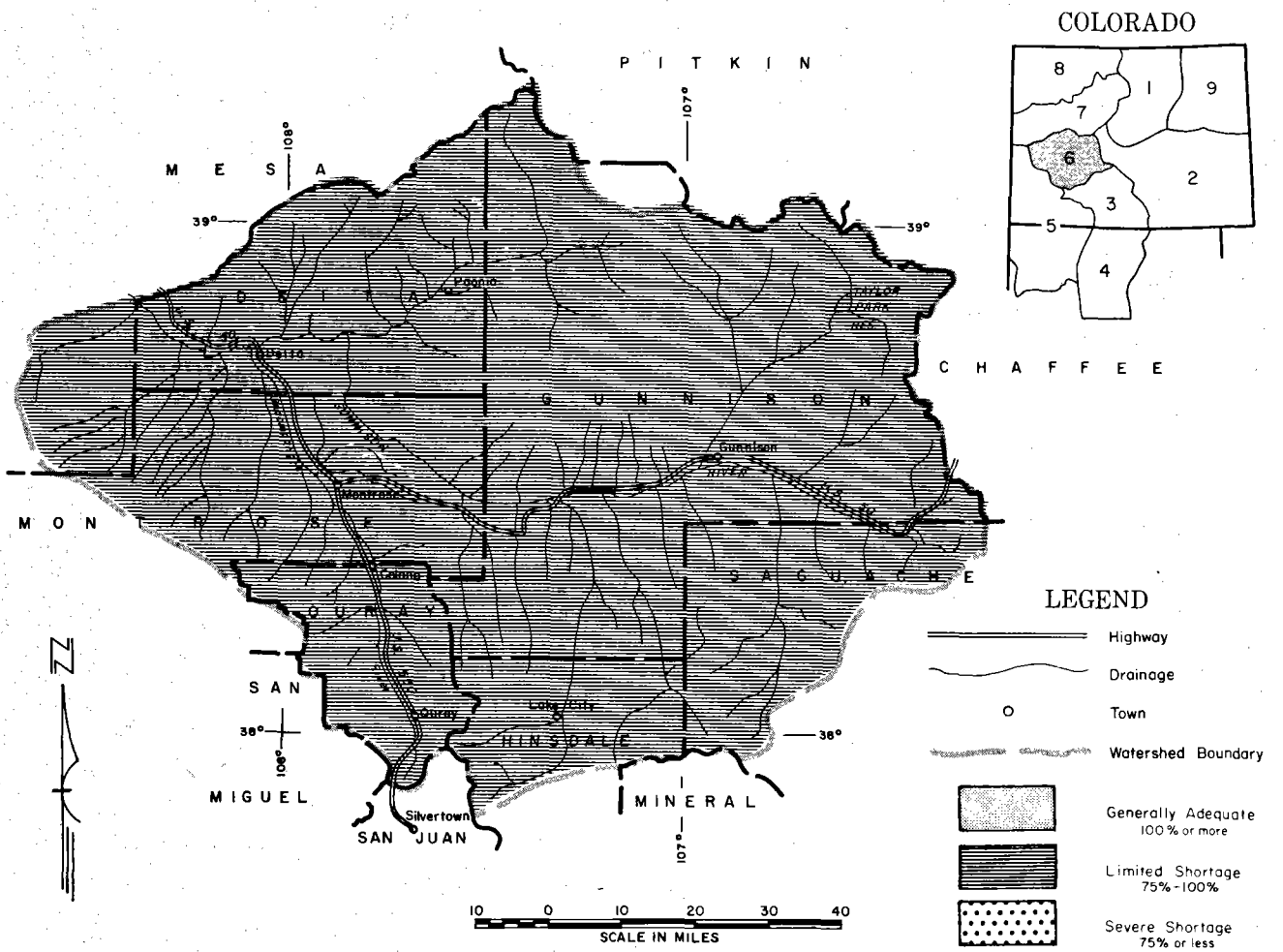
Source: R. A. Scheusener and L. W. Crow, Analysis of Precipitation Data in the Upper Colorado River Basin. Colorado State University, Fort Collins, Colorado, 1961, p. 7.

WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE
GUNNISON RIVER WATERSHED IN COLORADO

as of

May 1, 1971

U. S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



YOUR WATER SUPPLY

WATER SUPPLIES WILL BE BELOW AVERAGE ON THE GUNNISON RIVER AND ITS TRIBUTARIES. STREAMFLOW FORECASTS DROPPED 4% TO 12% FROM LAST MONTH'S FIGURES. ABOVE AVERAGE PRECIPITATION IS NEEDED TO PROVIDE AVERAGE STREAMFLOW. TAYLOR PARK RESERVOIR CONTAINS 84,000 ACRE FEET, ABOUT 25,000 ACRE FEET ABOVE AVERAGE. BLUE MESA RESERVOIR IS BELOW LAST YEAR.

This report prepared by
JACK N. WASHICHEK and RONALD E. MORELAND
SOIL CONSERVATION SERVICE, COLORADO STATE UNIVERSITY
FORT COLLINS, COLORADO

Issued by
M. D. BURDICK—STATE CONSERVATIONIST R. L. PORTER—AREA CONSERVATIONIST
U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
DENVER, COLORADO GRAND JUNCTION, COLORADO

The Conservation of Water begins with the Snow Survey

STREAMFLOW FORECASTS (1000 Ac. Ft.) Apr-Sept

FORECAST POINT	FORE-CAST	% of Average	Average +
Gunnison Rv. inflow to Blue Mesa	560	73	767
Gunnison nr Grand Junction (1)	950	84	1137
Surface Creek nr Cedaridge	14	88	16
Uncompahgre at Colona	85	66	129

(1) Observed flow plus change in storage in Taylor, Blue Mesa and Morrow Point Reservoirs.

WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
North Fork of Gunnison	Exc.	Exc.
Taylor	Exc.	Avg.

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average +
Gunnison	12	62	87
Surface Creek	3	76	96
Uncompahgre	3	56	88

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average +
Gunnison	1	100	100
Surface Creek	1	108	126
Uncompahgre	1	108	126

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average +
Blue Mesa	941	374	426	--
Morrow Point	121	115	117	--
Taylor	106	84	54	59

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average +

+ 1953-1967 period.

Return if not delivered
UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
SNOW SURVEY
COLORADO STATE UNIVERSITY
FORT COLLINS, COLORADO 80521

OFFICIAL BUSINESS

09146200 Uncompahgre River near Ridgway, Colo.

LOCATION.--Lat 38°11'05", long 107°44'40", in NE¼ sec.4, T.45 N., R.8 W., Ouray County, on right bank 15 ft upstream from bridge, 0.7 mile upstream from Dallas Creek, and 2 miles north of Ridgway.

DRAINAGE AREA.--149 sq mi.

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,877.58 ft above mean sea level (levels by Bureau of Reclamation).

AVERAGE DISCHARGE.--12 years, 158 cfs (114,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,890 cfs Sept. 6 (gage height, 5.38 ft); minimum daily, 34 cfs Jan. 7.
Period of record: Maximum discharge, 1,890 cfs Sept. 6, 1970 (gage height, 5.38 ft); minimum daily, 26 cfs Jan. 13, 1963.

REMARKS.--Records good. Diversions for irrigation above station. Water is imported above station in some years by Red Mountain ditch from Mineral Creek in San Juan River basin.

REVISIONS.--WRD Colo. 1967: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	128	68	46	48	48	50	90	578	479	164	180
2	96	110	71	44	49	50	46	82	600	406	183	217
3	217	99	69	40	46	52	51	101	685	380	222	168
4	185	108	71	40	48	52	50	164	730	363	237	159
5	164	114	72	38	48	52	50	232	533	380	214	280
6	157	114	71	38	51	54	56	291	515	387	219	987
7	176	114	66	34	54	54	72	343	533	492	224	365
8	176	104	59	36	56	58	64	286	574	454	263	288
9	166	104	62	36	57	56	74	230	528	422	212	232
10	166	102	62	42	59	55	86	219	484	422	180	200
11	166	101	62	48	62	52	90	309	502	390	162	176
12	162	98	65	51	77	49	72	376	406	350	140	279
13	151	94	66	51	77	48	66	380	383	334	128	602
14	146	93	65	51	64	48	64	398	410	318	130	480
15	153	90	65	51	57	50	61	422	450	288	199	340
16	146	93	64	51	56	56	65	470	484	272	222	277
17	140	90	64	52	62	54	71	618	551	263	188	235
18	155	75	64	52	56	48	74	641	623	263	248	207
19	146	71	64	51	47	49	69	660	695	253	227	188
20	134	74	65	51	47	47	68	655	740	253	243	171
21	136	83	71	51	50	49	66	665	725	250	261	164
22	142	89	82	54	50	52	64	660	710	288	245	202
23	146	88	68	57	51	51	62	670	690	315	222	173
24	130	82	68	56	50	54	66	628	710	269	200	157
25	130	82	65	57	50	50	93	636	828	243	176	142
26	128	80	65	57	48	48	157	660	762	224	176	138
27	128	74	62	58	47	50	200	650	768	219	168	134
28	124	66	51	55	48	48	166	632	792	209	159	126
29	122	69	52	49	------	50	120	556	680	192	151	122
30	126	66	52	46	------	50	101	578	569	180	162	118
31	122	------	48	48	------	50	------	632	------	168	176	------
TOTAL	4,546	2,754	1,999	1,491	1,515	1,584	2,394	13,934	18,238	9,726	6,101	7,507
MEAN	147	91.8	64.5	48.1	54.1	51.1	79.8	449	608	314	197	250
MAX	217	128	82	58	77	58	200	670	828	492	263	987
MIN	96	66	48	34	46	47	46	82	383	168	128	118
AC-FT	9,020	5,460	3,970	2,960	3,010	3,140	4,750	27,640	36,180	19,290	12,100	14,890

CAL YR 1969 TOTAL 61,305 MEAN 168 MAX 665 MIN 35 ACFT 121,600
WAT YR 1970 TOTAL 71,789 MEAN 197 MAX 987 MIN 34 ACFT 142,400

PEAK DISCHARGE (BASE, 1,000 CFS).--Sept. 6 (0330) 1890 cfs (5.38 ft).

09146400 West Fork Dallas Creek near Ridgway, Colo.

LOCATION.--Lat 38°04'25", long 107°51'02", in SE¼ sec.9, T.44 N., R.9 W., Ouray County, on right bank 100 ft downstream from unnamed tributary, 5 miles upstream from confluence with East Fork Dallas Creek, and 7.5 miles southwest of Ridgway.

DRAINAGE AREA.--13.1 sq mi.

PERIOD OF RECORD.--October 1955 to September 1970 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 8,400 ft (from topographic map).

AVERAGE DISCHARGE.--15 years, 12.8 cfs (9,270 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 132 cfs June 26 (gage height, 2.92 ft); maximum gage height, 2.96 ft Jan. 30 (backwater from ice); minimum daily discharge, 3.0 cfs Jan. 7-9.
Period of record: Maximum discharge, about 200 cfs July 19, 1965 (gage height, 2.98 ft); maximum gage height, 4.07 ft Apr. 11, 1965 (backwater from ice); minimum daily discharge, 2.4 cfs Jan. 14, 1961, Mar. 14, 1964, Mar. 21, 1968, Mar. 22-26, 1969.

REMARKS.--Records good except those for winter period, which are poor. One diversion above station for irrigation below.

REVISIONS.--WRD Colo. 1967: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.6	9.0	5.5	3.8	3.8	4.0	3.6	8.2	43	55	20	14
2	7.8	8.5	5.5	3.6	4.0	4.0	3.6	8.0	46	48	20	16
3	10	8.0	5.5	3.4	4.0	4.0	3.6	10	51	46	23	16
4	9.0	8.0	5.5	3.4	4.0	4.3	3.6	15	57	45	31	17
5	9.0	8.5	5.5	3.2	3.8	4.0	3.8	18	45	46	24	26
6	9.0	9.0	5.5	3.2	3.8	4.0	4.0	28	43	48	25	71
7	10	8.5	5.8	3.0	3.8	4.0	3.8	30	46	86	24	35
8	10	8.5	5.8	3.0	3.8	4.3	4.0	29	51	59	27	27
9	11	8.6	5.8	3.0	3.8	4.3	4.9	29	57	51	24	22
10	11	8.6	5.5	3.8	3.8	4.3	5.8	33	46	48	21	20
11	10	8.2	5.5	4.3	4.0	4.3	5.8	41	46	41	20	19
12	9.0	8.2	5.5	4.3	4.0	4.0	5.0	40	38	37	18	31
13	8.5	8.2	5.5	4.3	4.0	3.8	4.6	45	38	37	17	57
14	9.0	8.0	5.2	4.3	4.0	3.8	4.6	38	38	35	17	46
15	9.0	8.0	5.2	4.3	4.0	3.8	4.4	30	38	34	17	34
16	9.8	8.6	5.2	4.3	4.0	4.0	4.6	37	40	34	20	28
17	11	7.5	5.2	4.3	4.0	3.8	4.9	48	46	31	20	25
18	11	6.5	5.2	4.3	4.0	3.6	4.9	57	55	30	20	23
19	9.4	6.0	5.2	4.3	3.8	3.6	4.6	49	59	30	19	22
20	9.0	6.5	5.2	4.3	3.6	3.6	4.4	48	76	29	19	21
21	9.0	7.0	5.2	4.3	3.8	3.8	4.4	41	76	30	20	20
22	9.0	7.4	5.8	4.3	3.8	3.8	4.4	51	76	38	20	21
23	8.6	7.0	5.8	4.3	3.8	3.8	4.4	53	78	41	19	20
24	8.6	7.0	5.5	4.3	3.8	3.6	5.5	45	67	34	17	19
25	8.6	6.5	5.5	4.6	3.8	3.6	6.5	45	96	31	16	17
26	8.6	6.5	5.5	4.6	3.8	3.6	9.8	41	91	28	16	17
27	8.6	6.0	5.5	4.6	3.8	3.8	12	43	76	25	15	16
28	8.6	5.5	5.0	4.2	4.0	3.8	11	41	99	24	15	16
29	8.5	5.5	4.4	3.8	------	3.8	10	38	86	23	14	16
30	9.0	5.5	4.4	3.6	------	3.8	8.6	38	74	21	14	15
31	8.5	------	4.0	3.6	------	3.8	------	41	------	21	14	------
TOTAL	286.7	224.8	165.4	122.6	108.6	120.7	165.1	1,118.2	1,778	1,186	606	747
MEAN	9.25	7.49	5.34	3.95	3.88	3.89	5.50	36.1	59.3	38.3	19.5	24.9
MAX	11	9.0	5.8	4.6	4.0	4.3	12	57	99	86	31	71
MIN	7.8	5.5	4.0	3.0	3.6	3.6	3.6	8.0	38	21	14	14
AC-FT	569	446	328	243	215	239	327	2,220	3,530	2,350	1,200	1,480

CAL YR 1969 TOTAL 4,286.5 MEAN 11.7 MAX 81 MIN 2.4 ACFT 8,500
WAT YR 1970 TOTAL 6,629.1 MEAN 18.2 MAX 99 MIN 3.0 ACFT 13,150

PEAK DISCHARGE (BASE, 30 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
6-26	0300	2.92	132	9-13	0800	2.74	67
9- 6	0530	2.94	129				

09146500 East Fork Dallas Creek near Ridgway, Colo.

LOCATION.--Lat 38°05'37", long 107°48'48", in NW¼SW¼ sec.1, T.44 N., R.9 W., Ouray County, on right bank 300 ft downstream from private bridge, 2 miles upstream from Beaver Creek, and 5 miles southwest of Ridgway.

DRAINAGE AREA.--16.8 sq mi.

PERIOD OF RECORD.--October 1947 to September 1953, October 1960 to September 1970 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 7,980 ft (from topographic map). Prior to Oct. 1, 1960, water-stage recorder at two sites 0.8 mile downstream at different datums. Datum raised 3.00 ft Oct. 1, 1949.

AVERAGE DISCHARGE.--16 years, 25.2 cfs (18,260 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 278 cfs June 26 (gage height, 3.54 ft); maximum gage height, 3.64 ft Dec. 31 (backwater from ice); minimum daily discharge, 5.0 cfs Apr. 5.
Period of record: Maximum discharge, 297 cfs June 18, 1949 (gage height, 3.43 ft, site and datum then in use), from rating curve extended above 100 cfs; maximum gage height, 4.28 ft Dec. 13, 1961 (ice jam); minimum daily discharge, 2.6 cfs Mar. 6, 1967.

REMARKS.--Records good. One small diversion above station diverts water to Beaver Creek drainage for irrigation of about 50 acres of hay meadows.

REVISIONS.--WSP 1733: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	16	9.5	7.0	6.5	7.0	5.8	7.8	68	136	50	50
2	18	16	9.5	6.5	6.5	7.0	5.5	7.8	76	116	45	55
3	21	15	9.5	6.5	6.5	7.0	5.2	8.8	92	110	52	40
4	19	16	9.5	6.5	7.0	7.0	5.5	11	100	106	68	38
5	20	14	10	6.0	7.4	7.0	5.0	13	70	126	60	51
6	19	14	10	6.0	7.4	7.0	5.2	17	69	130	58	121
7	19	14	9.0	5.5	7.8	7.0	5.2	19	70	165	51	60
8	19	13	9.0	5.5	7.0	7.0	5.5	18	69	175	65	53
9	19	13	9.0	5.5	7.4	7.0	5.8	18	66	150	55	52
10	19	13	9.5	6.0	7.0	7.0	6.0	20	60	150	50	44
11	19	13	9.5	6.5	7.4	7.0	5.8	23	56	124	46	40
12	19	12	10	7.0	7.4	6.5	5.2	24	50	112	38	47
13	18	12	10	7.8	7.4	6.5	5.2	25	46	112	36	129
14	18	12	9.5	7.8	7.4	6.5	5.2	27	50	108	44	122
15	19	12	9.5	8.1	7.4	7.0	5.2	29	51	90	55	68
16	19	12	9.2	7.8	7.5	7.0	5.2	32	58	85	60	52
17	19	11	9.2	8.1	7.8	6.7	5.2	41	72	81	55	47
18	19	10	9.2	7.8	6.7	6.5	5.5	46	92	81	70	44
19	19	10	9.2	7.8	6.5	6.5	5.2	44	114	79	65	41
20	18	10	8.8	7.8	6.5	6.0	5.5	43	122	81	70	37
21	18	11	8.8	7.4	6.5	6.0	5.5	49	116	75	75	34
22	18	12	8.8	7.8	6.5	6.4	5.5	53	118	116	65	34
23	17	13	8.8	7.8	6.7	6.4	5.5	57	132	116	60	32
24	16	12	8.8	7.8	7.0	6.4	5.5	58	155	83	55	31
25	16	12	8.8	7.4	6.7	5.8	7.0	57	182	68	50	30
26	16	11	8.8	7.8	6.5	5.5	8.8	64	172	62	50	29
27	15	10	8.8	7.8	6.5	5.5	10	70	162	63	46	28
28	16	9.5	8.5	7.4	7.0	5.5	9.5	79	170	62	46	27
29	15	9.5	8.0	7.0	------	5.5	8.4	66	158	57	44	25
30	15	9.5	8.0	7.0	------	5.5	8.4	66	140	52	48	25
31	16	------	7.5	7.0	------	5.5	------	74	------	51	48	------
TOTAL	557	367.5	282.2	219.7	195.9	200.2	182.0	1,167.4	2,956	3,126	1,684	1,486
MEAN	18.0	12.3	9.10	7.09	7.00	6.46	6.07	37.7	98.5	101	54.3	49.5
MAX	21	16	10	8.1	7.8	7.0	10	79	182	175	75	129
MIN	15	9.5	7.5	5.5	6.5	5.5	5.0	7.8	46	51	36	25
AC-FT	1,100	729	560	436	389	397	361	2,320	5,860	6,200	3,340	2,950

CAL YR 1969 TOTAL 9,488.6 MEAN 26.0 MAX 142 MIN 4.5 ACFT 18,820
WAT YR 1970 TOTAL 12,423.9 MEAN 34.0 MAX 182 MIN 5.0 ACFT 24,640

PEAK DISCHARGE (BASE, 120 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
6-26	0230	3.54	278	9-13	2300	3.22	178
9- 6	0300	3.15	165				

09147000 Dallas Creek near Ridgway, Colo.

LOCATION.--Lat 38°10'40", long 107°45'28", on line between secs.4 and 5, T.45 N., R.8 W., Ouray County, on right bank 20 ft downstream from highway bridge, 1.5 miles upstream from mouth, and 1.5 miles northwest of Ridgway.

DRAINAGE AREA.--96.2 sq mi.

PERIOD OF RECORD.--March 1922 to October 1927, October 1955 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,980 ft (from topographic map). Mar. 1, 1922, to Oct. 31, 1927, nonrecording gage at different datum.

AVERAGE DISCHARGE.--20 years, 37.4 cfs (27,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 491 cfs May 5 (gage height, 5.07 ft); minimum daily, 11 cfs Jan. 7.
Period of record: Maximum discharge observed, 1,120 cfs Aug. 15, 1923 (gage height, 4.40 ft, datum then in use), from rating curve extended above 160 cfs; maximum gage height, 5.14 ft Jan. 31, 1963 (backwater from ice); minimum daily discharge, 0.50 cfs June 17, 1967.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 4,500 acres above and 700 acres below station. One small ditch imports water from Leopard Creek (Dolores River basin) to drainage above station.

REVISIONS (WATER YEARS).--WSP 1924: 1960, drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	31	22	15	15	19	18	61	32	135	55	45
2	35	28	22	15	15	20	17	58	32	104	55	52
3	66	28	24	14	14	19	18	101	48	92	62	52
4	52	30	25	14	15	20	18	182	62	88	74	51
5	50	32	24	13	15	20	18	241	52	96	66	59
6	47	31	24	13	16	20	19	218	51	92	74	193
7	45	30	22	11	16	20	24	189	60	141	74	111
8	44	31	20	12	17	23	26	104	56	163	82	91
9	41	32	20	12	18	23	29	85	61	127	72	82
10	44	31	20	14	18	22	39	96	64	129	62	78
11	44	31	22	16	20	20	45	97	64	109	52	70
12	42	31	24	17	23	18	29	86	51	102	48	106
13	38	30	24	17	23	18	25	82	35	97	47	234
14	35	28	22	17	19	18	24	74	31	85	48	160
15	42	28	22	17	19	20	22	66	27	72	56	114
16	42	29	22	17	18	20	25	66	27	79	62	94
17	41	28	22	17	19	20	27	66	35	70	64	88
18	48	24	22	17	19	19	29	58	41	66	64	90
19	44	22	22	17	16	18	29	55	50	66	73	88
20	32	24	24	17	16	18	29	48	62	68	80	82
21	35	26	26	17	17	18	27	42	76	67	86	80
22	37	30	27	18	19	19	27	43	79	92	82	85
23	39	26	24	18	18	18	27	45	96	97	74	73
24	34	26	23	18	18	20	29	41	90	82	61	60
25	32	26	22	18	18	19	57	27	133	74	58	54
26	31	24	22	18	17	18	144	23	179	73	55	51
27	30	22	20	19	17	18	210	23	191	74	52	50
28	30	20	18	17	19	18	118	31	201	67	51	48
29	31	22	17	16	------	18	74	34	185	56	48	47
30	31	22	17	15	------	17	70	32	161	52	48	47
31	31	------	16	15	------	18	------	38	------	55	43	------
TOTAL	1,231	823	681	491	494	596	1,293	2,412	2,332	2,770	1,928	2,535
MEAN	39.7	27.4	22.0	15.8	17.6	19.2	43.1	77.8	77.7	89.4	62.2	84.5
MAX	66	32	27	19	23	23	210	241	201	163	86	234
MIN	30	20	16	11	14	17	17	23	27	52	43	45
AC-FT	2,440	1,630	1,350	974	980	1,180	2,560	4,780	4,630	5,490	3,820	5,030

CAL YR 1969 TOTAL 11,080 MEAN 30.4 MAX 224 MIN .65 ACFT 21,980
WAT YR 1970 TOTAL 17,586 MEAN 48.2 MAX 241 MIN 11 ACFT 34,880

09147100 Cow Creek near Ridgway, Colo.

LOCATION.--Lat 38°08'58", long 107°38'39", in NW¼SW¼ sec.16, T.45 N., R.7 W., Ouray County, on right bank 50 ft downstream from Sneva ditch siphon, 500 ft upstream from Flume Creek, and 6.2 miles east of Ridgway.

DRAINAGE AREA.--45.4 sq mi.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,620 ft (from topographic map). Oct. 1, 1955, to July 27, 1967, at site 0.8 mile upstream at different datum. July 28, 1967, to June 6, 1968, at site 200 ft upstream at different datum. Supplementary water-stage recorder on Sneva ditch, since July 28, 1967.

AVERAGE DISCHARGE (COMBINED FLOW).--15 years, 62.1 cfs (44,990 acre-ft per year).

EXTREMES (COMBINED FLOW).--Current year: Maximum discharge, 682 cfs May 21 (gage height, 3.66 ft); minimum daily, 6.5 cfs Jan. 7.
Period of record: Maximum discharge, 1,360 cfs June 28, 1957 (gage height, 7.70 ft, site and datum then in use); minimum daily, 2.0 cfs Jan. 9, 1957.

REMARKS.--Records fair except those for winter period, which are poor. Sneva ditch diverts water above station for irrigation below. Records show combined flow of creek and Sneva ditch.

