

**1966**

# **Water Resources Data for Colorado**

## **Part 1. Surface Water Records**



**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY**

**Prepared in cooperation with the State of Colorado  
and with other agencies**

United States Department of the Interior  
Geological Survey - Water Resources Division

Water Resources Data  
for  
Colorado  
1966

Part 1: Surface Water Records

Prepared in cooperation with

Colorado Water Conservation Board  
Office of the State Engineer  
Southeastern Colorado Water Conservancy District  
Arkansas River Compact Administration  
Colorado River Water Conservation District  
City and County of Denver, Board of Water Commissioners  
City of Colorado Springs, Department of Public Utilities  
Bureau of Reclamation, U.S. Department of the Interior  
Corps of Engineers, U.S. Department of the Army

Copies of this report may be obtained from  
District Chief, Water Resources Division  
U.S. Geological Survey  
Denver Federal Center  
Denver, Colorado 80225

Water resources records, 1966, for Colorado are  
in the following reports of the U.S. Geological Survey:

1. Water Resources Data for Colorado  
Part 1: Surface Water Records
2. Water Resources Data for Colorado  
Part 2: Water Quality Records

# CALENDAR FOR WATER YEAR 1966

## OCTOBER 1965

S	M	T	W	T	F	S
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3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
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31						

## NOVEMBER 1965

S	M	T	W	T	F	S
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7	8	9	10	11	12	13
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## DECEMBER 1965

S	M	T	W	T	F	S
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12	13	14	15	16	17	18
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## JANUARY 1966

S	M	T	W	T	F	S
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16	17	18	19	20	21	22
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## FEBRUARY 1966

S	M	T	W	T	F	S
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6	7	8	9	10	11	12
13	14	15	16	17	18	19
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27	28					

## MARCH 1966

S	M	T	W	T	F	S
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6	7	8	9	10	11	12
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## APRIL 1966

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## MAY 1966

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

## JUNE 1966

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

## JULY 1966

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

## AUGUST 1966

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

## SEPTEMBER 1966

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	



# CONTENTS

	Page
Introduction.....	1
Cooperation.....	2
Definition of terms and abbreviations.....	2
Downstream order and station numbers.....	3
Explanation of data.....	4
Accuracy of field data and computed results.....	7
Other data available.....	8
Records of discharge collected by agencies other than the Geological Survey.....	9
Gaging-station records.....	10
<u>Missouri River basin</u>	
Missouri River:	
<u>Platte River basin</u>	
North Platte River (head of Platte River):	
Michigan River:	
North Fork Michigan River near Gould.....	10
North Platte River near Northgate.....	11
Laramie River near Glendevy.....	12
Laramie River near Jelm, Wyo.....	13
South Platte River above Elevenmile Canyon Reservoir, near Hartsel.....	14
South Platte River near Lake George.....	15
Goose Creek above Cheesman Lake.....	16
South Platte River below Cheesman Lake.....	17
North Fork South Platte River below Geneva Creek, at Grant.....	18
North Fork South Platte River at South Platte.....	19
South Platte River at South Platte.....	20
South Platte River at Waterton.....	21
Plum Creek near Louviers.....	22
South Platte River at Littleton.....	23
Bear Creek at Morrison.....	24
Bear Creek at mouth, at Sheridan.....	25
Cherry Creek near Franktown.....	26
Cherry Creek near Melvin.....	27
Cherry Creek below Cherry Creek Reservoir.....	28
Cherry Creek at Denver.....	29
South Platte River at Denver.....	30
Clear Creek near Lawson.....	31
Clear Creek near Golden.....	32
Clear Creek at mouth, near Derby.....	33
South Platte River at Henderson.....	34
North St. Vrain Creek (head of St. Vrain Creek):	
South St. Vrain Creek near Ward.....	35
St. Vrain Creek at Lyons.....	36

## Gaging-station records--Continued

## Missouri River--Continued

## Platte River basin--Continued

## North Platte River--Continued

## South Platte River--Continued

Page

St. Vrain Creek near Longmont.....	37
Middle Boulder Creek (head of Boulder Creek) at Nederland....	38
Boulder Creek near Orodell.....	39
South Boulder Creek near Eldorado Springs.....	40
Coal Creek near Plainview.....	41
St. Vrain Creek at mouth, near Platteville.....	42
Big Thompson River at Estes Park.....	43
Big Thompson River near Estes Park.....	44
Big Thompson River at mouth of canyon, near Drake.....	45
Reservoirs in South Platte River basin.....	46
Big Thompson River at mouth, near La Salle.....	48
Cache la Poudre River near Rustic.....	49
South Fork Cache la Poudre River:	
Fall Creek near Rustic.....	50
Little Beaver Creek near Idylwilde.....	51
Little Beaver Creek near Rustic.....	52
South Fork Cache la Poudre River near Rustic.....	53
Transbasin diversions from North Platte River basin to Cache la Poudre River basin.....	54
Cache la Poudre River at mouth of canyon, near Fort Collins....	55
Cache la Poudre River near Greeley.....	56
South Platte River near Kersey.....	57
South Platte River near Weldona.....	58
South Platte River at Balzac.....	59
South Platte River at Julesburg.....	61

Kansas River basin

## Arikaree River (head of Kansas River):

## Republican River (continuation of Arikaree River):

South Fork Republican River near Idalia.....	62
Landsman Creek near Hale.....	63
Bonny Reservoir near Hale.....	64
South Fork Republican River near Hale.....	65

Lower Mississippi River basin

## Mississippi River:

Arkansas River basin

## Arkansas River:

Lake Fork above Sugar Loaf Reservoir.....	66
Halfmoon Creek near Malta.....	67

## Gaging-station records--Continued

## Lower Mississippi River basin--Continued

## Mississippi River--Continued

Arkansas River basin--Continued	Page
Arkansas River near Malta.....	68
Lake Creek above Twin Lakes Reservoir.....	69
Arkansas River at Granite.....	70
Clear Creek above Clear Creek Reservoir.....	71
Arkansas River at Buena Vista.....	72
Cottonwood Creek below Hot Springs, near Buena Vista.....	73
Arkansas River near Nathrop.....	74
Arkansas River at Salida.....	75
Arkansas River near Wellsville.....	76
Arkansas River at Parkdale.....	77
Grape Creek near Westcliffe.....	78
Arkansas River at Canon City.....	79
Arkansas River near Portland.....	80
Arkansas River above Pueblo.....	81
Arkansas River near Pueblo.....	82
Fountain Creek near Colorado Springs.....	83
Monument Creek:	
West Monument Creek near Pikeview.....	84
Templeton Gap Floodway at Colorado Springs.....	85
Fountain Creek at Security.....	86
Arkansas River near Avondale.....	87
Huerfano River at Manzanares Crossing, near Redwing.....	88
Cucharas River at Boyd Ranch, near La Veta.....	89
Huerfano River below Huerfano Valley Dam, near Undercliffe.....	90
Arkansas River near Nepesta.....	91
Apishapa River near Fowler.....	92
Arkansas River at Catlin Dam, near Fowler.....	93
Arkansas River at La Junta.....	94
Arkansas River at Las Animas.....	95
Purgatoire River at Trinidad.....	96
Purgatoire River near Hoehne.....	99
Frijole Creek near Alfalfa.....	100
San Francisco Creek near Alfalfa.....	101
Purgatoire River near Alfalfa.....	102
Purgatoire River near Thatcher.....	103
Purgatoire River at Ninemile Dam, near Higbee.....	104
Purgatoire River near Las Animas.....	105
John Martin Reservoir at Caddoa.....	106
Arkansas River below John Martin Reservoir.....	107
Arkansas River at Lamar.....	108

## Gaging-station records--Continued

## Lower Mississippi River basin--Continued

## Mississippi River--Continued

## Arkansas River basin--Continued

Frontier ditch near Coolidge, Kans.....	109
Arkansas River near Coolidge, Kans.....	110

## Western Gulf of Mexico:

Rio Grande basin

Rio Grande at Thirtymile Bridge, near Creede.....	111
North Clear Creek below Continental Reservoir.....	112
Willow Creek at Creede.....	113
Rio Grande at Wagonwheel Gap.....	114
Goose Creek at Wagonwheel Gap.....	115
South Fork Rio Grande at South Fork.....	116
Rio Grande near Del Norte.....	117
Pinos Creek near Del Norte.....	118
Rio Grande near Monte Vista.....	119
Rio Grande at Alamosa.....	120
Closed basin in San Luis Valley:	
Kerber Creek at Ashley Ranch, near Villa Grove.....	121
Saguache Creek near Saguache.....	122
North Crestone Creek near Crestone.....	123
Carnero Creek near La Garita.....	124
La Garita Creek near La Garita.....	125
Alamosa Creek above Terrace Reservoir.....	126
La Jara Creek at Gallegos Ranch, near Capulin.....	127
Rio Grande above mouth of Trinchera Creek, near La Sauses.....	128
Trinchera Creek above Turners Ranch, near Fort Garland.....	129
Sangre de Cristo Creek near Fort Garland.....	130
Ute Creek near Fort Garland.....	131
Trinchera Creek below Smith Reservoir, near Blanca.....	132
Conejos River:	
Platoro Reservoir at Platoro.....	133
Conejos River below Platoro Reservoir.....	134
Conejos River near Mogote.....	135
San Antonio River at Ortiz.....	136
Los Pinos River near Ortiz.....	137
San Antonio River at mouth, near Manassa.....	138
Conejos River near La Sauses.....	139
Culebra Creek at San Luis.....	140
Rio Grande near Lobatos.....	141
Rio Grande at Colorado-New Mexico State line.....	142

## Gaging-station records--Continued

<u>Colorado River basin</u>	Page
Colorado River below Baker Gulch, near Grand Lake.....	143
Colorado River near Grand Lake.....	144
<u>Grand Lake Outlet basin</u>	
North Inlet (head of Grand Lake Outlet):	
Grand Lake:	
Alva B. Adams tunnel at east portal, near Estes Park.....	145
Shadow Mountain Lake near Grand Lake.....	146
<u>Arapaho Creek basin</u>	
Arapaho Creek at Monarch Lake Outlet.....	147
Lake Granby near Granby.....	148
Colorado River below Lake Granby.....	149
Colorado River near Granby.....	150
<u>Willow Creek basin</u>	
Willow Creek Reservoir near Granby.....	151
Willow Creek below Willow Creek Reservoir.....	152
<u>Fraser River basin</u>	
Fraser River near Winter Park.....	153
Vasquez Creek near Winter Park.....	154
St. Louis Creek near Fraser.....	155
Ranch Creek near Fraser.....	156
Colorado River at Hot Sulphur Springs.....	157
<u>Williams Fork basin</u>	
Bobtail Creek (head of Williams Fork) near Jones Pass.....	158
Williams Fork below Steelman Creek.....	159
Williams Fork above Darling Creek, near Leal.....	160
Darling Creek near Leal.....	161
South Fork of Williams Fork near Leal.....	162
Williams Fork near Leal.....	163
Williams Fork near Parshall.....	164
Williams Fork Reservoir near Parshall.....	165
Williams Fork below Williams Fork Reservoir.....	166
<u>Troublesome Creek basin</u>	
Troublesome Creek near Pearmont.....	167
East Fork Troublesome Creek near Troublesome.....	168
<u>Muddy Creek basin</u>	
Muddy Creek near Kremmling.....	169
Antelope Creek near Kremmling.....	170
Red Dirt Creek near Kremmling.....	171
Pass Creek near Kremmling.....	172
<u>Blue River basin</u>	
Monte Cristo Creek (head of Blue River):	
Monte Cristo diversion near Hoosier Pass.....	173

## Gaging-station records--Continued

## Colorado River--Continued

## Blue River basin--Continued

## Hoosier Creek:

Bemrose-Hoosier diversion near Hoosier Pass.....	Page 174
--	----------

## Blue River:

## McCullough Creek:

McCullough-Spruce-Crystal diversion near Hoosier Pass.....	175
--	-----

Blue River near Dillon.....	176
-----------------------------	-----

Snake River near Montezuma.....	177
---------------------------------	-----

Keystone Gulch near Dillon.....	178
---------------------------------	-----

Tenmile Creek below North Fork, at Frisco.....	179
--	-----

Dillon Reservoir at Dillon.....	180
---------------------------------	-----

Blue River below Dillon.....	181
------------------------------	-----

Blue River above Green Mountain Reservoir.....	182
--	-----

Green Mountain Reservoir near Kremmling.....	183
--	-----

Blue River below Green Mountain Reservoir.....	184
--	-----

Colorado River near Kremmling.....	185
------------------------------------	-----

Piney River basin

Piney River below Piney Lake, near Minturn.....	186
---	-----

Dickson Creek near Minturn.....	187
---------------------------------	-----

Freeman Creek near Minturn.....	188
---------------------------------	-----

East Meadow Creek near Minturn.....	189
-------------------------------------	-----

Piney River near State Bridge.....	190
------------------------------------	-----

Rock Creek basin

Rock Creek near Toponas.....	191
------------------------------	-----

Egeria Creek near Toponas.....	192
--------------------------------	-----

Eagle River basin

Eagle River at Red Cliff.....	193
-------------------------------	-----

## Turkey Creek:

Wearyman Creek near Red Cliff.....	194
------------------------------------	-----

Turkey Creek near Red Cliff.....	195
----------------------------------	-----

Homestake Creek near Red Cliff.....	196
-------------------------------------	-----

Gore Creek at upper station, near Minturn.....	197
--	-----

Black Gore Creek near Minturn.....	198
------------------------------------	-----

Bighorn Creek near Minturn.....	199
---------------------------------	-----

Booth Creek near Minturn.....	200
-------------------------------	-----

Middle Creek near Minturn.....	201
--------------------------------	-----

Red Sandstone Creek near Minturn.....	202
---------------------------------------	-----

## Brush Creek:

East Brush Creek at Yeoman Park, near Eagle.....	203
--	-----

Brush Creek near Eagle.....	204
-----------------------------	-----

Gypsum Creek near Gypsum.....	205
-------------------------------	-----

Eagle River below Gypsum.....	206
-------------------------------	-----

## Gaging-station records--Continued

Colorado River--Continued	Page
Colorado River near Dotsero.....	207
Colorado River at Glenwood Springs.....	208
<u>Roaring Fork River basin</u>	
Roaring Fork River near Aspen.....	209
Hunter Creek above Midway Creek, near Aspen.....	210
Fryingpan River near Ivanhoe Lake.....	211
Fryingpan River near Norrie.....	212
Ivanhoe Creek near Norrie.....	213
South Fork Fryingpan River at upper station, near Norrie.....	214
South Fork Fryingpan River near Norrie.....	215
Fryingpan River at Norrie.....	216
North Fork Fryingpan River above Cunningham Creek, near Norrie.	217
Cunningham Creek near Norrie.....	218
North Fork Fryingpan River below Cunningham Creek, near Norrie.	219
North Fork Fryingpan River near Norrie.....	220
Lime Creek near Troutville.....	221
Fryingpan River near Ruedi.....	222
Sopris Creek:	
West Sopris Creek near Basalt.....	223
Crystal River at Placita.....	224
Crystal River above Avalanche Creek, near Redstone.....	225
North Thompson Creek (head of Thompson Creek) near Carbondale..	226
Thompson Creek near Carbondale.....	227
Prince Creek near Carbondale.....	228
Cattle Creek near Carbondale.....	229
Roaring Fork River at Glenwood Springs.....	230
<u>Divide Creek basin</u>	
West Divide Creek (head of Divide Creek) below Willow Creek, near Raven.....	231
West Divide Creek near Raven.....	232
<u>Beaver Creek basin</u>	
Beaver Creek near Rifle.....	233
<u>Parachute Creek basin</u>	
Parachute Creek near Grand Valley.....	234
<u>Roan Creek basin</u>	
Roan Creek above Clear Creek, near De Beque.....	236
Roan Creek near De Beque.....	237
Colorado River near Cameo.....	238
<u>Plateau Creek basin</u>	
Plateau Creek:	
Vega Reservoir near Collbran.....	239
Plateau Creek near Collbran.....	240

## Gaging-station records--Continued

## Colorado River--Continued

## Plateau Creek basin--Continued

	Page
Buzzard Creek below Owens Creek, near Heiberger.....	241
Buzzard Creek near Collbran.....	242
Brush Creek near Collbran.....	243
Plateau Creek near Cameo.....	244

Gunnison River basin

## Taylor River (head of Gunnison River):

Taylor Park Reservoir at Taylor Park.....	245
Taylor River below Taylor Park Reservoir.....	246
Taylor River at Almont.....	247
East River below Cement Creek, near Crested Butte.....	248
East River at Almont.....	249

## Gunnison River:

Ohio Creek at Baldwin.....	250
Ohio Creek near Baldwin.....	251
Gunnison River near Gunnison.....	252
Tomichi Creek at Sargents.....	253
Tomichi Creek at Parlin.....	254
Quartz Creek near Ohio City.....	255
Tomichi Creek at Gunnison.....	256
Soap Creek near Sapinero.....	257
Lake Fork at Gateview.....	258
Blue Mesa Reservoir near Sapinero.....	259
Gunnison River below Blue Mesa Dam.....	260
Curecanti Creek near Sapinero.....	261
Cimarron River near Cimarron.....	262
Cimarron River at Cimarron.....	263
Crystal Creek near Maher.....	264
Gunnison River below Gunnison tunnel.....	265
Smith Fork near Crawford.....	266
Clear Fork (head of North Fork Gunnison River) near Ragged Mountain.....	267
East Muddy Creek (continuation of Clear Fork):	
West Muddy Creek near Somerset.....	268
North Fork Gunnison River near Somerset.....	269
Main Hubbard Creek near Paonia.....	270
Middle Hubbard Creek near Paonia.....	271
West Hubbard Creek near Paonia.....	272
Leroux Creek near Cedaredge.....	273
Cow Creek near Cedaredge.....	274
Gunnison River near Lazear.....	275
Dirty George Creek (head of Tongue Creek) near Grand Mesa.....	276



## Gaging-station records--Continued

## Colorado River--Continued

## Gunnison River basin--Continued

## Dirty George Creek--Continued

Ward Creek near Grand Mesa.....	277
---------------------------------	-----

Kiser Creek near Grand Mesa.....	278
----------------------------------	-----

Cottonwood Creek near Grand Mesa.....	279
---------------------------------------	-----

Youngs Creek near Grand Mesa.....	280
-----------------------------------	-----

## Tongue Creek:

Surface Creek near Cedaredge.....	281
-----------------------------------	-----

Surface Creek at Cedaredge.....	282
---------------------------------	-----

Tongue Creek at Cory.....	283
---------------------------	-----

Uncompahgre River near Ridgway.....	284
-------------------------------------	-----

West Fork Dallas Creek near Ridgway.....	285
--	-----

East Fork Dallas Creek near Ridgway.....	286
--	-----

Beaver Creek near Ridgway.....	287
--------------------------------	-----

## Dallas Creek:

Pleasant Valley Creek near Noel.....	288
--------------------------------------	-----

Dallas Creek near Ridgway.....	289
--------------------------------	-----

Cow Creek near Ridgway.....	290
-----------------------------	-----

Uncompahgre River at Colona.....	291
----------------------------------	-----

Uncompahgre River at Delta.....	292
---------------------------------	-----

Kannah Creek near Whitewater.....	293
-----------------------------------	-----

Gunnison River near Grand Junction.....	294
---	-----

Colorado River near Colorado-Utah State line.....	295
---	-----

Dolores River basin

Dolores River below Rico.....	296
-------------------------------	-----

Dolores River at Dolores.....	297
-------------------------------	-----

Disappointment Creek near Dove Creek.....	298
---	-----

San Miguel River near Placerville.....	299
--	-----

Beaver Creek near Norwood.....	300
--------------------------------	-----

San Miguel River at Naturita.....	301
-----------------------------------	-----

Taylor Creek (head of Roc Creek) near Gateway.....	302
--	-----

Green River basin

## Green River:

Yampa River near Oak Creek.....	303
---------------------------------	-----

Service Creek near Oak Creek.....	304
-----------------------------------	-----

Walton Creek near Steamboat Springs.....	305
--	-----

Spring Creek near Steamboat Springs.....	306
--	-----

Yampa River at Steamboat Springs.....	307
---------------------------------------	-----

Elk River at Clark.....	308
-------------------------	-----

## Trout Creek:

Fish Creek near Milner.....	309
-----------------------------	-----

Grassy Creek near Mount Harris.....	310
-------------------------------------	-----

## Gaging-station records--Continued

## Colorado River--Continued

## Green River basin--Continued

## Yampa River--Continued

	Page
Elkhead Creek near Clark.....	311
Elkhead Creek near Elkhead.....	312
North Fork Elkhead Creek near Elkhead.....	313
East Fork of Williams Fork above Willow Creek.....	314
East Fork of Williams Fork near Pagoda.....	315
South Fork of Williams Fork near Pagoda.....	316
Morapos Creek near Hamilton.....	317
Milk Creek near Thornburg.....	318
Yampa River near Maybell.....	319
Little Snake River near Slater.....	320
Slater Fork near Slater.....	321
Willow Creek near Dixon, Wyo.....	322
Little Snake River near Baggs, Wyo.....	323
Little Snake River near Lily.....	324
White River above Ripple Creek, near Trapper's Lake.....	325
Lost Creek near Buford.....	326
White River near Buford.....	327
White River at Buford.....	328
South Fork White River at Buford.....	329
White River above Coal Creek, near Meeker.....	330
Coal Creek near Meeker.....	331
White River near Meeker.....	332
White River below Meeker.....	333
Piceance Creek below Ryan Gulch, near Rio Blanco.....	334
White River near Watson, Utah.....	335
<u>San Juan River basin</u>	
East Fork San Juan River above Sand Creek, near Pagosa Springs.....	336
East Fork San Juan River near Pagosa Springs.....	337
San Juan River at Pagosa Springs.....	338
Rio Blanco near Pagosa Springs.....	339
Navajo River at Banded Peak Ranch, near Chromo.....	340
Navajo River above Chromo.....	341
Navajo River at Edith.....	342
San Juan River near Carracas.....	343
Piedra River near Piedra.....	344
Piedra River near Arboles.....	345
Los Pinos River:	
Vallecito Creek near Bayfield.....	346
Vallecito Reservoir near Bayfield.....	347
Los Pinos River near Bayfield.....	348

## Gaging-station records--Continued

## Colorado River--Continued

## San Juan River basin--Continued

	Page
Los Pinos River at La Boca.....	349
Spring Creek at La Boca.....	350
Animas River at Howardsville.....	351
Hermosa Creek near Hermosa.....	352
Animas River at Durango.....	353
Animas River near Cedar Hill, N. Mex.....	354
La Plata River at Hesperus.....	355
La Plata River at Colorado-New Mexico State line.....	356
Mancos River near Towaoc.....	357
McElmo Creek near Colorado-Utah State line.....	358

Transmountain diversions

Transmountain diversions from Colorado River basin in Colorado.....	359
Discharge at partial-record stations and miscellaneous sites.....	362
Low-flow partial-record stations.....	362
Crest-stage partial-record stations.....	363
Measurements at miscellaneous sites.....	364
Index.....	365

# Water Resources Data for Colorado, 1966

## Part 1: Surface Water Records

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### INTRODUCTION

The surface-water records for the 1966 water year for gaging stations, partial-record stations, and miscellaneous sites within the State of Colorado are given in this report. For convenience there are also included records for a few pertinent gaging stations in bordering states. The records were collected and computed by the Water Resources Division of the U.S. Geological Survey, under the direction of J. W. Odell, district engineer, Surface Water Branch, succeeded by E. A. Moulder, district chief, Water Resources Division.

Through September 30, 1960, the records of discharge and stage of streams and contents and stage of lakes and reservoirs were published in an annual series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States." Since 1951 there have been 20 volumes in the series; each volume covered an area whose boundaries coincided with those of certain natural drainage areas. The records in Colorado were contained in Parts 6B, 7, 8, and 9 of that series.

Beginning with the 1961 water year, streamflow records and related data have been released by the Geological Survey in annual reports on a State-boundary basis. Distribution of these basic-data reports is limited and primarily for local needs. Records will be published in Geological Survey water-supply papers at 5-year intervals.

## COOPERATION

Cooperative agreements between the U.S. Geological Survey and organizations of the State of Colorado for the systematic collection of streamflow records began in 1895. Organizations that supplied data are acknowledged in station descriptions. Organizations that assisted in collecting data through cooperative agreements with the Survey are:

Colorado Water Conservation Board, F. L. Sparks, director.  
Office of the State Engineer, A. R. Owens.  
Southeastern Colorado Water Conservancy District, C. H. Boustead, executive secretary, succeeded by C. L. Thomson, general manager.  
Arkansas River Compact Administration, F. M. Bell, chairman.  
Colorado River Water Conservation District, P. P. Smith, secretary-engineer.  
City and County of Denver, Board of Water Commissioners, W. F. Nicholson, president.  
City of Colorado Springs, Department of Public Utilities, R. D. Nixon, director.

Financial assistance was also provided by Corps of Engineers, U.S. Department of the Army and Bureau of Reclamation, U.S. Department of the Interior.

Records for six gaging stations published in this report were furnished by the following U.S. Geological Survey districts: New Mexico district, five stations; Wyoming district, one station.

## DEFINITION OF TERMS AND ABBREVIATIONS

The terms of streamflow and other hydrologic data, as used in this report, are defined as follows:

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only to those gage stations where a continuous record of discharge is obtained.

Partial-record station is a particular site where limited streamflow data are collected systematically over a period of years for use in hydrologic analyses.

Cubic foot per second (cfs) is the rate of discharge of a stream whose channel is 1 square foot in cross-sectional area and whose average velocity is 1 foot per second.

Acre-foot (ac-ft) is the quantity of water required to cover an acre to the depth of 1 foot and is equivalent to 43,560 cubic feet.

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.983471 acre-feet, or 646,317 gallons, and represents a runoff of 0.0372 inch from 1 square mile.

Stage-discharge relation is the relation between gage height and the amount of water flowing in a channel, expressed as volume per unit of time.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, a long reach of the channel, or an artificial structure.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

The drainage area of a stream at a specified location is that area, measured in a horizontal plane, which is so enclosed by a topographic divide that direct surface runoff from precipitation normally would drain by gravity into the river above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

#### DOWNSTREAM ORDER AND STATION NUMBERS

Stations are listed in the same downstream order used in the water-supply papers. Records are listed in a downstream direction along the main stem with all stations on a tributary entering above a main-stem station listed before that station. If a tributary enters between two main-stem stations, it is listed between them. A similar order is followed listing stations on first rank, second rank, and other ranks of tributaries. To indicate the rank of any tributary on which a gaging station is situated and the stream to which it is immediately tributary, each indention in the listing of gaging stations in the table of contents of this report represents one rank. This downstream order and system of indention shows which gaging stations are on tributaries between any two stations on a main stem and the rank of the tributary on which each gaging station is situated.

As an added means of identification, each gaging station has been assigned a station number. The numbers have been assigned in the same downstream order used in the annual series of water-supply papers. In assigning station numbers, no distinction is made between partial-record stations and continuous-record gaging stations, so that the station number for a partial-record station indicates downstream order position in a list made up of both types of stations. Gaps are left in the numbers to allow for new stations that may be established; hence the numbers are not consecutive.

The complete 8-digit number for each station, such as 07-0830.00, includes the part number "7" plus a six digit number. In this report, the nonessential zeros are not shown. For example, the complete number 07-0830.00 appears as 7-0830, just to the left of the station name. In this report, the records are listed in downstream order by parts. All records for a drainage basin encompassing more than one State could be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

#### EXPLANATION OF DATA

The base data collected at gaging stations consist of records of stage and measurements of discharge. In addition, observations of factors affecting the stage-discharge relation, weather records, and other information are used to supplement base data in determining the daily flow. Records of stage are obtained from a water-stage recorder that gives a continuous chart of fluctuations (for digital recorders, a tape punched at 15-, 30-, or 60-minute intervals) or from direct readings on a nonrecording gage. Measurements of discharge are made with a current meter by the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in Water-Supply Paper 888 and are also outlined in standard textbooks on the measurement of stream discharge.

Rating tables giving the discharge for any stage are prepared from stage-discharge relation curves defined by discharge measurements. If extensions to the rating curves are necessary to define the extremes of discharge, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, or computation of flow over dams or weirs), velocity-area studies, and logarithmic plotting. The application of the daily mean gage height to those rating tables gives the daily mean discharge, from which the monthly and the yearly mean discharge are computed. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors

based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is in effect the shifting-control method.

At some gaging stations the stage-discharge relation is affected by ice during the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements, consideration being given to the available information on temperature and precipitation, notes by gage observers and engineers, and comparable records of discharge for other stations in the same or nearby basins.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute the daily discharge. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins.

The data in this report generally comprise a description of the station and a table showing the daily, monthly, and yearly discharge of the stream. Records are published for the water year which begins on October 1 and ends on September 30. A calendar for the 1966 water year is shown on page III to facilitate finding the day of the week for any date.

The description of the station gives the location, drainage area, records available, type and history of gages, average discharge, extremes of discharge, and general remarks. The location of the gaging station and the drainage area are obtained from the most accurate maps available. Under "Records available" are given periods for which there are published records for the present station or for stations generally equivalent to the present one. Under "Gage" are given the type of gage currently in use and the datum of the gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of records available. The references to "datum of 1929" and adjustments of other years are to the datum and adjustments of the U.S. Coast and Geodetic Survey. Under "Average discharge" is given the average discharge for the number of years indicated. It is not given for stations having fewer than five complete years of record or for stations where changes in water development during the period



of record cause the figure to have little significance. Under "Extremes" are given the maximum discharge and gage height; the minimum discharge if there is little or no regulation; the minimum daily discharge if there is extensive regulation (also the minimum discharge if useful); and the minimum gage height if it is significant. In the first paragraph, the data given are for the complete current water year unless otherwise specified. In the second paragraph, the data given are for the periods of record within the calendar year dates in the heading (not necessarily those for the complete years indicated by the heading dates). Reliable information concerning major floods that have occurred outside the period of record are given in the third or last paragraph under "Extremes." Unless otherwise qualified, the maximum discharge corresponds to the crest stage obtained by use of a water-stage recorder, a crest-stage indicator, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur at the same time as the maximum discharge, it is given separately. Information pertaining to the accuracy of the records and to conditions which affect the natural flow at the gaging station is given under "Remarks."

The daily table gives the discharge corresponding to the daily mean gage height unless there are large or rapid changes in discharge during the day. For days having large or rapid changes, discharge for the day is computed by averaging the mean discharges for several parts of a day. For digital recorders, the daily mean discharge is always the average of the discharges at each punched reading. For stations equipped with nonrecording gages, the daily discharge corresponds to once-daily readings of the gage or to the mean of twice-daily readings; but for periods of rapidly changing stage the discharge is determined from a gage-height graph based on gage readings.

In the table of daily discharge, the figures for the maximum day and the minimum day for each month are underlined. If the figure is repeated, it is underlined only on the first day of its occurrence.

In the monthly summary below the daily table, the line headed "Total" gives the sum of the daily figures; it is the total cfs-days for the month. The line headed "Mean" gives the average flow in cubic feet per second during the month. Discharge for the month is expressed in acre-feet (line headed "Ac-ft").

In the yearly summary below the monthly summary, the figures of maximum are the maximum daily discharges, not the momentary discharges when the water was at crest stage. Likewise, the minimums in this summary are the minimum daily discharges.

Peak discharges and the times of their occurrence and corresponding gage heights for most stations are listed below the table

of daily and monthly discharge. All independent peaks above the selected base are given. The base discharge, which is given in parentheses, is selected so that an average of about three peaks a year can be presented. Peak discharges are not published for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time, for example 12:30 a.m. is 0030, 1:30 p.m. is 1330.

In a general footnote, introduced by the word "Note," certain periods are indicated for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station, a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given.

#### ACCURACY OF FIELD DATA AND COMPUTED RESULTS

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretation of records.

The station description under "Remarks" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good," within 10 percent; and "fair," within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Discharge at some stations, as indicated by the monthly mean, may vary widely from natural runoff, owing to diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For a few such stations, monthly and annual figures are adjusted for diversions or storage above station. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated.

Even at those stations where adjustments are made, large errors in computed runoff may occur when relatively large negative adjustments are made or when evaporation is large in comparison with the observed discharge.

#### OTHER DATA AVAILABLE

Data collected at partial-record stations and at miscellaneous sites are given at the end of this report. Data for partial-record stations are presented in a table of discharge measurements at low-flow partial-record stations. Discharge measurements at miscellaneous sites are given in a second table.

Information of a more detailed nature than that published for most of the gaging stations is on file in the district office, such as discharge measurements and recorder charts or nonrecording-gage readings. Some gaging-station records in the State through 1957 have been analyzed with an electronic computer to give: (1) the number of days in each year that the daily discharge was between selected limits (duration tables); (2) the lowest mean discharge for selected numbers of consecutive days in each year; and (3) the highest mean discharge for selected numbers of consecutive days in each year.

At or near some gaging stations, water-quality records also are collected. Data are obtained on the chemical quality of the stream water, on water temperature, on suspended-sediment concentration, and on the particle-size distribution of suspended sediment and bed material. These data are given in Part 2 of this report. Under the "Remarks" paragraph of the gaging-station description, reference is made to water-quality records collected on a regular basis.

The table below contains a list of gaging stations at which records of discharge were collected during the water year October 1965 to September 1966 by the Colorado Springs Water Department. The records of these stations are not contained in publications of the Geological Survey.

Stream	Location	Period
Bear Creek.....	Near Colorado Springs, Colo.....	1918-66*
Boehmer Creek.....	Near Pikes Peak, Colo.....	1909-66*
Cabin Creek.....	Near Halfway, Colo.....	1906-66*
Crystal Creek.....	Below reservoir near Green Mountain Falls, Colo.	1935-66
Do.....	Near Green Mountain Falls, Colo.	1935-66
French Creek.....	Near Cascade, Colo.....	1935-66
Lion Creek.....	Near Halfway, Colo.....	1908-66*†
Little Beaver Creek..	Near Pikes Peak, Colo.....	1909-66*†
North Cascade Creek..	At Cascade, Colo.....	1935-66
North Catamount Creek	Near Green Mountain Falls, Colo.	1935-66†
Sackett Creek.....	Near Pikes Peak, Colo.....	1909-66*†
Sheep Creek.....	Near Halfway, Colo.....	1908-66*†
South Cascade Creek..	At Cascade, Colo.....	1935-66†
South Catamount Creek	Below reservoir near Green Mountain Falls, Colo.	1935-66
Do.....	Near Green Mountain Falls, Colo.	1935-66
South Ruxton Creek...	At Halfway, Colo.....	1906-66*
Sutherland Creek.....	Near Manitou, Colo.....	1918-66*

\* Records prior to 1931 are contained in water-supply papers published by the Geological Survey.

† Records prior to 1951 published WSP 1311.

## PLATTE RIVER BASIN

6-6160. North Fork Michigan River near Gould, Colo.

Location--Lat 40°32'58", long 106°01'14", in SE¼NW¼ sec.27, T.7 N., R.77 W., on left bank 25 ft upstream from county road bridge, 0.7 mile downstream from dam on recreation lake, 1.6 miles north of Gould, 2.8 miles upstream from mouth, and 19 miles southeast of Walden.

Drainage area--21.2 sq mi.

Records available--October 1950 to September 1966.

Gage--Water-stage recorder. Datum of gage is 8,793 ft above mean sea level, unadjusted. Prior to Oct. 6, 1964, at site 0.6 mile upstream at datum 55.00 ft higher. Oct. 6, 1964, to Aug. 10, 1965, at site a quarter of a mile upstream at different datum.

Average discharge--16 years, 16.9 cfs (12,240 acre-ft per year).

Extremes--Maximum discharge during year, 90 cfs May 10 (gage height, 3.49 ft); minimum daily, 2.8 cfs Aug. 28-30.  
1950-66: Maximum discharge, 290 cfs May 25, 1961 (gage height, 3.15 ft, site and datum then in use), from rating curve extended above 160 cfs; maximum gage height recorded, 3.96 ft Apr. 17, 1962 (backwater from ice), site and datum then in use; no flow Dec. 11, 1963, to Apr. 30, 1964, caused by filling recreation lake upstream.

Remarks--Records good except those for winter period, which are poor. One small diversion above station to Canadian River drainage. Slight natural regulation by recreation lake (capacity, 1,250 acre-ft) since Dec. 11, 1963.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	7.6	5.9	4.5	3.6	3.5	12	31	35	14	4.3	4.1
2	21	7.6	5.7	4.5	3.5	3.5	11	36	33	12	5.9	5.0
3	26	7.6	5.7	4.5	3.6	3.3	9.0	42	30	11	5.7	3.9
4	28	7.6	5.7	4.5	3.7	3.3	8.0	44	28	9.5	9.8	3.4
5	25	7.2	5.7	4.5	3.4	3.3	7.8	50	27	8.5	8.5	3.1
6	22	7.2	5.7	4.5	3.3	3.4	8.0	59	26	8.2	6.4	2.9
7	20	7.2	5.4	4.3	3.1	3.8	8.2	75	25	7.9	5.2	2.9
8	19	7.2	5.4	4.3	3.6	3.6	8.5	83	26	7.9	4.6	2.9
9	18	7.0	5.4	3.9	3.6	3.5	9.8	85	26	7.0	4.3	2.9
10	17	7.0	5.7	4.3	3.4	3.4	12	82	23	6.7	4.3	2.9
11	16	7.0	5.6	4.3	3.4	3.4	12	78	22	7.0	4.1	2.9
12	15	7.0	5.4	4.1	3.4	3.6	11	65	20	7.9	5.7	3.4
13	15	7.3	5.4	4.1	3.5	3.8	9.8	54	18	7.6	7.3	3.9
14	14	7.6	5.2	3.7	3.8	4.0	9.5	50	17	7.3	5.7	4.1
15	13	7.6	5.0	3.9	4.0	4.4	11	49	16	6.7	4.8	5.2
16	13	7.9	4.8	3.7	4.0	4.2	17	53	16	6.1	4.1	5.4
17	13	7.9	4.8	3.6	4.0	4.2	18	57	16	5.9	3.6	4.8
18	13	7.6	4.8	3.6	4.0	4.2	16	54	19	6.1	3.4	4.1
19	14	7.6	4.6	3.6	4.0	4.2	16	50	18	6.7	3.6	3.6
20	15	7.6	4.6	3.5	4.0	4.4	13	50	17	7.9	4.1	3.4
21	14	7.6	4.6	3.6	3.9	4.2	12	53	18	6.4	4.1	3.3
22	12	7.0	4.6	3.7	3.9	4.4	11	54	22	5.9	3.7	3.3
23	10	7.6	5.0	3.7	3.9	4.5	11	55	19	4.3	3.4	3.1
24	9.0	7.6	5.2	3.7	3.9	4.6	13	48	15	5.9	3.3	3.1
25	8.8	7.6	5.0	3.8	3.8	4.8	19	46	14	6.1	3.1	3.6
26	8.6	7.6	5.0	3.8	3.8	5.2	32	48	13	5.7	3.1	5.2
27	8.6	6.7	5.0	3.8	3.6	6.0	37	42	13	5.2	2.9	5.0
28	8.2	6.7	5.0	3.8	3.5	8.0	21	41	12	5.0	2.8	4.1
29	8.2	6.7	4.8	3.8	-	9.0	24	41	13	4.6	2.8	3.6
30	7.8	6.1	4.6	3.8	-----	11	25	40	14	4.1	2.8	3.3
31	7.8	-----	4.6	3.8	-----	12	-----	39	-----	3.7	3.6	-----
Total	457.0	219.5	159.9	123.2	103.2	148.7	432.6	1,661	611	218.8	141.0	112.4
Mean	14.7	7.32	5.16	3.97	3.69	4.80	14.4	53.6	20.4	7.06	4.55	3.75
Ac-ft	906	435	317	244	205	295	858	3,290	1,210	434	280	223

Calendar year 1965: Max 169 Min 2.2 Mean 22.0 Ac-ft 15,940

Water year 1965-66: Max 89 Min 2.8 Mean 12.0 Ac-ft 8,700

Peak discharge (base, 100 cfs)--No peak above base.

Note--No gage-height record Feb. 10 to Mar. 10.

6-6200. North Platte River near Northgate, Colo.

Location.--Lat 40°56'10", long 106°20'21", in SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec.11, T.11 N., R.80 W., on right bank 350 ft downstream from bridge on State Highway 125, 0.8 mile upstream from Camp Creek, 4.2 miles northwest of Northgate, and 4.4 miles south of Colorado-Wyoming State line.

Drainage area.--1,431 sq mi.

Records available.--May to November 1904 (published as "near Pinkhampton"), May 1915 to September 1966. Monthly discharge only for some periods, published in WSP 1310.