REVISIONS.--WRD Colo. 1967: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	24	13	9.5	7.5	10	8.4	34	354	188	3E	43
2	30	22	12	9.5	7.7	10	8.5	35	372	171	42	52
3	45	22	12	9.0	7.C	10	9.2	50	423	158	54	35
4	46	24	12	8.0	7.1	10	9.5	67	388	156	5E	34
5	47	26	12	8.0	7.1	10	11	89	299	148	44	71
6	52	25	12	7.5	7.7	11	17	120	318	154	44	2C8
7	53	24	11	6.5	8.4	11	21	158	322	191	41	94
8	47	22	10	7.C	9.0	12	18	138	335	165	41	77
9	44	21	10	7.5	9.5	11	21	109	275	136	3S	68
10	42	20	11	8.0	10	10	23	118	254	123	31	61
11	39	19	11	7.7	12	9.5	22	168	227	107	2S	54
12	37	19	12	7.7	12	9.5	18	174	198	101	27	85
13	3S	18	12	7.4	10	9.5	16	185	187	92	2S	140
14	39	17	11	7.4	9.6	10	16	192	211	84	2E	91
15	35	16	11	7.4	10	11	16	228	256	78	6S	76
16	34	16	11	7.4	10	9.6	18	295	267	74	44	65
17	34	15	11	7.4	10	9.2	20	370	303	70	38	58
18	33	14	11	7.4	10	9.2	19	450	322	68	4C	54
19	31	13	11	8.0	9.0	9.0	17	438	342	63	5E	50
20	32	14	11	7.4	9.0	8.5	16	458	361	59	55	45
21	33	15	11	7.7	9.5	9.0	16	534	387	55	53	42
22	32	16	11	7.7	9.5	9.6	16	498	351	57	48	46
23	30	16	11	8.0	9.5	9.5	16	502	348	73	44	41
24	30	15	10	7.7	10	10	22	450	352	53	39	36
25	30	15	10	8.0	10	10	41	462	396	50	35	32
26	29	14	10	8.C	9.0	9.5	64	454	372	48	34	29
27	29	13	10	8.0	9.5	10	75	423	377	49	35	29
28	26	12	10	7.4	9.5	9.5	65	412	314	46	33	28
29	24	12	10	7.0	------	9.6	44	360	274	42	2S	26
30	24	12	10	7.0	------	9.2	37	372	230	4C	30	26
31	25	------	9.5	7.0	------	9.2	------	402	------	38	3S	------
TOTAL	1,105	531	339.5	239.2	259.1	305.1	720.6	8,745	9,415	2,937	1,25C	1,796
MEAN	35.6	17.7	11.0	7.72	9.25	9.84	24.0	282	314	94.7	4C.3	59.9
MAX	53	26	13	9.5	12	12	75	534	423	191	6S	208
MIN	24	12	9.5	6.5	7.C	8.5	8.4	34	187	38	25	26
AC-FT	2,190	1,050	673	474	514	605	1,430	17,350	18,670	5,830	2,48C	3,560

CAL YR 1969 TOTAL 21,358.4 MEAN 58.5 MAX 357 MIN 2.8 ACFT 42,360
WAT YR 1970 TOTAL 27,642.5 MEAN 75.7 MAX 534 MIN 6.5 ACFT 54,830

PEAK DISCHARGE (BASE, 500 cfs).--May 21 (2100) 682 cfs (3.66 ft); June 25 (2100) 572 cfs (3.70 ft).

09147500 Uncompahgre River at Colona, Colo.

LOCATION.--Lat 38°19'53", long 107°46'44", in NW¼ sec.17, T.47 N., R.8 W., Montrose County, on right bank 15 ft downstream from county highway bridge, 0.2 mile north of Colona, and 1 mile upstream from Beaton Creek.

DRAINAGE AREA.--443 sq mi.

PERIOD OF RECORD.--April 1903 to November 1905, April to June 1906 (gage heights and discharge measurements only), October 1912 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "near Colona" 1904-6, 1922-34.

GAGE.--Water-stage recorder. Datum of gage is 6,318.80 ft above mean sea level. See WSP 1733 and 1924 for history of changes prior to Sept. 30, 1949.

AVERAGE DISCHARGE.--60 years (1903-5, 1912-70), 267 cfs (193,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,660 cfs Sept. 6 (gage height, 5.71 ft); minimum daily, 50 cfs Jan. 7.
Period of record: Maximum daily discharge, 4,080 cfs June 13, 14, 1921; minimum daily, 12 cfs Sept. 19, 1956, May 7, 1967.

REMARKS.--Records fair. Natural flow of stream affected by water diverted from West Fork Cimarron Creek, Mineral Creek (San Juan River basin), and Leopard Creek (Dolores River basin), diversions for irrigation of about 19,000 acres (part of which is below station) and return flow from irrigated areas.

REVISIONS (WATER YEARS).--WSP 1313: 1904. WRD Colo. 1967: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	176	240	107	71	66	87	83	215	910	1,180	179	194
2	145	191	111	64	73	90	80	182	960	940	164	243
3	267	170	113	60	71	91	90	264	1,180	816	212	194
4	348	191	117	66	77	88	83	456	1,220	740	285	179
5	285	209	115	67	73	91	87	606	816	748	260	232
6	295	209	109	60	78	90	96	732	780	756	282	1,420
7	301	200	100	50	85	91	128	843	834	940	293	515
8	317	188	81	60	98	104	122	708	880	900	330	380
9	305	188	90	80	90	102	130	501	940	780	282	350
10	301	179	105	84	95	98	167	462	807	764	246	320
11	309	176	91	87	96	91	194	692	880	716	204	280
12	293	170	109	88	122	83	132	852	628	620	179	481
13	264	164	102	93	126	85	120	816	550	564	158	1,370
14	268	152	102	91	105	85	113	816	571	522	152	1,000
15	278	145	100	85	91	90	109	798	620	468	206	676
16	274	155	98	81	90	95	111	890	652	415	278	522
17	264	148	98	84	102	96	128	1,220	732	385	226	432
18	285	120	96	81	105	81	135	1,300	825	370	289	366
19	289	96	98	78	80	95	128	1,290	1,010	356	264	330
20	246	124	102	78	77	81	124	1,120	1,090	361	352	297
21	257	142	105	76	93	88	122	1,090	1,070	425	395	271
22	260	155	128	80	90	93	120	1,110	970	380	356	325
23	278	145	107	84	91	91	117	1,110	940	426	309	297
24	243	132	102	81	90	102	122	1,050	980	348	264	271
25	240	130	100	81	90	93	194	1,040	1,280	309	229	250
26	236	126	100	81	83	81	366	1,110	1,380	285	215	240
27	236	109	95	83	83	88	501	1,010	1,420	268	203	229
28	229	96	77	81	87	83	400	970	1,600	260	191	222
29	222	98	78	65	------	87	282	843	1,550	229	173	206
30	226	104	65	61	------	85	246	852	1,410	209	173	200
31	215	------	66	80	------	84	------	1,030	------	194	203	------
TOTAL	8,142	4,652	3,067	2,361	2,497	2,779	4,830	25,978	29,485	16,674	7,552	12,292
MEAN	263	155	98.9	76.2	89.2	89.6	161	838	983	538	244	410
MAX	348	240	128	93	126	104	501	1,300	1,600	1,180	395	1,420
MIN	145	96	65	50	66	81	80	182	550	194	152	179
AC-FT	16,150	9,230	6,080	4,680	4,950	5,510	9,580	51,530	58,480	33,070	14,980	24,380

CAL YR 1969 TOTAL 84,742 MEAN 232 MAX 834 MIN 57 ACFT 168,100
WAT YR 1970 TOTAL 120,309 MEAN 330 MAX 1,600 MIN 50 ACFT 238,600

09149500 Uncompahgre River at Delta, Colo.

LOCATION.--Lat 38°44'31", long 108°04'49", in SW¼ sec.13, T.15 S., R.96 W., Delta County, on right bank 525 ft downstream from State Highway 92 bridge at west edge of Delta and 1.1 miles upstream from mouth.

DRAINAGE AREA.--1,129 sq mi.

PERIOD OF RECORD.--April 1903 to October 1931 (no winter records in most years), September 1938 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "near Delta" 1907-24.

GAGE.--Water-stage recorder. Datum of gage is 4,926.49 ft above mean sea level. Feb. 18, 1960, to Mar. 26, 1963, water-stage recorder at site 750 ft upstream at datum 3.43 ft higher. Mar. 27, 1963, to May 12, 1965, water-stage recorder at site 1,050 ft upstream at datum 6.08 ft higher. See WSP 1733 or 1924 for history of changes prior to Feb. 18, 1960.

AVERAGE DISCHARGE.--34 years (1907-8, 1920-21, 1938-70), 277 cfs (200,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,250 cfs Sept. 6 (gage height, 6.46 ft, from floodmark), from rating curve extended above 1,300 cfs on basis of slope-area measurement of peak flow; minimum daily, 41 cfs Mar. 29, 30.

Period of record: Maximum discharge recorded, 3,730 cfs May 5, 1941 (gage height, 5.90 ft, site and datum then in use), from rating curve extended above 1,900 cfs; no flow at times in 1908; minimum daily determined since beginning of diversion through Gunnison tunnel, 7 cfs July 10-15, 17, 21, 24-28, 1910.

REMARKS.--Records good. Natural flow of stream affected by water diverted from Gunnison River (see record of diversion for Gunnison River below Gunnison tunnel elsewhere in this report) and other adjacent basins, diversions for irrigation of about 90,000 acres above station, and return flow from irrigated areas. Records of chemical analyses for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1243: 1904. WRD Colo. 1967: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	341	448	193	144	130	102	135	246	702	260	228	298
2	335	434	194	136	120	144	108	155	609	407	200	377
3	633	379	197	127	124	116	99	147	687	348	208	336
4	835	299	205	125	133	107	56	351	812	298	262	317
5	655	320	208	131	125	97	99	645	735	329	287	508
6	618	318	201	125	135	94	158	819	525	363	247	1,900
7	615	314	187	129	138	92	157	980	593	410	290	1,440
8	596	296	162	106	136	87	233	698	691	487	298	922
9	493	284	166	162	145	95	141	512	779	424	309	868
10	405	297	212	186	156	99	215	373	712	499	246	802
11	583	273	181	183	159	105	324	732	1,060	461	183	774
12	724	267	199	165	168	96	279	939	1,070	390	159	720
13	701	265	197	162	191	82	191	873	955	325	153	1,420
14	679	251	193	150	178	83	181	830	907	257	151	1,550
15	724	242	190	144	148	87	245	784	715	224	182	1,190
16	625	253	185	140	137	112	249	754	560	200	281	989
17	616	270	189	142	131	110	243	968	695	186	269	898
18	595	232	183	155	132	108	355	986	680	203	268	826
19	654	185	184	149	122	96	320	963	685	192	192	738
20	585	202	191	144	100	82	273	800	789	200	328	665
21	603	232	193	142	116	77	299	853	875	186	775	595
22	610	265	210	146	118	78	303	739	884	468	638	649
23	705	244	217	155	112	76	275	707	745	501	560	664
24	632	230	194	167	107	61	266	603	771	437	488	623
25	571	224	183	175	103	52	296	533	829	375	421	585
26	567	230	182	166	97	48	502	459	685	385	389	609
27	570	214	189	166	91	45	826	470	602	376	361	611
28	652	186	152	168	89	43	899	415	716	368	330	564
29	788	180	143	124	------	41	574	584	609	347	289	537
30	565	185	135	113	------	41	376	598	467	286	270	499
31	475	------	131	122	------	74	------	715	------	259	295	------
TOTAL	18,750	8,019	5,746	4,549	3,641	2,630	8,677	20,231	22,144	10,451	9,557	23,474
MEAN	605	267	185	147	130	84.8	289	653	738	337	308	782
MAX	835	448	217	186	191	144	899	986	1,070	501	775	1,900
MIN	335	180	131	106	89	41	56	147	467	186	151	298
AC-FT	37,190	15,910	11,400	9,020	7,220	5,220	17,210	40,130	43,920	20,730	18,960	46,560

CAL YR 1969 TOTAL 119,029 MEAN 326 MAX 1,670 MIN 64 AC-FT 236,100
WTR YR 1970 TOTAL 137,869 MEAN 378 MAX 1,900 MIN 41 AC-FT 273,500

09152000 Kannah Creek near Whitewater, Colo.

LOCATION.--Lat 38°57'40", long 108°13'50", in SW¼ sec.34, T.12 S., R.97 W., Mesa County, on right bank at downstream side of private bridge, 0.2 mile downstream from intake of pipeline for Grand Junction water supply and 12 miles east of Whitewater.

DRAINAGE AREA.--61.9 sq mi.

PERIOD OF RECORD.--October 1917 to September 1921, September 1922 to current year. Monthly discharge only for some periods, published in WSP 1313. Prior to October 1960, published as Kahnah Creek near Whitewater.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,060 ft (from topographic map). Prior to Sept. 30, 1932, nonrecording gage and Sept. 30, 1932, to Oct. 14, 1935, water-stage recorder, at site 300 ft upstream at different datum.

AVERAGE DISCHARGE (Combined flow).--52 years, 38.8 cfs (28,110 acre-ft per year).

EXTREMES (Combined flow).--Current year: Maximum discharge, 528 cfs May 22; minimum daily, 7.6 cfs Apr. 5. Period of record: Maximum discharge observed, 1,640 cfs June 6, 1921 (gage height, 4.5 ft, site and datum then in use), from rating curve extended above 700 cfs; minimum daily, 4.3 cfs Dec. 19, 1939.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for municipal supply of Grand Junction and by Raber ditch for irrigation of about 60 acres below station. Records of these diversions furnished by State engineer and monthly figures are adjusted to show total flow of stream. Daily figures are for stream below city and Raber ditch diversions. Regulation by a few small reservoirs above station.

REVISIONS.--WSP 1924: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	8.5	2.6	3.2	2.2	1.4	5.0	4.8	177	30	12	20
2	6.5	7.5	2.6	3.2	2.2	2.4	5.4	5.7	153	31	11	19
3	5.1	9.0	2.6	3.2	2.2	2.4	3.0	15	150	30	12	17
4	4.8	8.5	2.6	3.2	2.4	1.0	3.0	27	140	30	12	19
5	3.6	7.0	2.6	3.2	2.5	.88	1.6	37	118	28	12	27
6	1.6	7.0	2.6	3.2	2.5	1.2	2.6	50	92	30	12	42
7	3.0	7.5	2.4	3.2	2.5	.82	3.3	52	92	38	15	26
8	6.0	7.5	2.5	3.2	2.5	.82	3.0	46	118	42	17	27
9	8.0	7.5	2.5	3.2	2.5	.88	4.3	40	104	44	17	24
10	10	7.0	2.5	3.2	3.0	.82	7.5	43	214	40	16	22
11	11	7.0	2.5	3.2	3.0	.76	8.0	53	183	39	15	20
12	9.0	6.5	2.5	3.2	3.0	3.3	3.9	64	180	36	15	21
13	9.5	6.0	2.5	2.8	3.0	.94	2.4	77	165	34	15	27
14	9.0	5.5	2.5	2.3	2.8	.70	1.6	109	132	33	17	20
15	9.5	5.0	1.7	2.3	3.6	1.0	1.0	132	107	31	18	19
16	10	4.8	3.5	2.3	3.3	2.6	1.2	186	88	31	18	16
17	12	4.6	3.5	2.2	2.8	1.8	1.6	265	77	38	20	16
18	14	5.5	3.5	2.2	3.6	1.8	2.4	356	70	38	32	15
19	10	6.0	3.5	2.2	11	5.4	1.8	415	68	37	27	15
20	7.0	5.0	3.5	2.2	13	3.9	2.6	420	68	33	35	14
21	6.5	4.0	3.5	2.2	2.8	2.6	3.0	420	68	25	34	14
22	7.5	3.5	3.5	2.2	2.4	3.0	2.8	400	67	24	32	15
23	9.0	4.0	3.5	2.4	2.4	2.8	1.6	400	60	23	31	15
24	9.5	3.5	6.0	2.5	2.4	3.6	1.8	356	54	20	27	14
25	9.5	3.0	6.0	2.5	2.2	2.2	8.1	325	49	16	22	13
26	9.5	2.5	6.0	2.5	1.0	1.8	18	309	44	16	21	12
27	9.5	2.5	7.0	2.5	1.4	1.6	16	317	40	15	21	12
28	10	2.5	6.0	2.2	1.2	2.0	15	285	37	15	20	11
29	10	2.5	5.0	2.1	------	.94	9.5	277	33	13	20	10
30	9.5	2.5	4.0	2.0	------	1.4	6.0	242	31	13	21	10
31	8.5	------	3.2	2.0	------	1.6	------	220	------	13	20	------
TOTAL	257.6	163.4	108.4	82.0	89.4	58.36	147.0	5,948.5	2,979	886	617	552
MEAN	8.31	5.45	3.50	2.65	3.19	1.88	4.90	192	99.3	28.6	19.9	18.4
MAX	14	9.0	7.0	3.2	13	5.4	18	420	214	44	35	42
MIN	1.6	2.5	1.7	2.0	1.0	.70	1.0	4.8	31	13	11	10
AC-FT	511	324	215	163	177	116	292	11,800	5,910	1,760	1,220	1,090
ADJUSTED FOR DIVERSIONS												
MEAN	17.1	13.1	9.79	8.82	9.62	8.98	11.9	203	112	41.3	31.8	27.9
AC-FT	1,050	777	602	542	534	553	709	12,450	6,680	2,580	1,950	1,650

		OBSERVED				ADJUSTED	
CAL YR 1969	TOTAL 9,265.28	MEAN 25.4	MAX 204	MIN .88	AC-FT 18,380	MEAN 34.1	AC-FT 24,660
WAT YR 1970	TOTAL 11,888.66	MEAN 32.6	MAX 420	MIN .70	AC-FT 23,580	MEAN 41.6	AC-FT 30,060

NOTE.--No gage-height record Dec. 8 to Feb. 9.

09152500 Gunnison River near Grand Junction, Colo.

LOCATION.--Lat 38°59'00", long 108°27'00", near center of sec.14, T.2 S., R.1 E., Ute meridian, Mesa County, on right bank 180 ft upstream from bridge on State Highway 141, 0.4 mile downstream from Whitewater Creek, 0.5 mile south of Whitewater, and 8 miles southeast of Grand Junction.

DRAINAGE AREA.--7,928 sq mi.

PERIOD OF RECORD.--October 1894 to December 1895 (gage heights only), October 1896 to September 1899, October 1901 to October 1906, October 1916 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "at Whitewater" 1901-6.

GAGE.--Water-stage recorder. Datum of gage is 4,628.12 ft above mean sea level. See WSP 1733 or 1924 for history of changes prior to October 1959.

AVERAGE DISCHARGE.--62 years (1896-99, 1901-6, 1916-70), 2,567 cfs (1,860,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 11,500 cfs June 29 (gage height, 8.41 ft); minimum daily, 857 cfs Dec. 8.
Period of record: Maximum discharge observed, 35,700 cfs May 23, 1920 (gage height, 14.95 ft, site and datum then in use), from rating curve extended above 22,000 cfs; minimum daily, 106 cfs July 20, 1934.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Records show flow that enters Colorado River from Gunnison River basin except for about 60 cfs diverted below gage during irrigation season. Natural flow of river affected by diversions for irrigation of about 233,000 acres above station, storage reservoirs, and return flow from irrigated lands. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

REVISIONS.--WSP 509: Drainage area at former site. WRD Colo. 1967: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,960	2,650	2,260	2,120	2,130	2,350	2,230	2,710	7,180	3,200	1,200	1,900
2	1,950	2,660	2,260	2,070	2,090	2,550	2,230	2,400	4,720	2,580	1,300	1,700
3	2,040	2,540	2,260	2,050	2,090	2,570	2,340	2,410	5,460	4,030	1,600	1,600
4	3,190	2,450	2,270	2,030	2,140	2,460	2,390	3,240	4,890	6,210	1,600	1,600
5	2,900	2,490	2,280	2,020	2,110	2,420	1,930	4,570	6,300	3,840	1,600	2,500
6	2,650	2,460	1,810	2,020	2,110	2,400	2,130	5,740	5,750	3,440	1,600	5,800
7	2,670	2,470	940	2,020	2,130	2,410	2,120	6,820	7,140	2,510	1,600	4,000
8	2,680	2,450	857	2,070	2,110	2,420	2,210	6,630	7,740	4,300	1,600	3,000
9	1,910	2,440	1,040	2,090	2,080	2,460	2,180	5,970	6,780	3,170	1,600	2,900
10	1,260	2,480	2,220	2,170	2,110	2,490	2,190	5,510	7,320	3,630	1,500	2,900
11	1,640	2,410	2,200	2,170	2,120	2,510	2,470	6,000	8,450	4,150	1,400	2,900
12	2,850	2,360	2,230	2,140	2,130	2,480	2,550	7,450	8,330	7,520	1,300	2,900
13	2,970	2,350	2,230	2,140	2,250	2,440	2,070	7,750	7,780	6,960	1,400	4,000
14	2,790	2,330	2,200	2,110	2,300	2,430	1,890	7,800	8,650	2,130	1,600	5,000
15	2,810	2,270	2,200	2,120	2,260	2,500	1,690	7,240	8,800	1,630	1,600	4,500
16	2,920	2,280	2,200	2,130	2,200	2,540	1,550	6,970	4,900	1,430	1,700	4,400
17	2,970	2,420	2,230	2,130	2,210	2,510	1,730	7,690	4,520	1,410	1,800	4,200
18	2,940	2,380	2,220	2,160	2,220	2,470	2,040	8,730	4,530	1,450	1,600	4,000
19	3,010	2,230	2,230	2,170	2,220	2,430	2,090	9,130	4,530	1,430	1,800	3,800
20	2,860	2,250	2,260	2,060	2,140	2,390	1,900	8,980	5,820	3,850	2,000	3,600
21	2,360	2,370	2,290	2,070	2,190	2,400	1,840	8,600	9,810	1,530	2,100	3,400
22	2,380	2,440	2,290	2,070	2,270	2,390	2,020	8,370	9,560	1,810	2,100	3,400
23	2,860	2,440	2,300	2,110	2,260	2,380	1,910	9,190	4,780	1,980	2,100	3,200
24	2,500	2,390	2,290	2,160	2,260	2,380	1,930	9,830	6,270	1,790	1,900	3,200
25	2,270	2,370	2,310	2,160	2,290	2,420	2,000	8,420	6,760	2,390	1,700	3,100
26	2,220	2,360	2,240	2,150	2,300	2,420	2,670	5,890	6,750	2,170	1,700	3,100
27	2,590	2,340	2,290	2,150	2,290	2,380	3,850	5,780	9,580	1,710	1,600	3,000
28	2,250	2,270	2,180	2,190	2,290	2,350	4,330	5,550	11,100	1,520	1,600	3,000
29	2,720	2,210	2,080	2,080	------	2,340	3,730	5,280	11,000	1,450	1,500	3,000
30	2,690	2,220	2,030	2,020	------	2,370	3,060	5,940	4,100	1,350	1,500	3,000
31	2,400	------	2,040	2,060	------	2,170	------	7,170	------	1,350	1,600	------
TOTAL	78,160	71,780	64,737	65,210	61,300	75,230	69,270	203,760	209,300	87,920	50,800	98,600
MEAN	2,521	2,393	2,088	2,104	2,189	2,427	2,309	6,573	6,977	2,836	1,639	3,287
MAX	3,190	2,660	2,310	2,190	2,300	2,570	4,330	9,830	11,100	7,520	2,100	5,800
MIN	1,260	2,210	857	2,020	2,080	2,170	1,550	2,400	4,100	1,350	1,200	1,600
AC-FT	155,000	142,400	128,400	129,300	121,600	149,200	137,400	404,200	415,100	174,400	100,800	195,600

CAL YR 1969 TOTAL 973,991 MEAN 2,668 MAX 9,460 MIN 561 AC-FT 1,932,000
WTR YR 1970 TOTAL 1,136,067 MEAN 3,113 MAX 11,100 MIN 857 AC-FT 2,253,000

NOTE.--No gage-height record July 29 to Sept. 30.

09163500 Colorado River near Colorado-Utah State line

LOCATION (revised).--Lat 39°10'00", long 108°57'26", in SE¼SE¼ sec.23, T.10 S., R.104 W., Mesa County, on right bank 4.8 miles downstream from Salt Creek, 6.3 miles southwest of Mack, Colo., and 7.2 miles upstream from Colorado-Utah State line.

DRAINAGE AREA.--17,900 sq mi, approximately.

PERIOD OF RECORD.--May 1951 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,365 ft (from topographic map).

AVERAGE DISCHARGE.--19 years, 5,692 cfs (4,124,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 33,000 cfs May 24 (gage height, 12.03 ft); minimum daily, 3,020 cfs Dec. 9.
Period of record: Maximum discharge, 56,800 cfs June 9, 1957 (gage height, 16.40 ft); minimum daily, 960 cfs Sept. 7, 1956.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, and diversions for irrigation. (Records include all return flow from irrigated areas.) Records of chemical analyses and water temperatures for the water years 1969-70 are published in Part 2 of this report.

DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,070	5,260	4,320	3,550	3,570	4,180	4,320	6,430	26,700	14,400	4,160	3,550
2	4,050	5,400	4,450	3,530	3,790	4,450	4,340	5,600	22,200	12,600	3,990	3,810
3	4,050	5,280	4,490	3,450	3,730	4,920	4,320	5,140	19,700	11,700	3,790	4,160
4	5,140	5,140	4,540	3,490	3,810	4,650	4,490	5,450	20,500	14,300	3,830	4,050
5	5,600	5,000	4,600	3,390	3,910	4,450	4,260	7,900	20,900	12,700	3,990	4,070
6	5,450	5,020	4,560	3,410	3,830	4,320	4,070	10,700	21,000	11,600	4,010	8,300
7	5,330	5,040	3,710	3,370	3,830	4,280	4,090	13,300	22,400	11,000	4,240	9,880
8	5,310	5,040	3,260	3,280	3,830	4,280	4,370	14,700	23,200	10,600	4,370	7,840
9	5,240	5,040	3,020	3,260	3,810	4,370	4,490	14,400	22,700	11,500	4,470	6,610
10	4,410	5,020	3,650	3,630	3,750	4,670	4,340	13,100	23,200	10,200	4,200	6,020
11	4,780	4,970	4,220	3,990	3,730	4,580	4,670	12,500	25,000	10,700	4,050	5,670
12	5,480	4,920	4,340	4,090	3,770	4,370	5,480	14,700	24,200	12,800	3,730	5,450
13	5,970	4,850	4,320	4,260	3,990	4,240	5,160	17,700	22,800	13,200	3,570	5,720
14	5,800	4,830	4,370	4,110	4,260	4,320	4,540	19,300	22,300	9,660	3,490	8,800
15	5,770	4,740	4,370	3,930	4,220	4,430	4,280	19,500	21,600	6,640	3,200	8,590
16	5,920	4,810	4,320	3,930	4,050	4,630	3,890	18,100	19,200	6,000	3,300	7,540
17	6,020	5,040	4,280	3,970	4,030	4,600	3,970	19,200	16,800	5,670	3,490	6,760
18	6,220	5,020	4,280	4,050	4,030	4,580	4,160	23,200	16,800	5,430	3,450	6,340
19	6,700	4,690	4,280	4,140	4,050	4,600	4,670	26,600	17,000	5,310	3,370	6,070
20	6,300	4,280	4,280	4,050	3,870	4,430	4,670	28,500	17,500	6,020	3,670	5,800
21	5,740	4,340	4,390	3,970	3,810	4,370	4,370	29,200	22,600	6,580	3,850	5,400
22	5,430	4,650	4,430	3,970	3,950	4,410	4,340	29,800	24,000	5,090	4,740	5,120
23	5,640	4,830	4,450	4,010	4,090	4,470	4,340	30,800	21,000	5,450	5,020	5,190
24	5,670	4,810	4,410	4,110	4,140	4,430	4,180	32,300	19,100	5,430	4,670	5,240
25	5,400	4,850	4,470	4,180	4,160	4,430	4,050	31,000	20,600	5,330	4,280	5,160
26	5,310	4,430	4,390	4,050	4,180	4,520	4,260	28,400	20,700	5,090	3,930	5,260
27	5,330	4,470	4,340	3,970	4,090	4,560	5,400	27,400	22,200	5,640	3,670	5,190
28	5,740	4,560	4,280	4,180	4,050	4,410	7,660	27,200	24,000	5,600	3,530	5,090
29	5,720	4,340	3,910	4,090	------	4,390	9,110	27,000	23,800	5,020	3,450	5,020
30	5,870	4,300	3,710	3,650	------	4,520	7,840	25,400	19,200	4,690	3,390	4,970
31	5,600	------	3,410	3,370	------	4,470	------	26,800	------	4,410	3,570	------
TOTAL	169,060	144,970	129,850	118,430	110,330	138,330	144,130	611,320	642,900	260,360	120,510	176,670
MEAN	5,454	4,832	4,189	3,820	3,940	4,462	4,804	19,720	21,430	8,399	3,887	5,889
MAX	6,700	5,400	4,600	4,260	4,260	4,920	9,110	32,300	26,700	14,400	5,020	9,880
MIN	4,050	4,280	3,020	3,260	3,570	4,180	3,890	5,140	16,800	4,410	3,200	3,550
AC-FT	335,300	287,500	257,600	234,900	218,800	274,400	285,900	1,213M	1,275M	516,400	239,000	350,400

CAL YR 1969 TOTAL 2,255,270 MEAN 6,179 MAX 18,200 MIN 2,200 ACFT 4,473,000
WAT YR 1970 TOTAL 2,766,860 MEAN 7,580 MAX 32,300 MIN 3,020 ACFT 5,488,000

09172500 San Miguel River near Placerville, Colo.

LOCATION.--Lat 38°02'05", long 108°07'15", in NW¼SW¼ sec.30, T.44 N., R.11 W., San Miguel County, on right bank 0.7 mile downstream from Specie Creek and 4 miles northwest of Placerville.

DRAINAGE AREA.--308 sq mi.

PERIOD OF RECORD.--January to December 1909, September 1910 to December 1912, April 1930 to September 1934, April 1942 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "at Placerville," 1910-12.

GAGE.--Water-stage recorder. Datum of gage is 7,055.80 ft above mean sea level (Bureau of Reclamation bench mark). See WSP 1733 or 1924 for history of changes prior to Oct. 21, 1958.

AVERAGE DISCHARGE.--34 years (1910-12, 1930-34, 1942-70), 227 cfs (164,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,300 cfs May 4 (gage height, 5.98 ft); minimum daily, 50 cfs Feb. 2.
Period of record: Maximum discharge, 10,000 cfs Sept. 5, 1909 (result of failure of Trout and Middle Reservoir Dams); minimum daily, 26 cfs Jan. 5, 1960.

REMARKS.--Records good except those for winter period, which are fair. Diversions for irrigation of about 1,700 acres above station. One diversion from Fall Creek for irrigation of about 2,000 acres in Beaver and Saltado Creek basins. One small ditch diverts water from Leopard Creek to Uncompahgre River basin. Slight regulation by Lake Hope and Trout Lake of Western Colorado Power Co. (combined capacity, 5,040 acre-ft).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	131	127	90	70	55	67	60	248	699	562	215	218
2	122	112	92	60	50	68	55	251	713	460	210	232
3	180	108	94	60	55	68	60	494	848	450	232	208
4	158	122	94	60	60	63	57	934	848	450	280	208
5	140	114	92	60	65	65	57	1,070	608	470	250	325
6	150	112	80	60	60	60	67	1,000	538	470	235	1,270
7	160	112	85	60	65	59	79	942	556	622	245	624
8	172	112	84	60	60	60	82	699	587	544	382	460
9	180	112	80	60	60	63	90	568	574	509	271	379
10	180	120	75	65	60	67	105	562	520	509	238	326
11	168	110	75	65	65	63	122	587	532	450	215	274
12	158	107	75	70	84	60	101	580	487	410	190	334
13	142	107	75	70	67	60	103	580	460	397	181	766
14	142	103	75	65	65	60	107	620	482	379	172	669
15	160	96	75	65	59	60	103	720	492	354	185	450
16	160	97	80	65	62	63	105	820	562	334	212	370
17	152	101	80	70	60	65	122	950	629	312	210	323
18	168	101	80	70	60	60	114	1,060	664	295	326	292
19	160	103	80	65	55	62	101	1,120	744	289	268	255
20	148	110	80	65	60	59	99	961	816	306	344	232
21	155	114	75	65	65	60	103	934	768	320	366	215
22	160	122	84	65	62	60	107	970	736	397	298	222
23	160	108	92	74	62	60	110	970	784	410	283	232
24	152	105	92	68	63	62	131	856	816	323	252	222
25	142	112	89	63	63	63	190	800	961	295	225	212
26	140	107	90	70	65	60	407	808	961	271	218	190
27	140	94	90	67	65	60	574	768	961	262	218	188
28	152	90	79	68	63	55	465	744	898	268	200	181
29	148	96	70	67	------	60	316	664	744	248	192	178
30	148	84	75	65	------	60	277	678	643	238	192	195
31	129	------	70	60	------	60	------	752	------	232	210	------
TOTAL	4,757	3,218	2,547	2,017	1,735	1,912	4,469	23,710	20,631	11,836	7,515	10,250
MEAN	153	107	82.2	65.1	62.0	61.7	149	765	688	382	242	342
MAX	180	127	94	74	84	68	574	1,120	961	622	382	1,270
MIN	122	84	70	60	50	55	55	248	460	232	172	178
AC-FT	9,440	6,380	5,050	4,000	3,440	3,790	8,860	47,030	40,920	23,480	14,910	20,330

CAL YR 1969 TOTAL 78,780 MEAN 216 MAX 889 MIN 42 ACFT 156,300
WAT YR 1970 TOTAL 94,597 MEAN 259 MAX 1,270 MIN 50 ACFT 187,600

PEAK DISCHARGE (BASE, 900 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
5- 4	2100	5.98	2,300	9- 6	0500	5.56	1,880
6-26	0100	5.02	1,170	9-13	2130	4.76	997

09175500 San Miguel River at Naturita, Colo.

LOCATION.--Lat 38°13'05", long 108°33'55", in NE¼NW¼ sec.30, T.46 N., R.15 W., Montrose County, on left bank 20 ft downstream from bridge on State Highway 97 in Naturita and 1.2 miles downstream from Naturita Creek.

DRAINAGE AREA.--1,080 sq mi, approximately.

PERIOD OF RECORD.--October 1917 to September 1929, May 1940 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder. Datum of gage is 5,392.85 ft above mean sea level. Apr. 26, 1918, to Sept. 2, 1926, nonrecording gage and Sept. 3, 1926, to Sept. 30, 1929, water-stage recorder, at same site at different datums. Oct. 1, 1940, to Dec. 9, 1941, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--42 years, 340 cfs (246,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,770 cfs May 5 (gage height, 7.80 ft); minimum daily, 43 cfs Mar. 1.
Period of record: Maximum discharge, 7,100 cfs Apr. 15, 1942 (gage height, 9.80 ft), from rating curve extended above 3,800 cfs; minimum daily, 5.8 cfs Sept. 25-28, 30, 1956.

REMARKS.--Records good. Natural flow of stream affected by storage reservoirs, diversions for irrigation of about 22,000 acres above station and 4,000 acres below, and return flow from irrigated areas. Records of chemical analyses and water temperatures for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	100	175	106	95	103	43	106	635	856	660	145	143
2	99	155	112	88	76	56	99	582	825	514	118	167
3	141	150	118	85	89	58	106	932	866	456	136	151
4	193	160	132	85	88	101	101	2,360	949	442	183	125
5	191	150	132	85	100	101	101	3,120	770	478	237	671
6	173	150	120	85	89	97	106	2,820	650	478	181	1,610
7	181	143	110	85	103	93	127	2,780	655	650	165	848
8	191	143	118	85	94	97	157	1,890	695	596	307	514
9	200	149	112	85	94	103	191	1,360	755	537	242	402
10	205	149	110	85	93	106	274	1,170	660	555	186	327
11	218	155	110	90	99	110	380	1,330	745	488	149	248
12	205	132	100	95	101	101	254	1,270	710	416	121	336
13	181	134	100	100	117	99	225	1,260	600	388	101	1,420
14	175	103	112	95	113	100	205	1,320	568	375	94	985
15	191	84	107	95	96	107	210	1,380	568	327	96	655
16	193	84	109	99	90	113	210	1,460	578	303	123	519
17	200	90	106	97	96	115	264	1,500	635	274	137	442
18	193	97	110	115	100	107	254	1,620	710	245	297	388
19	220	121	110	90	86	101	220	1,720	775	225	230	327
20	191	120	120	90	83	101	200	1,550	861	239	322	274
21	186	141	109	92	99	101	203	1,500	861	242	569	239
22	203	161	113	93	100	101	198	1,410	800	335	438	236
23	205	153	115	97	96	97	215	1,360	835	384	326	260
24	198	141	127	96	97	104	281	1,250	835	323	222	248
25	188	137	120	90	96	109	610	1,170	949	225	179	222
26	179	136	121	89	86	103	1,340	1,120	1,030	225	157	195
27	175	130	123	92	86	103	2,210	1,040	954	183	149	183
28	183	115	109	97	62	96	1,830	972	1,010	198	139	179
29	200	121	100	86	------	103	1,020	910	888	177	118	171
30	188	127	107	60	------	107	800	840	760	161	110	177
31	177	------	97	76	------	112	------	910	------	153	127	------
TOTAL	5,723	4,006	3,495	2,797	2,632	3,045	12,497	44,541	23,353	11,252	6,104	12,662
MEAN	185	134	113	90.2	94.0	98.2	417	1,437	778	363	197	422
MAX	220	175	132	115	117	115	2,210	3,120	1,030	660	569	1,610
MIN	99	84	97	60	62	43	99	582	568	153	94	125
AC-FT	11,350	7,950	6,930	5,550	5,220	6,040	24,790	88,350	46,320	22,320	12,110	25,120

CAL YR 1969 TOTAL 95,628 MEAN 262 MAX 1,100 MIN 22 ACFT 189,700
WAT YR 1970 TOTAL 132,107 MEAN 362 MAX 3,120 MIN 43 ACFT 262,000

PEAK DISCHARGE (BASE, 1,800 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
4-27	2400	6.20	3,290	9- 5	2300	5.46	2,380
5- 5	0200	7.80	5,770	9-13	0630	5.63	2,620

09175900 Dry Creek near Naturita, Colo.

LOCATION.--Lat 38°05'32", long 108°37'17", in NE¼NW¼ sec.10, T.44 N., R.16 W., San Miguel County, on right bank 50 ft upstream from ford, 0.3 mile upstream from unnamed tributary, 1.2 miles downstream from Dead Horse Creek, 5 miles northwest of Basin, and 14 miles south of Naturita.

DRAINAGE AREA.--85.9 sq mi.

PERIOD OF RECORD.--July 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,270 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 5,660 cfs Sept. 5 (gage height, 8.31 ft), from rating curve extended as explained below; no flow for many days.
Period of record: Maximum discharge, 5,660 cfs Sept. 5, 1970 (gage height, 8.31 ft), from rating curve extended above 140 cfs on basis of slope-area measurements at gage heights 4.57 and 8.31 ft; no flow for many days each year.

REMARKS.--Records fair. Diversions for irrigation above station. Water is imported above station from Naturita Creek.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.8	.22			0	.40	.82	.58	.46	0	0	1.3
2	2.6	.06			0	.40	.82	.32	.37	0	0	2.8
3	17	.02			0	.80	2.4	.53	.28	0	3.4	.22
4	9.0	0			.10	1.0	2.1	5.0	.22	0	3.5	.07
5	3.9	0			.20	.94	2.3	11	.19	0	.89	1,030
6	1.5	.01			.30	.70	3.3	15	1.8	0	.15	106
7	.50	.01			.40	.64	5.2	24	1.0	0	.03	2.8
8	.02	.01			.60	.64	4.0	15	5.2	0	0	.94
9	0	.09			.70	.64	5.5	12	3.0	25	0	.46
10	.01	.16			.80	1.3	7.9	8.8	1.9	54	0	.28
11	.31	.08			.90	1.3	9.0	21	13	16	0	.16
12	.52	.04			1.2	.88	4.1	31	4.2	7.0	0	90
13	.16	.02			1.4	.76	2.6	18	2.4	3.0	0	415
14	.06	.04			1.0	.64	2.3	24	1.4	1.0	0	9.6
15	.05	.28			.80	1.1	3.0	26	.82	2.0	0	2.4
16	.05	.46			.70	1.6	2.9	15	.43	0	0	.52
17	.05	.46			.80	2.4	3.0	28	.17	0	0	.28
18	.02	.34			.60	.52	2.8	21	.07	0	0	.19
19	1.6	.13			.10	.34	2.2	19	.07	0	29	.09
20	.25	.06			.10	.70	2.4	15	.04	0	9.1	.06
21	.16	.04			.20	.40	2.6	12	.04	0	3.8	.05
22	.31	.06			.30	.46	2.0	8.2	.02	.65	.36	.06
23	1.1	.07			.30	.50	2.4	6.1	.02	.04	.05	.04
24	.31	.05			.30	.69	3.6	5.6	.02	0	.04	.02
25	.22	.03			.30	.40	6.0	4.6	.02	0	.02	.01
26	.19	.03			.30	.34	9.0	3.7	0	0	0	.01
27	.10	.02			.30	.37	9.0	2.0	0	0	0	.01
28	.16	.01			.30	.31	8.0	1.8	0	0	0	.01
29	.58	0			------	.82	4.4	2.4	0	0	0	.01
30	.37	0			------	.94	3.1	1.4	0	0	21	.01
31	.25	------			------	1.4	------	.76	------	0	6.6	------
TOTAL	49.15	2.80	0	0	13.00	24.33	118.74	358.79	37.14	108.69	77.94	1,663.40
MEAN	1.59	.093	0	0	.46	.78	3.96	11.6	1.24	3.51	2.51	55.4
MAX	17	.46	0	0	1.4	2.4	9.0	31	13	54	29	1,030
MIN	0	0	0	0	0	.31	.82	.32	0	0	0	.01
AC-FT	97	5.6	0	0	26	48	236	712	74	216	155	3,300

CAL YR 1969 TOTAL 860.35 MEAN 2.36 MAX 47 MIN 0 ACFT 1,710
WAT YR 1970 TOTAL 2,453.98 MEAN 6.72 MAX 1,030 MIN 0 ACFT 4,870

PEAK DISCHARGE (BASE, 300 CFS).--Sept. 5 (2130) 5,660 cfs (8.31 ft); Sept. 13 (0200) 3,240 cfs (7.17 ft).

NOTE.--No gage-height record Dec. 3 to Mar. 3.

09108500 Taylor Park Reservoir at Taylor Park, Colo.

LOCATION.--Lat 38°49'05", long 106°36'15", in sec.24, T.14 S., R.83 W., Gunnison County, at dam on Taylor River just downstream from Taylor Park, 17 miles northeast of Almont.

DRAINAGE AREA.--254 sq mi.

PERIOD OF RECORD.--October 1937 to current year. Prior to October 1938, published in WSP 1313.

GAGE.--Nonrecording gage read once or twice daily. Datum of gage is 9,187 ft above mean sea level (Bureau of Reclamation bench mark); gage readings have been reduced to elevations above mean sea level.

EXTREMES.--Current year: Maximum contents observed, 109,200 acre-ft June 27-30 (elevation, 9,331.40 ft); minimum, 48,390 acre-ft May 10 (elevation, 9,294.60 ft).
Period of record: Maximum contents observed, 111,000 acre-ft July 1, 1957 (elevation, 9,332.35 ft); minimum (after first filling), 8,780 acre-ft Oct. 19, 20, 1956 (elevation, 9,240.70 ft).

REMARKS.--Reservoir is formed by an earth- and rock-fill dam. Dam completed by Bureau of Reclamation in September 1937. Capacity of reservoir, 106,200 acre-ft between elevations 9,187 (bottom of outlet gates) and 9,330 ft (crest of spillway). No dead storage. Water used for irrigation in Uncompahgre Valley. Figures given herein are usable contents.

COOPERATION.--Records furnished by Uncompahgre Valley Water Users Association.

REVISIONS (WATER YEARS).--WSP 1089: 1940(m), 1942(M), 1945-46. WSP 1924: Drainage area.

MONTH-END ELEVATION AND CONTENTS AT 0800, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DATE	ELEVATION (FEET)	CONTENTS (ACRE-FEET)	CHANGE IN CONTENTS (ACRE-FEET)
Sept. 30	9,322.80	91,960	-
Oct. 31	9,317.80	83,110	-8,850
Nov. 30	9,319.70	86,420	+3,310
Dec. 31	9,322.00	90,500	+4,080
CAL YR 1969	-	-	+54,200
Jan. 31	9,324.20	94,560	+4,060
Feb. 28	9,325.80	97,640	+3,080
Mar. 31	9,320.90	88,540	-9,100
Apr. 30	9,297.80	52,380	-36,160
May 31	9,316.90	81,550	+29,170
June 30	9,331.40	109,200	+27,650
July 31	9,331.00	108,300	-900
Aug. 31	9,330.20	106,600	-1,700
Sept. 30	9,329.60	105,400	-1,200
WTR YR 1970	-	-	+13,440

09109000 Taylor River below Taylor Park Reservoir, Colo.

LOCATION (revised).--Lat 38°49'06", long 106°36'31", Gunnison County, on left bank 1,000 ft downstream from Taylor Park Reservoir Dam, 3.4 miles upstream from Lottis Creek, and 16 miles northeast of Almont.

DRAINAGE AREA.--254 sq mi.

PERIOD OF RECORD.--June 1929 to September 1934 (monthly discharge only, published in WSP 1313), October 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 9,169.67 ft above mean sea level (Bureau of Reclamation bench mark). Prior to Nov. 11, 1952, at site 1,600 ft (revised) downstream at datum 1.00 ft lower. Oct. 15, 1946, to May 4, 1952, supplementary nonrecording gage just downstream from reservoir outlet at different sites and datums used during winter months.

AVERAGE DISCHARGE.--5 years (1929-34), 156 cfs (113,000 acre-ft per year); 32 years (1938-70), 193 cfs, unadjusted (139,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 806 cfs June 25 (gage height, 5.37 ft); minimum daily, 19 cfs Nov. 30 to Dec. 9.
Period of record: Maximum discharge, 2,270 cfs July 1, 1957 (gage height, 7.56 ft); no flow May 1 to July 3, 1940, May 7-22, 1942, May 5-21, 1943.

REMARKS.--Records good. Flow regulated by Taylor Park Reservoir (see sta. 09108500) since 1937. One small diversion for irrigation from Willow Creek above reservoir.

REVISIONS.--WSP 1924: Drainage area.

DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	293	238	19	21	21	26	628	606	190	684	200	328
2	293	192	19	21	21	26	628	560	210	616	190	342
3	293	145	19	21	21	27	624	560	276	564	190	342
4	293	102	19	21	21	27	620	560	276	540	185	342
5	293	75	19	21	21	27	616	564	276	524	185	342
6	293	51	19	21	22	28	620	564	276	540	188	342
7	293	35	19	21	22	29	623	564	276	536	195	342
8	293	24	19	21	22	30	684	564	276	532	214	213
9	293	26	19	21	22	32	680	564	276	544	214	94
10	293	26	20	21	22	34	676	564	276	544	188	96
11	293	26	20	21	23	36	676	568	276	500	166	339
12	293	26	20	21	23	38	672	572	276	460	153	576
13	293	26	20	21	23	43	660	533	272	422	145	374
14	293	22	20	21	23	45	668	275	272	391	137	109
15	293	20	20	21	23	47	668	188	272	366	157	200
16	290	21	20	21	23	49	664	185	272	342	250	259
17	290	21	20	21	24	54	664	188	272	328	244	282
18	290	21	20	21	24	66	664	190	272	328	217	534
19	290	21	20	21	24	74	664	192	272	349	198	725
20	290	21	20	21	24	126	664	192	272	338	217	472
21	290	21	20	21	24	239	664	185	272	318	235	102
22	290	21	20	21	24	330	660	178	286	318	250	103
23	290	21	20	21	25	408	656	180	480	321	259	105
24	290	21	20	21	25	480	656	182	672	304	253	128
25	290	21	20	21	25	559	656	182	715	276	259	440
26	290	21	20	21	25	600	656	182	730	282	265	716
27	290	20	20	21	25	616	656	185	779	282	279	450
28	290	20	21	21	26	612	660	188	774	268	279	96
29	290	20	21	21	------	620	656	190	788	250	276	96
30	290	19	21	21	------	628	656	190	766	229	290	96
31	290	------	21	21	------	632	------	190	------	211	293	------
TOTAL	9,035	1,344	615	651	648	6,588	19,639	10,785	11,598	12,507	6,771	8,985
MEAN	291	44.8	19.8	21.0	23.1	213	655	348	387	403	218	300
MAX	293	238	21	21	26	632	684	606	788	684	293	725
MIN	290	19	19	21	21	26	616	178	190	211	137	94
AC-FT	17,920	2,670	1,220	1,290	1,290	13,070	38,950	21,390	23,000	24,810	13,430	17,820

CAL YR 1969 TOTAL 55,535 MEAN 152 MAX 628 MIN 19 ACFT 110,200
WAT YR 1970 TOTAL 89,166 MEAN 244 MAX 788 MIN 19 ACFT 176,900

NOTE.--No gage-height record Nov. 27 to Mar. 11.

09110000 Taylor River at Almont, Colo.

LOCATION.--Lat 38°39'55", long 106°50'40", in SE¼ sec.22, T.51 N., R.1 E., Gunnison County, on left bank at Almont, 15 ft downstream from bridge on State Highway 306 and 800 ft upstream from confluence with East River.

DRAINAGE AREA.--477 sq mi.

PERIOD OF RECORD.--July 1910 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder. Datum of gage is 8,010.76 ft above mean sea level. Prior to Apr. 16, 1922, non-recording gage at same site and datum.

AVERAGE DISCHARGE.--60 years, 340 cfs (246,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,320 cfs May 12 (gage height, 3.38 ft); minimum daily, 68 cfs Dec. 29.
Period of record: Maximum discharge observed, 3,760 cfs June 9, 1920, from rating curve extended above 2,300 cfs; maximum gage height, 5.32 ft July 1, 1957; minimum discharge observed before storage began in Taylor Park Reservoir, 50 cfs for several days in August 1913 (gage height, 1.2 ft); minimum daily, 24 cfs Mar. 12, 1938.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Flow regulated since September 1937 by Taylor Park Reservoir (see sta 09108500), 24 miles above station. Diversions for irrigation of about 360 acres above station.

REVISIONS (WATER YEAR).--WSP 1213: 1911. WSP 1924: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	385	355	85	85	75	75	697	782	775	978	345	470
2	380	278	90	85	80	75	697	723	762	876	330	495
3	410	270	90	85	80	70	697	749	828	812	326	490
4	405	218	90	80	80	70	697	798	820	790	335	480
5	395	171	90	80	75	70	697	858	775	782	326	495
6	395	130	90	75	80	70	697	926	762	812	322	623
7	400	121	85	75	80	70	697	969	749	798	335	540
8	400	93	80	80	75	75	782	969	775	782	350	455
9	400	93	80	80	75	80	790	926	768	782	355	258
10	405	93	90	80	80	75	805	935	805	762	340	246
11	400	91	90	80	80	75	798	1,050	805	704	330	365
12	395	91	95	80	80	75	782	1,120	736	658	304	723
13	395	89	90	80	85	89	790	1,080	704	618	294	842
14	395	89	90	75	85	97	790	820	704	579	278	440
15	400	84	85	75	80	99	790	697	716	546	294	425
16	395	85	85	75	80	103	798	723	710	515	430	460
17	400	82	80	75	80	103	812	820	723	500	415	465
18	400	80	90	75	85	109	812	901	723	495	380	625
19	395	80	80	80	80	107	805	969	730	530	355	910
20	390	85	80	80	75	142	798	978	723	515	375	788
21	390	90	80	75	80	299	798	986	736	485	430	274
22	395	90	85	75	80	465	798	994	762	480	490	282
23	390	90	85	80	85	520	798	994	910	490	475	282
24	390	90	85	80	85	579	798	969	1,080	475	435	290
25	390	90	85	75	85	634	820	944	1,120	445	435	475
26	390	85	85	75	82	678	850	969	1,100	430	420	884
27	390	85	80	80	80	690	876	952	1,140	430	425	736
28	390	85	75	80	80	684	867	910	1,130	420	430	246
29	385	85	68	75	------	684	842	850	1,140	410	420	238
30	385	85	75	70	------	684	835	828	1,100	385	435	226
31	385	------	80	70	------	690	------	828	------	370	460	------
TOTAL	12,220	3,553	2,608	2,415	2,247	8,336	23,513	28,017	25,311	18,654	11,674	14,529
MEAN	394	118	84.1	77.9	80.3	269	784	904	844	602	377	484
MAX	410	355	95	85	85	690	876	1,120	1,140	978	490	910
MIN	380	80	68	70	75	70	697	697	704	370	278	226
AC-FT	24,240	7,050	5,170	4,790	4,460	16,530	46,640	55,570	50,200	37,000	23,160	28,820

CAL YR 1969 TOTAL 104,695 MEAN 287 MAX 892 MIN 68 ACFT 207,700
WAT YR 1970 TOTAL 153,076 MEAN 419 MAX 1,140 MIN 68 ACFT 303,600

NOTE.--No gage-height record Nov. 18 to Mar. 12.

09112200 East River below Cement Creek, near Crested Butte, Colo.

LOCATION.--Lat 38°47'24", long 106°52'21", in sec.34, T.14 S., R.85 W., Gunnison County, on left bank at downstream side of private bridge, 1.1 miles downstream from Cement Creek and 8 miles southeast of Crested Butte.