Gage.--Water-stage recorder. Datum of gage is 7,810.39 ft above mean sea level, adjustment of 1912. May 11 to Nov. 9, 1904, staff gage 0.8 mile downstream at different datum. Apr. 30, 1915, to May 12, 1916, staff gage, May 13, 1916, to Sept. 17, 1917, chain gage, Sept. 18, 1917, to Apr. 7, 1918, staff gage, and Apr. 8, 1918, to Aug. 21, 1961, water-stage recorder, at site 0.8 mile downstream at datum 3.36 ft lower.

Average discharge.--51 years, 431 cfs (312,000 acre-ft per year).

Extremes.--Maximum discharge during year, 1,270 cfs Apr. 1 (gage height, 4.07 ft); maximum gage height, 5.77 ft Apr. 1 (backwater from ice); minimum daily discharge, 41 cfs Sept. 15, 23-25.

1904, 1915-66: Maximum discharge, 6,720 cfs June 11, 1923 (gage height, 6.24 ft, site and datum then in use); maximum gage height recorded, 8.84 ft Apr. 9, 1962 (ice jam); minimum daily discharge, 19 cfs July 17-19, 1934.

Remarks.--Records good except those for winter period, which are poor. Diversions for irrigation of about 130,000 acres of hay meadows above station. Transbasin diversions above station to Cache la Poudre River basin (see elsewhere in this report). Records of chemical analyses and water temperatures for the water year 1966 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	531	228	180	150	120	130	1,100	205	487	271	140	67
2	524	222	230	130	120	130	948	202	493	283	178	72
3	504	225	200	140	130	130	786	205	456	260	200	72
4	462	222	200	150	130	120	566	205	451	245	328	67
5	439	222	200	140	130	140	412	205	462	223	390	64
6	412	212	210	150	130	150	395	192	474	206	315	64
7	385	212	200	140	120	170	365	183	456	197	264	65
8	360	208	190	130	110	140	350	208	433	206	213	65
9	345	205	190	130	110	130	345	264	462	189	195	62
10	332	212	190	120	105	120	340	327	456	175	172	60
11	322	202	190	130	100	130	380	474	439	172	159	57
12	314	186	180	135	100	140	370	517	456	192	146	50
13	304	222	170	135	100	140	314	450	416	189	164	48
14	296	236	160	130	110	150	272	370	375	178	156	43
15	292	242	155	120	120	170	253	300	342	159	143	41
16	288	268	150	120	120	210	256	239	328	143	126	48
17	284	284	140	120	120	200	284	202	360	159	114	54
18	292	318	140	120	120	190	345	195	537	200	107	60
19	332	327	150	115	120	240	345	195	565	338	102	59
20	340	314	160	110	130	250	314	178	474	256	107	50
21	322	288	170	130	130	240	280	164	451	213	112	47
22	304	189	180	120	130	230	256	167	468	197	114	45
23	296	239	180	120	130	210	256	206	439	192	105	41
24	288	318	170	125	130	200	236	283	360	189	94	41
25	284	350	150	130	130	200	218	256	291	178	85	41
26	276	260	150	130	130	210	218	245	256	172	81	45
27	264	199	150	130	130	240	253	295	264	197	74	69
28	256	180	150	130	130	400	280	311	252	192	65	72
29	256	170	150	130	-	500	256	303	237	172	62	69
30	246	170	150	130	-----	800	232	311	245	156	60	62
31	239	-----	150	130	-----	1,000	-----	356	-----	143	59	-----
Total	10,389	7,130	5,335	4,020	3,385	7,410	11,225	8,213	12,185	6,242	4,630	1,700
Mean	335	238	172	130	121	239	374	265	406	201	149	56.7
Ac-ft	20,610	14,140	10,580	7,970	6,710	14,700	22,260	16,290	24,170	12,380	9,180	3,370

Calendar year 1965: Max 3,720 Min 60 Mean 611 Ac-ft 442,000  
 Water year 1965-66: Max 1,100 Min 41 Mean 224 Ac-ft 162,400

## PLATTE RIVER BASIN

6-6575. Laramie River near Glendevey, Colo.

Location.--Lat 40°48'00", long 105°52'40", in NW¼ sec.25, T.10 N., R.76 W., on left bank just upstream from Stub Creek, 180 ft downstream from bridge on county road, 250 ft downstream from Nunn Creek, and 1½ miles north of Glendevey Post Office.

Drainage area.--101 sq mi.

Records available.--June 1904 to October 1905, August 1910 to September 1966. Monthly discharge only for some periods, published in WSP 1310. Published as "at Glendevey" 1905, 1910-18.

Gage.--Water-stage recorder. Altitude of gage is 8,230 ft (from topographic map). Prior to Nov. 7, 1910, staff gage. Prior to Sept. 21, 1922, at datum 1.22 ft higher, Sept. 21, 1922, to Sept. 26, 1923, at datum 1.94 ft higher, July 9, 1929, to July 22, 1931, at datum 2.73 ft higher, and July 23, 1931, to Sept. 19, 1935, at datum 2.09 ft higher; all at site 180 ft upstream. Sept. 27, 1923, to July 8, 1929, at site 140 ft upstream at datum 1.35 ft higher.

Average discharge.--57 years, 73.0 cfs (52,850 acre-ft per year).

Extremes.--Maximum discharge during year, 238 cfs May 7 (gage height, 2.19 ft); minimum daily, 16 cfs Aug. 16, Sept. 10, 20. 1904-5, 1910-66: Maximum discharge, 2,240 cfs June 9, 1923 (gage height, 4.55 ft, site and datum then in use, from floodmarks), from rating curve extended above 1,400 cfs; minimum daily recorded, 5 cfs Feb. 14, 15, 1911, but may have been less during winter periods of no gage-height record.

Remarks.--Records good except those for winter period, which are fair. Diversions for irrigation of about 700 acres of hay meadows above station. Transbasin diversions above station to Cache la Poudre River and tributaries (see elsewhere in this report).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	86	50	35	22	22	20	52	77	130	51	20	21
2	92	49	38	21	21	20	52	96	128	46	22	22
3	92	47	33	22	20	20	36	123	120	36	26	19
4	86	46	33	23	21	20	32	144	99	36	42	18
5	80	47	32	22	21	18	29	165	92	35	27	18
6	72	45	33	22	20	19	30	189	77	35	22	17
7	72	45	32	22	19	21	30	165	70	38	20	17
8	67	41	31	22	18	23	33	180	102	36	18	17
9	65	44	30	22	18	20	34	165	92	34	18	17
10	65	39	29	21	18	20	34	159	77	34	18	16
11	65	35	29	21	19	19	34	128	88	34	17	17
12	62	33	29	21	19	18	30	111	73	35	18	17
13	60	38	28	20	20	20	27	104	59	33	20	17
14	59	40	25	21	21	22	27	112	52	31	18	17
15	58	42	24	21	23	23	33	117	54	35	17	21
16	57	42	26	21	24	26	38	123	62	34	16	20
17	58	45	21	21	26	24	47	125	111	36	17	18
18	66	45	19	21	25	22	46	110	104	41	22	17
19	71	41	22	21	24	22	40	108	83	46	23	17
20	68	42	22	21	23	23	35	110	74	45	24	16
21	64	40	21	20	22	22	35	120	66	41	24	18
22	66	38	22	21	22	21	36	141	65	40	22	22
23	68	45	23	22	22	21	35	146	62	44	21	22
24	67	42	24	22	23	22	36	117	49	47	20	22
25	62	41	22	21	22	24	38	117	38	45	19	23
26	59	45	22	23	22	24	54	125	34	35	18	55
27	56	41	22	22	21	24	69	120	32	23	18	41
28	58	41	22	22	20	32	60	114	36	22	17	31
29	54	38	22	22	-	35	56	127	41	20	17	26
30	53	36	23	22	-----	40	59	136	50	19	18	24
31	51	-----	22	22	-----	47	-----	146	-----	18	24	-----
Total	2,059	1,263	816	667	596	732	1,197	4,020	2,220	1,105	643	643
Mean	66.4	42.1	26.3	21.5	21.3	23.6	39.9	130	74.0	35.6	20.7	21.4
Ac-ft	4,080	2,510	1,620	1,320	1,180	1,450	2,370	7,970	4,400	2,190	1,280	1,280

Calendar year 1965: Max 835 Min 12 Mean 95.4 Ac-ft 69,030  
 Water year 1965-66: Max 189 Min 16 Mean 43.7 Ac-ft 31,660

6-6585. Laramie River near Jelm, Wyo.

Location.--Lat 41°00'08", long 106°00'51", in SE¼SE¼ sec.15, T.12 N., R.77 W., on right bank 35 ft downstream from road bridge, a quarter of a mile north of Colorado-Wyoming State line, half a mile upstream from Johnson Creek, and 4 miles south of Jelm, Wyo.

Drainage area.--294 sq mi.

Records available.--June 1904 to October 1905, October 1910 to September 1966. Monthly discharge only for some periods, published in WSP 1310.

Gage.--Digital water-stage recorder. Datum of gage is 7,683.36 ft above mean sea level, datum of 1929. June 22, 1904, to Oct. 31, 1905, staff gage at site three-quarters of a mile upstream at different datum. May 7 to July 13, 1911, staff gage and July 14, 1911, to Sept. 3, 1921, graphic water-stage recorder, on downstream side of bridge 35 ft upstream at present datum. Sept. 4, 1921, to Dec. 2, 1965, graphic water-stage recorder at present site and datum.

Average discharge.--57 years, 159 cfs (115,100 acre-ft per year).

Extremes.--Maximum discharge during year, 500 cfs May 9 (gage height, 2.51 ft); maximum gage height, 2.57 ft Mar. 8 (backwater from ice); minimum daily discharge, 22 cfs Sept. 21.

1904-5, 1910-66: Maximum discharge, 4,200 cfs June 9, 1923 (gage height, 4.15 ft); minimum recorded, 5.6 cfs Dec. 2, 1933.

Remarks.--Records good except those for winter period, which are poor. Diversions for irrigation of about 4,600 acres of hay meadows above station. Transbasin diversions above station to Cache la Poudre River and tributaries (see elsewhere in this report).

Cooperation.--Records furnished by Wyoming district.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	162	91	80	46	33	35	120	142	263	82	51	41
2	177	87	80	45	33	33	103	191	251	87	68	46
3	177	83	82	48	32	32	87	244	240	76	73	39
4	165	78	88	50	37	34	69	283	234	66	120	34
5	151	83	90	50	39	35	62	313	225	53	113	34
6	134	76	84	50	38	36	61	349	202	43	81	32
7	128	78	84	52	35	40	56	390	189	34	68	32
8	128	74	83	55	31	45	59	426	271	34	61	32
9	118	76	80	50	31	50	62	445	278	33	50	33
10	118	74	78	50	30	55	64	455	217	33	43	31
11	115	68	78	50	30	55	66	388	228	34	41	31
12	113	74	70	45	31	50	62	313	214	44	40	31
13	110	72	60	45	30	55	56	280	173	45	49	35
14	105	72	54	47	30	60	53	275	154	45	44	34
15	101	72	50	45	29	65	56	298	139	40	36	36
16	98	74	49	43	31	60	63	303	154	29	32	45
17	101	74	49	42	32	55	78	305	261	24	32	42
18	123	76	45	43	33	60	84	268	278	80	32	37
19	131	76	52	35	34	60	76	272	192	79	34	32
20	128	76	55	30	32	60	65	289	156	67	39	27
21	118	70	58	30	31	55	67	315	147	61	42	22
22	123	70	62	32	31	55	72	361	137	55	42	25
23	126	70	56	32	31	60	65	372	131	51	38	27
24	128	70	50	32	31	64	67	315	122	66	35	27
25	123	71	54	32	31	66	69	298	99	62	34	28
26	115	72	48	33	31	70	85	313	92	59	33	30
27	103	73	50	32	32	75	115	286	77	58	32	46
28	103	77	54	32	32	90	114	251	63	49	29	44
29	98	80	58	34	-	100	110	245	63	44	28	38
30	96	80	52	37	-----	120	101	258	70	45	25	36
31	93	-----	48	34	-----	130	-----	269	-----	45	29	-----
Total	3,809	2,267	1,981	1,281	901	1,860	2,267	9,512	5,320	1,623	1,474	1,027
Mean	123	75.6	63.9	41.3	32.2	60.0	75.6	307	177	52.4	47.5	34.2
Ac-ft	7,560	4,500	3,930	2,540	1,790	3,690	4,500	18,870	10,550	3,220	2,920	2,040

Calendar year 1965: Max 1,590 Min 19 Mean 197 Ac-ft 142,600  
 Water year 1965-66: Max 455 Min 22 Mean 91.3 Ac-ft 66,110



## PLATTE RIVER BASIN

6-6950. South Platte River above Elevenmile Canyon Reservoir, near Hartsel, Colo.

Location.--Lat 38°58'03", long 105°34'51", in NE¼ sec.32, T.12 S., R.73 W., on left bank 200 ft downstream from highway bridge, 2.5 miles upstream from water line of Elevenmile Canyon Reservoir at elevation 8,561 ft, and 13 miles southeast of Hartsel.

Drainage area.--880 sq mi.

Records available.--June 1933 to September 1966 (no winter records prior to 1940). Monthly discharge only for some periods, published in WSP 1310.

Gage.--Water-stage recorder and Parshall flume. Datum of gage is 8,612.83 ft above mean sea level (datum of Denver Board of Water Commissioners). Prior to May 27, 1939, water-stage recorder near present site at different datum. May 27, 1939, to Nov. 4, 1961, at datum 0.46 ft lower.

Average discharge.--27 years (1939-66), 80.5 cfs (58,280 acre-ft per year).

Extremes.--Maximum discharge during year, 531 cfs Aug. 2 (gage height, 2.86 ft); minimum not determined.

1933-66: Maximum discharge recorded, 1,290 cfs June 19, 1949; maximum gage height, 4.76 ft (present datum) July 22, 1957; minimum daily discharge recorded, 0.9 cfs Apr. 22, 1940.

Remarks.--Records good except those for winter period, which are poor. Flow regulated by Antero Reservoir (capacity, 22,300 acre-ft). Many small diversions above station for irrigation of about 24,000 acres.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	176	97	35				90	25	82	52	127	17
2	172	97	36				96	22	76	50	127	23
3	100	95	37				86	22	61	55	178	21
4	87	80	37				72	26	51	50	168	22
5	84	72	38				75	28	43	44	122	21
6	81	72	38				80	27	41	39	81	20
7	78	72	38				81	38	42	33	57	21
8	75	72	38				82	60	39	52	44	23
9	75	72	35				80	109	38	57	36	20
10	74	69	34				76	107	51	50	29	20
11	74	64					75	94	70	47	25	20
12	74	65					70	105	68	87	23	21
13	74	69					64	140	64	92	28	21
14	74	66					64	129	60	76	26	20
15	66	66		14	12	42	62	87	56	84	23	20
16	72	65					61	81	57	74	21	23
17	95	68					60	76	44	64	20	22
18	116	66					60	81	44	61	23	20
19	141	61					60	76	50	69	25	17
20	136	61					57	55	47	127	30	16
21	121	62	23				57	41	56	120	36	16
22	118	60					53	35	62	109	35	16
23	114	56					59	33	60	98	34	15
24	113	56					56	46	60	114	33	15
25	109	45					48	44	50	145	28	15
26	105	38					41	35	43	145	21	16
27	104	36					34	38	53	129	19	20
28	104	35					31	56	52	147	18	19
29	102	39					29	62	47	129	18	16
30	100	35					27	43	48	116	17	13
31	98							46		107	17	
Total	3,112	1,911	849	434	336	1,302	1,886	1,867	1,615	2,622	1,489	569
Mean	100	63.7	27.4	14	12	42	62.9	60.2	53.8	84.6	48.0	19.0
Ac-ft	6,170	3,790	1,680	861	666	2,580	3,740	3,700	3,200	5,200	2,950	1,130

Calendar year 1965: Max 794 Min - Mean 162 Ac-ft 117,400

Water year 1965-66: Max 178 Min - Mean 49.3 Ac-ft 35,690

Note.--No gage-height record Dec. 14 to Mar. 30.

6-6960. South Platte River near Lake George, Colo.

Location.--Lat 38°54'19", long 105°28'22", in SW¼ sec.20, T.13 S., R.72 W., on left bank 700 ft downstream from Elevenmile Canyon Reservoir and 8.2 miles southwest of town of Lake George.

Drainage area.--963 sq mi.

Records available.--October 1929 to September 1966. Monthly discharge only for some periods, published in WSP 1310.

Gage.--Water-stage recorder and Parshall flume. Altitude of gage is 8,458 ft (from topographic map). Prior to Oct. 26, 1940, at site 1 mile downstream at datum 8,423.95 ft above mean sea level, adjustment of 1912.

Average discharge.--37 years, 69.8 cfs (50,530 acre-ft per year).

Extremes.--Maximum discharge during year, 260 cfs May 14 (gage height, 2.54 ft); minimum daily, 9.0 cfs many days.  
1929-66: Maximum discharge, 990 cfs Aug. 15, 1930, from rating curve extended above 600 cfs; maximum gage height, 5.85 ft June 20, 1949; no flow at times in January 1930, February 1931, November 1935.

Remarks.--Records good. Natural flow of stream affected by transmountain diversions through East and West Hoosier ditches at Hoosier Pass prior to 1941, storage in Elevenmile Canyon Reservoir (see elsewhere in this report) and Antero Reservoir (capacity, 22,300 acre-ft), diversions for irrigation, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.0	9.0	10	9.5	10	9.0	9.0	9.5	22	34	100	9.0
2	9.0	9.0	10	9.5	10	9.0	9.0	9.5	42	41	144	9.0
3	9.0	9.0	11	9.5	9.5	9.0	9.0	9.5	60	25	183	9.0
4	9.0	9.0	10	9.5	9.5	9.0	9.0	9.5	77	17	200	9.0
5	9.0	9.5	10	9.5	9.5	9.0	9.5	9.5	77	11	217	9.0
6	9.0	9.5	10	9.5	9.5	9.0	9.5	9.5	45	12	139	9.5
7	9.5	9.5	10	10	9.5	9.0	9.5	9.0	30	14	59	9.5
8	9.5	9.5	10	10	10	9.0	9.5	9.0	19	14	16	9.5
9	9.5	9.5	10	10	10	9.0	48	16	10	14	10	10
10	9.5	9.5	10	10	10	9.5	72	30	10	14	10	10
11	9.5	9.5	10	10	10	9.5	72	47	30	14	10	10
12	9.5	9.5	10	10	10	9.5	71	90	41	25	10	10
13	9.5	10	10	10	10	9.5	71	174	26	48	9.5	10
14	9.5	10	10	9.5	10	9.5	71	236	25	49	9.5	10
15	9.5	10	10	10	10	9.0	71	189	32	61	9.5	9.5
16	10	10	10	10	10	9.0	71	111	29	69	9.5	9.0
17	10	10	10	10	10	9.0	64	86	40	50	9.5	9.5
18	9.5	10	10	10	10	9.0	44	36	52	40	9.5	9.0
19	9.5	10	10	10	10	9.5	15	23	44	61	9.5	9.0
20	9.5	9.5	10	10	9.5	9.0	9.0	36	50	107	9.5	9.0
21	9.5	9.5	10	10	9.5	9.5	9.0	52	68	127	9.5	9.0
22	9.5	9.5	9.5	10	9.5	9.0	9.0	57	77	134	10	9.0
23	9.5	9.5	10	10	9.0	9.0	9.0	39	52	151	10	9.0
24	9.5	9.5	10	10	9.0	9.0	9.0	17	20	127	10	9.0
25	9.5	9.5	10	10	9.0	9.0	9.0	9.5	10	89	10	9.0
26	10	9.5	9.5	10	9.0	9.0	9.0	9.5	9.5	144	10	9.0
27	10	9.5	9.5	10	9.0	9.5	25	9.5	15	153	9.5	9.0
28	9.0	9.5	9.5	10	9.0	9.0	31	9.5	44	153	9.5	9.5
29	9.0	9.5	9.5	10	-	9.0	20	9.5	52	123	9.5	9.5
30	9.0	10	9.5	10	-----	9.0	13	13	33	82	9.0	9.5
31	9.0	-----	9.5	10	-----	9.0	-----	20	-----	89	9.0	-----
Total	291.5	287.0	307.5	306.5	270.0	283.0	896.0	1,394.5	1,130.5	2,092	1,280.0	280.0
Mean	9.40	9.57	9.92	9.89	9.64	9.13	2.99	45.0	37.7	67.5	41.3	9.33
Ac-ft	578	569	610	608	536	561	1,780	2,770	2,240	4,150	2,540	555

Calendar year 1965: Max 449 Min 6.8 Mean 70.2 Ac-ft 50,810  
 Water year 1965-66: Max 236 Min 9.0 Mean 24.2 Ac-ft 17,490

## PLATTE RIVER BASIN

6-7005. Goose Creek above Cheesman Lake, Colo.  
(Known also as Lost Park Creek)

Location.--Lat 39°12'32", long 105°18'11", in sec.2, T.10 S., R.71 W., on right bank 1 mile upstream from water line of Cheesman Lake at elevation 6,842 ft and 1.7 miles west of Cheesman Dam.