DRAINAGE AREA.--235 sq mi.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,450 ft (from topographic map).

AVERAGE DISCHARGE.--7 years, 330 cfs (239,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,300 cfs May 27 (gage height, 7.73 ft); minimum daily, 55 cfs Mar. 19.
Period of record: Maximum discharge, 2,650 cfs June 21, 1965 (gage height, 7.96 ft); minimum daily, 38 cfs Jan. 14, 1964.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 4,500 acres above and below station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	146	148	102	70	65	65	63	218	1,560	964	233	182
2	133	119	102	75	70	65	62	242	1,430	857	227	194
3	159	109	100	75	68	65	66	300	1,500	840	230	169
4	159	126	95	75	70	66	66	432	1,610	801	239	164
5	148	126	95	80	70	67	63	604	1,450	790	227	200
6	144	126	85	70	70	65	68	801	1,450	790	218	524
7	148	117	90	65	71	65	74	938	1,470	938	221	300
8	155	119	80	65	74	65	76	957	1,530	845	230	251
9	157	119	80	65	65	70	77	845	1,420	790	221	227
10	169	124	91	70	65	70	88	869	1,510	730	200	206
11	167	113	91	75	70	65	90	1,380	1,350	670	191	188
12	150	115	93	75	65	60	86	1,270	1,100	608	194	203
13	150	111	90	70	65	65	88	1,450	970	554	194	709
14	146	100	90	65	65	70	91	1,410	1,020	509	177	586
15	159	100	86	65	65	70	88	1,270	1,080	476	194	420
16	150	122	80	65	70	65	88	1,420	1,100	440	215	334
17	162	106	80	65	70	65	96	1,760	1,180	404	185	269
18	159	72	75	70	65	60	98	2,040	1,300	448	177	245
19	159	80	75	70	65	55	94	2,100	1,450	492	191	236
20	146	90	75	65	65	60	88	1,980	1,530	404	230	224
21	146	104	75	65	70	60	93	2,040	1,600	370	212	209
22	152	107	75	65	65	60	93	2,140	1,700	356	218	224
23	146	98	75	65	65	60	91	2,130	1,700	362	206	212
24	141	93	75	65	65	65	88	2,070	1,640	342	180	203
25	144	96	70	65	65	70	102	1,990	1,590	310	169	188
26	141	96	75	70	65	65	137	2,140	1,530	317	159	194
27	150	90	75	70	65	60	203	2,160	1,410	300	164	215
28	157	80	70	65	65	60	230	2,120	1,400	282	177	194
29	146	90	70	60	------	70	215	1,860	1,350	263	164	182
30	146	100	65	60	------	70	212	1,720	1,120	254	159	177
31	130	------	65	60	------	66	------	1,750	------	248	177	------
TOTAL	4,665	3,196	2,545	2,105	1,878	2,004	3,074	44,406	42,050	16,754	6,179	7,829
MEAN	150	107	82.1	67.9	67.1	64.6	102	1,432	1,402	540	199	261
MAX	169	148	102	80	74	70	230	2,160	1,700	964	239	709
MIN	130	72	65	60	65	55	62	218	970	248	159	164
AC-FT	9,250	6,340	5,050	4,180	3,730	3,970	6,100	88,080	83,410	33,230	12,260	15,530

CAL YR 1969 TOTAL 126,360 MEAN 346 MAX 1,730 MIN 48 ACFT 250,600
WAT YR 1970 TOTAL 136,685 MEAN 374 MAX 2,160 MIN 55 ACFT 271,100

PEAK DISCHARGE (BASE, 1,500 CFS).--May 27 (0430) 2300 cfs (7.73 ft); June 23 (0300) 1770 cfs (7.27 ft).

NOTE.--No gage-height record Dec. 29 to Feb. 2.

09112500 East River at Almont, Colo.

LOCATION.--Lat 38°39'57", long 106°50'50", in SE¼ sec.22, T.51 N., R.1 E., Gunnison County, on left bank at Almont, 200 ft upstream from bridge on State Highway 135 and 400 ft upstream from confluence with Taylor River.

DRAINAGE AREA.--289 sq mi.

PERIOD OF RECORD.--April to October 1905, July 1910 to September 1922, October 1934 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder. Datum of gage is 8,006.29 ft above mean sea level. Apr. 16 to Sept. 30, 1905, and July 27, 1910, to Apr. 30, 1922, nonrecording gages at bridge 200 ft downstream at different datums. Oct. 1, 1934, to Sept. 22, 1954, water-stage recorder at present site at datum 2.00 ft higher.

AVERAGE DISCHARGE.--48 years, 342 cfs (247,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,500 cfs May 19 (gage height, 6.13 ft); minimum daily, 53 cfs Mar. 19.
Period of record: Maximum discharge observed, 6,500 cfs June 15, 1921 (gage height, 6.6 ft, site and datum then in use), from rating curve extended above 3,000 cfs; minimum daily, 19 cfs Aug. 13, 1913.

REMARKS.--Records good except those for winter period, which are fair. Diversions for irrigation of about 7,400 acres above station.

REVISIONS (WATER YEARS).--WSP 1213: 1911. WSP 1733: 1952. WRD Colo. 1966: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	134	161	92	70	70	70	62	238	1,580	1,020	260	179
2	125	128	98	75	75	72	60	266	1,440	876	249	194
3	155	125	95	80	83	72	62	319	1,510	811	246	176
4	164	137	95	80	75	70	60	427	1,640	804	256	170
5	149	131	95	80	75	70	60	595	1,480	762	249	194
6	143	128	80	70	75	65	68	846	1,490	762	232	473
7	149	128	92	65	72	65	78	1,040	1,510	916	232	312
8	152	125	75	65	72	70	86	1,050	1,600	860	238	263
9	155	125	75	65	72	75	104	900	1,560	811	218	235
10	167	128	83	70	72	75	125	916	1,600	720	204	210
11	167	116	89	75	75	72	131	1,260	1,510	648	194	194
12	155	116	95	75	72	58	110	1,570	1,190	590	191	197
13	152	116	92	75	70	62	101	1,650	972	525	204	668
14	143	110	92	70	70	72	113	1,610	996	473	185	580
15	161	104	86	65	70	72	101	1,440	1,080	439	197	415
16	155	131	83	65	72	68	104	1,550	1,080	415	221	344
17	170	119	83	70	72	68	140	1,920	1,160	387	194	291
18	170	78	80	70	70	65	140	2,230	1,290	399	185	252
19	167	89	80	70	72	53	119	2,280	1,430	451	182	246
20	146	107	83	70	72	58	110	2,060	1,550	383	232	232
21	149	110	80	65	75	58	116	2,100	1,640	354	210	214
22	161	116	78	65	72	62	116	2,160	1,710	354	218	224
23	152	104	75	65	70	60	110	2,160	1,740	368	210	221
24	143	92	80	70	70	65	107	2,010	1,740	347	191	207
25	146	92	70	68	70	68	131	1,860	1,680	326	176	194
26	149	95	78	68	70	58	179	2,020	1,630	322	170	194
27	152	86	78	72	70	62	249	2,090	1,520	312	167	221
28	164	80	72	65	70	58	277	2,110	1,490	294	185	204
29	158	86	70	60	------	65	249	1,830	1,470	288	173	194
30	158	92	70	60	------	65	242	1,690	1,230	277	164	185
31	140	------	70	65	------	65	------	1,760	------	266	176	------
TOTAL	4,751	3,355	2,564	2,148	2,023	2,038	3,710	45,957	43,518	16,560	6,409	7,883
MEAN	153	112	82.7	69.3	72.3	65.7	124	1,482	1,451	534	207	263
MAX	170	161	98	80	83	75	277	2,280	1,740	1,020	260	668
MIN	125	78	70	60	70	53	60	238	972	266	164	170
AC-FT	9,420	6,650	5,090	4,260	4,010	4,040	7,360	91,160	86,320	32,850	12,710	15,640

CAL YR 1969 TOTAL 128,984 MEAN 353 MAX 1,870 MIN 46 ACFT 255,800
WAT YR 1970 TOTAL 140,916 MEAN 386 MAX 2,280 MIN 53 ACFT 279,500

PEAK DISCHARGE (BASE, 1,600 CFS).--May 19 (0300) 2,500 cfs (6.13 ft); June 23 (0500) 1,850 cfs (5.35 ft).

09113300 Ohio Creek at Baldwin, Colo.

LOCATION.--Lat 38°45'56", long 107°03'28", in NE¼ sec.12, T.15 S., R.87 W., Gunnison County, on left bank 0.2 mile downstream from Castle Creek, and 0.8 mile northwest of Baldwin.

DRAINAGE AREA.--47.2 sq mi.

PERIOD OF RECORD.--October 1958 to September 1970 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 8,600 ft (from topographic map).

AVERAGE DISCHARGE.--12 years, 47.6 cfs (34,490 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 683 cfs May 18 (gage height, 3.62 ft); minimum daily, 7.0 cfs Jan. 31.
Period of record: Maximum discharge, 683 cfs May 18, 1970 (gage height, 3.62 ft); maximum gage height, 3.84 ft Mar. 24, 1968 (backwater from ice); minimum daily discharge determined, 3.8 cfs July 29, 1963.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 580 acres of hay meadows. Two diversions above station for irrigation of about 1,000 acres below station.

REVISIONS (WATER YEARS).--WSP 1713: 1959. WRD Colo. 1967: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	21	13	9.5	7.5	9.5	11	40	246	111	14	27
2	17	18	12	10	8.0	10	10	47	232	102	14	30
3	25	18	12	10	8.5	10	10	62	243	101	14	24
4	24	22	13	11	9.0	9.5	10	106	257	101	18	26
5	22	22	13	12	9.5	9.0	11	150	200	99	18	49
6	22	22	12	11	10	9.0	11	180	197	95	25	108
7	23	22	11	12	9.5	9.5	11	203	209	102	30	50
8	24	22	11	12	9.5	10	12	182	229	99	34	40
9	24	23	11	12	9.5	11	14	162	229	89	30	35
10	27	18	12	12	9.5	11	17	170	246	81	26	31
11	26	19	12	12	10	11	16	243	194	75	24	28
12	24	18	12	12	10	10	15	305	152	73	22	53
13	24	18	12	12	10	11	14	325	131	66	21	222
14	24	17	11	11	10	11	14	282	140	61	20	87
15	25	17	11	11	9.5	11	14	257	162	57	26	65
16	24	19	10	11	9.5	11	14	321	175	54	25	53
17	25	17	10	11	9.5	10	15	420	191	52	23	47
18	25	13	10	10	9.0	10	15	450	212	66	23	41
19	24	14	10	10	8.5	11	13	470	229	55	47	38
20	23	15	11	10	8.5	10	12	460	212	49	44	34
21	24	16	12	10	9.5	9.5	12	445	212	44	40	32
22	23	17	11	10	9.5	10	13	410	229	44	32	35
23	22	17	11	9.5	9.0	11	13	415	240	45	28	32
24	22	16	12	9.0	9.0	11	14	390	218	36	25	29
25	22	16	12	8.5	9.5	11	21	390	209	34	23	27
26	22	15	12	8.0	9.5	11	33	400	200	35	22	24
27	23	14	11	8.0	9.0	11	60	380	180	30	23	24
28	22	13	10	8.0	9.0	11	67	356	185	26	24	24
29	23	13	10	8.0	------	10	53	301	162	20	21	23
30	23	14	9.5	8.0	------	10	45	289	129	18	34	22
31	23	------	9.5	7.0	------	10	------	282	------	15	30	------
TOTAL	720	526	349.0	315.5	259.0	320.0	590	8,893	6,050	1,935	800	1,360
MEAN	23.2	17.5	11.3	10.2	9.25	10.3	19.7	287	202	62.4	25.8	45.3
MAX	27	23	13	12	10	11	67	470	257	111	47	222
MIN	17	13	9.5	7.0	7.5	9.0	10	40	129	15	14	22
AC-FT	1,430	1,040	692	626	514	635	1,170	17,640	12,000	3,840	1,590	2,700

CAL YR 1969 TOTAL 21,019.9 MEAN 57.6 MAX 348 MIN 6.4 ACFT 41,690
WAT YR 1970 TOTAL 22,117.5 MEAN 60.6 MAX 470 MIN 7.0 ACFT 43,870

PEAK DISCHARGE (BASE, 300 CFS).--May 18 (1900) 683 cfs (3.62 ft); Sept. 13 (0400) 395 cfs (3.03 ft).

NOTE.--No gage-height record Nov. 30 to Mar. 11.

09113500 Ohio Creek near Baldwin, Colo.

LOCATION.--Lat 38°42'08", long 106°59'52", in NE¼SE¼, sec.33, T.15 S., R.86 W., Gunnison County, on right bank 600 ft upstream from bridge, 800 ft downstream from Mill Creek, 5.5 miles southeast of Baldwin, and 11 miles upstream from mouth.

DRAINAGE AREA.--121 sq mi.

PERIOD OF RECORD.--April 1940 to September 1950, October 1958 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder. Altitude of gage is 8,230 ft (from topographic map). Prior to Apr. 3, 1942, non-recording gage at present site and datum. Apr. 3, 1942, to Sept. 30, 1950, water-stage recorder at present site and datum.

AVERAGE DISCHARGE.--22 years, 89.0 cfs (64,480 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,140 cfs May 17 (gage height, 3.78 ft); minimum daily, 11 cfs Jan. 29, 30.
Period of record: Maximum discharge, 1,260 cfs May 19, 1948 (gage height, 4.65 ft), from rating curve extended above 560 cfs; minimum daily, 6.9 cfs Sept. 12, 1960.
Floods in May 1952 and June 1957 reached a stage of 5.5 ft, from floodmarks (discharge, about 1,500 cfs).

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of 3,850 acres above station.

REVISIONS.--WRD Colo. 1967: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	36	24	16	16	17	17	149	449	195	45	46
2	22	29	24	18	17	18	17	183	399	174	46	51
3	36	29	26	22	16	18	18	281	399	165	49	39
4	34	38	26	27	16	17	19	358	406	168	56	40
5	32	37	24	25	17	16	21	409	331	168	58	62
6	32	35	24	25	17	16	22	476	328	159	58	181
7	35	35	24	29	16	17	28	494	343	157	63	74
8	36	33	24	27	16	18	29	445	374	159	67	59
9	35	35	25	27	16	19	32	393	358	170	58	52
10	43	32	24	28	17	20	38	409	442	155	50	48
11	41	30	24	28	18	20	37	536	387	155	43	43
12	37	29	25	27	18	18	35	614	307	136	40	74
13	36	30	22	24	18	20	34	688	256	116	39	299
14	33	28	21	22	18	19	33	630	262	102	36	136
15	38	28	19	20	17	19	30	569	276	97	52	97
16	32	31	19	19	17	19	37	633	284	96	51	80
17	36	25	18	19	17	19	50	800	302	90	42	68
18	38	22	19	19	16	19	53	880	316	115	40	62
19	36	24	19	18	15	20	38	888	328	109	60	56
20	34	28	22	17	15	19	32	804	316	88	74	51
21	37	30	22	16	17	18	32	808	331	78	70	48
22	37	32	22	13	17	18	31	852	334	84	57	52
23	37	32	21	13	16	20	32	756	343	87	50	48
24	37	30	22	12	16	20	42	684	343	70	43	43
25	38	28	21	12	17	20	74	626	331	64	39	40
26	38	26	21	12	17	20	130	649	316	70	38	39
27	40	24	22	12	16	20	214	641	299	74	40	39
28	40	24	20	12	16	20	195	614	293	67	42	38
29	39	26	18	11	------	19	155	566	284	58	37	37
30	38	26	17	11	------	18	147	536	232	53	47	36
31	37	------	17	13	------	17	------	515	------	50	57	------
TOTAL	1,110	892	676	594	465	578	1,672	17,886	9,969	3,529	1,547	2,038
MEAN	35.8	29.7	21.8	19.2	16.6	18.6	55.7	577	332	114	49.9	67.9
MAX	43	38	26	29	18	20	214	888	449	195	74	299
MIN	22	22	17	11	15	16	17	149	232	50	36	36
AC-FT	2,200	1,770	1,340	1,180	922	1,150	3,320	35,480	19,770	7,000	3,070	4,040

CAL YR 1969 TOTAL 36,076 MEAN 98.8 MAX 525 MIN 11 ACFT 71,560
WAT YR 1970 TOTAL 40,956 MEAN 112 MAX 888 MIN 11 ACFT 81,240

PEAK DISCHARGE (BASE, 450 CFS).--May 17 (2330) 1,140 cfs (3.78 ft); Sept. 13 (0400) 462 cfs (2.25 ft).

NOTE.--No gage-height record Jan. 30 to Mar. 11.

09114500 Gunnison River near Gunnison, Colo.

LOCATION.--Lat 38°32'31", long 106°56'57", in NW¼NW¼ sec.2, T.49 N., R.1 W., Gunnison County, on right bank 0.7 mile downstream from Antelope Creek and 1.2 miles west of Gunnison. Prior to July 29, 1970, at site 0.4 mile upstream.

DRAINAGE AREA.--1,012 sq mi.

PERIOD OF RECORD.--October 1910 to December 1928, October 1944 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder. Altitude of gage is 7,655 ft (from topographic map). Nov. 25, 1910, to Dec. 31, 1928, nonrecording gages (supplementary water-stage recorder Apr. 28, 1916, to June 17, 1918) at bridge about 0.6 mile downstream at various datums. Oct. 1, 1944, to July 28, 1970, water-stage recorder at sites 0.4 mile upstream at different datum.

AVERAGE DISCHARGE.--44 years, 779 cfs (564,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,420 cfs May 19 (gage height, 4.73 ft); minimum daily, 160 cfs Jan. 30.
Period of record: Maximum discharge observed, 11,400 cfs June 13, 1918 (gage height, 4.05 ft, site and datum then in use), from rating curve extended above 5,000 cfs; minimum daily, 80 cfs Dec. 27, 1962.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by Taylor Park Reservoir (see sta. 09108500), 37 miles above station. Diversions for irrigation of about 22,000 acres above station.

REVISIONS (WATER YEARS).--WSP 1313: 1911, 1916.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	464	634	240	190	180	200	803	1,130	2,720	2,140	647	573
2	452	470	237	190	190	200	812	1,100	2,460	1,890	647	634
3	563	430	228	200	200	190	830	1,280	2,520	1,740	647	619
4	618	378	240	200	200	180	812	1,580	2,730	1,700	658	562
5	578	374	244	190	190	180	821	1,930	2,520	1,680	669	627
6	618	334	219	170	190	180	850	2,240	2,440	1,800	625	1,300
7	650	330	219	180	180	190	870	2,520	2,500	1,850	614	1,010
8	659	309	201	190	180	200	980	2,550	2,670	1,830	625	896
9	642	286	198	190	180	220	1,020	2,320	2,720	1,840	614	614
10	668	306	219	190	180	216	1,080	2,230	2,800	1,720	540	531
11	695	286	216	200	190	210	1,070	2,740	2,850	1,590	500	600
12	659	289	219	200	180	198	990	3,360	2,320	1,520	504	1,000
13	642	286	213	200	180	204	970	3,460	2,030	1,340	497	1,810
14	626	268	213	190	180	222	970	3,120	1,980	1,190	441	1,200
15	668	258	210	190	180	222	940	2,640	2,060	1,100	464	1,000
16	650	296	204	180	190	216	940	2,780	2,060	1,060	700	986
17	695	275	201	180	190	219	1,040	3,420	2,100	1,010	631	904
18	695	210	201	180	180	216	1,030	3,970	2,230	1,050	583	958
19	713	216	204	190	190	207	950	4,060	2,370	1,220	534	1,300
20	663	240	213	190	190	231	910	3,750	2,490	1,000	651	1,220
21	659	268	213	180	190	326	900	3,800	2,600	950	682	603
22	677	286	213	180	180	446	930	3,920	2,720	950	710	592
23	668	278	204	180	180	528	900	3,850	2,820	975	685	570
24	634	250	216	180	180	618	870	3,710	2,990	900	593	560
25	634	244	201	180	180	731	950	3,440	2,990	850	556	603
26	634	244	216	180	180	767	1,150	3,610	2,880	850	532	788
27	634	231	210	190	180	794	1,320	3,700	2,840	850	545	891
28	659	213	201	180	190	794	1,350	3,590	2,780	800	520	530
29	650	219	174	170	------	812	1,210	3,210	2,800	780	528	470
30	642	234	189	160	------	812	1,160	2,970	2,490	728	513	452
31	594	------	190	170	------	812	------	2,970	------	669	574	------
TOTAL	19,708	8,933	6,566	5,740	5,180	11,541	29,428	90,950	76,490	39,572	18,229	24,403
MEAN	636	298	212	185	185	372	981	2,934	2,549	1,277	588	813
MAX	713	634	244	200	200	812	1,350	4,060	2,990	2,140	710	1,810
MIN	452	210	174	160	180	180	803	1,100	1,980	669	441	452
AC-FT	39,090	17,720	13,020	11,390	10,270	22,890	58,370	180,400	151,700	78,490	36,160	48,400

CAL YR 1969 TOTAL 271,882 MEAN 745 MAX 2,730 MIN 174 ACFT 539,300
WAT YR 1970 TOTAL 336,730 MEAN 923 MAX 4,060 MIN 160 ACFT 667,900

NOTE.--No gage-height record Dec. 31 to Mar. 9.

09115500 Tomichi Creek at Sargents, Colo.

LOCATION.--Lat 38°23'45", long 106°25'20", in SW¼ sec.21, T.48 N., R.5 E., Gunnison County, on right bank 300 ft from U. S. Highway 50, 0.5 mile downstream from Marshall Creek, and 0.8 mile south of Sargents.

DRAINAGE AREA.--149 sq mi.

PERIOD OF RECORD.--October 1916 to September 1922, October 1937 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder. Altitude of gage is 8,416 ft (from topographic map). May 12 to Oct. 5, 1917, nonrecording gage and Oct. 6, 1917, to Sept. 30, 1922, water-stage recorder, at railroad bridge 1,000 ft upstream at different datum. Apr. 18, 1938, to Sept. 9, 1953, water-stage recorder at present site at datum 1.00 ft higher.

AVERAGE DISCHARGE.--39 years, 62.4 cfs (45,210 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 622 cfs May 22 (gage height, 3.22 ft); minimum daily, 12 cfs Mar. 20.
Period of record: Maximum discharge, 804 cfs June 6, 1957 (gage height, 3.66 ft); maximum gage height, 3.74 ft Mar. 24, 1963 (backwater from ice); minimum discharge recorded, 6.0 cfs Nov. 16, 1920.

REMARKS.--Records good except those for winter period, which are poor. Diversion for irrigation of about 1,900 acres above station. Larkspur ditch diverts water above station to Arkansas River basin (see elsewhere in this report).

REVISIONS.--WSP 1313: 1922(M). WRD Colo. 1967: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	44	31	23	17	15	22	64	383	126	47	57
2	36	37	32	25	18	16	21	61	341	121	45	55
3	45	36	32	26	18	16	21	76	312	111	47	50
4	47	36	30	27	17	15	21	111	309	113	50	47
5	44	37	29	27	16	15	22	126	290	121	47	54
6	42	39	29	27	16	14	25	152	274	131	45	84
7	44	40	28	26	15	14	31	181	271	116	58	60
8	48	43	27	24	15	15	42	195	271	113	88	52
9	51	44	25	23	15	16	58	173	280	111	50	50
10	52	40	27	23	16	16	64	176	287	99	43	47
11	48	39	29	24	16	15	64	209	325	86	40	45
12	47	40	30	24	16	14	58	277	271	82	37	51
13	51	40	30	24	15	13	52	316	252	78	36	92
14	51	40	29	23	15	14	48	344	226	71	37	84
15	50	38	27	22	15	15	45	354	215	66	64	68
16	44	36	25	21	16	15	61	370	201	66	110	60
17	51	33	25	21	16	15	113	421	198	63	58	57
18	52	29	25	22	15	14	58	488	190	74	52	52
19	54	29	24	22	15	13	32	548	187	66	55	51
20	50	30	24	22	15	12	26	544	178	63	64	50
21	47	31	24	21	16	13	34	566	178	61	72	50
22	47	32	24	21	16	13	37	583	178	63	90	58
23	47	33	23	21	15	14	43	566	173	68	78	58
24	45	33	23	21	15	15	57	555	165	61	64	58
25	47	32	23	20	15	16	106	530	149	58	61	54
26	47	31	24	20	15	14	128	506	141	58	55	51
27	47	30	24	20	15	14	128	474	134	60	55	51
28	47	29	23	21	15	15	106	464	134	71	52	50
29	48	29	22	22	------	18	86	447	162	54	50	48
30	45	29	22	17	------	20	72	431	134	50	52	47
31	48	------	22	16	------	22	------	424	------	50	63	------
TOTAL	1,455	1,059	812	696	439	466	1,681	10,732	6,809	2,531	1,765	1,691
MEAN	46.9	35.3	26.2	22.5	15.7	15.0	56.0	346	227	81.6	56.9	56.4
MAX	54	44	32	27	18	22	128	583	383	131	110	92
MIN	36	29	22	16	15	12	21	61	134	50	36	45
AC-FT	2,890	2,100	1,610	1,380	871	924	3,330	21,290	13,510	5,020	3,500	3,350

CAL YR 1969 TOTAL 21,032 MEAN 57.6 MAX 206 MIN 13 ACFT 41,720
WAT YR 1970 TOTAL 30,136 MEAN 82.6 MAX 583 MIN 12 ACFT 59,770

PEAK DISCHARGE (BASE, 200 CFS).--May 22 (0500) 622 cfs (3.22 ft).

NOTE.--No gage-height record Nov. 26 to Apr. 6.

09117000 Tomichi Creek at Parlin, Colo.

LOCATION.--Lat 38°29'50", long 106°43'32", in NW¼ sec.23, T.49 N., R.2 E., Gunnison County, on left bank 70 ft upstream from bridge, 0.2 mile south of Parlin, and 0.4 mile upstream from Quartz Creek.

DRAINAGE AREA.--427 sq mi.

PERIOD OF RECORD.--October 1944 to September 1951, October 1963 to September 1970 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 7,910 ft (from topographic map). Prior to October 1963 at site 800 ft downstream at different datum.