Drainage area.--86.6 sq mi.

Records available.--August to December 1899, October 1924 to September 1966 (no winter records in some years). Monthly discharge only for some periods, published in WSP 1310. Published as "at Lake Cheesman" 1899.

Gage.--Water-stage recorder and compound rectangular weir. Altitude of gage is 6,910 ft (from topographic map). Aug. 1 to Dec. 31, 1899, staff gage at site about 2 miles downstream at different datum.

Average discharge.--29 years (1924-30, 1935-36, 1939-41, 1943-47, 1950-66), 26.9 cfs (19,470 acre-ft per year).

Extremes.--Maximum discharge during year, 86 cfs Aug. 3 (gage height, 1.88 ft); minimum not determined.  
1924-66: Maximum discharge, 487 cfs June 9, 1957, from rating curve extended above 170 cfs; maximum gage height, 4.57 ft May 30, 1942; minimum discharge not determined.

Remarks.--Records poor. Small diversions above station for irrigation of about 100 acres.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	17						30	26	15	25	15
2	44	17						30	23	15	42	19
3	39	17					11	33	20	11	67	16
4	36	16						28	18	8.9	43	16
5	34	16						26	17	8.3	43	14
6	32	16					10	26	17	7.6	36	12
7	30	15					11	26	17	7.2	30	12
8	28	14					16	28	18	7.2	28	11
9	28	15					20	34	18	7.0	26	11
10	27	13					31	43	25	6.8	26	11
11	27	13					30	32	23	7.6	26	14
12	26	11					22	30	17	9.5	26	13
13	26	13					20	33	15	10	37	13
14	26	13					18	52	14	13	26	11
15	24	13					19	50	13	10	24	11
16	24	12	8.2	5.8	4.8	6.5	29	43	13	8.6	22	13
17	26	15					32	38	17	7.4	21	10
18	30	11					26	36	18	9.5	21	9.5
19	30	11					19	34	15	15	21	9.2
20	32	9.0					17	32	13	26	24	9.2
21	30						15	30	15	21	23	9.2
22	28						19	29	13	19	19	9.2
23	28						20	28	13	23	18	8.6
24	25						25	26	11	20	23	8.9
25	22						31	25	9.8	23	19	8.9
26	22	9.0					50	25	9.5	16	15	9.2
27	20						46	25	18	11	13	9.5
28	22						29	26	13	24	13	10
29	19						29	26	15	22	13	9.5
30	20						36	25	13	17	11	9.5
31	19							23		15	11	
Total	874	367.0	254.2	179.8	134.4	201.5	675	972	487.3	421.6	792	342.4
Mean	28.2	12.2	8.2	5.8	4.8	6.5	22.5	31.4	16.2	13.6	25.6	11.4
Ac-ft	1,730	728	504	357	267	400	1,340	1,930	967	836	1,570	679

Calendar year 1965: Max 257 Min - Mean 48.8 Ac-ft 35,320  
Water year 1965-66: Max 67 Min - Mean 15.6 Ac-ft 11,310

Note.--No gage-height record Nov. 27 to Apr. 6.

6-7015. South Platte River below Cheesman Lake, Colo.

Location.--Lat 39°12'33", long 105°16'02", in SE 1/4 sec. 6, T.10 S., R.70 W., on left bank 1,400 ft downstream from toe of Cheesman Dam and 4 miles southwest of Deckers.

Drainage area.--1,752 sq mi.

Records available.--October 1924 to September 1966. Monthly discharge only for some periods, published in WSP 1310.

Gage.--Water-stage recorder and Parshall flume. Datum of gage is 6,609.29 ft above mean sea level, datum of 1929. Prior to May 14, 1956, at site 370 ft upstream at datum 0.50 ft higher.

Average discharge.--42 years, 154 cfs (111,500 acre-ft per year).

Extremes.--Maximum discharge during year, 588 cfs May 15 (gage height, 2.83 ft); minimum daily, 14 cfs Sept. 26.

1924-66: Maximum discharge, 3,020 cfs Apr. 23, 1942 (gage height, 8.46 ft, site and datum then in use), from rating curve extended above 1,800 cfs; minimum daily determined, 1.6 cfs Apr. 8-14, 1957.

Remarks.--Records excellent. Natural flow of stream affected by minor transmountain diversion from Colorado River basin through Boreas Pass ditch (see elsewhere in this report), Elevenmile Canyon Reservoir and Cheesman Lake (see elsewhere in this report), diversions for irrigation of about 40,000 acres, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	140	78	40	35	30	23	115	250	357	187	262	156
2	134	73	43	37	27	23	126	290	357	185	214	68
3	126	72	44	35	24	24	132	329	371	207	303	27
4	117	72	50	26	23	23	126	371	385	354	327	26
5	111	70	51	28	23	22	97	385	426	385	311	26
6					23							
6	111	70	47	30	24	22	78	365	429	399	324	33
7	106	70	43	30	24	23	70	362	402	397	254	37
8	104	72	47	32	24	23	72	360	231	397	132	37
9	99	72	47	36	26	24	79	329	91	377	92	32
10	96	70	51	31	26	28	103	279	61	277	84	30
11	92	67	57	28	26	31	164	290	189	176	115	31
12	91	64	46	27	26	33	235	160	257	192	142	44
13	89	64	43	27	32	37	259	189	254	219	142	79
14	87	72	50	27	26	42	287	371	274	216	140	78
15	87	65	40	28	24	47	181	554	305	214	142	51
16												
16	87	64	42	28	24	53	147	558	262	216	130	33
17	87	70	35	26	22	68	210	459	89	250	147	26
18	91	67	31	24	20	70	228	379	82	242	158	23
19	103	68	32	24	20	75	172	379	136	149	160	23
20	108	64	37	26	20	82	106	338	274	223	160	23
21												
21	110	60	40	27	20	92	54	300	327	176	94	24
22	104	50	39	26	21	103	35	300	335	183	53	24
23	99	49	37	24	22	78	64	351	332	201	53	17
24	96	56	40	24	23	67	44	397	327	219	53	16
25	92	54	47	23	23	75	18	371	313	228	72	15
26												
26	86	60	36	23	23	76	40	374	257	121	126	14
27	86	42	36	23	27	76	198	382	252	226	124	20
28	82	26	36	23	24	79	274	321	354	343	111	24
29	79	30	44	23	-	84	313	254	472	360	140	23
30	78	36	37	23	-----	92	285	274	408	357	158	24
31	79	-----	37	28	-----	106	-----	357	-----	292	156	-----
Total	3,057	1,847	1,305	852	674	1,701	4,312	10,678	8,609	7,968	4,879	1,084
Mean	98.6	61.6	42.1	27.5	24.1	54.9	144	344	287	257	157	36.1
Ac-ft	6,060	3,660	2,590	1,690	1,340	3,370	8,550	21,180	17,080	15,800	9,680	2,150

Calendar year 1965: Max 867 Min 9.8 Mean 123 Ac-ft 89,040  
 Water year 1965-66: Max 558 Min 14 Mean 129 Ac-ft 93,160

## PLATTE RIVER BASIN

6-7060. North Fork South Platte River below Geneva Creek, at Grant, Colo.

Location.--Lat 39°27'28", long 105°39'28", in NW¼ sec.10, T.7 S., R.74 W., on left bank at Grant, 1,600 ft downstream from Geneva Creek and 1.3 miles downstream from east portal of Harold D. Roberts tunnel.

Drainage area.--127 sq mi.

Records available.--July 1908 to November 1913 (published as "at Cassells"), June 1942 to September 1966. Monthly discharge only for some periods, published in WSP 1310. December 1913 to March 1918 equivalent records may be obtained by summation of flow of North Fork South Platte River at Grant (above Geneva Creek) and Geneva Creek at Grant.

Gage.--Water-stage recorder. Datum of gage is 8,558.60 ft above mean sea level (Bureau of Reclamation bench mark). July 4 to Dec. 13, 1908, and May 23 to Nov. 30, 1913, staff gages at site 185 ft downstream from bridge at Santa Maria (formerly Cassells) about 2 miles downstream at various datums. Dec. 14, 1908, to May 22, 1913, chain gage on bridge at Santa Maria about 2 miles downstream at different datum. June 19, 1942, to Mar. 15, 1948, staff gage at site 1,200 ft upstream from present site at datum 13.07 ft higher. Mar. 16 to July 22, 1948, staff gage at site 400 ft upstream from present site at datum 6.35 ft higher than present datum.

Average discharge.--29 years, 72.7 cfs (52,630 acre-ft per year), adjusted for inflow from Harold D. Roberts tunnel since 1964.

Extremes.--Maximum discharge during year, 251 cfs July 18 (gage height, 3.50 ft); minimum not determined.

1908-13, 1942-66: Maximum discharge observed, 990 cfs June 7, 8, 1912 (gage height, 3.30 ft, site and datum then in use), from rating curve extended above 530 cfs by logarithmic plotting; maximum gage height, 4.72 ft, present site, Feb. 11, 1952 (backwater from ice); minimum daily discharge, 6.5 cfs Nov. 27, 1958.

Remarks.--Records good except those for winter period, which are poor. Small diversions above station for irrigation of about 200 acres. Transmountain diversions from Colorado River basin to North Fork South Platte River above station through Harold D. Roberts tunnel (see elsewhere in this report).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	68	60					38	43	88	103	212	216
2	68	54					37	57	84	78	198	202
3	66	46					27	63	81	105	169	198
4	63	38					27	71	78	146	202	137
5	62	34					41	76	76	156	205	114
6	58	34					38	86	70	175	202	162
7	58	33					30	95	68	175	198	195
8	58	29					28	95	99	172	192	195
9	66	34					31	78	107	172	179	192
10	66	30					29	86	118	175	208	195
11	65	29					27	68	109	188	219	198
12	68	35					25	60	101	192	219	198
13	57	35					21	58	97	182	222	198
14	56	32					15	58	107	175	212	198
15	57	37	22	16	13	18	18	57	118	175	212	208
16	56	34					21	58	129	172	205	202
17	57	38					19	68	135	175	205	195
18	58	34					21	70	129	195	202	162
19	58	30					18	76	129	219	216	101
20	58	31					19	107	135	212	222	101
21	57	31					28	132	146	198	212	99
22	58	28					20	135	150	202	205	99
23	58	27					23	124	140	192	198	96
24	57	30					24	97	135	188	192	150
25	63	31					32	95	129	182	192	182
26	65						35	90	129	182	198	185
27	62						33	84	129	198	188	185
28	63	22					28	78	126	198	188	185
29	62						30	76	126	188	185	182
30	60						32	81	137	188	185	185
31	57							93		192	192	
Total	1,885	984	682	496	364	558	815	2,515	3,405	5,450	6,234	5,115
Mean	60.8	32.8	22	16	13	18	27.2	81.1	114	176	201	170
Ac-ft	3,740	1,950	1,350	984	722	1,110	1,620	4,990	6,750	10,810	12,360	10,150

Calendar year 1965: Max 633 Min 15 Mean 132 Ac-ft 95,510  
 Water year 1965-66: Max 222 Min - Mean 78.1 Ac-ft 56,530

Note.--No gage-height record Dec. 14 to Mar. 29.

6-7070. North Fork South Platte River at South Platte, Colo.

Location.--Lat 39°24'30", long 105°10'30", in SW¼ sec.25, T.7 S., R.70 W., on left bank 0.2 mile west of South Platte and 0.3 mile upstream from mouth.

Drainage area.--479 sq mi.

Records available.--June 1909 to September 1910, April 1913 to September 1966. Monthly discharge only for some periods, published in WSP 1310.

Gage.--Water-stage recorder. Datum of gage is 6,090.55 ft above mean sea level, adjustment of 1912. Prior to May 13, 1925, staff gage at same site and datum.

Average discharge.--54 years, 154 cfs (111,500 acre-ft per year), adjusted for inflow from Harold D. Roberts tunnel since 1964.

Extremes.--Maximum discharge during year, 555 cfs July 18 (gage height, 3.37 ft); minimum not determined.

1909-10, 1913-66: Maximum discharge, 2,050 cfs June 13, 1949 (gage height, 6.30 ft); minimum observed, 4.0 cfs Dec. 8, 1932 (discharge measurement).

Remarks.--Records good except those for winter period, which are poor. Small diversions above station for irrigation of about 2,000 acres. Transmountain diversions from Colorado River basin to North Fork South Platte River above station through Harold D. Roberts tunnel (see elsewhere in this report).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	170	110					62	76	127	159	268	290
2	166	113					67	87	116	102	322	277
3	166	108					66	105	108	89	286	272
4	152	100					50	110	100	144	300	250
5	148	93					36	116	108	152	340	159
6												
7	144	91					58	119	91	182	313	152
8	137	87					59	134	91	194	295	228
9	127	84					60	159	105	198	290	224
10	134	84					58	141	144	198	277	274
	141	84				42	56	137	159	194	277	219
11	137	80					60	122	159	219	304	228
12	137	84					58	113	137	232	308	228
13	141	87					54	105	130	219	318	237
14	116	84					54	113	159	219	290	232
15	122	82					54	102	141	219	286	259
16			50	38	36							
17	119	80					59	95	152	206	282	264
18	122	82					66	98	174	198	282	241
19	130	76					66	102	166	259	277	232
20	134	75					64	100	159	318	282	159
	130	71					56	110	159	344	331	141
21	122	73				32	58	144	159	282	308	148
22	122	43				32	67	170	170	286	286	144
23	122	52				31	66	162	159	290	272	141
24	119	53				38	75	144	164	264	277	144
25	116	54				48	76	119	127	268	264	232
26												
27	122	45				53	89	119	127	232	250	241
28	119	38				56	98	108	137	250	246	250
29	119	38				54	76	102	127	277	246	250
30	119	44				60	73	100	134	264	246	237
31	119	52				64	75	100	137	250	246	228
	116					64		113		241	254	
Total	4,088	2,247	1,550	1,178	1,008	1,372	1,916	3,625	4,126	6,949	8,823	6,581
Mean	132	74.9	50	38	36	44.3	63.9	117	138	224	285	219
Ac-ft	8,110	4,460	3,070	2,340	2,000	2,720	3,800	7,190	8,180	13,780	17,500	13,050

Calendar year 1965: Max 1,140 Min - Mean 242 Ac-ft 174,900  
 Water year 1965-66: Max 344 Min - Mean 119 Ac-ft 86,210

Note.--No gage-height record Jan. 2 to Mar. 17.

## PLATTE RIVER BASIN

6-7075. South Platte River at South Platte, Colo.

Location.--Lat 39°24'30", long 105°10'10", in SE¼ sec.25, T.7 S., R.70.W., on left bank at South Platte, 200 ft downstream from bridge on State Highway 75 and 400 ft downstream from North Fork.

Drainage area.--2,579 sq mi.

Records available.--July 1887 to September 1891, May to October 1892, October 1895 to September 1897, October 1898 to June 1900, October 1900 to September 1966. Monthly discharge only for some periods, published in WSP 1310. Published as "at" or "near Deansbury," "at Deansbury and Platte Canyon," "at" or "near Platte Canyon," prior to 1901, and as "below North Fork, at South Platte" 1914.

Gage.--Water-stage recorder. Datum of gage is 6,078.43 ft above mean sea level, adjustment of 1912. Prior to Mar. 28, 1902, staff gages or water-stage recorder at several sites less than 9 miles downstream at various datums. Mar. 28, 1902, to May 6, 1905, staff gage at bridge 200 ft upstream at different datum. May 7, 1905, to Mar. 13, 1910, staff gage at present site and datum.

Extremes.--Maximum discharge during year, 840 cfs July 18 (gage height, 3.69 ft); minimum daily, 61 cfs Feb. 20.

1887-92, 1895-97, 1898-1966: Maximum discharge, 6,320 cfs June 8, 1921 (gage height, 8.95 ft), from rating curve extended above 3,500 cfs; minimum daily determined, 10 cfs Dec. 5, 1899.

Remarks.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions through Boreas Pass ditch and Harold D. Roberts tunnel (see elsewhere in this report), Elevenmile Canyon Reservoir and Cheesman Lake (see elsewhere in this report), diversions above station for irrigation of about 45,000 acres, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	329	224	122	117	86	74	192	352	489	502	516	425
2	310	218	162	112	92	73	210	373	472	432	530	402
3	303	205	144	118	85	75	218	432	472	425	552	306
4	284	194	148	97	77	74	205	472	476	507	675	284
5	271	184	146	84	73	71	165	516	512	534	650	213
6	268	179	128	90	73	70	170	494	502	580	625	207
7	259	177	126	92	76	70	165	498	472	590	570	274
8	241	174	124	96	75	72	162	520	410	595	452	274
9	244	172	124	102	76	73	162	512	259	566	366	268
10	247	170	136	100	78	78	172	436	238	570	359	262
11	244	165	142	91	80	88	218	429	235	406	380	265
12	238	162	115	86	81	79	316	388	395	410	436	268
13	244	170	106	84	81	93	332	271	388	432	444	303
14	218	170	116	84	86	103	384	448	380	436	432	313
15	224	170	109	86	80	108	287	640	448	436	429	326
16	221	162	83	88	74	115	241	690	464	425	417	294
17	224	160	82	87	74	118	265	615	370	432	413	274
18	241	162	79	82	70	122	322	512	253	520	432	259
19	259	154	81	77	64	128	297	502	278	494	440	197
20	262	152	95	77	61	146	210	484	395	507	476	172
21	268	150	113	80	62	144	167	464	476	507	436	170
22	262	134	117	84	64	162	134	472	516	432	352	165
23	250	124	112	81	67	124	136	494	502	494	339	162
24	244	152	116	77	70	115	187	543	480	472	339	162
25	238	154	126	76	72	132	130	512	460	556	322	230
26	244	154	128	73	72	140	146	494	429	432	366	244
27	241	118	114	72	74	144	262	507	398	413	373	250
28	238	89	113	72	76	144	373	464	425	625	363	256
29	232	82	123	72	-	152	388	380	615	640	363	253
30	232	94	135	73	-----	158	406	377	625	615	395	253
31	227	-----	116	79	-----	174	-----	476	-----	561	395	-----
Total	7,807	4,775	3,681	2,689	2,099	3,419	7,022	14,767	12,834	15,546	13,637	7,731
Mean	252	159	119	86.7	75.0	110	234	476	428	501	440	258
Ac-ft	15,480	9,470	7,300	5,330	4,160	6,780	13,930	29,290	25,460	30,840	27,050	15,330

Calendar year 1965: Max 1,260 Min - Mean 396 Ac-ft 286,700  
 Water year 1965-66: Max 690 Min 61 Mean 263 Ac-ft 190,400

6-7080. South Platte River at Waterton, Colo.

Location.--Lat 39°29'18", long 105°05'32", in NE¼ sec.34, T.6 S., R.69 W., on left bank 168 ft downstream from bridge on State Highway 221, half a mile east of Waterton, 5 miles west of Louviers, and 6 miles upstream from Plum Creek.

Drainage area.--2,621 sq mi.

Records available.--May 1926 to September 1966. Monthly discharge only prior to 1934, published in WSP 1310.

Gage.--Water-stage recorder. Datum of gage is 5,484.43 ft above mean sea level, adjustment of 1912.

Average discharge.--40 years, 171 cfs (123,800 acre-ft per year).

Extremes.--Maximum discharge during year, 633 cfs Aug. 4 (gage height, 2.08 ft); minimum daily, 3.9 cfs Mar. 23.

1926-66: Maximum discharge, 5,700 cfs Apr. 23, 1942 (gage height, 5.68 ft); minimum daily, 0.1 cfs Mar. 6, 7, 1933, Feb. 28 to Mar. 2, Mar. 20, 1938.