AVERAGE DISCHARGE.--14 years, 61.8 cfs (44,770 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 760 cfs May 20 (gage height, 7.04 ft); minimum daily 28 cfs Jan. 31.
Period of record: Maximum discharge, 760 cfs May 20, 1970 (gage height, 7.04 ft); minimum daily, 0.50 cfs Sept. 10-12, 1950.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 11,000 acres above station.

REVISIONS.--WSP 1733: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	74	36	31	29	37	44	145	497	118	67	64
2	36	66	36	32	30	39	43	118	482	99	61	62
3	48	61	36	33	32	40	41	130	438	88	61	58
4	73	67	35	34	33	41	45	163	392	85	66	52
5	71	70	34	35	34	42	48	203	376	86	80	56
6	62	68	34	35	35	42	50	219	344	110	68	79
7	61	66	33	34	35	42	61	236	322	126	63	89
8	66	71	31	31	35	42	109	252	328	139	82	67
9	77	64	30	30	35	42	222	278	341	143	78	60
10	82	66	33	30	35	41	361	288	339	131	62	54
11	86	63	34	32	36	38	355	281	400	118	52	50
12	75	63	35	32	36	36	169	291	427	113	47	50
13	70	61	35	32	35	38	98	303	353	109	43	70
14	72	58	34	30	35	39	98	384	284	99	39	99
15	77	58	32	30	36	40	103	440	241	94	47	90
16	76	58	30	30	37	42	99	470	204	93	127	76
17	74	50	30	30	36	45	166	499	190	87	123	68
18	83	46	31	31	37	41	259	549	178	127	83	63
19	109	40	30	31	39	39	125	648	170	121	71	60
20	90	42	30	31	39	38	82	748	163	104	80	55
21	78	44	33	31	38	40	67	720	159	96	90	50
22	76	46	34	30	37	43	90	720	152	94	122	56
23	76	47	34	30	37	44	82	742	158	109	108	66
24	76	46	34	31	37	46	77	716	163	101	90	63
25	73	44	33	32	37	48	130	684	154	88	79	60
26	72	42	33	32	37	48	197	626	121	86	74	58
27	72	39	32	32	37	46	232	589	93	84	68	57
28	72	36	31	31	37	46	310	575	96	90	72	56
29	73	35	30	30	------	48	244	562	117	98	65	54
30	68	35	30	29	------	50	182	562	149	77	57	53
31	67	------	31	28	------	49	------	515	------	72	61	------
TOTAL	2,225	1,626	1,014	970	996	1,312	4,189	13,656	7,831	3,185	2,286	1,895
MEAN	71.8	54.2	32.7	31.3	35.6	42.3	140	441	261	103	73.7	63.2
MAX	109	74	36	35	39	50	361	748	497	143	127	99
MIN	34	35	30	28	29	36	41	118	93	72	39	50
AC-FT	4,410	3,230	2,010	1,920	1,980	2,600	8,310	27,090	15,530	6,320	4,530	3,760

CAL YR 1969 TOTAL 22,724 MEAN 62.3 MAX 308 MIN 19 ACFT 45,070
WAT YR 1970 TOTAL 41,185 MEAN 113 MAX 748 MIN 28 ACFT 81,690

NOTE.--No gage-height record Dec. 19 to Mar. 31.

PEAK DISCHARGE (BASE, 250 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
4-11	0400	5.39	466	4-28	1730	4.85	388
4-18	1700	4.41	298	5-20	0930	7.04	760

09118000 Quartz Creek near Ohio, Colo.

LOCATION.--Lat 38°33'35", long 106°38'09", in SW¼SW¼ sec.27, T.50 N., R.3 E., Gunnison County, on left bank 10 ft downstream from bridge on State Highway 162, 0.7 mile downstream from Willow Creek, 1.3 miles southwest of Ohio, and 1.4 miles downstream from Gold Creek.

DRAINAGE AREA.--106 sq mi.

PERIOD OF RECORD.--October 1937 to September 1950, October 1959 to September 1970 (discontinued). Monthly discharge only for some periods, published in WSP 1313. Published as "near Ohio City," 1959-66.

GAGE.--Water-stage recorder. Altitude of gage is 8,430 ft (from topographic map). Prior to Oct. 1, 1945, at site 75 ft upstream at datum 3.00 ft higher. Oct. 1, 1945, to Sept. 30, 1950, at site 75 ft upstream at datum 2.00 ft higher.

AVERAGE DISCHARGE.--24 years, 54.3 cfs (39,340 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 531 cfs May 24 (gage height, 3.52 ft); minimum daily, 18 cfs Mar. 22.
Period of record: Maximum discharge, 640 cfs May 26, 1942 (gage height, 5.90 ft, present datum), from rating curve extended above 470 cfs; maximum gage height, 7.73 ft (present datum) July 31, 1945 (backwater from Flick Gulch, 225 ft below station); minimum daily discharge, 8.5 cfs Sept. 30, 1950.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 700 acres above and 200 acres below station. Slight regulation prior to 1946 by small powerplant 3 miles above station.

REVISIONS (WATER YEARS).--WSP 1149: Drainage area. WSP 1733: 1960(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	48	36	29	23	20	21	32	309	144	55	71
2	35	46	37	31	25	21	21	34	297	129	57	68
3	46	45	36	33	26	21	21	41	297	118	57	64
4	44	46	34	35	25	21	21	64	297	123	58	63
5	43	48	31	36	21	20	21	83	268	135	60	69
6	42	50	30	37	21	19	23	98	260	147	57	135
7	41	50	28	37	20	19	25	106	254	123	58	98
8	43	50	28	34	20	20	25	103	257	144	60	85
9	45	48	30	29	20	21	26	89	246	144	57	76
10	46	48	33	29	20	21	29	94	250	123	55	71
11	45	48	33	30	21	21	25	123	254	115	52	68
12	42	43	33	29	21	20	24	174	215	106	48	76
13	45	41	32	28	20	21	24	215	198	92	46	201
14	45	41	31	27	20	21	25	243	198	83	45	194
15	46	40	29	27	20	20	25	246	204	81	63	159
16	46	38	29	28	21	21	27	282	204	76	81	138
17	49	36	29	30	20	20	28	369	208	76	66	123
18	50	34	29	30	19	19	28	432	215	92	64	113
19	49	34	28	29	20	19	25	432	218	96	68	106
20	46	35	30	28	20	19	25	401	218	78	68	98
21	46	36	34	28	21	19	25	423	226	76	76	94
22	48	37	32	28	21	18	24	454	229	78	113	103
23	48	37	31	28	20	19	24	472	232	85	110	98
24	45	37	29	27	20	20	25	477	215	71	94	92
25	46	37	29	26	20	20	30	454	204	69	83	87
26	48	36	31	26	20	20	41	472	198	68	74	83
27	48	36	31	28	20	19	55	450	190	66	71	81
28	49	35	29	30	20	20	55	410	184	64	66	76
29	49	35	26	28	------	20	43	361	187	61	63	71
30	50	36	26	25	------	20	35	349	168	60	64	69
31	52	------	28	20	------	21	------	353	------	58	72	------
TOTAL	1,414	1,231	952	910	585	620	846	8,336	6,900	2,981	2,061	2,930
MEAN	45.6	41.0	30.7	29.4	20.9	20.0	28.2	269	230	96.2	66.5	97.7
MAX	52	50	37	37	26	21	55	477	309	147	113	201
MIN	35	34	26	20	19	18	21	32	168	58	45	63
AC-FT	2,800	2,440	1,890	1,800	1,160	1,230	1,680	16,530	13,690	5,910	4,090	5,810

CAL YR 1969 TOTAL 22,124 MEAN 60.6 MAX 230 MIN 15 ACFT 43,880
WAT YR 1970 TOTAL 29,766 MEAN 81.6 MAX 477 MIN 18 ACFT 59,040

PEAK DISCHARGE (BASE, 220 CFS).--May 24 (0030) 531 cfs (3.52 ft), Sept. 13 (1730) 246 cfs (2.76 ft).

NOTE.--Nov. 17 to Mar. 10.

09119000 Tomichi Creek at Gunnison, Colo.

LOCATION.--Lat 38°31'20", long 106°56'25", in NE¼SW¼ sec.11, T.49 N., R.1 W., Gunnison County, on right bank 300 ft downstream from highway bridge, 1.8 miles southwest of post office in Gunnison, and 2 miles upstream from mouth.

DRAINAGE AREA.--1,061 sq mi.

PERIOD OF RECORD.--November and December 1910 (gage heights and discharge measurements only), October 1937 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "near Gunnison" 1910.

GAGE.--Water-stage recorder. Datum of gage is 7,628.58 ft above mean sea level. Nov. 25 to Dec. 24, 1910, nonrecording gage 300 ft upstream at different datum. Apr. 20, 1938, to Oct. 2, 1940, water-stage recorder at present site at datum 1.00 ft higher.

AVERAGE DISCHARGE.--33 years, 170 cfs (123,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,690 cfs May 23 (gage height, 4.18 ft); minimum daily, 78 cfs Jan. 30.
Period of record: Maximum discharge, 1,900 cfs June 8, 1957 (gage height, 4.10 ft); maximum gage height, 4.18 ft May 23, 1970; minimum daily discharge, 4.5 cfs Apr.30, 1967.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 24,000 acres above station. Water diverted above station by Larkspur ditch to Arkansas River basin since 1935 and by Tarbell ditch to Rio Grande basin since 1914 (see elsewhere in this report).

REVISIONS.--WRD Colo. 1967: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	104	212	130	95	85	95	104	379	1,030	388	215	278
2	104	170	130	100	90	95	97	350	954	346	209	267
3	155	150	120	100	90	95	94	366	883	306	206	254
4	212	170	120	100	90	100	97	456	827	292	230	242
5	206	176	120	100	90	105	100	575	796	295	278	248
6	188	179	110	95	95	110	122	660	745	316	288	342
7	188	176	120	90	90	115	173	710	725	323	267	415
8	194	194	100	90	90	115	230	784	750	323	292	415
9	203	179	100	90	90	120	323	802	778	392	342	370
10	227	176	110	95	90	120	525	796	784	384	295	338
11	242	170	110	95	95	110	565	790	848	330	260	312
12	236	176	120	95	90	114	323	841	841	312	236	312
13	212	170	120	95	90	112	221	962	745	288	221	438
14	209	158	110	90	90	114	203	1,050	640	254	212	535
15	233	150	100	85	90	112	206	1,110	580	227	239	505
16	221	173	100	85	95	110	206	1,130	535	221	374	446
17	218	170	100	90	95	120	306	1,180	505	224	370	406
18	239	140	95	90	90	118	500	1,250	495	264	306	338
19	278	130	95	90	95	108	370	1,370	475	288	281	302
20	245	130	100	90	95	97	248	1,580	465	284	298	281
21	227	130	95	85	95	97	212	1,570	465	260	323	264
22	224	140	95	85	90	108	236	1,570	490	257	397	281
23	230	150	90	90	90	110	233	1,620	500	323	397	288
24	227	150	95	90	90	112	230	1,550	500	326	358	270
25	215	150	90	90	90	114	330	1,480	490	260	320	254
26	215	140	100	90	90	116	600	1,400	442	292	295	248
27	215	130	100	90	90	110	962	1,350	392	292	292	242
28	215	130	95	85	95	106	1,090	1,300	384	292	288	236
29	212	130	90	80	------	108	750	1,250	415	284	267	221
30	197	130	90	78	------	110	485	1,170	424	248	251	191
31	188	------	90	80	------	108	------	1,110	------	227	270	------
TOTAL	6,479	4,729	3,240	2,803	2,555	3,384	10,141	32,511	18,903	9,118	8,877	9,539
MEAN	209	158	105	90.4	91.3	109	338	1,049	630	294	286	318
MAX	278	212	130	100	95	120	1,090	1,620	1,030	392	397	535
MIN	104	130	90	78	85	95	94	350	384	221	206	191
AC-FT	12,850	9,380	6,430	5,560	5,070	6,710	20,110	64,490	37,490	18,090	17,610	18,920

CAL YR 1969 TOTAL 63,567 MEAN 174 MAX 715 MIN 54 ACFT 126,100
WAT YR 1970 TOTAL 112,279 MEAN 308 MAX 1,620 MIN 78 ACFT 222,700

NOTE.--No gage-height record Nov. 18 to Mar. 9.

09124500 Lake Fork at Gateview, Colo.

LOCATION.--Lat 38°17'50", long 107°13'50", in sec.29, T.47 N., R.3 W., Gunnison County, on left bank at old village of Gateview, 15 ft downstream from private bridge, 0.2 mile upstream from Indian Creek, and 6.3 miles upstream from waterline of Blue Mesa Reservoir at elevation 7,519 ft.

DRAINAGE AREA.--334 sq mi.

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder. Datum of gage is 7,827.66 ft above mean sea level. Prior to Oct. 1, 1938, at datum 2.00 ft higher and Oct. 1, 1938, to Sept. 30, 1945, at datum 1.00 ft higher.

AVERAGE DISCHARGE.--33 years, 242 cfs (175,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,780 cfs May 19 (gage height, 3.37 ft; maximum gage height, 3.64 ft Dec. 20 (backwater from ice; minimum daily discharge, 44 cfs Jan. 30.
Period of record: Maximum discharge, 2,700 cfs June 29, 1957 (gage height, 4.30 ft); minimum daily determined, 25 cfs Dec. 5, 1955, Jan. 10, 17, 18, 1957.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 1,600 acres above station.

REVISIONS.--WRD Colo. 1967: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130	139	64	57	59	50	48	112	956	818	213	300
2	130	125	70	55	60	52	52	107	916	696	204	360
3	140	117	65	54	60	51	50	121	1,000	678	210	340
4	150	121	68	54	56	52	47	157	1,120	654	239	308
5	150	116	66	54	53	52	49	198	932	636	232	320
6	150	116	62	54	52	52	60	284	825	624	219	972
7	150	117	58	54	52	52	70	415	811	654	216	804
8	150	112	55	54	52	58	80	455	776	654	242	672
9	170	117	58	54	53	58	90	390	702	642	232	600
10	178	116	60	60	54	56	88	365	642	618	207	525
11	172	117	56	65	56	52	85	460	648	600	185	460
12	170	114	65	65	56	49	82	594	606	535	168	435
13	157	110	60	65	58	50	72	690	576	505	168	618
14	155	107	60	60	56	52	76	790	600	475	163	714
15	157	104	60	55	54	54	74	908	648	440	201	666
16	155	112	61	55	52	56	81	1,030	666	415	375	600
17	152	110	63	59	54	55	98	1,310	776	420	332	510
18	150	101	64	61	54	52	78	1,570	980	405	292	445
19	150	89	64	60	50	50	72	1,640	1,080	390	280	400
20	144	83	64	59	45	50	70	1,400	1,160	380	296	365
21	144	86	65	56	47	53	70	1,410	1,150	345	288	316
22	148	91	70	55	48	56	70	1,410	1,120	345	276	316
23	150	91	66	59	49	55	71	1,400	1,150	380	300	300
24	143	90	64	60	50	60	78	1,420	1,190	355	276	276
25	143	85	64	56	50	56	106	1,430	1,220	324	250	250
26	141	80	65	55	48	50	141	1,490	1,240	312	242	232
27	139	72	65	59	49	50	170	1,450	1,200	288	232	219
28	141	67	63	60	50	52	161	1,350	1,200	280	225	207
29	141	64	62	53	------	51	135	1,100	1,120	260	207	195
30	137	63	60	44	------	50	123	1,050	1,020	242	210	185
31	130	------	59	55	------	49	------	1,250	------	228	276	------
TOTAL	4,617	3,032	1,946	1,766	1,477	1,635	2,547	27,756	28,030	14,598	7,456	12,910
MEAN	149	101	62.8	57.0	52.8	52.7	84.9	895	934	471	241	430
MAX	178	139	70	65	60	60	170	1,640	1,240	818	375	972
MIN	130	63	55	44	45	49	47	107	576	228	163	185
AC-FT	9,160	6,010	3,860	3,500	2,930	3,240	5,050	55,050	55,600	28,960	14,790	25,610

CAL YR 1969 TOTAL 77,264 MEAN 212 MAX 1,120 MIN 34 ACFT 153,300
WAT YR 1970 TOTAL 107,770 MEAN 295 MAX 1,640 MIN 44 ACFT 213,800

PEAK DISCHARGE (BASE, 1,400 CFS).--May 19 (0700) 1,780 cfs (3.37 ft).

09124600 Blue Mesa Reservoir near Sapinero, Colo.

LOCATION.--Lat 38°27'13", long 107°20'00", in NW¼ sec.4, T.48 N., R.4 W., Gunnison County, in intake tower of Blue Mesa Dam, 0.5 mile upstream from Pine Creek and 1.7 miles west of Sapinero.

DRAINAGE AREA.--3,426 sq mi.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (Bureau of Reclamation bench mark).

EXTREMES (at 2400).--Current year: Maximum contents, 831,700 acre-ft July 8 (elevation, 7,519.64 ft); minimum 402,400 acre-ft Apr. 8 (elevation, 7,465.00 ft).
Period of record: Maximum contents, 831,700 acre-ft July 8, 1970 (elevation, 7,519.64 ft); minimum since appreciable storage was attained, 187,800 acre-ft Oct. 10-17, 1966 (elevation, 7,424.35 ft).

REMARKS.--Reservoir is formed by earth- and rock-fill dam. Storage began Oct. 26, 1965. Usable capacity, 829,600 acre-ft between elevations 7,358.00 (sill of outlet gate) and 7,519.40 ft (top of radial spillway gates). Dead storage, 111,200 acre-ft. Reservoir is used for power development and to provide storage replacement to meet downstream requirements under the Colorado River Compact of 1922. Figures given herein represent usable contents. Figures published prior to October 1969 represent total contents.

COOPERATION.--Records furnished by Bureau of Reclamation.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DATE	ELEVATION (FEET)	CONTENTS (ACRE-FEET)	CHANGE IN CONTENTS (ACRE-FEET)
Sept. 30	7,507.00	719,800	-
Oct. 31	7,509.38	740,300	+20,500
Nov. 30	7,504.20	696,100	-44,200
Dec. 31	7,498.92	652,300	-43,800
CAL YR 1969	-	-	+140,400
Jan. 31	7,491.10	589,700	-62,600
Feb. 28	7,478.33	493,600	-96,100
Mar. 31	7,466.29	410,800	-82,800
Apr. 30	7,467.77	420,500	+9,700
May 31	7,509.79	743,800	+323,300
June 30	7,518.71	823,200	+79,400
July 31	7,518.76	823,700	+500
Aug. 31	7,516.02	798,800	-24,900
Sept. 30	7,517.30	810,400	+11,600
WTR YR 1970	-	-	+90,600

09125000 Curecanti Creek near Sapinero, Colo.

LOCATION.--Lat 38°29'15", long 107°24'55", in sec.21, T.49 N., R.5 W., Gunnison County, on downstream side of left pier of bridge on State Highway 92, 2.5 miles upstream from mouth and 6 miles west of Sapinero.

DRAINAGE AREA.--35.0 sq mi.

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder. Datum of gage is 7,867.43 ft above mean sea level. Prior to Oct. 1, 1947, at site 65 ft upstream at datum 3.00 ft higher. Oct. 1, 1947, to Sept. 17, 1952, at site 65 ft upstream at datum 1.00 ft higher.

AVERAGE DISCHARGE.--25 years, 32.7 cfs (23,690 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 320 cfs May 23 (gage height, 4.21 ft); minimum daily, 4.6 cfs Aug. 12, 13.
Period of record: Maximum discharge, 480 cfs June 5, 1957 (gage height, 4.20 ft); maximum gage height, 4.30 ft June 28, 1957; minimum daily discharge, 2.0 cfs Aug. 1-3, 1948, but may have been less during periods of ice effect.

REMARKS.--Records good except those for period of no gage-height record, which are poor. One diversion above station for irrigation in Smith Fork drainage.

REVISIONS (WATER YEARS).--WSP 1733: 1958. WSP 1924: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	10	7.5	6.5	6.4	9.5	10	44	210	68	6.5	9.6
2	5.1	9.8	8.0	6.2	6.0	10	12	43	193	48	6.3	9.9
3	7.7	9.6	8.4	6.1	6.0	10	10	51	182	50	7.0	7.3
4	7.7	9.4	8.6	5.9	6.5	9.5	11	81	186	48	7.3	6.8
5	6.8	9.4	8.5	5.8	6.2	9.0	11	125	159	38	7.3	9.0
6	6.1	9.8	8.0	5.8	6.3	9.0	12	164	144	35	6.5	47
7	6.8	10	7.6	5.7	6.4	9.5	14	182	150	33	6.3	14
8	7.1	9.6	7.5	5.8	6.4	10	17	161	159	30	6.1	9.6
9	7.4	9.5	7.5	6.0	6.5	10	23	125	169	30	5.3	8.1
10	9.5	9.8	8.0	6.4	6.6	10	30	111	182	26	4.9	7.5
11	8.9	10	8.0	6.9	7.0	9.8	30	143	179	23	4.8	6.8
12	8.9	10	8.0	7.0	7.5	9.3	30	204	144	20	4.6	18
13	8.6	10	7.5	7.0	7.5	9.0	28	214	128	18	4.6	84
14	8.0	9.5	7.1	6.5	7.5	8.6	23	228	125	16	5.3	40
15	9.5	9.0	6.6	6.4	7.0	8.6	20	221	128	15	10	26
16	7.7	9.1	6.6	6.6	7.0	8.3	21	228	130	15	8.1	20
17	9.0	9.4	6.6	6.8	6.5	8.9	21	255	130	14	6.3	16
18	10	9.0	7.0	6.8	6.2	8.7	23	266	135	14	5.6	14
19	10	8.1	7.5	6.8	6.4	8.6	21	255	147	13	6.1	12
20	8.9	8.5	7.8	6.6	6.7	8.6	21	259	150	12	6.8	11
21	10	8.9	7.9	6.5	6.8	8.8	20	263	159	9.9	9.9	10
22	11	9.0	8.0	6.5	7.0	10	19	291	159	11	10	11
23	11	8.9	8.0	6.7	7.1	10	19	303	153	12	7.0	10
24	10	8.5	8.0	6.8	7.4	11	23	295	141	9.3	6.3	9.3
25	10	8.5	7.9	6.9	7.5	8.9	37	259	133	8.7	5.6	8.7
26	10	8.5	7.9	6.4	7.5	10	61	267	130	9.0	5.8	8.1
27	11	8.5	7.4	6.5	7.7	12	85	279	121	8.1	6.3	8.4
28	12	8.0	7.0	6.2	8.6	11	90	283	111	8.7	6.1	8.1
29	11	7.6	6.6	5.6	------	10	66	267	101	7.8	5.6	7.8
30	11	7.5	6.4	5.2	------	9.5	52	255	84	7.3	5.6	7.5
31	10	------	6.8	6.7	------	10	------	247	------	7.0	10	------
TOTAL	276.0	273.4	234.2	197.6	192.2	296.1	860	6,369	4,421	664.8	203.9	465.5
MEAN	8.90	9.11	7.55	6.37	6.86	9.55	28.7	205	147	21.4	6.58	15.5
MAX	12	10	8.6	7.0	8.6	12	90	303	210	68	10	84
MIN	5.1	7.5	6.4	5.2	6.0	8.3	10	43	84	7.0	4.6	6.8
AC-FT	547	542	465	392	381	587	1,710	12,630	8,770	1,320	404	923

CAL YR 1969 TOTAL 12,085.9 MEAN 33.1 MAX 191 MIN 3.7 ACFT 23,970
WAT YR 1970 TOTAL 14,453.7 MEAN 39.6 MAX 303 MIN 4.6 ACFT 28,670

PEAK DISCHARGE (BASE, 250 CFS).--May 23 (2000) 320 cfs (4.21 ft).

NOTE.--No gage-height record Nov. 2 to Mar. 10.

09125400 Morrow Point Reservoir near Cimarron, Colo.

LOCATION.--Lat 38°27'05", long 107°32'12", in NW¼ sec.4, T.48 N., R.6 W., Montrose County, in recorder house at Morrow Point Dam on Gunnison River, 2,000 ft upstream from Cimarron River and 1.2 miles northeast of Cimarron.

DRAINAGE AREA.--3,637 sq mi.

PERIOD OF RECORD.--January 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (Bureau of Reclamation bench mark).

EXTREMES (at 0800).--Current year: Maximum contents, 118,900 acre-ft May 19 (elevation, 7,162.27 ft); minimum 24,530 acre-ft Nov. 6 (elevation, 6,988.10 ft).
Period of record: Maximum contents, 118,900 acre-ft May 19, 1970 (elevation, 7,162.27 ft); minimum since appreciable storage was attained, 24,530 acre-ft Nov. 6, 1969 (elevation, 6,988.10 ft).

REMARKS.--Reservoir is formed by double-curvature thin concrete arch dam. Storage began Jan. 24, 1968. Capacity, 121,200 acre-ft (corrected) at elevation 7,165.00 ft (crest of dam). Dead storage, 165 acre-ft below elevation 6,808.00 ft (invert of steel liner in outlet works). Reservoir is used for power development. Figures given herein represent usable contents.

COOPERATION.--Records furnished by Bureau of Reclamation.

MONTHEND ELEVATION AND CONTENTS AT 0800, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DATE	ELEVATION (FEET)	CONTENTS (ACRE-FEET)	CHANGE IN CONTENTS (ACRE-FEET)
Sept. 30	7,033.10	40,900	-
Oct. 31	7,005.40	30,240	-10,660
Nov. 30	7,022.50	36,620	+6,380
Dec. 31	7,021.00	36,040	-580
CAL YR 1969	-	-	-72,860
Jan. 31	7,046.20	46,530	+10,490
Feb. 28	7,120.55	87,890	+41,360
Mar. 31	7,156.73	114,400	+26,510
Apr. 30	7,161.44	118,200	+3,800
May 31	7,157.10	114,700	-3,500
June 30	7,157.33	114,800	+100
July 31	7,142.93	103,700	-11,100
Aug. 31	7,154.96	113,000	+9,300
Sept. 30	7,159.55	116,700	+3,700
WTR YR 1970	-	-	+75,800

09126000 Cimarron River near Cimarron, Colo.

LOCATION.--Lat 38°15'30", long 107°32'40", in sec.8, T.46 N., R.6 W., Gunnison County, on right bank 0.2 mile downstream from highway bridge, 0.5 mile upstream from headgate on Cimarron ditch, 2.5 miles downstream from West Fork, and 13 miles south of Cimarron.

DRAINAGE AREA.--66.6 sq mi.

PERIOD OF RECORD.--October 1954 to current year. Prior to October 1965, published as Cimarron Creek near Cimarron.