Remarks.--Records fair. Natural flow of stream affected by transmountain diversions (see elsewhere in this report), Elevenmile Canyon Reservoir and Cheesman Lake (see elsewhere in this report), diversions for irrigation of about 55,000 acres and municipal use, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	217	89	9.3	20	18	12	8.4	126	110	143	195	130
2	195	84	17	19	19	11	4.4	147	94	126	252	130
3	186	78	20	18	19	9.3	72	177	72	106	383	122
4	165	84	20	18	19	11	82	190	78	86	603	86
5	154	69	20	19	19	10	67	209	114	78	573	53
6	161	4.4	20	20	20	9.3	22	172	126	82	508	70
7	154	40	20	17	15	9.3	72	172	114	102	445	61
8	135	4.4	20	17	15	8.4	4.6	190	110	110	328	58
9	135	5.6	20	17	1.4	7.5	72	186	143	75	218	56
10	124	42	20	19	15	7.5	106	168	134	72	195	48
11	105	36	20	15	19	8.4	143	159	130	94	182	58
12	89	34	19	17	17	7.5	186	186	118	106	155	67
13	135	36	15	17	19	7.5	204	190	106	134	164	64
14	114	36	13	17	17	7.5	233	366	98	143	143	53
15	108	32	11	17	14	7.5	118	440	102	147	147	70
16	101	34	10	17	14	7.5	72	394	110	134	147	86
17	95	34	8.4	14	14	7.5	106	292	130	126	118	44
18	199	34	19	14	15	7.5	186	182	130	159	102	44
19	260	34	22	14	16	6.6	143	159	147	272	110	44
20	260	34	19	13	17	7.5	118	151	143	339	155	44
21	276	18	19	12	17	5.7	114	134	155	361	143	44
22	250	7.2	19	13	17	5.7	90	134	147	272	126	42
23	203	5.1	17	14	17	3.9	118	134	138	328	106	42
24	186	5.8	17	16	15	4.8	177	182	126	313	110	40
25	186	5.8	19	17	17	4.8	44	172	106	383	106	42
26	190	11	19	19	17	4.8	42	143	70	292	94	42
27	195	26	19	20	14	5.7	48	143	94	195	98	42
28	186	7.2	19	20	15	10	190	102	72	282	82	44
29	114	6.5	19	20	-	8.4	209	94	72	313	75	40
30	95	7.9	20	19	-----	7.5	209	82	90	297	75	46
31	95	-----	24	18	-----	9.3	-----	98	-----	257	86	-----
Total	5,068	1,074.5	553.7	527	464	240.9	3,341.4	5,674	3,379	5,927	6,224	1,812
Mean	163	35.8	17.9	17.0	16.6	7.77	111	183	113	191	201	60.4
Ac-ft	10,050	2,130	1,100	1,050	920	478	6,630	11,250	6,700	11,760	12,350	3,590

Calendar year 1965: Max 1,200 Min 2.2 Mean 249 Ac-ft 180,200  
 Water year 1965-66: Max 603 Min 3.9 Mean 93.9 Ac-ft 68,000



## PLATTE RIVER BASIN

6-7095. Plum Creek near Louviers, Colo.

Location.--Lat 39°29'04", long 105°00'07", in SE¼ sec.33, T.6 S., R.68 W., on downstream side of bridge on county road from U. S.

Highway 85 to Louviers, three-quarters of a mile northeast of Louviers, 1½ miles downstream from Indian Creek, and 7½ miles upstream from mouth. From Nov. 7, 1965, to Aug. 6, 1966, at site 2½ miles downstream.

Drainage area.--302 sq mi.Records available.--October 1947 to September 1966.Gage.--Water-stage recorder. Altitude of gage is 5,585 ft (from topographic map). Prior to Feb. 12, 1957, at site 2½ miles downstream and Nov. 7, 1965, to Aug. 6, 1966, at site 2½ miles downstream at different datums. Feb. 12, 1957, to Nov. 6, 1965, at present site at about present datum.Average discharge.--19 years, 22.9 cfs (16,580 acre-ft per year).Extremes.--Maximum discharge during year, 2,150 cfs July 19 (gage height, 3.52 ft, site and datum then in use); minimum daily, 0.3 cfs Aug. 7, 8, 17, 18, 27-31, Sept. 5, 6.

1947-66: Maximum discharge, 154,000 cfs June 16, 1965 (gage height, about 21 ft), by slope-area measurement of peak flow; no flow at times in 1951-52, 1956-60, 1963-64.

Remarks.--Records poor. Diversions above station for irrigation.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	18	11	18	16	51	20	28	3.9	3.2	2.3	0.6
2	28	17	16	5.3	17	40	26	17	3.2	2.8	2.8	.7
3	26	16	13	11	16	16	28	19	3.2	1.4	2.3	.8
4	24	17	11	30	16	14	34	22	4.3	.7	1.9	.5
5	24	18	22	33	17	26	28	17	5.3	.4	2.2	.3
6	26	20	17	17	16	26	22	16	7.8	.4	.7	.3
7	24	22	18	25	18	40	23	20	4.8	.5	.3	.5
8	23	20	11	28	23	42	30	22	11	.9	.3	.5
9	22	22	12	25	23	31	30	36	9.9	.9	.5	.5
10	20	22	17	18	18	23	30	22	11	.9	.5	.6
11	19	17	14	18	20	26	30	26	4.3	.9	.6	.8
12	20	14	13	16	19	23	38	47	3.2	.9	1.2	1.5
13	20	14	12	19	18	23	33	36	2.8	1.6	.8	1.4
14	20	11	11	17	14	23	33	33	2.8	1.4	.5	1.6
15	19	17	10	16	12	28	25	26	2.3	.9	.6	4.3
16	19	13	9.9	8.0	13	23	25	28	4.3	.5	.4	3.5
17	19	11	11	6.0	14	26	30	18	4.3	.5	.3	2.7
18	24	9.9	15	6.7	17	23	40	31	4.3	9.8	.3	2.7
19	33	14	14	6.7	20	26	34	28	3.9	25.6	.4	2.7
20	29	9.9	13	11	22	22	36	19	3.2	15	5.7	2.5
21	25	16	15	10	26	18	28	17	3.2	9.0	1.7	2.3
22	23	11	18	11	34	26	36	8.8	2.8	13	1.0	2.3
23	22	13	20	11	30	23	36	7.8	1.9	8.0	.6	2.3
24	22	12	19	13	23	30	28	8.8	1.6	6.6	.6	2.2
25	22	11	17	15	26	34	26	8.8	1.6	5.4	.5	2.3
26	23	11	14	16	30	31	31	7.8	2.3	4.4	.4	2.3
27	24	12	19	15	34	31	28	11	4.8	3.6	.3	8.0
28	23	8.8	18	14	36	22	31	11	2.3	3.0	.3	3.8
29	22	8.8	19	18	-	19	20	11	1.6	4.4	.3	1.7
30	20	13	22	14	-----	23	22	5.3	1.4	3.2	.3	1.4
31	19	-----	25	15	-----	25	-----	6.0	-----	2.6	.3	-----
Total	713	439.4	476.9	486.7	588	834	881	614.3	123.3	362.8	82.2	57.6
Mean	23.0	14.6	15.4	15.7	21.0	26.9	29.4	19.8	4.11	11.7	2.65	1.92
Ac-ft	1,410	872	946	965	1,170	1,650	1,750	1,220	245	720	163	114

Calendar year 1965: Max 11,600 Min 1.6 Mean 68.5 Ac-ft 49,580

Water year 1965-66: Max 256 Min 0.3 Mean 14.4 Ac-ft 10,430

Peak discharge (base, 220 cfs).--July 19 (1800) 2,150 cfs (3.52 ft); Aug. 20 (1300) about 600 cfs (gage height unknown).

6-7100. South Platte River at Littleton, Colo.

Location.--Lat 39°37'10", long 105°01'10", in NE¼ sec.17, T.5 S., R.68 W.; on left bank 200 ft downstream from Crestline Avenue (formerly Hazard Street) Bridge at Littleton and 3.1 miles upstream from Bear Creek.

Drainage area.--3,069 sq mi.

Records available.--July 1941 to September 1966.

Gage.--Water-stage recorder. Datum of gage is 5,304.36 ft above mean sea level, datum of 1929 (levels by Corps of Engineers). Prior to Nov. 23, 1948, wire-weight gage on bridge 200 ft upstream at datum 1.00 ft higher. Nov. 23, 1948, to Sept. 30, 1951, water-stage recorder at present site at datum 1.00 ft higher.

Average discharge.--25 years, 220 cfs (159,300 acre-ft per year).

Extremes.--Maximum discharge during year, 945 cfs July 28 (gage height, 4.54 ft); minimum daily, 30 cfs Mar. 21.

1941-66: Maximum discharge, about 110,000 cfs June 16, 1965 (gage height, 15.45 ft, from floodmark), estimated from contracted-opening and flow-over-road measurement of peak flow at point 1.6 miles downstream and slope-area measurement of peak flow on Plum Creek at point 12.7 miles upstream; minimum daily, 7.2 cfs Oct. 2, 1956.

Maximum stage known since at least 1894, that of June 16, 1965.

Remarks.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions for irrigation and municipal use, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	286	112	58	42	51	46	32	129	101	112	164	68
2	267	119	54	40	53	49	51	123	88	102	216	93
3	249	124	58	44	49	42	112	136	78	81	332	88
4	230	123	58	40	51	42	169	151	81	66	556	73
5	215	115	58	43	52	42	141	153	94	55	536	52
6	230	92	55	44	52	47	68	144	114	52	455	66
7	215	86	56	45	50	55	63	132	109	77	385	60
8	200	90	54	46	49	63	80	151	112	66	278	56
9	185	87	55	45	52	63	82	173	150	62	177	51
10	188	82	54	44	48	52	110	155	134	58	151	48
11	181	78	52	44	44	40	149	153	119	60	144	52
12	178	73	48	43	48	41	198	191	112	70	134	60
13	176	72	47	42	44	38	208	203	94	74	153	56
14	176	75	43	43	42	37	243	305	84	88	129	49
15	176	71	41	43	40	37	200	469	80	82	118	54
16	174	69	39	36	40	37	141	427	90	75	111	69
17	172	71	40	33	40	37	153	302	114	65	90	40
18	202	69	45	40	44	37	230	182	134	71	77	39
19	286	69	49	38	52	37	230	147	127	311	74	39
20	276	71	50	38	50	33	192	132	123	345	175	39
21	280	71	50	35	50	30	192	118	130	320	144	39
22	270	66	54	36	49	33	167	107	129	221	123	37
23	260	65	53	39	48	32	192	107	123	278	101	36
24	230	64	48	43	44	36	198	164	111	266	96	35
25	205	64	50	47	47	39	139	155	90	317	88	37
26	208	69	51	50	48	36	99	132	64	263	78	37
27	212	95	50	54	53	33	94	136	78	147	73	37
28	208	83	52	54	47	34	153	114	62	316	69	38
29	159	68	55	54	-	33	189	94	59	293	57	35
30	136	55	64	50	-----	33	208	81	69	260	57	36
31	123	-----	50	50	-----	32	-----	85	-----	234	59	-----
Total	6,553	2,448	1,591	1,345	1,337	1,246	4,483	5,251	3,053	4,887	5,400	1,519
Mean	211	81.6	51.3	43.4	47.8	40.2	149	169	102	158	174	50.6
Ac-ft	13,000	4,860	3,160	2,670	2,650	2,470	8,890	10,420	6,060	9,690	10,710	3,010

Calendar year 1965: Max 10,200 Min 14 Mean 344 Ac-ft 249,300  
 Water year 1965-66: Max 556 Min 30 Mean 107 Ac-ft 77,580

## PLATTE RIVER BASIN

6-7105. Bear Creek at Morrison, Colo.

Location.--Lat 39°39'11", long 105°11'43", in SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec.35, T.4 S., R.70 W., on left bank at Morrison, 180 ft upstream from bridge on U. S. Highway 285 and a quarter of a mile upstream from Mount Vernon Creek.

Drainage area.--164 sq mi.

Records available.--September 1887 to September 1891, May 1895 to December 1901, February 1902 (gage heights only), October 1919 to September 1966. No winter records for water years 1888-90, 1896, 1898, 1900. Monthly discharge only for some periods, published in WSP 1310. Published as "near Morrison" 1900-1902, as "at Starbuck" 1919-28, and as "at Idledale" 1929-34.

Gage.--Water-stage recorder. Datum of gage is 5,780.43 ft above mean sea level, datum of 1929. Prior to Apr. 1, 1899, staff gage at site a quarter of a mile downstream at different datum. Apr. 1, 1899, to Feb. 28, 1902, staff gage at site a quarter of a mile upstream at different datum. Oct. 1, 1919, to Feb. 28, 1921, staff gage and Mar. 1, 1921, to Sept. 30, 1934, water-stage recorder, at Idledale 4 miles upstream at different datum. Oct. 1, 1934, to Oct. 10, 1961, water-stage recorder at site 80 ft downstream at same datum.

Average discharge.--51 years (1890-91, 1896-97, 1898-99, 1900-1901, 1919-66), 53.1 cfs (38,440 acre-ft per year).

Extremes.--Maximum discharge during year, 82 cfs Aug. 4 (gage height, 3.86 ft); minimum not determined.

1887-91, 1895-1901, 1919-66: Maximum discharge, 8,600 cfs (estimated) July 24, 1896; minimum daily, 0.8 cfs Nov. 26, 1939, result of freezeup.

Remarks.--Records good except those for winter period, which are poor. Small diversions for irrigation of about 1,000 acres above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	28	26				23	28	26	28	27	32
2	53	28	28		12		24	29	24	32	49	34
3	50	27	26				24	32	23	24	67	34
4	48	26	24			14	19	33	21	20	70	30
5	47	26	24				16	34	21	18	65	27
6	44	26	22		13		20	34	20	17	51	26
7	42	26	22		13		23	37	20	14	44	26
8	39	24	21		13	20	24	42	28	14	42	23
9	38	25	21		13	21	23	41	29	14	41	23
10	38	26	21			23	24	44	28	13	38	22
11	38	25	22			23	24	38	26	13	36	24
12	38	26	18			23	24	35	23	16	35	25
13	36	24	20			24	24	34	20	22	36	26
14	34	26	19			24	21	38	18	21	35	26
15	34	27	16	13		21	21	34	17	29	30	26
16	34	24	15			22	24	34	18	23	28	27
17	34	25				22	24	34	24	18	27	23
18	40	24				14	23	35	27	21	26	21
19	40	23			12	17	21	34	23	46	27	20
20	38	21				18	19	33	22	48	36	18
21	35	22				18	21	30	23	42	31	18
22	36	18				16	25	32	22	36	27	18
23	35	18				12	23	29	21	39	25	18
24	34	27	16			14	26	28	22	34	25	18
25	31	25				17	26	27	19	38	22	18
26	30	24				18	29	26	18	31	20	18
27	29	17				19	31	26	19	29	20	18
28	30	18				20	26	26	18	36	20	24
29	28	18				21	28	24	18	33	20	20
30	29	24				19	28	26	18	28	20	19
31	28					21		26		25	20	
Total	1,166	718	585	403	342	565	708	1,003	656	822	1,060	702
Mean	37.6	23.9	18.9	13	12.2	18.2	23.6	32.4	21.9	26.5	34.2	23.4
Ac-ft	2,310	1,420	1,160	799	678	1,120	1,400	1,990	1,300	1,630	2,100	1,390

Calendar year 1965: Max 549 Min 6.5 Mean 75.4 Ac-ft 54,600

Water year 1965-66: Max 70 Min - Mean 23.9 Ac-ft 17,320

Peak discharge (base, 250 cfs)--No peak above base.

6-7115. Bear Creek at mouth, at Sheridan, Colo.

Location.--Lat 39°39'08", long 105°01'57", in NW¼NW¼ sec.5, T.5 S., R.68 W., on left bank just downstream from bridge on road to Fort Logan Mental Health Center, at Highway Department maintenance building at northwest city limits of Sheridan, 1.3 miles upstream from mouth and 2.1 miles west of city hall in Englewood.

Drainage area.--260 sq mi.

Records available.--April to November 1914, March 1927 to September 1966. Monthly discharge only prior to October 1933, published in WSP 1310. Published as "at Sheridan Junction" 1934-41.

Gage.--Water-stage recorder. Altitude of gage is 5,295 ft (from topographic map). Apr. 1 to Nov. 30, 1914, staff gage and Feb. 23, 1927, to June 18, 1931, water-stage recorder, at site 1 mile downstream at different datums. June 19, 1931, to Oct. 8, 1953, water-stage recorder at site 0.8 mile downstream at datum 5,282.72 ft above mean sea level, datum of 1929, prior to June 6, 1949, and at datum 5,280.72 ft thereafter.

Average discharge.--39 years (1927-66), 33.5 cfs (24,250 acre-ft per year).

Extremes.--Maximum discharge during year, 188 cfs July 22 (gage height, 4.08 ft); minimum daily, 0.2 cfs May 31, July 4, 6, 7. 1914, 1927-66: Maximum discharge, 3,000 cfs July 7, 1933 (gage height, 6.95 ft, site and datum then in use), from rating curve extended above 1,100 cfs on basis of slope-area measurement of peak flow; no flow July 13, 1954.

Remarks.--Records fair. Storage and diversions above station for irrigation of about 12,000 acres.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	27	38	31	22	26	12	4.0	1.8	0.3	2.4	6.6
2	50	37	36	28	22	26	14	4.7	1.3	2.3	6.2	16
3	50	32	32	26	24	23	13	6.4	.4	1.0	18	10
4	46	28	33	30	21	23	14	6.0	1.2	.2	14	9.8
5	40	27	32	34	21	25	11	7.0	.8	.4	10	7.8
6	36	27	29	33	22	26	10	6.4	.5	.2	6.6	7.8
7	34	27	31	33	22	29	11	5.4	.7	.2	5.0	8.3
8	33	27	30	33	23	37	11	5.8	8.8	.3	5.7	7.6
9	32	27	27	31	25	41	11	9.8	6.2	.9	6.6	5.7
10	32	27	24	28	22	49	11	17	4.1	.9	7.4	3.1
11	31	31	20	30	30	49	8.9	17	3.1	.9	6.4	3.1
12	31	34	20	26	23	52	8.9	18	2.1	1.4	6.8	4.0
13	26	38	19	25	23	56	8.9	21	.3	1.2	6.6	5.2
14	26	37	22	25	23	59	6.6	21	.3	1.8	6.0	6.8
15	25	38	20	25	24	45	5.8	20	.3	2.2	6.2	9.5
16	22	38	17	22	25	34	3.1	19	.5	2.8	4.6	6.8
17	22	38	17	17	27	26	4.3	16	3.8	1.5	2.7	5.2
18	28	38	20	21	29	22	6.0	11	3.6	2.1	2.7	4.7
19	31	37	29	23	29	28	10	12	2.9	12	2.4	4.9
20	31	33	30	23	29	22	10	12	2.6	4.0	5.2	5.0
21	27	32	32	26	29	22	8.9	14	.5	3.8	9.2	4.9
22	34	29	34	24	29	24	8.9	14	.4	21	7.4	4.7
23	37	24	33	24	24	17	8.9	16	.4	8.3	6.8	4.3
24	38	29	31	21	27	17	8.3	11	.3	4.3	6.4	3.7
25	41	38	32	21	28	19	7.8	9.8	.3	1.8	6.6	4.1
26	29	42	30	22	27	18	8.9	8.9	1.0	1.4	4.9	4.9
27	22	29	29	20	29	18	8.6	7.8	.4	1.7	4.1	6.6
28	23	21	32	21	26	17	6.6	3.0	.4	2.4	4.0	6.2
29	23	27	33	18	-	17	6.0	1.1	.5	2.9	3.3	6.0
30	22	32	33	20	-----	16	6.0	.5	.5	2.9	1.7	7.6
31	19	-----	33	20	-----	12	-----	.2	-----	.9	3.3	-----
Total	997	951	878	781	705	895	269.4	325.8	50.0	88.0	189.2	190.9
Mean	32.2	31.7	28.3	25.2	25.2	28.9	8.98	10.5	1.67	2.84	6.10	6.36
Ac-ft	1,980	1,890	1,740	1,550	1,400	1,780	534	646	99	175	375	379

Calendar year 1965: Max 839 Min 8.8 Mean 69.0 Ac-ft 49,930  
 Water year 1965-66: Max 59 Min 0.2 Mean 17.3 Ac-ft 12,540

## PLATTE RIVER BASIN

6-7120. Cherry Creek near Franktown, Colo.

Location.--Lat 39°21'30", long 104°45'50", in NE¼ sec.15, T.8 S., R.66 W., on right bank 1½ miles upstream from Russellville Gulch and 2½ miles south of Franktown.

Drainage area.--169 sq mi.

Records available.--November 1939 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 6,150 ft (from topographic map). Prior to Oct. 1, 1953, at site 1,000 ft downstream, at datum 6,149.53 ft above mean sea level (unadjusted) prior to Apr. 13, 1942, and at datum 6,147.53 ft above mean sea level Apr. 13, 1942, to Sept. 30, 1953.

Average discharge.--26 years (1940-66), 9.16 cfs (6,630 acre-ft per year).

Extremes.--Maximum discharge during year, 2,250 cfs July 18 (gage height, 8.00 ft); minimum daily, 0.6 cfs July 3-10.

1939-66: Maximum discharge, 9,170 cfs Aug. 5, 1945 (gage height, 4.91 ft, site and datum then in use), by float measurement; minimum daily, 0.2 cfs July 13, 1946, Sept. 30, Oct. 1, 1950.

Highest flood known occurred Aug. 3, 1933, when Castlewood Dam failed.

Remarks.--Records good. Many small diversions above station for irrigation of about 800 acres.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.1	3.4	3.5	3.4	3.5	5.1	3.9	2.3	1.6	0.8	4.3	1.8
2	3.7	3.4	3.4	2.9	3.4	4.9	3.8	2.5	1.6	.7	3.9	3.4
3	3.2	3.2	3.6	3.3	3.2	4.0	3.4	2.3	1.5	.6	3.2	5.2
4	3.0	3.0	3.9	2.8	3.4	5.0	3.4	2.3	1.4	.6	2.7	1.8
5	3.0	3.2	4.5	2.9	3.7	4.4	4.0	2.1	1.4	.6	2.4	1.7
6	2.9	3.3	4.4	3.2	3.6	5.0	4.2	2.2	1.5	.6	2.0	1.7
7	2.9	3.3	4.5	3.4	4.1	5.7	4.1	2.2	1.4	.6	1.8	1.5
8	2.7	3.2	4.4	3.7	4.2	7.6	3.9	2.2	1.8	.6	1.8	1.5
9	2.7	3.4	4.4	3.6	4.1	13	3.7	2.2	1.5	.6	1.8	1.6
10	2.7	3.6	4.7	3.2	4.5	15	3.5	2.2	1.3	.6	1.8	1.6
11	2.5	3.4	4.7	3.6	4.4	14	3.4	2.2	1.2	.7	1.5	1.4
12	2.4	3.4	4.2	3.4	4.1	12	4.0	2.9	1.2	.9	1.4	1.4
13	2.4	3.4	3.4	2.9	4.1	13	3.9	2.7	1.2	.7	1.4	1.4
14	2.4	3.5	3.3	3.4	4.0	13	3.9	2.2	1.2	.7	1.2	1.2
15	2.3	3.4	2.9	2.6	4.5	10	3.7	2.2	1.2	3.6	1.2	1.5
16	2.3	3.4	2.1	2.7	3.9	9.0	3.5	2.2	1.3	1.1	1.2	1.4
17	2.4	3.3	2.1	2.8	4.3	7.8	3.7	2.0	1.4	1.2	1.1	1.3
18	3.2	3.6	2.6	2.9	4.2	5.5	3.7	2.2	1.4	166	1.1	1.4
19	6.7	3.8	2.6	2.7	4.2	6.1	4.2	2.0	1.1	39	1.2	1.4
20	5.2	3.7	2.6	2.5	4.4	5.7	4.7	2.0	1.1	47	1.6	1.3
21	4.5	3.6	2.7	3.4	4.2	4.8	4.9	1.8	1.1	60	1.6	1.3
22	4.1	3.4	3.4	3.3	4.4	4.1	4.2	1.8	1.0	30	1.3	1.3
23	3.8	3.9	3.2	3.8	4.7	3.8	4.2	1.6	1.0	11	1.0	1.2
24	3.7	4.0	3.0	3.7	5.9	4.1	3.5	1.6	.9	7.8	1.1	1.3
25	3.6	4.3	3.9	3.8	4.7	7.5	2.9	1.6	.9	7.6	1.2	1.2
26	3.6	4.2	4.1	3.4	5.0	8.7	2.9	1.4	.9	6.6	1.1	4.7
27	3.4	3.4	3.4	3.7	4.8	7.8	2.4	1.3	1.0	6.1	1.1	4.3
28	3.4	2.9	4.1	3.7	5.0	6.6	2.3	1.5	.9	5.5	1.1	1.8
29	3.4	3.0	4.4	3.7	-	5.6	2.3	1.5	.8	8.5	.9	1.8
30	3.4	3.3	5.3	3.5	-----	4.6	2.3	1.4	.8	6.2	.9	1.8
31	3.4	-----	4.0	3.4	-----	4.2	-----	1.5	-----	4.9	2.0	-----
Total	103.0	103.9	113.3	101.3	118.5	227.6	108.5	62.1	36.6	421.4	51.9	56.2
Mean	3.32	3.46	3.65	3.27	4.23	7.34	3.62	2.00	1.22	13.6	1.67	1.87
Ac-ft	204	206	225	201	235	451	215	123	73	836	103	111

Calendar year 1965: Max 469 Min 1.8 Mean 7.64 Ac-ft 5,530

Water year 1965-66: Max 166 Min 0.6 Mean 4.12 Ac-ft 2,980

Peak discharge (base, 200 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
7-18	1800	8.00	2,250	7-21	2330	4.37	205
7-20	2030	4.54	245				

6-7125. Cherry Creek near Melvin, Colo.

Location.--Lat 39°35'42", long 104°48'44", in SE¼SE¼ sec.19, T.5 S., R.66 W., near right bank on downstream side of Arapahoe Road bridge, 0.9 mile upstream from Piney (South Cherry) Creek, 2.3 miles southeast of former site of Melvin, 5½ miles upstream from Cherry Creek Dam, and 6.0 miles northwest of Parker.

Drainage area.--336 sq mi.

Records available.--October 1939 to September 1966.

Gage.--Water-stage recorder. Datum of gage is 5,625.81 ft above mean sea level, datum of 1929. Prior to Oct. 1, 1960, at site 1 mile downstream at datum 17.60 ft lower.

Average discharge.--27 years, 12.8 cfs (9,270 acre-ft per year).

Extremes.--Maximum discharge during year, 638 cfs July 22 (gage height, 1.42 ft); no flow for many days.

1939-66: Maximum discharge, 39,900 cfs July 16, 1965 (gage height, 13 ft, from floodmarks), by contracted-opening and flow-over-road measurement of peak flow; no flow at times in most years.

Maximum stage known, that of June 16, 1965. Flood of Aug. 3, 1933, reached a stage of 9.72 ft, former site and datum, from floodmarks (discharge, 34,000 cfs, by slope-area measurement of peak flow at Kenwood damsite 6 miles downstream), caused by failure of Castlewood Dam.

Remarks.--Records poor. Diversions above station for irrigation of about 1,800 acres.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.2	1.7	1.2	3.7	2.0	18	5.4	0.1		0	0	
2	2.8	2.2	1.5	3.7	2.8	23	5.4	.1		0	0	
3	2.5	1.5	1.2	3.7	2.8	10	1.7	.1		0	0	
4	2.5	1.7	1.7	3.7	2.0	6.0	3.7	.2		0	0	
5	2.8	2.2	5.4	3.7	3.2	4.0	6.2	.2		0	0	
6	2.0	2.2	3.2	3.2	2.0	3.5	4.8	.2		0	0	
7	1.5	2.8	4.8	2.8	2.8	4.2	4.8	.2		0	0	
8	1.2	2.8	5.4	2.5	2.8	4.8	3.7	.1		0	0	
9	1.1	3.7	4.2	1.4	3.2	5.4	2.8	.1		0	0	
10	.5	3.7	6.2	.9	2.0	8.8	2.2	.2		0	0	
11	.3	2.8	5.4	1.7	4.0	7.0	3.2	.1		0	0	
12	.9	2.8	2.5	1.1	4.0	7.0	4.8	.1		0	0	
13	1.2	4.2	4.8	1.1	2.8	10	4.2	.1		0	0	
14	1.2	5.4	2.0	1.5	2.0	10	5.4	.1		0	0	
15	1.4	5.4	.2	1.0	4.0	8.8	5.4	.1		0	0	
16	1.2	4.8	.2	.8	4.6	7.0	5.4	0		0	0	
17	1.2	3.7	.2	1.0	6.0	4.8	4.8	0		0	0	
18	2.2	3.2	.2	.8	8.4	3.7	5.4	0		0	0	
19	7.0	3.7	.2	.6	10	5.4	4.8	0		8.2	0	
20	4.8	2.2	.3	.4	8.8	2.2	1.7	0		9.2	3.4	
21	4.2	3.7	2.0	.2	12	4.8	1.8	0		4.0	0	
22	4.2	4.2	1.5	.2	15	3.2	7.0	0		9.1	0	
23	3.7	5.4	1.0	.2	12	4.8	4.2	0		5	0	
24	5.4	5.4	1.5	.4	7.9	8.8	2.2	0		2	0	
25	3.7	3.7	2.0	.6	7.9	12	.9	0		0	0	
26	3.7	4.2	1.5	1.0	7.9	15	.7	0		0	0	
27	2.8	3.2	1.0	1.0	8.8	11	.4	0		0	0	
28	2.8	1.4	.9	1.1	3.7	8.8	.3	0		0	0	
29	2.2	.8	1.5	1.1	--	7.9	.3	0		0	0	
30	2.2	1.2	3.0	1.2	-----	10	.2	0		0	0	
31	1.5	-----	3.0	1.6	-----	8.8	-----	0		0	0	-----
Total	77.9	95.9	69.7	47.9	155.4	248.7	135.3	2.0	0	193.2	3.4	0
Mean	2.51	3.20	2.25	1.55	5.55	8.02	4.51	0.06	0	6.23	0.11	0
Ac-ft	155	190	138	95	308	493	268	4.0	0	383	6.7	0

Calendar year 1965: Max 4,000 Min 0 Mean 23.6 Ac-ft 17,100

Water year 1965-66: Max 91 Min 0 Mean 2.82 Ac-ft 2,040

Peak discharge (base, 1,400 cfs).--No peak above base.

## PLATTE RIVER BASIN

6-7130. Cherry Creek below Cherry Creek Reservoir, Colo.

Location.--Lat 39°39'10", long 104°51'40", in SW¼SW¼ sec.35, T.4 S., R.67 W., on right bank 2,000 ft downstream from Cherry Creek Dam, 2 miles southeast of Sullivan, 9 miles southeast of Civic Center in Denver, and 11 miles upstream from mouth.

Drainage area.--385 sq mi.

Records available.--June 1950 to September 1966.

Gage.--Water-stage recorder and concrete control. Datum of gage is 5,490.51 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Average discharge.--16 years, 4.24 cfs (3,070 acre-ft per year), unadjusted.

Extremes.--Maximum discharge during year, 275 cfs Apr. 25 (gage height, 4.46 ft); no flow for most of time.

1950-66: Maximum discharge, 1,440 cfs July 31, 1956 (gage height, 6.07 ft); no flow for many days in 1957-66.

Maximum flood known, 34,000 cfs Aug. 3, 1933, by slope-area measurement near present site (Castlewood Dam failure).

Remarks.--Records excellent. Flow regulated by Cherry Creek Reservoir (capacity, 95,960 acre-ft). Reservoir was completed in June 1950. Permanent storage started May 15, 1957. Diversions above station for irrigation of about 1,800 acres.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Apr. 25..... 191  
26..... 270  
27..... 124

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
April.....	585	270	0	19.5	1,160
Calendar year 1965.....	-	560	0	22.9	16,610
Water year 1965-66.....	-	270	0	1.60	1,160

Note.--Flow occurred only on days listed above.

Month-end total contents, in acre-feet, in Cherry Creek Reservoir

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
	15,570	15,490	15,530	15,560	15,860	16,370	15,280	14,950	14,600	13,370	12,960	12,670

Note.--Records furnished by Corps of Engineers. Contents on Sept. 30, 1965, 15,620 acre-ft. New capacity table put into use July 1, 1966. Contents on June 30, by new capacity table, 13,460 acre-ft.

6-7135. Cherry Creek at Denver, Colo.

Location.--Lat 39°44'58", long 105°00'08", in NE¼ sec.33, T.3 S., R.68 W., on right bank on downstream side of Wazee Street Bridge in Denver, 0.5 mile upstream from mouth.

Drainage area.--409 sq mi.

Records available.--August 1942 to September 1966.

Gage.--Digital water-stage recorder. Datum of gage is 5,175.48 ft above mean sea level, datum of 1929, supplementary adjustment of 1960. Prior to Jan. 23, 1945, wire-weight gage at Broadway Bridge 1.8 miles upstream at datum 57.29 ft higher. Jan. 23 to Feb. 26, 1945, wire-weight gage at Downing Street Bridge 2.8 miles upstream from present site at different datum. Feb. 27, 1945, to Sept. 30, 1947, wire-weight gages at Washington Street Bridge 2.4 miles upstream from present site at datum 72.31 ft higher and Oct. 1, 1947, to Sept. 30, 1949, at datum 71.31 ft higher than present datum. Oct. 1, 1949, to July 15, 1951, wire-weight gage at Market Street Bridge 0.1 mile upstream from present site at datum 8.49 ft higher. July 16, 1951, to Sept. 30, 1964, graphic water-stage recorder at present site and datum.

Average discharge.--24 years, 16.6 cfs (12,020 acre-ft per year).

Extremes.--Maximum discharge during year, 1,240 cfs Sept. 1 (gage height, 5.94 ft); minimum daily discharge, 3.5 cfs Jan. 19.

1942-66: Maximum discharge observed, 3,120 cfs Aug. 5, 1945 (gage height, 5.25 ft, site and datum then in use); maximum gage height, 11.91 ft June 17, 1965 (backwater from South Platte River); minimum daily discharge, 0.4 cfs June 16-18, 1948.

Flood of July 26, 1885, reached a discharge of 20,000 cfs, by float measurement. Flood of May 19, 20, 1864, reached a somewhat higher stage. Flood of Aug. 3, 1933, reached a discharge of about 15,000 cfs, as determined by rise of South Platte River at Denver.

Remarks.--Records good. Several diversions above station for irrigation of about 1,900 acres. Flood flow regulated by Cherry Creek Reservoir 11 miles upstream (capacity, 95,960 acre-ft).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	11	8.5	5.6	3.8	8.0	4.9	10	4.6	7.2	8.6	22	77
2	10	8.5	5.6	3.8	7.0	8.9	8.7	5.5	5.6	16	31	15
3	10	8.0	5.6	4.8	5.0	8.9	7.2	5.9	5.2	12	6.7	8.2
4	11	7.7	6.6	4.8	13	4.4	10	5.2	8.4	16	13	10
5	14	8.1	6.6	4.8	13	4.7	5.4	5.4	8.5	11	10	12
6	11	8.1	7.5	4.8	11	7.7	5.6	5.8	12	10	8.1	7.6
7	13	8.2	7.5	4.6	12	12	5.8	5.5	26	6.9	7.9	6.4
8	13	7.9	7.5	4.6	19	6.6	6.3	5.0	76	7.0	7.1	9.0
9	13	8.5	7.5	4.5	15	6.2	6.6	6.4	5.2	6.9	7.2	15
10	14	8.5	8.0	4.5	21	5.3	5.5	7.5	14	6.4	6.8	15
11	17	7.6	6.1	4.4	23	5.0	23	7.3	9.5	7.6	14	7.6
12	19	6.2	5.2	4.3	26	4.5	13	16	15	6.8	11	14
13	18	4.6	5.2	4.6	15	4.1	7.5	4.0	12	8.9	10	11
14	16	4.0	6.6	5.0	13	4.7	7.8	3.8	7.3	7.4	10	14
15	17	4.3	5.6	6.4	8.6	4.8	8.2	5.0	7.4	8.0	8.7	49
16	17	4.7	6.1	4.8	9.9	4.6	7.0	6.3	9.7	8.3	6.8	11
17	18	5.3	5.6	5.1	20	4.0	6.0	5.3	9.3	8.2	7.1	13
18	19	5.3	6.1	4.6	28	4.1	6.0	5.0	11	21	7.4	11
19	13	5.3	6.1	3.5	31	6.5	33	4.8	17	8.6	7.8	11
20	10	5.6	6.8	4.0	20	7.7	26	5.6	19	7.7	12	8.3
21	11	5.6	7.2	4.0	20	7.8	6.7	4.8	17	60	9.9	9.0
22	12	5.6	6.9	4.0	40	7.8	5.4	6.5	17	11	15	10
23	12	5.8	6.9	4.0	25	9.3	4.1	5.4	11	32	12	7.6
24	11	5.8	5.9	4.0	18	9.4	3.6	4.5	9.4	15	12	7.0
25	10	5.6	6.1	4.0	24	9.8	47	5.6	8.0	13	15	7.6
26	9.0	12	5.6	5.0	15	10	228	6.2	27	13	16	22
27	10	6.1	5.7	4.5	43	9.1	153	5.4	14	14	17	20
28	10	5.6	5.8	4.0	4.4	11	12	5.5	12	10	18	14
29	11	5.6	6.6	5.0	-----	12	6.8	5.0	82	8.5	12	13
30	8.5	5.6	5.6	4.8	-----	9.4	5.1	7.2	9.3	9.9	12	6.8
31	8.5	-----	4.8	4.5	-----	5.8	-----	13	-----	8.4	9.6	-----
TOTAL	397.0	198.2	194.5	139.5	507.9	221.0	680.3	189.0	492.0	388.1	363.1	442.1
MEAN	12.8	6.61	6.27	4.50	18.1	7.13	22.7	6.10	16.4	12.5	11.7	14.7
AC-FT	787	393	386	277	1,010	438	1,350	375	976	770	720	877

CALENDAR YEAR 1965	MAX 557	MIN 3.8	MEAN 33.8	AC-FT 24,500
WATER YEAR 1965-66	MAX 228	MIN 3.5	MEAN 11.5	AC-FT 8,360



## PLATTE RIVER BASIN

6-7140. South Platte River at Denver, Colo.

Location.--Lat 39°45'35", long 105°00'10", in NW¼SE¼ sec.28, T.3 S., R.68 W., on right bank 90 ft upstream from Nineteenth Street Bridge in Denver and 0.4 mile downstream from Cherry Creek. Prior to Mar. 19, 1966, at site 70 ft downstream.

Drainage area.--3,804 sq mi.

Records available.--May to October 1889, June to October 1890, July 1895 to September 1966. Monthly discharge only for some periods, published in WSP 1310.

Gage.--Water-stage recorder. Datum of gage is 5,157.64 ft above mean sea level, datum of 1929, supplementary adjustment of 1960. Prior to Aug. 12, 1909, staff gages and Aug. 12, 1909, to Aug. 28, 1931, water-stage recorder, at several sites within half a mile of present site at various datums. Aug. 29, 1931, to June 28, 1965, water-stage recorder at site 70 ft downstream at datum 3.66 ft higher. June 29, 1965, to Mar. 18, 1966, water-stage recorder at site 70 ft downstream at present datum.

Average discharge.--71 years, 337 cfs (244,000 acre-ft per year).

Extremes.--Maximum discharge during year, 2,670 cfs July 21 (gage height, 5.18 ft); minimum daily, 41 cfs Apr. 1. 1889-90, 1895-1966: Maximum discharge, 40,300 cfs June 17, 1965 (gage height, 18.66 ft, from floodmarks, present datum), from rating curve extended above 2,700 cfs on basis of contracted-opening measurement of peak flow; minimum daily, 8.8 cfs Mar. 25, 1951.

Remarks.--Records fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, and diversions for irrigation of about 79,000 acres and municipal use, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	413	166	125	98	96	91	41	205	103	117	259	200
2	371	175	128	86	96	96	43	148	98	148	282	200
3	341	180	119	84	82	89	68	165	90	112	360	148
4	323	170	119	93	75	61	185	190	88	84	546	140
5	305	170	119	101	84	65	210	190	90	79	630	112
6	305	157	119	113	93	80	109	190	127	79	572	103
7	317	141	119	116	101	91	72	152	152	84	488	101
8	287	136	122	116	107	113	88	148	363	95	403	86
9	270	149	116	107	110	122	106	210	140	95	300	88
10	264	149	122	104	101	122	152	195	144	72	215	84
11	264	149	116	101	93	125	215	170	123	65	200	88
12	242	141	104	91	104	122	294	264	112	74	195	90
13	236	122	107	77	91	116	318	248	95	86	210	98
14	248	110	136	89	84	119	372	259	84	109	190	117
15	215	128	185	96	80	107	306	436	77	115	161	211
16	226	141	128	80	75	93	165	416	86	109	152	95
17	220	153	104	61	93	82	170	342	115	106	140	95
18	275	153	82	66	119	77	248	210	148	123	144	77
19	389	149	91	73	132	79	403	140	131	259	120	79
20	395	128	101	73	125	72	336	115	144	520	152	70
21	383	119	104	63	116	72	270	106	144	582	254	65
22	383	113	107	70	136	106	232	90	140	559	175	61
23	359	119	116	73	107	61	242	90	148	436	144	58
24	311	132	104	80	93	58	220	117	136	378	123	59
25	305	141	101	72	96	68	377	140	106	396	117	56
26	293	205	101	75	96	67	384	136	112	396	103	65
27	281	170	98	82	157	63	282	131	86	259	93	95
28	281	162	101	75	96	56	210	123	95	270	88	72
29	248	149	113	80	-	58	242	95	181	455	84	72
30	200	125	119	82	-	56	264	84	93	312	70	74
31	180	-	119	89	-	47	-	84	-	248	65	-
Total	9,130	4,402	3,545	2,666	2,838	2,634	6,624	5,589	3,751	6,822	7,035	2,959
Mean	295	147	114	86.0	101	85.0	221	180	125	220	227	98.6
Ac-ft	18,110	8,730	7,030	5,290	5,630	5,220	13,140	11,090	7,440	13,530	13,950	5,870

Calendar year 1965: Max 12,000 Min 29 Mean 471 Ac-ft 340,800  
 Water year 1965-66: Max 630 Min 41 Mean 159 Ac-ft 115,000.