GAGE.--Water-stage recorder. Altitude of gage is 8,650 ft (from topographic map).

AVERAGE DISCHARGE.--16 years, 88.6 cfs (64,190 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 894 cfs June 27 (gage height, 6.32 ft); maximum gage height, 6.47 ft May 20; minimum daily discharge, 14 cfs Jan. 28.
Period of record: Maximum discharge, 1,790 cfs June 28, 1957 (gage height, 8.32 ft); minimum daily, 8.0 cfs Dec. 27, 28, 1962, Jan. 13, 1963.

REMARKS.--Records good except those for winter period, which are fair. Diversion above station through Owl Creek ditch into Uncompahgre River basin.

REVISIONS.--WRD Colo. 1967: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	46	28	28	20	22	17	49	425	457	61	95
2	46	36	28	27	20	22	16	42	457	397	59	103
3	54	39	27	27	20	20	15	69	497	361	119	76
4	62	48	27	28	20	19	16	181	481	341	121	68
5	61	47	27	28	20	19	17	228	385	314	121	92
6	55	46	26	27	20	20	18	297	385	311	116	271
7	68	46	25	28	20	22	20	308	389	365	113	128
8	81	42	25	28	20	21	22	222	433	308	81	104
9	78	42	26	28	21	20	24	153	393	335	76	92
10	69	40	28	28	22	18	25	168	437	283	65	80
11	65	39	29	27	22	18	29	258	433	237	58	72
12	59	38	29	26	22	17	26	297	345	214	55	141
13	54	37	29	25	21	16	24	329	322	206	51	214
14	56	36	28	25	22	17	23	397	345	193	52	142
15	55	32	27	25	22	17	23	437	377	181	131	110
16	53	30	27	24	21	17	24	521	413	172	124	96
17	58	26	27	24	20	15	26	601	457	164	86	86
18	53	24	26	24	20	16	26	605	493	157	126	77
19	51	28	26	24	20	17	22	593	533	147	122	73
20	49	31	27	23	21	17	24	637	581	128	172	66
21	52	33	28	22	22	17	24	633	557	121	174	61
22	52	33	28	22	22	18	22	609	553	138	132	71
23	52	31	28	22	22	19	22	561	621	184	106	61
24	49	29	28	21	22	18	23	565	697	117	93	56
25	52	28	28	20	20	17	38	597	693	103	81	51
26	51	29	27	20	20	17	64	625	669	92	74	46
27	52	28	27	20	22	17	90	605	681	87	74	46
28	50	27	26	14	22	17	88	593	709	84	68	45
29	45	26	24	22	------	18	67	501	637	73	60	44
30	46	27	24	24	------	16	59	517	541	68	67	46
31	43	------	27	24	------	17	------	481	------	65	88	------
TOTAL	1,722	1,044	837	755	586	561	934	12,679	14,939	6,403	2,926	2,713
MEAN	55.5	34.8	27.0	24.4	20.9	18.1	31.1	409	498	207	94.4	90.4
MAX	81	48	29	28	22	22	90	637	709	457	174	271
MIN	43	24	24	14	20	15	15	42	322	65	51	44
AC-FT	3,420	2,070	1,660	1,500	1,160	1,110	1,850	25,150	29,630	12,700	5,800	5,380

CAL YR 1969 TOTAL 30,145 MEAN 82.6 MAX 433 MIN 10 ACFT 59,790
WAT YR 1970 TOTAL 46,099 MEAN 126 MAX 709 MIN 14 ACFT 91,440

PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
5- 6	2100	5.96	621	8- 3	1900	5.35	413
5-20	2030	6.47	793	9- 6	0330	5.37	433
6-27	2030	6.32	894				

09128000 Gunnison River below Gunnison tunnel, Colo.

LOCATION.--Lat 38°31'50", long 107°38'54", in NW¼ sec.10, T.49 N., R.7 W., Montrose County, on left bank 0.2 mile downstream from east portal of Gunnison tunnel, 5 miles downstream from Crystal Creek, and 12 miles northeast of Montrose.

DRAINAGE AREA.--3,965 sq mi.

PERIOD OF RECORD.--October 1903 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "at east portal of Gunnison tunnel" 1905-6 and as "at River portal" 1907-11.

GAGE.--Water-stage recorder. Datum of gage is 6,526.06 ft above mean sea level. Apr. 9, 1905, to Aug. 20, 1915, nonrecording gage at site 300 ft upstream from diversion dam at east portal of Gunnison tunnel at different datum. Aug. 21, 1915, to Jan. 19, 1943, nonrecording gage at site 500 ft downstream from diversion dam at east portal of Gunnison tunnel at different datum. Jan. 20, 1943, to Sept. 30, 1956, water-stage recorder at same site at datum 1.0 ft higher.

AVERAGE DISCHARGE.--67 years, 1,414 cfs, unadjusted (1,024,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 9,630 cfs June 28 (gage height, 10.69 ft); minimum daily, 39 cfs Oct. 10.
Period of record: Maximum discharge observed, 19,000 cfs June 15, 1921 (gage height, about 15.8 ft, present datum), from rating curve extended above 14,000 cfs; no flow Sept. 25, 26, 1936, Oct. 8, 1949, Sept. 5, 6, 15, 16, 1950.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, transbasin diversion through Gunnison tunnel for irrigation of about 75,000 acres in Uncompahgre Valley, Taylor Park Reservoir (see sta. 09108500), Blue Mesa Reservoir (see sta. 09124600), Morrow Point Reservoir (see sta. 09125400), diversions for irrigation of about 63,000 acres, and return flow from irrigated areas.

REVISIONS (WATER YEARS).--WSP 1313: 1906(M). WSP 1733: 1918-19, 1948. WRD Colo. 1967: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	982	1,370	1,490	1,440	1,550	1,790	1,630	1,050	2,240	1,430	800	846
2	974	1,350	1,480	1,430	1,550	1,780	1,630	1,050	1,980	1,780	789	886
3	1,090	1,410	1,450	1,430	1,550	1,790	1,870	1,140	2,300	5,320	780	844
4	1,120	1,360	1,430	1,430	1,550	1,800	1,630	1,250	2,390	3,680	910	831
5	1,090	1,370	982	1,420	1,540	1,800	1,530	1,310	3,200	2,220	923	851
6	1,110	1,430	116	1,430	1,540	1,820	1,510	1,400	4,640	1,630	867	1,300
7	1,210	1,460	108	1,470	1,540	1,840	1,360	1,640	4,630	1,500	894	1,270
8	300	1,450	468	1,480	1,530	1,860	1,390	1,720	3,280	3,330	840	1,210
9	117	1,460	1,430	1,480	1,520	1,880	1,330	1,590	3,280	1,740	817	1,190
10	39	1,450	1,450	1,490	1,530	1,880	1,300	1,450	2,540	2,130	807	1,180
11	1,160	1,460	1,450	1,490	1,540	1,880	1,280	1,550	3,110	5,930	799	1,160
12	1,160	1,450	1,460	1,490	1,570	1,880	1,190	1,730	3,390	6,590	784	1,190
13	1,140	1,450	1,460	1,480	1,610	1,890	1,090	1,790	4,830	2,890	741	1,540
14	1,130	1,450	1,450	1,470	1,620	1,910	942	1,840	4,980	893	796	1,330
15	1,230	1,450	1,450	1,470	1,630	1,910	760	1,840	3,150	809	817	1,310
16	1,250	1,470	1,460	1,470	1,630	1,910	1,020	1,940	1,430	887	929	1,280
17	1,250	1,460	1,470	1,460	1,640	1,900	1,050	2,290	1,490	892	850	1,270
18	1,260	1,470	1,460	1,450	1,660	1,890	1,060	2,450	1,600	884	1,130	1,260
19	1,250	1,450	1,470	1,440	1,660	1,890	1,020	2,450	1,680	2,520	1,060	1,240
20	911	1,480	1,470	1,460	1,660	1,890	998	2,470	6,790	2,120	952	1,230
21	895	1,490	1,470	1,470	1,690	1,890	998	2,510	7,060	814	1,060	1,210
22	1,210	1,510	1,480	1,480	1,690	1,890	997	2,950	3,510	827	998	1,240
23	992	1,530	1,460	1,490	1,710	1,890	995	4,480	2,450	966	928	1,230
24	870	1,530	1,470	1,490	1,740	1,930	1,010	4,280	4,210	857	898	1,220
25	895	1,520	1,460	1,490	1,750	1,920	1,100	2,840	4,490	1,330	858	1,210
26	1,240	1,520	1,450	1,490	1,750	1,890	1,250	2,160	7,290	1,440	845	1,200
27	905	1,530	1,440	1,500	1,760	1,900	1,330	2,170	9,270	1,030	833	1,210
28	1,020	1,500	1,410	1,510	1,780	1,890	1,760	2,020	9,360	832	832	1,200
29	1,080	1,500	1,400	1,510	------	1,900	1,120	2,130	5,850	828	819	1,200
30	1,060	1,490	1,410	1,530	------	1,770	1,080	3,800	1,830	810	812	1,210
31	1,360	------	1,430	1,560	------	1,640	------	3,840	------	810	844	------
TOTAL	31,300	43,820	40,884	45,700	45,490	57,700	36,730	67,130	118,250	59,719	27,012	35,348
MEAN	1,010	1,461	1,319	1,474	1,625	1,861	1,224	2,165	3,942	1,926	871	1,178
MAX	1,360	1,530	1,490	1,560	1,780	1,930	1,870	4,480	9,360	6,590	1,130	1,540
MIN	39	1,350	108	1,420	1,520	1,640	760	1,050	1,430	809	741	831
AC-FT	62,080	86,920	81,090	90,650	90,230	114,400	72,850	133,200	234,500	118,500	53,580	70,110
(†)	15,960	288	0	0	0	601	40,300	48,160	48,460	58,380	57,990	43,610

CAL YR 1969 TOTAL 405,429 MEAN 1,111 MAX 3,390 MIN 39 AC-FT 804,200 † 336,000
WTR YR 1970 TOTAL 609,083 MEAN 1,669 MAX 9,360 MIN 39 AC-FT 1,208,000 † 313,700

† Diversions, in acre-feet, through Gunnison tunnel; furnished by Uncompahgre Valley Water Users Association.

09128500 Smith Fork near Crawford, Colo.

LOCATION.--Lat 38°43'40", long 107°30'22", in sec.24, T.15 S., R.91 W., Delta County, on left bank 20 ft upstream from Forest Service bridge, 0.4 mile upstream from Second Creek, 6 miles northeast of Crawford, and 6.5 miles upstream from Iron Creek.

DRAINAGE AREA.--43.7 sq mi.

PERIOD OF RECORD.--October 1935 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder. Altitude of gage is 7,091 ft (from topographic map). Prior to Nov. 16, 1938, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--35 years, 41.4 cfs (29,990 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 470 cfs May 18 (gage height, 5.17 ft); minimum daily, 5.8 cfs Aug. 10-12.
Period of record: Maximum discharge, about 1,050 cfs June 6, 1957; maximum gage height, 5.56 ft June 8, 1957; minimum daily discharge determined, 1.8 cfs July 30, 31, Aug. 1, 1963.

REMARKS.--Records good except those for winter period, which are fair. Diversions for irrigation of a few acres of hay meadows above station. Saddle Mountain ditch diverts water above station for irrigation of about 800 acres below. One small ditch diverts water from Virginia Creek to Iron Creek drainage, and Head and Ferrier ditch diverts water from Curecanti Creek drainage.

REVISIONS (WATER YEARS).--WSP 1313: 1941. WRD Colo. 1967: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.8	13	10	8.0	9.0	13	11	49	159	64	9.0	9.4
2	7.5	11	10	8.0	9.0	12	12	49	141	55	9.0	8.4
3	9.8	11	10	8.0	9.0	12	11	69	139	48	10	7.5
4	9.8	13	10	7.5	9.5	11	11	108	133	46	10	7.5
5	9.4	12	11	7.5	10	10	11	178	120	48	9.4	13
6	9.0	12	11	7.5	10	11	13	218	108	42	9.0	33
7	9.0	13	11	7.0	10	11	16	243	106	38	8.1	21
8	9.0	13	11	7.0	10	12	18	210	111	32	7.8	17
9	8.4	13	11	7.5	10	13	21	182	113	36	6.9	14
10	9.8	12	11	8.0	10	13	30	172	123	39	5.8	13
11	9.8	11	11	8.0	10	13	34	228	133	36	5.8	11
12	9.0	11	11	8.0	10	13	30	276	127	33	5.8	19
13	8.7	11	11	8.0	10	12	26	270	127	30	6.0	51
14	8.7	9.8	11	8.0	10	12	22	267	131	24	6.0	34
15	9.8	9.8	11	8.0	10	12	21	246	123	20	7.2	26
16	11	10	11	8.0	10	12	20	279	113	19	9.9	22
17	12	9.0	11	8.5	10	13	20	368	108	18	17	19
18	15	9.0	11	8.5	10	13	23	400	105	16	16	18
19	15	8.5	10	8.5	10	13	21	327	104	15	17	18
20	12	9.0	9.0	9.0	11	14	19	321	99	14	19	16
21	12	9.5	9.0	9.4	11	15	19	300	94	13	20	16
22	13	9.8	9.4	9.4	11	13	21	318	93	14	13	16
23	13	10	9.0	9.8	11	13	21	303	88	13	13	15
24	13	11	9.4	9.8	11	14	24	297	82	12	11	14
25	13	11	9.0	9.8	12	14	46	291	78	11	9.8	14
26	13	11	9.4	9.8	12	16	84	288	72	12	9.4	15
27	15	11	9.0	9.4	13	16	115	258	68	12	9.4	14
28	16	11	8.5	10	12	15	111	240	64	11	9.0	13
29	17	10	8.0	9.5	------	13	78	228	58	9.8	8.7	14
30	15	10	8.0	9.0	------	12	62	220	62	9.4	7.8	14
31	13	------	8.0	9.0	------	12	------	200	------	9.4	8.4	------
TOTAL	353.5	325.4	309.7	263.4	290.5	398	971	7,403	3,182	799.6	314.2	522.
MEAN	11.4	10.8	9.99	8.50	10.4	12.8	32.4	239	106	25.8	10.1	17.
MAX	17	13	11	10	13	16	115	400	159	64	20	9
MIN	7.5	8.5	8.0	7.0	9.0	10	11	49	58	9.4	5.8	7.
AC-FT	701	645	614	522	576	789	1,930	14,680	6,310	1,590	623	1,0

CAL YR 1969 TOTAL 13,615.3 MEAN 37.3 MAX 306 MIN 4.8 ACFT 27,010
WAT YR 1970 TOTAL 15,133.1 MEAN 41.5 MAX 400 MIN 5.8 ACFT 30,020

PEAK DISCHARGE (BASE, 260 CFS).--May 18 (0600) 470 cfs (5.17 ft).

09129800 Clear Fork near Ragged Mountain, Colo.

LOCATION.--Lat 39°08'37", long 107°25'49", in sec.34, T.10 S., R.90 W., Gunnison County, on left bank downstream wingwall of private bridge 700 ft upstream from Little Muddy Creek and 3 miles northwest of Ragged Mountain.

DRAINAGE AREA.--38.5 sq mi.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,450 ft (from topographic map).

AVERAGE DISCHARGE.--5 years, 35.3 cfs (25,570 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 792 cfs May 18 (gage height, 3.61 ft), from rating curve extended above 370 cfs; minimum daily, 3.0 cfs Aug. 26, 31.
Period of record: Maximum discharge, 792 cfs May 18, 1970 (gage height, 3.61 ft), from rating curve extended above 370 cfs; minimum daily, 0.40 cfs Oct. 31, 1967.

REMARKS.--Records good except those for winter period, which are poor. Transbasin diversion above station by Clear Fork ditch for irrigation in West Divide Creek basin .

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	9.0	8.0	6.5	7.0	8.0	7.2	45	179	37	4.4	4.8
2	4.0	10	8.0	6.5	7.0	8.0	7.2	47	165	29	3.9	6.5
3	5.9	10	7.5	6.5	7.0	8.0	8.2	71	162	21	4.0	4.2
4	6.8	11	7.0	7.0	7.0	8.0	8.2	129	150	20	4.9	3.6
5	6.5	11	6.5	6.5	7.5	8.0	8.8	218	125	20	4.2	14
6	6.3	11	6.0	6.5	7.5	8.5	10	276	115	20	12	54
7	7.0	11	5.5	6.5	7.5	8.5	15	320	116	20	7.5	12
8	8.5	10	5.5	6.5	7.5	8.5	15	290	137	16	4.9	8.0
9	9.3	9.0	5.5	7.0	7.5	8.0	19	237	133	14	4.7	6.5
10	10	10	5.5	8.0	8.0	8.0	27	230	150	14	5.1	5.7
11	9.3	10	6.0	8.5	8.0	8.0	33	354	139	13	4.5	5.1
12	8.2	10	7.0	8.5	8.0	8.5	28	426	127	12	4.4	5.5
13	7.8	10	8.0	8.5	8.0	8.5	25	460	115	12	3.9	38
14	7.2	10	8.5	8.5	7.5	8.0	25	408	116	8.8	3.9	22
15	8.0	10	9.0	8.5	7.0	8.0	23	358	115	7.8	4.2	14
16	7.5	11	9.0	8.5	8.0	8.0	21	445	113	6.8	3.9	11
17	8.8	10	9.0	8.5	8.0	8.0	22	540	116	6.8	3.4	9.0
18	12	9.5	9.0	8.5	8.0	8.0	23	575	120	6.5	3.3	8.0
19	10	8.5	10	8.5	7.5	8.0	20	617	122	6.5	3.6	7.8
20	8.2	9.0	8.5	8.5	8.0	8.2	20	561	116	6.1	4.4	7.0
21	8.5	9.0	9.0	8.5	8.0	8.0	19	547	105	6.1	6.3	7.0
22	9.3	9.0	8.5	9.0	8.5	8.0	17	516	102	6.1	5.3	8.0
23	10	9.0	8.0	9.0	8.5	8.0	17	416	100	7.0	4.0	8.2
24	9.6	9.0	8.0	9.0	8.5	8.5	18	344	94	5.9	3.4	7.5
25	9.6	9.0	8.0	9.0	8.5	9.3	30	312	90	5.9	3.3	7.2
26	9.9	8.0	7.5	9.0	8.0	9.3	58	316	83	7.2	3.0	6.8
27	11	7.0	7.0	9.0	8.0	9.3	52	308	72	5.5	3.3	6.3
28	11	6.5	6.5	9.0	8.5	8.8	93	286	66	5.5	3.9	6.1
29	12	7.0	6.5	8.0	------	7.5	64	272	58	4.9	3.8	5.9
30	10	7.5	6.5	7.5	------	7.2	52	251	47	5.7	3.2	5.5
31	9.5	------	6.5	7.0	------	7.2	------	221	------	5.3	3.0	------
TOTAL	266.8	281.0	231.0	246.5	218.0	253.8	825.6	10,396	3,448	362.4	137.6	315.2
MEAN	8.61	9.37	7.45	7.95	7.79	8.19	27.5	335	115	11.7	4.44	10.5
MAX	12	11	10	9.0	8.5	9.3	93	617	179	37	12	54
MIN	4.0	6.5	5.5	6.5	7.0	7.2	7.2	45	47	4.9	3.0	3.6
AC-FT	529	557	458	489	432	503	1,640	20,620	6,840	719	273	625
†	0	0	0	0	0	0	0	0	430	403	0	0

CAL YR 1969 TOTAL 14,249.2 MEAN 39.0 MAX 450 MIN 2.6 ACFT 28,260
WAT YR 1970 TOTAL 16,981.9 MEAN 46.5 MAX 617 MIN 3.0 ACFT 33,680

PEAK DISCHARGE (BASE, 200 CFS).--May 18 (1930) 792 cfs (3.61 ft).

NOTE.--No gage-height record Nov. 1 to Mar. 17.
† Diversions, in acre-feet, by Clear Fork ditch; furnished by State engineer of Colorado.

09130800 West Muddy Creek near Bowie, Colo.

LOCATION.--Lat 39°06'56", long 107°31'26", Delta County, on left bank 20 ft downstream from Forest Service bridge, 0.5 mile northwest of West Muddy Ranger station, 2.7 miles upstream from Cow Creek, and 14 miles north of Bowie.

DRAINAGE AREA.--26.5 sq mi.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,240 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge 659 cfs May 11 (gage height, 4.88 ft); minimum daily, 0.92 cfs Aug. 13, 14, 19.
Period of record: Maximum discharge, 659 cfs May 11, 1970 (gage height, 4.88 ft); maximum gage height, 5.46 ft Apr. 5, 1969 (backwater from ice); minimum daily discharge, 0.92 cfs Aug. 13, 14, 19, 1970.

REMARKS.--Records good except those for winter period, which are poor. A few small diversions above station for irrigation of hay meadows.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	9.0	4.8	2.1	1.7	1.1	1.5	23	63	9.0	2.0	4.0
2	4.1	11	4.6	2.1	1.5	1.3	1.4	28	56	9.0	1.8	11
3	6.0	12	4.4	2.1	1.5	1.3	1.4	44	54	8.3	2.2	4.6
4	7.2	12	4.0	2.0	1.5	1.3	1.4	86	53	8.0	3.5	3.2
5	7.8	10	4.0	2.0	1.4	1.3	1.4	136	49	8.6	2.4	15
6	8.4	8.1	3.8	1.8	1.4	1.3	1.9	196	44	8.3	4.2	86
7	9.0	8.0	3.6	1.7	1.4	1.4	9.0	220	45	9.8	8.6	16
8	10	7.5	3.4	1.5	1.4	1.5	8.5	184	66	8.3	3.7	8.0
9	12	8.0	3.2	1.5	1.4	1.5	10	146	65	8.0	2.4	5.8
10	12	7.0	3.0	1.7	1.4	1.5	12	182	98	9.0	1.7	4.2
11	11	7.5	3.0	1.8	1.5	1.5	12	323	88	8.6	1.2	3.2
12	10	7.0	3.0	1.8	1.4	1.5	11	328	65	8.3	1.0	3.0
13	10	6.5	3.0	1.8	1.4	1.5	11	360	49	8.3	.92	45
14	11	6.5	3.0	1.7	1.4	1.5	9.5	271	44	5.3	.92	19
15	9.0	6.0	3.0	1.7	1.4	1.5	8.5	218	41	4.0	1.4	9.4
16	8.7	6.0	3.2	1.7	1.4	1.5	7.5	266	36	3.5	1.5	5.8
17	10	5.5	3.4	1.7	1.4	1.5	8.0	277	35	3.0	1.0	4.6
18	17	5.5	3.4	1.7	1.4	1.5	7.5	236	32	2.7	1.1	4.0
19	13	5.0	3.4	1.7	1.3	1.5	7.0	236	29	2.4	.92	3.3
20	12	5.5	3.4	1.7	1.3	1.4	7.0	197	26	2.1	2.4	2.8
21	12	6.0	3.4	1.7	1.1	1.4	6.5	176	28	2.2	11	2.4
22	10	6.0	3.2	1.7	1.1	1.4	6.0	149	30	4.4	6.2	4.4
23	12	6.0	3.0	1.7	1.3	1.5	6.0	137	24	4.2	3.3	5.8
24	11	6.0	2.8	1.7	1.3	1.8	7.0	125	22	2.8	2.6	4.4
25	11	5.5	2.6	1.7	1.3	1.8	10	118	20	6.8	1.7	4.0
26	11	5.5	2.6	1.7	1.3	1.8	19	110	17	14	2.0	3.3
27	11	5.0	2.4	1.7	1.3	1.7	33	98	15	6.9	3.0	3.0
28	11	4.8	2.4	1.8	1.1	1.5	41	94	14	4.2	3.2	2.7
29	10	4.8	2.3	1.7	------	1.5	35	88	13	3.3	2.4	2.7
30	11	4.8	2.2	1.7	------	1.5	28	82	11	3.0	2.8	2.6
31	10	------	2.2	1.7	------	1.5	------	75	------	2.4	4.0	------
TOTAL	313.2	208.0	99.7	54.6	38.3	45.8	329.0	5,209	1,232	188.7	87.06	293.2
MEAN	10.1	6.93	3.22	1.76	1.37	1.48	11.0	168	41.1	6.09	2.81	9.77
MAX	17	12	4.8	2.1	1.7	1.8	41	360	98	14	11	86
MIN	4.1	4.8	2.2	1.5	1.1	1.1	1.4	23	11	2.1	.92	2.4
AC-FT	621	413	198	108	76	91	653	10,330	2,440	374	173	582

CAL YR 1969 TOTAL 9,145.18 MEAN 25.1 MAX 317 MIN .98 ACFT 18,140
WAT YR 1970 TOTAL 8,098.56 MEAN 22.2 MAX 360 MIN .92 ACFT 16,060

PEAK DISCHARGE (BASE, 200 CFS).--May 11 (1900) 659 cfs (4.88 ft).

09131100 Cow Creek near Paonia, Colo.

LOCATION.--Lat 39°06'15", long 107°35'02", Delta County, on right bank 40 ft upstream from road culvert, 1.8 miles upstream from Beaver Creek, and 16 miles north of Paonia.