6-7165. Clear Creek near Lawson, Colo.

Location.--Lat 39°45'40", long 105°39'06", in SE 1/4 sec. 27, T.3 S., R.74 W., on right bank 500 ft north of U. S. Highway 6 and 40, relocated, 0.4 mile downstream from West Fork Clear Creek, and 1 mile west of Lawson.

Drainage area.--145 sq mi.

Records available.--March 1946 to September 1966. Records prior to 1959 include inflow from August P. Gumlick Tunnel (formerly Jones Pass tunnel).

Gage.--Water-stage recorder. Datum of gage is 8,193.72 ft above mean sea level (State Highway Department bench mark).

Average discharge.--20 years, 136 cfs (98,460 acre-ft per year), adjusted for inflow from August P. Gumlick Tunnel prior to 1959.

Extremes.--Maximum discharge during year, 319 cfs June 2 (gage height, 3.94 ft); maximum gage height, 4.46 ft Feb. 11 (backwater from ice); minimum daily discharge, 26 cfs Mar. 3.

1946-66: Maximum discharge, 6,130 cfs June 4, 1956 (gage height, 7.41 ft), from rating curve extended above 1,600 cfs on basis of computation of peak flow over dam, caused by failure of Georgetown Dam on White Reservoir about 3 miles upstream; minimum daily, 13 cfs Feb. 20, 1955.

Remarks.--Records good. Natural flow affected by minor transmountain diversion from Colorado River basin through Berthoud Pass ditch (see elsewhere in this report). No diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	100	55	44	36	43	33	34	56	241	235	127	70
2	102	54	42	34	39	31	36	59	262	217	124	72
3	100	51	42	36	36	26	33	78	274	202	140	63
4	93	50	41	36	38	28	31	93	271	200	159	61
5	91	49	40	36	38	32	34	112	256	194	135	56
6	87	45	40	38	40	32	36	143	244	181	122	52
7	85	50	40	40	40	34	34	183	241	170	114	52
8	82	44	40	40	40	34	34	189	253	159	105	50
9	82	49	39	40	40	36	34	156	235	154	102	49
10	78	45	40	44	34	32	36	156	247	151	98	49
11	78	43	40	40	32	34	36	127	244	162	93	49
12	76	45	39	38	34	34	34	114	244	159	98	51
13	76	50	37	36	30	32	34	107	241	146	96	46
14	72	49	36	36	32	32	33	100	244	143	85	45
15	74	50	34	36	30	32	34	96	259	132	80	54
16	74	47	34	34	32	32	37	100	277	127	78	49
17	78	49	34	32	32	31	40	112	271	132	74	46
18	78	47	33	36	34	32	43	117	265	173	72	44
19	78	45	36	36	30	32	40	127	274	200	80	43
20	78	46	34	34	33	31	37	146	277	181	107	43
21	69	44	38	32	32	31	36	167	274	175	80	43
22	74	39	40	36	32	29	39	192	274	164	76	43
23	68	47	42	36	37	32	38	181	271	148	74	42
24	70	47	44	34	36	32	38	186	265	146	68	42
25	68	46	45	34	32	31	41	217	256	138	65	47
26	63	41	43	38	33	31	46	214	247	132	61	47
27	63	42	43	42	32	32	49	189	238	140	59	44
28	65	44	41	46	38	33	41	167	235	140	56	42
29	58	42	41	45	-	33	44	186	220	119	52	41
30	58	42	41	44	-	32	50	238	223	114	54	42
31	59	-	38	42	-	33	-	262	-	114	56	-
Total	2,377	1,397	1,221	1,167	979	989	1,132	4,570	7,623	4,948	2,790	1,477
Mean	76.7	46.6	39.4	37.6	35.0	31.9	37.7	147	254	160	90.0	49.2
Ac-ft	4,710	2,770	2,420	2,310	1,940	1,960	2,250	9,060	15,120	9,810	5,530	2,930

Calendar year 1965: Max 1,660 Min 19 Mean 208 Ac-ft 150,600  
 Water year 1965-66: Max 277 Min 26 Mean 84.0 Ac-ft 60,830

Peak discharge (base, 600 cfs).--No peak above base.

6-7195. Clear Creek near Golden, Colo.

Location.--Lat 39°45'02", long 105°14'54", in NE¼ sec.32, T.3 S., R.70 W., on left bank 0.2 mile upstream from headgate of Church ditch, 0.7 mile downstream from headgate of Welch ditch, 1.0 mile west of Golden, and 12½ miles downstream from North Clear Creek.

Drainage area.--399 sq mi.

Records available.--October 1908 to December 1909, June 1911 to September 1966. Monthly discharge only for some periods, published in WSP 1310. Records for 1940-58 include inflow from August P. Gumlick Tunnel.

Gage.--Water-stage recorder. Datum of gage is 5,735.27 ft above mean sea level (State Highway Department bench mark). Prior to May 15, 1919, at site half a mile upstream at different datum. May 15, 1919, to Mar. 16, 1934, at present site at datum 3.13 ft higher. Mar. 17, 1934, to Aug. 29, 1941, at present site at datum 4.00 ft higher. Aug. 30, 1941, to Apr. 16, 1942, at present site at datum 2.00 ft higher. Apr. 17, 1942, to Jan. 20, 1943, at site 600 ft downstream at datum 7.50 ft lower.

Average discharge.--56 years, 228 cfs (165,100 acre-ft per year), adjusted for inflow from August P. Gumlick Tunnel and Berthoud Pass ditch 1940-58.

Extremes.--Maximum discharge during year, 415 cfs July 19 (gage height, 4.38 ft); minimum daily, 10 cfs Mar. 4.

1908-9, 1911-66: Maximum discharge, 5,890 cfs Sept. 9, 1933 (gage height, 11.57 ft, present datum, from floodmarks), from rating curve extended above 2,200 cfs on basis of slope-area measurement of peak flow; minimum daily recorded, 10 cfs Mar. 4, 1966. Maximum discharge known, 8,700 cfs Aug. 1, 1888, from reports of State engineer of Colorado for station 5½ miles upstream.

Remarks.--Records good except those for winter period, which are poor. Natural flow of stream affected by minor transmountain diversion from Colorado River basin through Berthoud Pass ditch (see elsewhere in this report) and several small reservoirs above station. Diversion 0.7 mile above station by Welch ditch for irrigation of about 1,000 acres below station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	148	92	88	45	40	40	66	90	316	330	228	156
2	156	86	86	35	40	30	70	100	320	320	231	180
3	150	82	88	38	42	20	66	106	335	296	260	148
4	145	80	84	40	45	10	52	138	330	284	304	145
5	143	82	79	45	47	30	50	165	330	276	276	136
6	145	77	70	47	48	60	57	195	312	264	237	131
7	145	79	73	49	48	60	57	234	296	260	222	131
8	138	75	75	50	46	60	56	284	350	248	207	122
9	138	80	73	51	44	58	48	222	320	240	195	115
10	136	77	75	52	42	60	50	228	320	237	186	117
11	133	70	75	54	40	60	51	195	316	244	174	119
12	133	75	70	55	45	54	52	177	308	264	165	126
13	128	84	63	55	42	60	48	162	308	244	186	119
14	128	88	57	56	40	57	48	162	300	244	156	122
15	108	92	50	56	36	56	48	153	325	225	148	133
16	106	88	54	57	40	56	52	150	340	213	138	126
17	108	88	56	57	45	56	56	174	355	270	136	115
18	122	88	58	57	48	36	58	180	345	288	128	113
19	115	80	60	54	52	58	57	189	350	350	136	106
20	111	80	62	45	50	57	48	210	365	304	198	100
21	106	82	62	40	47	58	46	225	360	244	162	100
22	111	62	60	39	45	48	66	264	350	240	153	98
23	119	80	52	39	45	39	60	264	350	213	153	96
24	117	88	54	40	46	54	66	240	335	213	150	96
25	111	86	60	40	47	56	68	280	325	210	143	98
26	108	79	60	45	48	54	80	292	320	201	136	102
27	96	51	62	40	49	57	88	272	304	210	131	92
28	100	58	60	40	50	58	70	240	304	237	128	88
29	88	56	58	40	-	60	79	240	292	213	124	84
30	90	68	55	45	-----	58	80	300	292	192	124	84
31	90	-----	50	40	-----	62	-----	350	-----	186	131	-----
Total	3,772	2,353	2,029	1,446	1,257	1,582	1,793	6,481	9,773	7,760	5,446	3,498
Mean	122	78.4	65.5	46.6	44.9	51.0	59.8	209	326	250	176	117
Ac-ft	7,480	4,670	4,020	2,870	2,490	3,140	3,560	12,850	19,380	15,390	10,800	6,940

Calendar year 1965: Max 2,020 Min 25 Mean 307 Ac-ft 222,300

Water year 1965-66: Max 365 Min 10 Mean 129 Ac-ft 93,600

Peak discharge (base, 1,100 cfs)--No peak above base.

Note.--No gage-height record Jan. 26 to Mar. 9.

6-7200. Clear Creek at mouth, near Derby, Colo.

Location.--Lat 39°49'42", long 104°57'30", in SW¼SW¼ sec.36, T.2 S., R.68 W., on right bank 210 ft downstream from York Street bridge, 0.6 mile upstream from mouth, and 2½ miles west of Derby.

Drainage area.--575 sq mi.

Records available.--April to November 1914, March 1927 to September 1966. Prior to October 1933 monthly discharge only, published in WSP 1310.

Gage.--Water-stage recorder. Altitude of gage is 5,110 ft (from topographic map). Apr. 1 to Nov. 30, 1914, chain gage at bridge 210 ft upstream at different datum. Feb. 25, 1927, to June 7, 1942, water-stage recorder at several sites within 1,000 ft of present site at various datums. June 8, 1942, to May 30, 1948, water-stage recorder at site 210 ft upstream at datum 5.56 ft higher, May 31, 1948, to Aug. 27, 1956, at datum 3.56 ft higher, and Aug. 28, 1956, to Nov. 14, 1957, at datum 2.56 ft higher. Nov. 15, 1957, to July 15, 1958, water-stage recorder at site 50 ft upstream at datum 2.56 ft higher. July 16, 1958, to Sept. 20, 1965, water-stage recorder at site 50 ft upstream at datum 1.56 ft higher.

Average discharge.--39 years (1927-66), 90.5 cfs (65,520 acre-ft per year).

Extremes.--Maximum discharge during year, 458 cfs June 8 (gage height, 3.67 ft); minimum daily, 6.7 cfs Sept. 26. 1914, 1927-66: Maximum discharge, 5,070 cfs July 24, 1965 (gage height, 8.97 ft, present datum); minimum daily, 0.4 cfs Mar. 11, 1943.

Remarks.--Records fair. Natural flow of stream affected by transmountain diversions (see elsewhere in this report), storage reservoirs, diversions for irrigation of about 75,000 acres above station, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	67	114	30	63	64	33	16	13	94	26	15	12
2	66	114	30	58	68	33	18	13	51	37	20	57
3	88	112	36	66	66	28	19	13	61	17	33	30
4	114	87	32	66	71	25	35	18	66	13	64	16
5	87	19	26	82	70	25	25	43	56	12	74	18
6	90	24	31	75	61	28	27	45	48	12	45	18
7	80	20	48	94	70	38	30	79	34	18	18	18
8	75	23	31	75	67	42	29	88	276	15	19	16
9	73	18	31	68	63	45	20	76	198	18	23	16
10	71	18	31	75	54	44	30	66	121	23	20	16
11	70	14	33	75	75	42	44	48	110	28	22	18
12	71	14	31	71	70	40	43	85	71	37	23	20
13	74	16	32	63	52	34	42	43	63	40	23	25
14	68	26	28	61	44	36	41	13	42	30	19	27
15	63	26	19	70	45	39	43	14	57	20	17	40
16	58	28	16	64	47	35	47	90	83	16	13	18
17	64	31	25	61	54	41	49	11	121	15	11	16
18	115	35	20	64	51	41	49	23	126	21	13	13
19	116	21	25	64	63	41	47	34	112	121	16	12
20	106	20	30	54	54	39	45	33	110	58	19	21
21	126	25	39	46	64	38	52	40	87	26	18	22
22	137	20	44	52	67	37	64	68	85	18	16	21
23	139	19	42	52	60	36	64	63	83	25	23	15
24	134	33	40	56	48	34	35	27	54	34	21	9.0
25	131	31	48	59	52	34	17	27	32	16	19	7.4
26	131	31	47	48	52	33	16	54	27	16	21	6.7
27	129	30	46	60	68	27	18	25	26	28	15	9.0
28	128	31	75	53	34	23	16	19	22	26	16	9.4
29	123	31	77	47	-	21	15	19	17	22	20	8.6
30	116	32	81	44	-----	21	15	29	22	15	18	9.0
31	114	-----	74	59	-----	16	-----	68	-----	13	15	-----
Total	3,024	1,063	1,198	1,945	1,654	1,049	1,011	1,206.0	2,355	816	709	544.1
Mean	97.5	35.4	38.6	62.7	59.1	33.8	33.7	38.9	78.5	26.3	22.9	18.1
Ac-ft	6,000	2,110	2,380	3,860	3,280	2,080	2,010	2,390	4,670	1,620	1,410	1,080

Calendar year 1965: Max 2,620 Min 12 Mean 258 Ac-ft 186,800  
 Water year 1965-66: Max 276 Min 6.7 Mean 45.4 Ac-ft 32,870

## PLATTE RIVER BASIN

6-7205. South Platte River at Henderson, Colo.

Location.--Lat 39°55'12", long 104°52'18", in NW¼SE¼ sec.34, T.1 S., R.67 W., on left bank 1,200 ft upstream from bridge on State Highway 22 and 0.3 mile west of Henderson.

Drainage area.--4,713 sq mi.

Records available.--May 1926 to September 1966. Prior to October 1933 monthly discharge only, published in WSP 1310.

Gage.--Water-stage recorder. Datum of gage is 5,005.12 ft above mean sea level, datum of 1929. Prior to Apr. 17, 1956, at site 1,240 ft downstream. May 1, 1926, to Apr. 19, 1942, at datum 3.00 ft higher, Apr. 20, 1942, to Sept. 30, 1953, at datum 1.00 ft higher, and Oct. 1, 1953, to Apr. 16, 1956, at present datum. Apr. 17, 1956, to May 31, 1960, at site 840 ft downstream at present datum.

Average discharge.--40 years, 324 cfs (234,600 acre-ft per year).

Extremes.--Maximum discharge during year, 1,750 cfs Sept. 2 (gage height, 4.19 ft); minimum daily, 60 cfs Apr. 24.  
1926-66: Maximum discharge, 29,600 cfs June 17, 1965 (gage height, 12.93 ft), from rating curve extended above 9,000 cfs; minimum daily, 4.4 cfs Apr. 1, 1950.

Remarks.--Records fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, ground-water withdrawals, diversions for irrigation of about 253,000 acres, and return flow from irrigated areas. Records of chemical analyses for the water year 1966 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	681	199	322	190	145	187	87	217	263	162	311	138
2	612	208	314	160	150	175	74	158	214	196	332	587
3	624	202	314	168	142	181	89	158	211	115	420	203
4	648	196	286	160	130	145	171	172	184	76	576	178
5	600	145	290	175	98	140	211	208	172	73	734	125
6	588	118	302	170	85	152	71	223	199	78	609	125
7	588	105	326	178	87	172	82	223	223	150	484	138
8	564	112	318	178	108	184	168	202	840	145	428	125
9	520	108	318	168	172	214	148	253	431	132	364	120
10	510	102	314	168	168	214	145	274	346	128	290	105
11	525	96	310	172	162	220	248	235	294	125	290	90
12	525	115	108	170	165	170	359	382	246	130	299	125
13	500	110	140	162	162	142	278	294	226	150	275	138
14	500	118	102	160	168	142	322	263	184	175	248	152
15	460	110	110	165	162	125	253	408	170	162	221	279
16	431	118	89	158	158	102	165	460	223	140	198	212
17	431	251	87	165	178	89	184	404	310	118	182	200
18	558	386	80	175	226	87	260	310	377	142	182	152
19	758	377	82	155	242	91	436	242	342	408	190	162
20	674	346	80	148	242	91	326	217	306	535	218	172
21	660	338	87	142	235	91	193	214	263	546	287	148
22	674	330	87	142	239	142	118	214	256	651	245	142
23	648	334	82	145	217	87	73	229	256	480	206	122
24	588	346	80	145	178	115	60	211	226	416	190	130
25	576	330	87	145	162	96	106	242	158	388	180	132
26	576	426	82	142	165	98	108	282	125	420	162	138
27	500	431	80	140	232	93	170	229	178	324	128	236
28	278	400	89	135	217	91	158	205	135	278	105	168
29	256	400	91	140	-	98	223	130	153	492	102	142
30	217	368	93	138	-	96	229	120	236	368	112	180
31	196	-----	108	142	-----	93	-----	178	-----	290	102	-----
Total	16,466	7,225	5,258	4,901	4,795	4,123	5,515	7,557	7,747	7,993	8,670	5,064
Mean	531	241	170	158	171	133	184	244	258	258	280	169
Ac-ft	32,660	14,330	10,430	9,720	9,510	8,180	10,940	14,990	15,370	15,850	17,200	10,040

Calendar year 1965: Max 13,000 Min 13 Mean 630 Ac-ft 455,900  
Water year 1965-66: Max 840 Min 60 Mean 234 Ac-ft 169,200

6-7225. South St. Vrain Creek near Ward, Colo.

Location.--Lat 40°05'27", long 105°30'50", in NE¼SW¼ sec.36, T.2 N., R.73 W., on left bank at downstream side of bridge, 1.3 miles north of Ward and 3½ miles downstream from Brainard Lake.

Drainage area.--14.4 sq mi.

Records available.--October 1925 to September 1927, October 1928 to September 1931, September 1954 to September 1966. Monthly discharge only for some periods, published in WSP 1310.

Gage.--Water-stage recorder. Altitude of gage is 9,372 ft (from topographic map). May 29, 1926, to Sept. 30, 1927, and May 21, 1929, to Sept. 30, 1931, at site 600 ft downstream at datum 24.37 ft lower.

Average discharge.--17 years, 28.3 cfs (20,490 acre-ft per year).

Extremes.--Maximum discharge during year, 81 cfs June 21 (gage height, 3.26 ft); minimum daily, 1.4 cfs Mar. 10.  
1925-27, 1928-31, 1954-66: Maximum discharge, 462 cfs June 29, 1957; maximum gage height, 4.11 ft June 27, 1957; minimum daily discharge determined, 1 cfs Mar. 20, 1930.

Remarks.--Records good except those for winter period, which are poor. No diversion above station. Slight regulation by several small lakes above station.