DRAINAGE AREA.--12.0 sq mi.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,060 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 80 cfs Sept. 6 (gage height, 1.36 ft); minimum daily, 1.7 cfs Mar. 16.
Period of record: Maximum discharge, 100 cfs May 12, 1969 (gage height, 1.49 ft); minimum daily, 1.5 cfs Jan. 10, 1969.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by Overland Reservoir (capacity, 6,280 acre-ft). Diversions by Overland ditch 3.6 miles above station for use outside drainage.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	11	3.5	2.5	2.3	2.0	2.0	5.2	12	4.8	6.3	2.9
2	6.3	12	3.2	2.5	2.3	2.0	2.0	5.2	11	4.5	6.3	2.9
3	6.7	12	3.0	2.5	2.5	2.0	2.0	5.9	11	4.5	6.7	2.5
4	7.5	11	3.0	2.5	2.5	2.0	2.0	12	11	4.5	7.1	2.3
5	8.7	9.5	3.0	2.5	2.5	2.0	2.0	14	11	4.5	6.7	14
6	9.1	8.5	3.0	2.5	2.5	2.0	2.6	17	10	4.5	7.1	72
7	8.7	8.0	3.0	2.5	2.5	2.0	4.4	14	10	4.8	7.5	64
8	11	7.5	3.0	2.5	2.5	2.0	4.0	13	13	4.5	6.3	58
9	13	7.0	3.0	2.5	2.5	2.0	4.2	12	14	4.5	5.9	49
10	14	6.5	3.0	2.5	2.5	2.0	4.0	14	20	4.5	5.5	39
11	14	6.0	3.2	2.7	2.5	2.0	3.5	20	61	4.2	5.5	27
12	14	5.5	3.4	2.7	2.5	2.0	3.5	23	44	4.2	5.5	19
13	13	5.5	3.5	2.7	2.5	2.0	3.2	27	41	4.2	5.2	49
14	13	5.0	3.5	2.7	2.5	2.0	3.2	25	40	4.2	5.0	54
15	12	5.0	3.5	2.7	2.5	2.0	3.0	26	39	4.8	5.0	18
16	12	4.8	3.5	2.7	2.5	1.7	2.7	32	33	4.8	5.0	55
17	12	4.6	3.5	2.7	2.5	1.9	2.7	40	12	4.8	5.0	40
18	12	4.5	3.5	2.7	2.3	1.8	2.7	46	12	4.8	4.8	23
19	13	4.5	3.5	2.7	2.2	1.8	2.7	43	13	4.5	4.5	16
20	12	4.5	3.5	2.7	2.2	1.8	2.9	38	20	4.8	4.8	12
21	12	4.6	3.5	2.7	2.2	1.8	2.9	33	20	5.9	5.2	9.1
22	12	4.8	3.5	2.7	2.2	1.8	3.0	27	21	6.3	4.8	9.5
23	12	4.8	3.4	2.8	2.2	1.8	3.2	21	29	6.7	4.5	13
24	11	4.6	3.2	2.8	2.2	2.1	3.8	19	32	6.7	4.2	15
25	12	4.5	3.0	2.8	2.2	2.1	4.8	17	32	7.1	4.0	12
26	11	4.2	3.0	2.8	2.2	2.1	5.5	16	31	7.1	4.8	9.5
27	12	4.0	3.0	2.8	2.2	2.1	6.3	14	26	6.7	4.5	8.3
28	11	4.0	2.8	2.8	2.2	2.1	5.5	14	20	6.3	4.2	7.9
29	11	4.0	2.6	2.5	------	2.0	5.5	14	15	6.3	4.0	7.5
30	11	4.0	2.5	2.3	------	2.0	5.5	14	7.9	6.3	3.2	6.7
31	11	------	2.5	2.3	------	2.0	------	13	------	6.3	2.9	------
TOTAL	344.3	186.4	98.3	81.3	66.4	60.9	105.3	634.3	671.9	162.6	162.0	718.1
MEAN	11.1	6.21	3.17	2.62	2.37	1.96	3.51	20.5	22.4	5.25	5.23	23.9
MAX	14	12	3.5	2.8	2.5	2.1	6.3	46	61	7.1	7.5	72
MIN	6.3	4.0	2.5	2.3	2.2	1.7	2.0	5.2	7.9	4.2	2.9	2.3
AC-FT	683	370	195	161	132	121	209	1,260	1,330	323	321	1,420

CAL YR 1969 TOTAL 4,036.3 MEAN 11.1 MAX 89 MIN 1.5 ACFT 8,010
WAT YR 1970 TOTAL 3,291.8 MEAN 9.02 MAX 72 MIN 1.7 ACFT 6,530

NOTE.--No gage-height record Nov. 13 to Mar. 18.

09131200 West Muddy Creek near Somerset, Colo.

LOCATION.--Lat 39°05'23", long 107°30'17", in N½ sec.24, T.11 S., R.91 W., Delta County, on right bank 300 ft downstream from Cow Creek, 1.5 miles southeast of West Muddy ranger station, and 13 miles north of Somerset.

DRAINAGE AREA.--50.1 sq mi.

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,020 ft (from topographic map).

AVERAGE DISCHARGE.--9 years, 30.6 cfs (22,170 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 830 cfs May 11 (gage height, 3.13 ft); minimum daily, 4.5 cfs Aug. 19.
Period of record: Maximum discharge, about 900 cfs May 11, 1962 (gage height not determined); minimum daily, 0.10 cfs Aug. 1, 1963.

REMARKS.--Records fair except those for period of no gage-height record, which are poor. Small diversions above station for irrigation of hay meadows. Some regulation by Overland Reservoir (capacity, 6,280 acre-ft) on Cow Creek above station. Diversion above station for use outside Muddy Creek drainage by Overland ditch.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	15	8.5	6.5	7.0	6.5	6.1	28	92	8.6	5.9	12
2	8.0	16	8.5	6.5	7.0	6.5	6.1	30	80	7.7	5.9	18
3	10	17	8.5	6.8	7.0	6.5	6.1	51	76	7.4	6.3	8.0
4	11	17	8.0	6.8	7.0	6.5	6.1	147	74	7.1	7.7	6.5
5	12	17	7.5	7.0	7.0	6.5	6.1	267	68	8.3	6.5	31
6	13	17	7.5	7.0	7.0	6.5	7.4	371	62	8.3	7.9	150
7	14	16	7.5	7.0	7.0	6.5	12	380	62	10	14	70
8	17	15	7.5	7.0	7.0	6.5	11	256	100	8.0	7.4	59
9	20	14	8.0	7.0	7.0	6.0	12	171	118	7.4	6.1	47
10	23	12	8.0	7.0	7.0	6.0	16	213	210	12	5.3	34
11	21	14	7.5	7.0	7.0	6.5	16	395	311	12	4.9	24
12	18	14	7.5	7.0	7.0	6.5	14	405	210	11	4.9	18
13	17	14	7.5	7.0	7.0	6.5	15	410	153	14	4.7	93
14	18	12	8.0	7.0	7.0	6.5	12	344	132	10	4.7	72
15	16	11	8.0	7.0	7.0	6.5	10	278	125	8.6	5.3	28
16	17	10	8.5	7.0	7.0	6.5	9.5	340	100	7.7	5.3	60
17	18	9.0	8.5	7.0	7.0	6.0	10	376	47	7.4	4.9	41
18	28	8.0	8.5	7.0	7.0	5.9	9.5	366	36	6.8	4.7	27
19	23	7.5	8.5	7.0	7.0	5.9	8.9	299	30	6.3	4.5	18
20	20	8.0	8.5	7.0	6.5	5.9	8.9	270	37	5.5	5.3	15
21	22	9.0	8.0	7.0	6.5	5.9	8.3	239	46	6.1	15	13
22	18	10	8.0	7.0	6.5	5.9	7.4	198	54	7.7	8.3	15
23	18	10	8.0	7.5	6.5	5.9	7.7	186	54	8.9	6.3	19
24	18	10	7.0	7.5	7.0	6.1	7.7	159	54	7.4	5.9	18
25	18	9.0	7.0	7.5	7.0	6.1	14	144	53	10	5.7	16
26	17	8.5	7.0	7.5	7.0	6.1	29	132	43	24	7.2	14
27	17	7.5	7.0	7.5	7.0	6.1	56	128	31	12	7.1	12
28	17	7.0	6.5	7.5	6.5	6.1	80	130	25	8.0	7.1	11
29	18	7.5	6.5	7.5	------	6.1	51	130	16	7.7	6.8	10
30	17	8.0	6.5	7.5	------	6.3	33	120	12	7.4	6.8	10
31	16	------	6.5	7.0	------	6.1	------	110	------	6.3	7.1	------
TOTAL	529.0	350.0	238.5	219.6	193.5	193.4	496.8	7,073	2,511	279.6	205.5	969.5
MEAN	17.1	11.7	7.69	7.08	6.91	6.24	16.6	228	83.7	9.02	6.63	32.3
MAX	28	17	8.5	7.5	7.0	6.5	80	410	311	24	15	150
MIN	8.0	7.0	6.5	6.5	6.5	5.9	6.1	28	12	5.5	4.5	6.5
AC-FT	1,050	694	473	436	384	384	985	14,030	4,980	555	408	1,920

CAL YR 1969 TOTAL 15,677.7 MEAN 43.0 MAX 470 MIN 3.5 ACFT 31,100
WAT YR 1970 TOTAL 13,259.4 MEAN 36.3 MAX 410 MIN 4.5 ACFT 26,300

PEAK DISCHARGE (BASE, 250 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
5- 6	2000	2.75	622	6-11	0330	2.18	376
5-11	1900	3.13	830	9- 6	0230	2.10	281

09132500 North Fork Gunnison River near Somerset, Colo.

LOCATION.--Lat 38°55'45", long 107°26'55", in sec.9, T.13 S., R.90 W., Gunnison County, on right bank 1.5 miles east of Somerset and 4 miles upstream from Hubbard Creek.

DRAINAGE AREA.--531 sq mi.

PERIOD OF RECORD.--October 1933 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder. Datum of gage is 6,038.6 ft above mean sea level.

AVERAGE DISCHARGE.--37 years, 434 cfs (314,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,570 cfs May 22 (gage height, 4.43 ft); minimum daily, 56 cfs Oct. 2.
Period of record: Maximum discharge, 7,860 cfs June 4, 1957 (gage height, 6.14 ft); minimum daily, 17 cfs Nov. 10, 1950.

REMARKS.--Records good. Natural flow of stream affected by small diversions for irrigation in nearby drainage areas, irrigation of about 3,000 acres above station, and storage in Overland Reservoir (capacity, 6,280 acre-ft) and Paonia Reservoir (capacity, 18,300 acre-ft).

REVISIONS.--WRD Colo. 1967: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	164	180	180	65	101	99	830	1,790	806	216	146
2	56	146	188	174	70	115	97	814	1,740	682	219	135
3	72	128	188	194	70	111	101	830	1,770	654	236	118
4	74	143	198	180	75	107	91	1,030	1,770	633	272	202
5	69	149	191	188	80	107	97	1,410	1,570	598	260	219
6	63	149	177	188	83	105	105	1,830	1,530	577	248	545
7	63	149	177	180	81	105	135	2,130	1,530	742	236	338
8	63	152	167	180	81	113	149	1,930	1,640	612	248	284
9	63	149	167	180	79	118	188	1,760	1,650	540	226	256
10	83	149	188	180	83	115	260	1,720	1,790	480	219	236
11	93	143	177	170	85	109	307	2,140	1,850	442	222	226
12	85	140	177	170	85	111	272	2,610	1,700	402	230	230
13	77	140	170	160	91	115	236	2,730	1,490	370	230	799
14	77	109	170	160	85	120	226	2,620	1,500	338	226	510
15	97	83	170	160	81	120	216	2,410	1,480	298	233	397
16	93	147	170	160	81	120	208	2,650	1,450	280	233	348
17	99	212	170	150	83	120	226	3,050	1,460	264	222	307
18	113	180	170	100	83	110	268	3,190	1,510	252	222	280
19	130	167	170	65	68	100	248	3,170	1,560	260	226	260
20	103	188	177	65	72	110	252	3,120	1,580	230	248	248
21	107	202	174	63	99	115	316	3,170	1,610	208	272	236
22	125	216	177	63	89	120	325	3,210	1,620	205	140	236
23	128	205	170	64	93	120	352	3,210	1,550	233	184	233
24	122	194	174	70	93	130	352	2,680	1,500	208	248	222
25	120	191	170	69	97	113	424	1,870	1,420	205	230	219
26	120	188	174	69	97	118	598	1,950	1,350	230	222	212
27	122	180	170	69	93	107	870	2,000	1,250	222	222	216
28	140	170	146	69	97	101	998	1,900	1,230	219	222	212
29	174	174	146	57	------	105	966	1,720	1,120	212	219	205
30	164	180	161	59	------	105	894	1,820	958	212	222	198
31	152	------	180	65	------	101	------	2,210	------	222	121	------
TOTAL	3,107	4,887	5,384	3,901	2,339	3,467	9,876	67,714	45,968	11,836	6,974	8,273
MEAN	100	163	174	126	83.5	112	329	2,184	1,532	382	225	276
MAX	174	216	198	194	99	130	998	3,210	1,850	806	272	799
MIN	56	83	146	57	65	100	91	814	958	205	121	118
AC-FT	6,160	9,690	10,680	7,740	4,640	6,880	19,590	134,300	91,180	23,480	13,830	16,410
†	10,640	9,850	5,600	2,290	2,720	2,620	3,480	11,390	18,470	18,470	13,010	13,130

CAL YR 1969 TOTAL 182,079 MEAN 499 MAX 2,750 MIN 40 ACFT 361,200
WAT YR 1970 TOTAL 173,726 MEAN 476 MAX 3,210 MIN 56 ACFT 344,600

† Month-end contents, in acre-ft, in Paonia Reservoir; furnished by North Fork Conservancy District.

09132900 West Hubbard Creek near Paonia, Colo.

LOCATION.--Lat 39°01'56", long 107°36'47", in NE¼ sec.12, T.12 S., R.92 W., Delta County, on left bank 75 ft upstream from Overland ditch crossing, 3 miles south of Hubbard Park, and 11 miles north of Paonia.

DRAINAGE AREA.--2.36 sq mi.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,640 ft (from topographic map).

AVERAGE DISCHARGE.--10 years, 3.56 cfs (2,580 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 55 cfs Sept. 5 (gage height, 4.23 ft); minimum daily, 0.15 cfs Jan. 30.
Period of record: Maximum discharge, 93 cfs July 30, 1969 (gage height, 4.80 ft), from rating curve extended above 40 cfs; minimum daily determined, 0.10 cfs Apr. 4, 8, 1964.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No diversion above station.

REVISIONS.--WRD Colo. 1967: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.1	1.2	.50	.60	.60	1.0	7.0	15	3.7	1.6	1.5
2	1.0	1.1	1.2	.60	.60	.60	1.0	8.5	14	3.5	1.6	1.5
3	1.2	1.0	1.1	.60	.60	.60	1.0	9.5	16	3.2	1.6	1.3
4	1.4	1.1	1.0	.50	.60	.60	1.0	11	13	3.4	1.6	1.4
5	1.5	1.2	.60	.40	.50	.80	1.0	12	11	3.4	1.6	12
6	1.5	1.2	.50	.30	.60	.80	2.0	14	12	4.1	1.6	21
7	1.5	1.2	.50	.20	.50	.80	2.5	16	14	4.6	1.6	3.7
8	1.5	1.1	.50	.20	.40	.80	2.7	13	28	4.8	1.6	2.6
9	1.5	1.0	.50	.30	.40	.80	2.5	11	25	4.3	1.5	2.3
10	1.6	.90	.60	.40	.40	.80	3.0	25	36	3.5	1.4	1.9
11	1.8	1.0	.70	.50	.50	.60	3.5	30	22	3.4	1.4	1.8
12	1.8	1.1	.70	.50	.50	.80	3.0	28	15	3.2	1.4	2.5
13	1.8	1.1	.60	.40	.50	.80	3.2	25	16	3.4	1.3	20
14	1.7	1.1	.60	.40	.50	.80	3.0	23	17	3.2	1.2	10
15	1.5	1.0	.60	.40	.40	.80	2.6	22	16	2.9	1.2	5.0
16	1.6	1.0	.60	.50	.30	.80	2.5	23	13	2.8	1.2	2.5
17	1.8	.90	.50	.60	.40	.80	2.5	22	13	3.8	1.3	2.3
18	1.8	.70	.50	.60	.60	.80	2.5	22	12	3.4	1.3	2.1
19	1.8	.60	.60	.50	.60	.80	2.5	21	12	2.9	1.3	2.0
20	1.7	.60	.60	.40	.60	.80	2.4	20	11	2.5	1.5	1.8
21	1.6	.70	.50	.40	.60	1.0	2.4	19	11	2.4	1.9	1.8
22	1.5	.80	.60	.50	.60	1.0	2.3	18	15	2.3	1.6	2.2
23	1.4	.80	.70	.50	.60	1.2	2.5	17	12	2.5	2.0	2.5
24	1.4	.80	.70	.50	.60	1.2	2.8	17	9.6	2.3	1.9	2.1
25	1.4	.70	.70	.40	.60	1.2	3.2	16	9.0	2.3	1.6	2.1
26	1.3	.70	.60	.50	.60	1.2	4.0	16	7.3	2.4	1.6	2.0
27	1.2	.70	.50	.50	.60	1.2	5.5	14	6.5	2.0	1.5	2.0
28	1.0	.70	.40	.50	.60	1.0	8.0	16	5.6	1.8	1.4	2.0
29	.90	.80	.30	.20	------	1.0	7.8	21	5.1	1.8	1.4	2.0
30	1.0	1.0	.30	.15	------	1.0	7.4	24	4.3	1.7	1.5	2.0
31	1.1	------	.40	.60	------	1.0	------	20	------	1.6	1.5	------
TOTAL	44.90	27.70	19.40	13.55	14.90	27.00	91.3	561.0	416.4	93.1	46.7	119.9
MEAN	1.45	.92	.63	.44	.53	.87	3.04	18.1	13.9	3.00	1.51	4.00
MAX	1.8	1.2	1.2	.60	.60	1.2	8.0	30	36	4.8	2.0	21
MIN	.90	.60	.30	.15	.30	.60	1.0	7.0	4.3	1.6	1.2	1.3
AC-FT	89	55	38	27	30	54	181	1,110	826	185	93	238

CAL YR 1969 TOTAL 1,633.10 MEAN 4.47 MAX 39 MIN .30 ACFT 3,240
WAT YR 1970 TOTAL 1,475.85 MEAN 4.04 MAX 36 MIN .15 ACFT 2,930

PEAK DISCHARGE (BASE, 40 CFS).--June 10 (1600) 41 cfs (4.10 ft), Sept. 5 (2200) 55 cfs (4.23 ft).

NOTE.--No gage-height record Oct. 4 to May 26.

09132920 Hubbard Creek near Bowie, Colo.

LOCATION.--Lat 39°02'41", long 107°33'58", in NW¼ sec.4, T.12 S., R.91 W., Delta County, on left bank 0.2 mile downstream from West Hubbard Creek and 9 miles north of Bowie.

DRAINAGE AREA.--20.6 sq mi.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,440 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 539 cfs Sept. 6 (gage height, 2.44 ft), from rating curve extended above 140 cfs; minimum daily, 1.6 cfs Sept. 3.
Period of record: Maximum discharge, 853 cfs June 24, 1969 (gage height, 2.73 ft), from rating curve extended above 140 cfs; minimum daily, 1.6 cfs Sept. 3, 1970.

REMARKS.--Records poor. Water diverted above station at times by Overland ditch.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	6.4	3.6	2.4	2.4	3.5	3.6	20	53	6.4	3.5	2.4
2	4.0	7.4	3.8	2.2	2.5	3.5	3.6	25	49	5.8	4.8	3.2
3	5.5	8.0	4.0	2.2	2.7	3.5	3.7	40	41	5.3	9.3	1.6
4	6.8	8.0	4.0	2.4	2.9	3.6	3.7	70	36	4.8	14	5.3
5	7.1	8.0	4.0	2.4	3.0	3.8	3.8	100	33	4.8	6.1	39
6	7.9	7.7	4.0	2.1	3.2	3.9	3.8	140	34	7.1	5.0	111
7	8.7	7.0	3.6	2.1	3.2	4.0	5.0	170	34	8.0	5.3	19
8	11	7.0	3.4	2.1	3.2	4.0	7.5	140	72	5.8	5.8	13
9	11	7.0	3.4	2.8	3.2	4.0	7.0	120	74	5.8	4.2	8.0
10	10	7.0	3.4	3.0	3.2	4.0	8.5	150	161	5.3	3.7	5.5
11	9.0	7.0	3.6	3.1	3.2	4.0	10	250	100	4.5	3.2	3.5
12	7.4	6.5	3.8	3.2	3.2	4.0	9.0	270	79	3.7	3.2	4.2
13	7.4	6.0	3.8	3.3	3.2	4.0	9.5	280	48	3.5	3.2	120
14	7.7	5.0	3.6	3.2	3.0	4.0	8.0	220	45	2.9	3.2	31
15	6.4	5.0	3.5	3.1	3.0	4.0	7.0	180	41	3.0	2.9	16
16	6.4	5.5	3.4	2.9	3.0	4.0	6.0	200	36	2.8	2.6	13
17	7.4	5.0	3.4	2.9	3.5	4.0	5.8	220	34	4.7	2.6	10
18	9.4	4.6	3.4	2.8	3.0	3.9	5.8	190	34	2.9	2.2	8.4
19	7.7	4.2	3.4	2.7	3.0	4.0	5.6	160	32	2.6	2.0	6.4
20	8.4	4.2	3.6	2.7	3.3	4.0	5.6	140	32	2.2	3.0	5.3
21	7.7	4.5	3.8	2.8	3.5	4.0	5.0	120	31	2.2	5.8	4.5
22	7.4	5.0	4.2	2.9	3.5	4.0	4.5	110	35	2.4	3.2	6.8
23	7.4	5.0	4.2	2.9	3.5	4.0	5.0	100	36	4.0	3.0	8.7
24	7.4	5.0	3.8	2.8	3.5	4.1	5.5	90	32	3.2	3.2	8.0
25	7.7	4.8	3.6	2.8	3.5	4.1	8.0	85	28	5.5	2.2	6.1
26	7.7	4.4	3.4	2.9	3.5	4.1	15	80	24	6.9	2.2	5.5
27	8.7	4.0	3.2	2.9	3.5	4.1	30	68	17	7.1	2.3	5.5
28	9.0	3.8	2.9	2.6	3.5	3.8	35	67	16	5.5	2.0	5.5
29	9.8	3.6	2.8	2.2	------	3.6	30	83	14	5.3	1.7	5.3
30	7.4	3.6	2.7	2.2	------	3.6	28	88	7.4	4.8	1.7	5.3
31	7.7	------	2.5	2.8	------	3.6	------	77	------	4.0	2.0	------
TOTAL	242.1	170.2	109.8	83.4	88.9	120.7	288.5	4,053	1,308.4	142.8	119.1	487.0
MEAN	7.81	5.67	3.54	2.69	3.18	3.89	9.62	131	43.6	4.61	3.84	16.2
MAX	11	8.0	4.2	3.3	3.5	4.1	35	280	161	8.0	14	120
MIN	4.0	3.6	2.5	2.1	2.4	3.5	3.6	20	7.4	2.2	1.7	1.6
AC-FT	480	338	218	165	176	239	572	8,040	2,600	283	236	966

CAL YR 1969 TOTAL 9,737.5 MEAN 26.7 MAX 385 MIN 2.0 ACFT 19,310
WAT YR 1970 TOTAL 7,213.9 MEAN 19.8 MAX 280 MIN 1.6 ACFT 14,310

NOTE.--No gage-height record Nov. 10 to May 26.

PEAK DISCHARGE (BASE, 150 CFS)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
5-11	Unknown	2.40	530	9- 6	0100	2.44	539
6-10	0600	1.84	215	9-13	0600	2.10	323

09136200 Gunnison River near Lazear, Colo.

LOCATION.--Lat 38°47'00", long 107°50'15", in NE¼ sec.1, T.15 S., R.94 W., Delta County, on left bank 300 ft downstream from North Fork Gunnison River and 3 miles west of Lazear.

DRAINAGE AREA.--5,241 sq mi.

PERIOD OF RECORD.--May 1962 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,090 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 11,000 cfs June 29 (gage height, 5.50 ft); minimum daily, 411 cfs Oct. 9.
Period of record: Maximum discharge, 14,800 cfs May 13, 1962 (gage height, 6.30 ft, from recorded range in stage); minimum daily, 115 cfs Oct. 6, 1963.

REMARKS.--Records good. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power development, and diversions for irrigation of about 150,000 acres, part of which is in the Uncompahgre River basin.

REVISIONS.--WRD Colo. 1967: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,190	1,660	1,750	1,630	1,680	2,000	1,800	1,880	4,800	2,270	830	1,010
2	1,160	1,620	1,740	1,620	1,640	2,080	1,800	1,810	3,110	1,800	820	1,070
3	1,380	1,660	1,720	1,600	1,660	2,080	1,990	1,970	4,380	5,390	830	1,010
4	1,480	1,660	1,720	1,600	1,680	2,050	1,860	2,400	4,380	4,500	974	1,030
5	1,420	1,690	1,620	1,600	1,640	2,050	1,700	3,000	4,830	2,680	998	1,170
6	1,340	1,680	580	1,580	1,660	2,050	1,680	3,650	6,090	2,200	962	2,260
7	1,480	1,690	460	1,620	1,640	2,070	1,660	4,440	6,150	1,690	950	1,750
8	1,200	1,700	418	1,630	1,630	2,080	1,630	4,280	4,880	3,560	906	1,500
9	411	1,700	1,550	1,640	1,630	2,100	1,600	3,680	4,800	2,140	895	1,430
10	476	1,700	1,720	1,640	1,690	2,120	1,660	3,360	5,450	2,420	862	1,390
11	1,110	1,700	1,700	1,640	1,720	2,120	1,800	3,950	5,760	4,820	840	1,350
12	1,540	1,690	1,700	1,630	1,750	2,100	1,640	5,230	5,510	6,640	830	1,380
13	1,480	1,690	1,700	1,630	1,830	2,080	1,450	5,230	6,740	4,130	810	2,390
14	1,440	1,680	1,690	1,630	1,830	2,100	1,380	5,200	6,570	1,170	820	2,090
15	1,520	1,630	1,680	1,620	1,810	2,130	964	4,530	5,550	974	862	1,300
16	1,630	1,660	1,700	1,620	1,810	2,120	1,230	4,940	2,820	974	974	1,660
17	1,630	1,750	1,700	1,620	1,830	2,130	1,330	6,210	2,870	1,010	917	1,590
18	1,620	1,720	1,700	1,630	1,860	2,100	1,460	7,470	2,960	986	917	1,540
19	1,660	1,690	1,690	1,570	1,830	2,080	1,390	7,650	3,070	1,710	1,320	1,500
20	1,440	1,740	1,700	1,560	1,810	2,070	1,320	7,260	7,000	3,040	986	1,490
21	1,180	1,760	1,700	1,560	1,890	2,080	1,340	7,220	8,660	884	1,190	1,430
22	1,360	1,810	1,700	1,570	1,910	2,080	1,360	7,180	8,270	873	1,290	1,460
23	1,450	1,800	1,700	1,600	1,920	2,070	1,380	8,620	3,240	986	1,080	1,460
24	1,210	1,780	1,720	1,620	1,960	2,080	1,340	7,980	5,350	939	1,050	1,430
25	1,190	1,780	1,700	1,600	1,970	2,120	1,500	5,560	5,560	1,170	986	1,420
26	1,330	1,780	1,690	1,620	1,960	2,070	1,910	4,400	6,950	1,460	950	1,420
27	1,440	1,760	1,690	1,630	1,970	2,070	2,340	4,310	10,400	1,260	939	1,400
28	1,140	1,740	1,640	1,660	1,970	2,050	2,500	4,120	10,600	895	928	1,390
29	1,450	1,720	1,600	1,620	------	2,070	2,150	3,480	6,500	873	917	1,400
30	1,510	1,740	1,580	1,620	------	2,000	1,990	5,670	2,780	851	906	1,400
31	1,400	------	1,620	1,660	------	1,810	------	6,470	------	840	1,020	------
TOTAL	41,267	51,380	48,578	50,070	50,180	64,210	49,154	153,150	166,030	65,135	29,559	44,620
MEAN	1,331	1,713	1,567	1,615	1,792	2,071	1,638	4,940	5,534	2,101	954	1,487
MAX	1,660	1,810	1,750	1,660	1,970	2,130	2,500	8,620	10,600	6,640	1,320	2,390
MIN	411	1,620	418	1,560	1,630	1,810	964	1,810	2,780	840	810	1,010
AC-FT	81,850	101,900	96,350	99,310	99,530	127,400	97,500	303,800	329,300	129,200	58,630	88,500

CAL YR 1969 TOTAL 627,199 MEAN 1,718 MAX 7,000 MIN 275 ACFT 1,244,000
WAT YR 1970 TOTAL 813,333 MEAN 2,228 MAX 10,600 MIN 411 ACFT 1,613,000

09143000 Surface Creek near Cedaredge, Colo.

LOCATION.--Lat 38°59'05", long 107°51'15", in NW¼NW¼ sec.25, T.12 S., R.94 W., Delta County, on left bank 5 ft downstream from private bridge, 1.5 miles downstream from Caesar Creek, and 7 miles northeast of Cedaredge.

DRAINAGE AREA.--26.7 sq mi.

PERIOD OF RECORD.--June 1939 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder. Altitude of gage is 8,261 ft (from topographic map).

AVERAGE DISCHARGE.--31 years, 41.5 cfs (30,070 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 312 cfs June 10 (gage height, 2.63 ft); minimum daily, 3.5 cfs Jan. 30.
Period of record: Maximum discharge, 578 cfs May 12, 1941 (gage height, 3.62 ft), from rating curve extended above 300 cfs; maximum gage height, 5.10 ft Apr. 13, 1958 (ice jam); minimum daily discharge determined, 1.8 cfs Dec. 8, 1963.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by many small reservoirs. Some water imported from Leon Lake in Plateau Creek drainage.

REVISIONS.--WSP 1924: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	13	6.0	4.8	4.5	4.5	5.8	15	123	91	68	56
2	16	13	6.5	4.8	4.4	4.5	6.0	16	121	86	69	54
3	16	12	6.8	4.8	4.4	4.8	6.0	25	125	80	71	53
4	14	11	6.8	4.6	4.2	4.8	6.0	48	130	73	74	53
5	14	10	6.7	4.4	4.2	5.0	6.2	77	125	71	71	78
6	14	9.5	6.5	4.2	4.4	5.0	7.9	101	125	70	70	110
7	14	9.0	6.0	4.2	4.4	4.8	9.0	98	125	77	74	57
8	14	8.5	5.2	4.2	4.2	5.2	8.8	76	165	71	62	39
9	14	7.5	5.5	4.2	4.0	5.2	10	62	186	89	60	34
10	14	6.5	5.5	4.5	4.1	5.5	14	76	270	83	59	31
11	13	7.0	5.2	4.7	4.3	5.8	13	114	234	80	73	29
12	13	7.0	5.0	5.0	4.5	5.5	11	132	195	77	74	28
13	14	7.0	5.0	5.0	4.6	5.5	10	138	177	70	78	73
14	14	6.5	5.0	4.8	4.6	5.5	9.4	125	150	62	77	39
15	13	6.5	5.2	4.6	4.4	5.8	9.1	132	135	60	68	28
16	13	6.5	5.2	4.8	4.2	5.5	9.0	159	121	70	65	25
17	13	6.0	5.2	5.0	4.2	5.5	9.1	177	116	69	65	20
18	14	5.5	5.0	5.0	4.4	5.5	9.4	180	112	66	65	20
19	13	5.5	5.0	5.0	4.5	5.5	9.5	168	108	61	66	23
20	15	6.0	5.2	4.8	4.1	5.5	9.5	168	104	60	68	23
21	16	6.0	5.2	5.0	4.1	5.5	9.0	217	104	62	68	22
22	13	5.0	5.2	5.0	4.3	5.8	9.0	217	108	65	61	27
23	13	4.8	5.2	5.0	4.3	6.0	9.5	207	117	60	61	27
24	13	5.0	5.4	5.0	4.1	6.2	11	201	108	59	60	23
25	13	5.0	5.2	5.0	4.1	6.2	16	186	98	45	58	21
26	13	5.2	5.0	4.8	4.1	5.8	28	186	86	47	57	16
27	14	5.2	5.0	5.0	4.1	5.8	31	174	88	43	54	14
28	14	5.2	4.7	4.8	4.1	5.8	26	171	82	66	53	14
29	13	5.2	4.2	4.0	------	5.8	21	171	80	71	56	20
30	13	5.5	4.2	3.5	------	5.8	18	165	91	66	59	21
31	13	------	4.6	4.5	------	5.8	------	148	------	64	59	------
TOTAL	428	215.6	166.4	145.0	119.8	169.4	357.2	4,130	3,909	2,114	2,023	1,078
MEAN	13.8	7.19	5.37	4.68	4.28	5.46	11.9	133	130	68.2	65.3	35.9
MAX	16	13	6.8	5.0	4.6	6.2	31	217	270	91	78	110
MIN	13	4.8	4.2	3.5	4.0	4.5	5.8	15	80	43	53	14
AC-FT	849	428	330	288	238	336	709	8,190	7,750	4,190	4,010	2,140

CAL YR 1969 TOTAL 19,197.1 MEAN 52.6 MAX 235 MIN 3.1 ACFT 38,080
WAT YR 1970 TOTAL 14,855.4 MEAN 40.7 MAX 270 MIN 3.5 ACFT 29,470

NOTE.--No gage-height record Dec. 13 to Jan. 20.

09143500 Surface Creek at Cedaredge, Colo.

LOCATION.--Lat 38°54'06", long 107°55'14", in SE¼ sec.20, T.13 S., R.94 W., Delta County, on left bank at Cedaredge, 700 ft east of State Highway 65 and 8.5 miles upstream from mouth.

DRAINAGE AREA.--39.5 sq mi.

PERIOD OF RECORD.--October 1916 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,220 ft (from topographic map). Prior to June 8, 1917, nonrecording gage at same site at datum 0.5 ft higher.

AVERAGE DISCHARGE.--54 years, 27.1 cfs (19,630 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 260 cfs June 10 (gage height, 2.03 ft); minimum daily, 3.7 cfs Apr. 23.
Period of record: Maximum discharge, 1,190 cfs May 13, 1941 (gage height, 2.50 ft), from rating curve extended above 640 cfs; no flow Sept. 25, 1939, and practically no flow at times in some winters.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by diversions to and from nearby streams, many small storage reservoirs, diversions for irrigation, and return flow from irrigated areas.

REVISIONS.--WSP 1924: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	12	6.0	4.6	4.4	5.5	4.1	13	71	53	10	15
2	11	8.0	6.5	4.6	5.1	5.5	4.8	14	67	52	8.0	19
3	13	9.0	7.0	4.4	5.1	5.1	4.8	30	69	44	8.0	20
4	11	9.3	7.5	4.6	4.4	5.5	4.8	67	65	42	11	20
5	13	8.6	7.4	4.6	4.4	5.5	4.4	103	71	42	7.5	35
6	12	9.3	7.0	4.0	4.8	6.0	6.5	109	71	40	12	101
7	13	11	6.5	4.1	4.8	6.0	11	101	67	46	15	39
8	13	10	6.0	4.5	4.8	6.5	10	69	95	38	21	26
9	14	10	5.6	4.9	5.1	6.5	12	67	107	50	28	22
10	14	10	5.6	5.2	5.5	6.5	16	83	202	44	26	18
11	14	9.5	6.1	5.4	6.0	6.0	17	111	195	38	32	16
12	13	9.3	6.5	5.4	7.0	5.5	12	113	143	34	33	16
13	13	9.3	6.5	5.2	6.5	5.8	9.3	121	121	31	38	74
14	13	8.0	6.2	5.3	6.5	6.0	9.3	113	95	20	37	39
15	13	7.0	5.9	5.5	6.0	6.5	8.6	111	75	15	34	21
16	13	8.0	5.5	5.5	5.8	6.0	7.0	119	69	30	34	15
17	14	8.0	5.5	5.5	6.5	6.5	7.0	121	67	32	34	14
18	18	7.2	5.5	5.1	6.0	5.5	6.5	127	63	33	34	14
19	14	6.2	5.9	5.1	5.5	5.0	6.0	119	69	30	34	17
20	12	6.6	6.0	4.8	5.0	5.0	4.8	109	69	27	34	17
21	14	7.8	5.5	4.8	7.0	5.5	4.8	143	67	28	33	16
22	15	8.8	5.5	4.8	6.5	5.8	4.4	143	73	30	32	15
23	14	9.0	5.5	5.1	6.0	6.3	3.7	130	79	24	33	14
24	13	8.6	5.5	4.8	5.5	7.0	4.1	113	67	21	33	13
25	13	8.0	5.4	4.8	5.5	6.5	11	97	61	19	27	13
26	13	7.6	5.5	4.8	5.0	5.6	25	97	57	22	25	14
27	16	7.1	5.6	4.8	5.0	6.0	39	85	61	19	16	14
28	15	6.5	5.4	4.4	5.5	5.4	32	85	60	27	11	14
29	14	6.1	5.2	4.8	------	4.4	21	85	58	27	13	15
30	14	6.0	4.9	5.1	------	4.8	16	85	60	18	14	14
31	11	------	4.6	5.1	------	4.4	------	75	------	14	15	------
TOTAL	414	251.8	183.3	151.6	155.2	178.1	326.9	2,958	2,494	990	742.5	700
MEAN	13.4	8.39	5.91	4.89	5.54	5.75	10.9	95.4	83.1	31.9	24.0	23.3
MAX	18	12	7.5	5.5	7.0	7.0	39	143	202	53	38	101
MIN	11	6.0	4.6	4.0	4.4	4.4	3.7	13	57	14	7.5	13
AC-FT	821	499	364	301	308	353	648	5,870	4,950	1,960	1,470	1,390

CAL YR 1969 TOTAL 11,752.9 MEAN 32.2 MAX 175 MIN 2.8 ACFT 23,310
WAT YR 1970 TOTAL 9,545.4 MEAN 26.2 MAX 202 MIN 3.7 ACFT 18,930

WATER COMMISSIONERS SUMMARY BY DISTRICT

	28	40	41	42	59	60	61	62	63	73	74	68
Dir. flow, div. (A.F.)	343,134	326,625	637,321	507,804	354,751	231,294	7,179	412,916	10,907	2,607	818	113,908
Res. storage, (A.F.)	2,396	88,460	860	3,208	*	31,437	2,839	2,573,087**	0	0	0	153
Acres irrigation	29,062	161,087	86,037	8,968	35,596	10,240	3,347	23,015	1,302	838	501	24,883
No. of ditches	236	489	77	41	229	186	13	112	33	9	5	134
No. of Res. served	5	139	3	25	0	6	1	8	0	0	0	3
Aug. demand (AF/AC)	11.8	3.12	7.4	3.2	10.0	4.5	1.78	6.5	8.3	2.9	2.3	7.5
Power (A.F.)	0	0	0	463,924	0	20,143	0	1,483,974 Mor. Pt.	0	0	0	0

Trans-Mt. Diversions

Name & Amt. A.F.												
	Larkspur-448 Tarbell--386	Lake Brennand- No record Divide Ck.- Highline-291 Leon Lake-1965						Tabor-1050*				Red Mt.-243 Carbon Lake- 321--St.John- No diversion

Total acres irr. 384,876
Acre ft. diverted 2,949,264
Res. storage 1564
Reservs. 190
Reservs. stors 2,702,440
Trans Mtn. 4140

* No record to date, published annually by USGS - Figures are 1970 record but may approximate an average.
* Taylor Park releases computed in Blue Mesa totals (W.D. 62)
** Includes Curecanti Unit Storage Reservoirs

WATER COMMISSIONERS ANNUAL MILEAGE REVIEW

YEAR	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
1969	3,100	3,267	4,314	10,594	25,721	26,328 *	22,610	21,139	18,404	8,672	3,485	2,238
1970	2,399	2,387	3,553	5,999	19,001	23,830	22,481	21,009	18,452	11,238	3,779	947
1971	468	1,533	3,388	10,654	21,191	22,971	22,903	21,721	20,215			

YEAR	TOTAL ANNUAL MILEAGE	TOTAL MILEAGE TRHU AUG.	PERCENT OF 6 YR. AVG. THRU AUG. (1963-1968 INC.)	PERCENT OF 6 YR. ANNUAL AVG. (1963-1968 INC.)
1963	180,550	142,786	112	105
1964	172,358	125,608	99	100
1965	168,162	123,387	97	98
1966	168,598	123,927	97	97
1967	176,164	128,407	101	102
1968	167,174	119,841	94	97
1969	149,862	117,063	92	87
1970	135,195	100,659	79	92
1971		104,829	82	

* Personnel transfer to Division No. 5; Est. 85% of former mileage

September 1, 1971

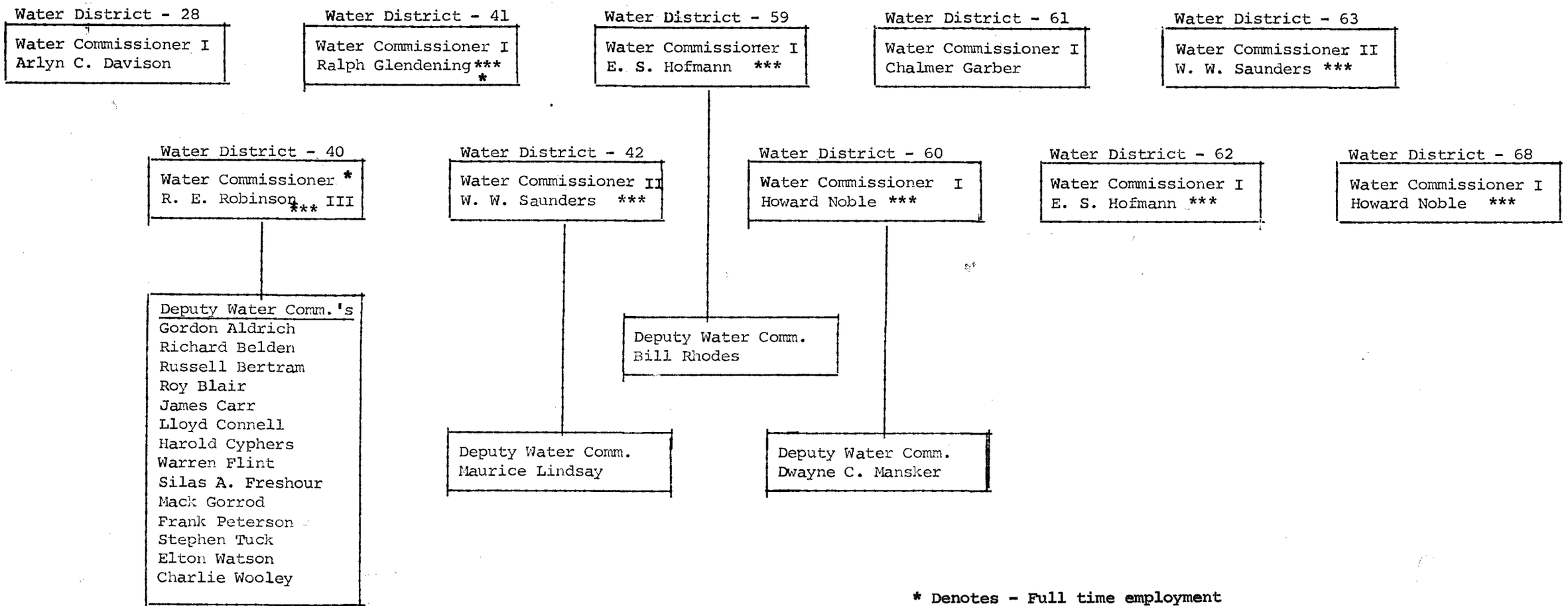
TABLE OF ORGANIZATION - PERSONNEL

IRRIGATION DIVISION NO. 4

Division Engineer - Ralph V. Kelling, Jr.

Assistant Division Engineer - Ronald I. Blewitt

Intermediate Clerk Typist - Melita Maten



** See attached sheet for areas of responsibility

* Denotes - Full time employment

*** Denotes - Annually employed field personnel

September 1, 1971

- PROPOSED -

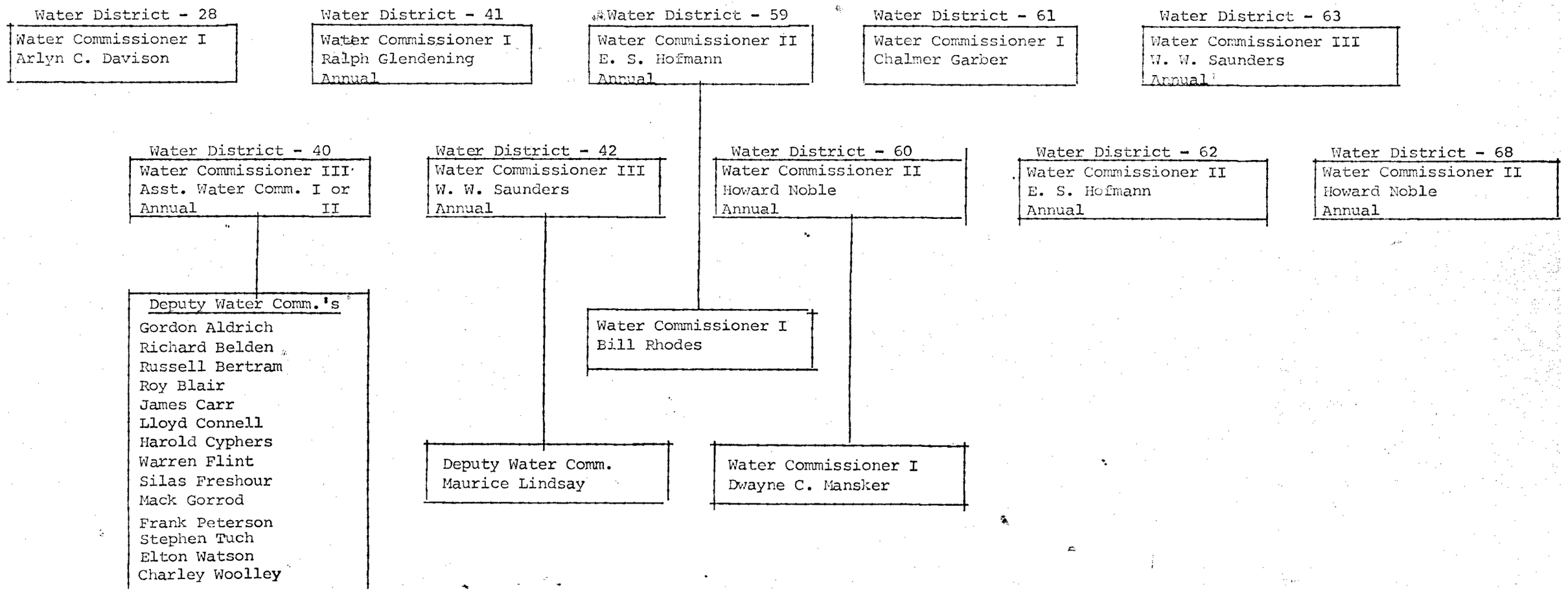
TABLE OF ORGANIZATION - PERSONNEL

IRRIGATION DIVISION NO. 4

Division Engineer - Ralph V. Kelling, Jr.

Assistant Division Engineer - Ronald I. Blewitt

Senior Clerk Typist - Melita Maten



AREAS OF RESPONSIBILITY OF WATER COMMISSIONERS AND DEPUTIES

IRRIGATION DIVISION NO. 4

Water District - 28

Arlyn C. Davison - Tomichi and Cochetopa Creeks

Water District - 40

R. E. Robinson - Crystal Creek; the Gunnison River from Mesa County line to Montrose County line and its tributaries except the Uncompahgre River

Deputies:

Gordon Aldrich - Upper Surface Creek

Richard Belden - Park Basin

Russell Bertram - Granby and Battlement Reservoirs

Roy Blair - Smith Fork

James Carr - Leroux Creek

Lloyd Connell - Minnesota Creek and Stewart Mesa

Harold Cyphers - Gunnison River and Escalante Creek

Warren Flint - Youngs Creek, Kiser and Ward Creeks

Silas Freshour - Beaver Creek

Mack Gorrod - Ward, Kiser and Youngs Creek Reservoirs

Frank Peterson - Dry Creek and Alfalfa Run

Stephen Tuck - Forked Tongue

Elton Watson - North Fork of the Gunnison and Muddy Creek

Charley Woolley - Lower Surface Creek

Water District - 41

Ralph Glendening - Uncompahgre River from Colona to Delta

Water District - 42

W. W. Saunders - Gunnison River below Mesa County line and its tributaries

Deputy: Maurice Lindsay - (same area)

Water District - 59

Ed S. Hofmann - Gunnison River above Gunnison and tributaries on north side of the Gunnison River from Gunnison to Mesa Creek

Deputy: Bill Rhodes - (same area)

Water District - 60

Howard Noble - San Miguel River

Deputy: Dwayne C. Mansker - (same area)

Water District - 61

Chalmer Garber - Dolores River below San Miguel County line to confluence with San Miguel River (Paradox Valley)

Water District - 62

Ed S. Hofmann - Cimarron River, Lake Fork of the Gunnison, and Cebolla Creek

Water District - 63

W. W. Saunders - Dolores River below confluence of San Miguel River

Water District - 68

Howard Noble - Uncompahgre River above Colona

HYDROMETEOROLOGICAL DATA - BLUE MESA RESERVOIR (From U. S. Bureau of Reclamation monthly reports)

	January	February	March	April	May	June	July	August	September	October	November	December
1968												
Precip. (In.)	.61	1.23	.04	(not avail.)	.57	.05	1.70	1.42	.32	.70	.68	.72
Avg. Temp. (Max.)	16.00	29.00	41.00		64.00	80.00	81.00	77.00	72.00	62.00	40.70	30.00
Avg. Temp. (Min.)	-10.00	5.00	12.00		32.00	40.00	47.00	47.00	36.00	28.00	16.70	3.00
Total Annual Precip. 8.04 In. (excepting April)												
Total Annual Dischg. 752,306 (A. F.)												
1969												
Precip. (In.)	2.04	1.68	.65	.15	.14	2.43	2.28	2.47	1.46	5.11	.15	.60
Avg. Temp. (Max.)	33.00	21.00	32.00	59.00	73.00	72.80	83.00	83.90	74.90	49.60	43.70	33.80
Avg. Temp. (Min.)	5.00	-9.00	2.00	26.00	35.00	38.50	47.00	49.00	41.20	26.80	17.10	10.90
Total Annual Precip. 19.16 In.												
Total Annual Dischg. 948,793 A. F.												
		6 months precip. sub total			7.09							
1970												
Precip. (In.)	.53	.07	.55	.23	.40	.46	1.58	2.69	2.28	1.50	.85	.44
Avg. Temp. (Max.)	27.80	39.00	42.10	46.90	62.30	70.60	82.90	82.40	(not avail.)	54.70	45.00	31.20
Avg. Temp. (Min.)	1.00	6.30	16.20	20.10	30.60	40.10	47.70	48.40	"	26.50	21.70	5.50
Total Annual Precip. 11.58 In.												
Total Annual Dischg. 1,237,220 A. F.												
		6 months precip. sub total			2.24							
1971												
Precip. (In.)	.13	.39	.16	.56	.80	.00	2.00	1.97	0.92	0.89		
Avg. Temp. (Max.)	34.10	37.70	47.10	57.70	65.80	80.10	83.30	81.90	70.60	61.50		
Avg. Temp. (Min.)	6.20	12.90	14.10	14.10	23.00	38.60	46.50	48.50	35.30	28.80		
Total Annual Precip.												
Total Annual Dischg.												

GUNNISON RIVER NEAR GUNNISON *

WATER YEAR	TOTAL (CFS)	MEAN	MAXIMUM	MINIMUM	TOTAL (A.F.)
1961	160,380	439	1,850	100	318,100
1962	365,990	1,003	5,000	140	725,900
1963	163,660	448	1,390	80	324,600
1964	177,270	484	2,430	100	351,600
1965	395,130	1,082	4,600	120	783,700
1966	210,550	577	2,150	180	417,600
1967	215,455	590	2,640	135	427,300
1968	274,164	749	3,900	200	543,800
1969	278,605	763	2,730	180	552,600
1970	336,730	923	4,060	160	667,900
1971					

* Surface Water Records of Colorado - U. S. G. S. - Annual Publication in cooperation with the State of Colorado, et. al.

SURFACE CREEK AT CEDAREDGE *

Water Year	TOTAL (CFS)	MEAN	MAXIMUM	MINIMUM	TOTAL (A.F.)
1961	7,315	20.0	110	1.3	14,510
1962	12,070	33.1	175	3.5	23,940
1963	6,085	16.7	77	1.4	12,070
1964	7,210	19.7	126	0.8	14,300
1965	10,568	29.0	137	0.6	20,960
1966	9,136	25.0	103	1.2	18,120
1967	8,809	24.1	120	2.0	17,470
1968	8,417	23.0	125	2.2	16,690
1969	11,654	31.9	175	2.8	23,120
1970	9.545	26.2	202	3.7	18,930
1971					

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UNCOMPAHGRE RIVER AT COLONA *

Water Year	TOTAL (CFS)	MEAN	MAXIMUM	MINIMUM	TOTAL (A.F.)
1961	81,580	223	1,150	26	161,800
1962	94,530	259	1,120	43	187,500
1963	53,140	146	480	30	105,400
1964	87.070	238	1,440	27	172,700
1965	114,590	314	1.450	55	227,300
1966	73,400	201	790	36	145,600
1967	52,160	143	780	12	103,500
1968	87,520	239	1,740	44	173,600
1969	76,522	210	834	42	151,800
1970	120,309	330	1,600	50	238,600
1971					

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