Note.--The figures of peak discharge for water year 1965, which were inadvertently omitted from last year's report, are given herewith:

Peak discharge (base, 170 cfs).--1965: June 17 (1600) 372 cfs (3.90 ft); July 2 (0130) 218 cfs (3.65 ft); July 24 (0230) 299 cfs (3.79 ft); July 31 (1200) 203 cfs (3.62 ft).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	6.0	4.6	2.7	1.9	1.5	4.5	8.4	65	49	29	13
2	14	5.8	4.7	2.7	1.9	1.5	4.1	11	62	51	32	15
3	14	5.6	4.8	2.6	1.9	1.5	3.7	17	58	46	31	14
4	14	5.4	5.0	2.6	1.9	1.5	3.2	19	56	43	40	14
5	14	5.2	5.0	2.5	1.9	1.5	3.0	25	51	43	43	13
6	12	5.2	4.8	2.5	2.0	1.5	3.2	30	42	42	36	13
7	11	5.4	4.6	2.5	2.0	1.5	3.6	38	39	39	30	13
8	10	5.4	4.6	2.5	2.0	1.5	4.0	45	48	38	26	11
9	9.3	5.6	4.5	2.5	1.9	1.5	4.6	39	43	35	24	11
10	8.9	5.6	4.4	2.5	1.9	1.4	4.4	41	43	34	21	11
11	8.9	5.6	4.4	2.5	1.8	1.6	4.1	30	48	34	19	9.8
12	9.3	5.6	4.2	2.4	1.8	1.6	3.9	27	45	36	20	9.8
13	8.9	5.5	3.9	2.4	1.7	1.6	3.7	22	40	35	23	8.9
14	8.2	5.4	3.8	2.3	1.7	1.6	3.7	21	41	35	20	8.9
15	8.2	5.4	3.6	2.3	1.7	1.7	4.1	22	48	33	18	11
16	7.7	5.4	3.5	2.2	1.7	1.7	4.6	25	52	33	17	12
17	7.9	5.4	3.5	2.2	1.7	1.7	4.6	28	60	33	15	10
18	8.9	5.2	3.4	2.2	1.6	1.6	4.6	28	66	37	15	8.9
19	9.8	5.2	3.3	2.1	1.6	1.6	5.2	30	61	43	16	8.2
20	8.9	5.2	3.2	2.1	1.6	1.6	5.2	32	61	37	19	7.9
21	8.2	5.1	3.1	2.1	1.6	1.6	4.4	36	63	34	18	7.7
22	8.4	5.0	3.0	2.1	1.6	1.6	4.4	40	70	34	16	7.7
23	8.2	5.0	3.0	2.1	1.6	1.6	4.4	37	63	34	14	7.9
24	8.2	5.0	3.1	2.0	1.5	1.8	4.6	36	61	30	13	8.2
25	7.4	4.8	3.1	2.0	1.5	2.0	5.2	34	58	28	13	10
26	7.2	4.7	3.0	2.0	1.5	2.2	6.7	35	53	32	12	12
27	7.2	4.7	3.0	2.0	1.5	2.4	6.7	36	51	33	11	14
28	7.0	4.6	2.9	1.9	1.5	2.6	7.4	38	48	35	11	14
29	6.2	4.5	2.7	1.9	-	3.1	6.2	49	46	34	11	10
30	6.5	4.5	2.6	1.9	-----	3.6	7.2	62	45	30	11	8.9
31	6.2	-----	2.7	1.9	-----	4.0	-----	68	-----	28	12	-----
Total	288.6	157.0	116.0	70.2	48.5	57.7	139.2	1,009.4	1,587	1,128	636	323.8
Mean	9.31	5.23	3.74	2.26	1.73	1.86	4.64	32.6	52.9	36.4	20.5	10.8
Ac-ft	572	311	230	139	96	114	276	2,000	3,150	2,240	1,260	642

Calendar year 1965: Max 328 Min 1.7 Mean 36.1 Ac-ft 26,140  
Water year 1965-66: Max 70 Min 1.4 Mean 15.2 Ac-ft 11,030

Peak discharge (base, 170 cfs).--No peak above base.

Note.--No gage-height record Dec. 12 to Apr. 11.

## PLATTE RIVER BASIN

6-7240. St. Vrain Creek at Lyons, Colo.

Location.--Lat 40°13'05", long 105°15'34", in NW¼ sec.20, T.3 N., R.70 W., on left bank 75 ft southwest of State Highways 7 and 66 at southeast edge of Lyons, 400 ft upstream from St. Vrain Supply Canal, and 0.4 mile downstream from confluence of North and South St. Vrain Creeks.

Drainage area.--212 sq mi.

Records available.--August 1887 to September 1891, June 1895 to September 1966. Monthly discharge only for some periods, published in WSP 1310. Published as "near Lyons" 1901, 1903.

Gage.--Water-stage recorder. Altitude of gage is 5,292 ft (from topographic map). Prior to Apr. 6, 1923, staff gages near present site at different datums. Apr. 6, 1923, to Sept. 30, 1956, water-stage recorder at same site at datum 1.00 ft higher.

Average discharge.--75 years, 130 cfs (94,120 acre-ft per year).

Extremes.--Maximum discharge during year, 1,210 cfs July 20 (gage height, 4.82 ft); minimum daily, 4.1 cfs Jan. 26, 28. 1887-91, 1895-1966: Maximum discharge, 10,500 cfs June 22, 1941 (gage height, 8.06 ft, from floodmark), from rating curve extended above 2,100 cfs on basis of slope-area measurement at gage height 7.90 ft; no flow Jan. 19, 20, 1922, Jan. 12, 13, 1930. Outstanding floods occurred in June 1864 and May 1876. Flood in May or June 1894 reached a stage of 9.13 ft, from information by local resident (discharge, about 9,800 cfs). For discussion of these floods, see WSP 997.

Remarks.--Records good. Diversions above station for irrigation of about 20,000 acres. Flow partly regulated by small reservoirs above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	12	19	13	9.0	7.7	12	36	259	168	94	44
2	46	11	28	8.5	12	7.1	14	40	245	179	113	53
3	46	9.0	28	7.4	12	5.3	17	46	234	166	113	36
4	57	7.4	28	10	12	5.6	14	38	220	150	125	36
5	59	8.0	26	14	11	5.9	10	66	205	142	127	34
6	57	7.1	19	15	9.0	6.2	12	82	176	135	108	30
7	53	6.2	19	15	9.0	7.4	11	115	163	125	94	32
8	53	5.0	17	16	8.5	7.4	12	168	202	122	86	30
9	48	8.0	17	14	8.0	8.0	8.5	161	194	113	77	26
10	44	16	17	12	8.5	11	12	179	192	106	68	24
11	42	19	17	11	8.0	12	13	127	217	106	61	22
12	44	16	15	9.5	8.5	10	12	110	214	122	61	24
13	44	18	13	9.5	7.7	11	12	96	189	120	70	24
14	44	20	13	9.5	7.7	12	10	96	176	120	57	28
15	42	20	10	10	8.0	12	7.4	89	194	108	53	36
16	40	22	5.9	7.4	8.0	14	7.4	94	207	98	46	19
17	40	24	6.8	7.1	8.0	16	14	101	234	101	42	14
18	46	16	10	7.4	8.0	7.7	13	101	262	130	40	13
19	46	15	14	7.7	8.0	11	7.7	101	205	158	42	13
20	42	14	16	6.2	8.0	12	6.5	108	176	158	57	11
21	40	14	17	5.9	8.0	12	8.5	120	166	130	59	8.5
22	40	15	17	7.1	8.0	9.5	8.0	161	163	125	50	7.4
23	40	17	17	6.5	7.4	5.9	6.8	179	171	120	46	7.4
24	36	32	15	5.6	7.4	8.5	6.8	140	161	103	44	7.1
25	19	26	15	4.7	8.0	12	16	153	179	96	38	8.0
26	14	22	14	4.1	8.0	11	30	166	192	94	34	14
27	12	7.1	12	4.4	8.5	10	36	163	176	96	30	18
28	12	6.5	14	4.1	7.7	10	28	158	168	101	26	18
29	12	8.0	17	5.0	-	10	28	197	163	91	19	14
30	11	10	17	5.6	-	9.0	28	228	163	86	18	12
31	12	-----	16	7.4	-----	11	-----	262	-----	79	22	-----
Total	1,185	431.3	509.7	270.6	241.9	298.2	421.6	3,881	5,866	3,748	1,920	663.4
Mean	38.2	14.4	16.4	8.73	8.64	9.62	14.1	125	196	121	61.9	22.1
Ac-ft	2,350	855	1,010	537	480	591	836	7,700	11,640	7,430	3,810	1,320

Calendar year 1965: Max 1,490 Min 1.4 Mean 159 Ac-ft 115,400  
 Water year 1965-66: Max 262 Min 4.1 Mean 53.3 Ac-ft 38,550

6-7251. St. Vrain Creek near Longmont, Colo.

Location.--Lat 40°09'07", long 105°03'10", in NW¼SW¼ sec.7, T.2 N., R.68 W., on left bank 630 ft downstream from county line bridge, 2.0 miles downstream from Lefthand Creek, and 3.0 miles southeast of Longmont.

Drainage area.--370 sq mi.

Records available.--October 1964 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 4,890 ft (from topographic map).

Extremes.--Maximum discharge during year, 885 cfs Sept. 1 (gage height, 3.22 ft); minimum daily, 14 cfs May 4.

1964-66: Maximum discharge, 1,810 cfs June 17, 1964 (gage height, 4.90 ft); minimum daily, 14 cfs Apr. 22, May 12, 13, 1965, May 4, 1966.

Remarks.--Records good. Natural flow of stream affected by storage reservoirs, diversions for irrigation, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	95	55	44	52	28	30	16	21	43	26	39	120
2	82	50	53	44	30	29	18	20	35	37	51	181
3	99	44	61	40	32	25	19	17	30	39	41	88
4	102	43	56	45	36	25	21	14	35	35	39	72
5	115	44	56	47	39	27	18	15	33	28	40	62
6	119	43	55	48	38	25	16	16	35	35	42	51
7	111	42	51	48	37	28	16	25	48	41	37	39
8	104	41	46	48	35	30	16	30	113	37	35	37
9	99	40	45	48	33	29	18	41	102	33	32	39
10	92	40	45	50	34	29	18	42	88	29	32	38
11	92	42	45	43	34	29	19	34	72	35	32	35
12	88	43	44	46	35	29	22	42	51	48	29	38
13	85	43	44	39	30	25	21	39	50	46	30	39
14	87	49	44	40	38	25	20	33	55	46	32	45
15	87	51	45	43	38	24	19	27	40	45	31	53
16	87	50	42	36	39	24	18	25	50	44	27	46
17	85	49	42	36	39	22	22	24	65	43	26	42
18	88	52	42	38	39	21	32	21	68	41	26	32
19	90	49	43	35	30	22	32	20	60	46	27	30
20	90	48	48	33	28	21	29	27	60	91	30	31
21	87	48	52	30	28	21	29	34	56	107	31	32
22	87	46	55	32	29	24	28	33	58	65	34	33
23	85	48	52	32	28	21	26	32	46	66	35	34
24	83	52	52	30	27	21	25	27	35	56	43	34
25	82	53	50	28	29	21	24	31	32	52	34	34
26	76	58	52	26	28	21	22	35	38	44	31	35
27	72	53	48	28	29	21	21	34	32	38	26	37
28	70	45	52	25	30	22	23	29	30	43	25	34
29	66	41	57	26	-	22	21	29	27	39	25	32
30	65	42	61	28	-----	21	21	35	25	39	26	32
31	60	-----	57	30	-----	18	-----	39	-----	31	26	-----
Total	2,730	1,404	1,539	1,174	920	752	650	891	1,512	1,405	1,014	1,455
Mean	88.1	46.8	49.6	37.9	32.9	24.3	21.7	28.7	50.4	45.3	32.7	48.5
Ac-ft	5,410	2,780	3,050	2,330	1,820	1,490	1,290	1,770	3,000	2,790	2,010	2,890

Calendar year 1965: Max 1,570 Min 14 Mean 108 Ac-ft 78,480  
 Water year 1965-66: Max 181 Min 14 Mean 42.3 Ac-ft 30,640



## PLATTE RIVER BASIN

6-7255. Middle Boulder Creek at Nederland, Colo.

Location.--Lat 39°57'42", long 105°30'14", in NE¼SE¼ sec.13, T.1 S., R.73 W., on left bank at Nederland just downstream from North Beaver Creek, 1,000 ft upstream from Barker Reservoir.

Drainage area.--36.2 sq mi.

Records available.--June 1907 to September 1966. Monthly discharge only, for some periods, published in WSP 1310.

Gage.--Water-stage recorder and compound sharp-crested weir. Datum of gage is 8,186.0 ft above mean sea level (Public Service Co. bench mark). Prior to Mar. 18, 1909, at datum 4.0 ft lower. Mar. 18, 1909, to Apr. 23, 1952, at datum 2.5 ft lower than present datum.

Average discharge.--59 years, 53.7 cfs (38,880 acre-ft per year).

Extremes.--Maximum discharge during year, 158 cfs May 31 (gage height, 1.93 ft); minimum daily, 4.7 cfs Jan. 27, 28.

1907-66: Maximum discharge, 811 cfs June 2, 1914 (gage height, 5.37 ft, datum then in use), by computation of peak flow over compound weir; minimum daily, 0.8 cfs Jan. 14, 1908.

Remarks.--Records fair. No diversion above station. Flow regulated at times by Jasper Lake (capacity, 326 acre-ft). North Beaver Creek entered Middle Boulder Creek downstream from station June 1 to Dec. 31, 1907, March 1911 to Dec. 31, 1916.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	14	11	7.7	5.5	5.7	14	30	122	98	46	22
2	30	13	9.8	6.9	5.5	5.5	17	33	122	94	52	24
3	30	12	10	6.5	5.3	5.5	14	45	118	83	47	20
4	28	12	10	6.7	5.3	5.3	10	56	108	78	54	17
5	28	12	10	6.7	5.5	5.5	13	68	105	77	52	15
6	28	12	9.5	6.9	5.5	5.9	14	83	86	72	42	14
7	34	12	9.5	7.1	5.5	5.5	12	103	77	69	39	14
8	33	11	9.5	7.1	5.7	5.5	12	116	91	66	33	13
9	33	12	9.3	6.9	5.7	5.7	13	101	81	62	31	12
10	33	12	9.5	6.7	5.9	6.1	14	101	91	59	30	12
11	32	9.3	9.5	6.5	5.7	6.1	14	74	100	60	28	12
12	30	9.8	9.8	6.7	6.1	6.1	14	60	101	63	31	12
13	30	11	9.3	6.3	5.9	6.5	13	52	94	62	33	12
14	29	14	10	5.9	5.9	6.5	13	47	93	59	27	11
15	28	13	9.3	6.1	5.7	7.5	14	47	105	56	24	14
16	27	13	9.1	6.4	5.5	8.5	17	49	118	54	21	15
17	27	13	8.9	6.7	5.3	6.5	19	54	128	56	19	14
18	27	12	8.5	6.7	5.5	7.0	17	54	134	66	18	13
19	24	11	8.2	6.5	5.5	7.5	16	60	126	69	19	12
20	21	12	7.9	6.3	5.5	8.3	15	68	116	69	24	12
21	20	11	7.7	5.7	5.5	7.7	16	85	108	63	22	20
22	20	11	7.9	5.9	5.5	6.5	16	98	114	66	19	19
23	20	13	8.1	6.3	5.7	6.1	16	91	112	57	17	19
24	19	12	8.1	6.3	5.9	7.5	16	81	116	53	16	18
25	17	12	7.7	5.9	5.7	8.5	19	94	101	47	14	20
26	16	8.3	7.7	5.7	5.7	8.7	25	94	98	45	13	20
27	15	8.0	7.5	4.7	5.9	9.3	25	77	94	47	13	22
28	15	8.7	7.7	4.7	5.9	9.8	20	80	91	47	12	20
29	14	10	7.9	4.9	-	10	23	101	89	44	12	19
30	15	11	8.1	5.7	-----	10	26	122	96	40	12	18
31	14	-----	7.9	5.9	-----	12	-----	134	-----	40	14	-----
Total	766	345.1	274.9	195.0	157.8	222.8	487	2,358	3,135	1,921	834	485
Mean	24.7	11.5	8.87	6.29	5.64	7.19	16.2	76.1	104	62.0	26.9	16.2
Ac-ft	1,520	684	545	387	313	442	966	4,680	6,220	3,810	1,650	962

Calendar year 1965: Max 470 Min 3.9 Mean 75.0 Ac-ft 54,300

Water year 1965-66: Max 134 Min 4.7 Mean 30.6 Ac-ft 22,180

Peak discharge (base, 280 cfs).--No peak above base.

6-7270. Boulder Creek near Orodell, Colo.

Location.--Lat 40°00'23", long 105°19'49", in NE¼SW¼ sec.34, T.1 N., R.71 W., on left bank along State Highway 119, 0.7 mile southwest of old Orodell, 1 mile upstream from Fourmile Creek, and 3 miles southwest of courthouse in Boulder.

Drainage area.--102 sq mi.

Records available.--August to October 1887, April to October 1888, October 1906 to November 1914, March 1916 to September 1966. Monthly discharge only for some periods, published in WSP 1310. Figures of daily discharge for Feb. 3-10, 17-25, 1912, published in WSP 326, have been found to be unreliable and should not be used. Published as North Boulder Creek, Colorado 1887-88 and as "at Orodell" March 1907 to December 1916.

Gage.--Water-stage recorder. Altitude of gage is 5,826 ft (from topographic map). Prior to Sept. 1, 1907, staff gage and Sept. 1, 1907, to May 11, 1917, water-stage recorder, at sites 1 mile downstream, just upstream from Fourmile Creek, at different datums.

Average discharge.--58 years (1906-14, 1916-66), 91.0 cfs (65,880 acre-ft per year).

Extremes.--Maximum discharge during year, 251 cfs May 26 (gage height, 2.84 ft); minimum daily, 7.8 cfs Nov. 27. 1887-88, 1906-13, 1916-66: Maximum discharge, 2,500 cfs June 6, 1921 (gage height, 4.31 ft), from rating curve extended above 1,200 cfs; minimum daily, 1 cfs Jan. 29, Feb. 1-3, 16-24, 1933.

Remarks.--Records good except those for winter period, which are poor. Flow regulated by Barker Reservoir (capacity, 11,500 acre-ft). Low flow during nonirrigation season regulated by Orodell powerplant 1,500 ft upstream from station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	16	36	16	15	44	50	15	146	111	64	27
2	49	15	33	16	9	49	47	19	130	109	63	36
3	45	24	13	34	21	47	51	39	128	111	66	30
4	47	27	11	35	18	47	52	49	130	101	109	31
5	43	39	11	34	16	49	51	69	128	91	115	26
6	41	32	33	34	11	49	47	93	115	89	75	21
7	42	33	29	35	17	50	23	99	103	83	62	19
8	44	32	31	34	15	49	16	125	118	75	69	16
9	40	33	37	34	15	48	15	138	138	72	64	14
10	40	34	32	34	15	48	14	125	128	70	40	14
11	36	35	28	35	14	51	13	97	120	64	33	13
12	39	32	32	37	14	51	14	64	143	70	28	13
13	36	32	31	36	18	41	15	56	138	70	23	15
14	36	29	15	10	35	50	14	69	107	69	21	17
15	31	30	17	15	9	48	13	68	91	72	23	19
16	30	34	34	13	13	49	16	60	111	68	25	21
17	27	31	31	15	17	48	16	63	140	60	27	22
18	31	26	27	15	33	50	15	64	143	64	24	20
19	30	40	33	15	38	48	31	64	132	79	19	18
20	26	15	33	15	38	48	23	66	125	115	20	15
21	21	11	33	15	43	47	22	85	107	111	22	19
22	20	31	32	15	57	47	23	105	99	105	24	23
23	25	32	21	18	55	47	21	109	109	101	20	22
24	25	15	17	15	51	47	24	99	115	87	22	20
25	19	11	13	15	52	49	26	91	107	77	20	20
26	14	15	12	15	52	47	35	105	95	69	17	20
27	20	78	29	15	47	47	29	111	93	54	13	27
28	20	11	33	15	53	50	31	79	103	47	11	30
29	17	36	33	16	-	49	25	70	103	64	10	28
30	18	34	29	13	-	48	17	113	109	85	11	26
31	17	-	14	15	-	48	-	155	-	77	11	-
Total	973	7928	813	679	791	1,490	789	2,564	3,554	2,520	1,151	642
Mean	31.4	26.4	26.2	21.9	28.2	48.1	26.3	82.7	118	81.3	37.1	21.4
Ac-ft	1,930	1,570	1,610	1,350	1,570	2,960	1,560	5,090	7,050	5,000	2,280	1,270

Calendar year 1965: Max 1,090 Min 6.3 Mean 121 Ac-ft 87,470

Water year 1965-66: Max 155 Min 7.8 Mean 45.9 Ac-ft 33,240

Note.--No gage-height record Jan. 17 to Feb. 23, Feb. 28 to Apr. 6.

## PLATTE RIVER BASIN

6-7295. South Boulder Creek near Eldorado Springs, Colo.

**Location.**--Lat 39°55'52", long 105°17'43", in SE¼ sec.26, T.1 S., R.71 W., on left bank 0.2 mile downstream from South Draw, 1 mile west of Eldorado Springs, 1.8 miles (revised) downstream from South Boulder diversion canal, 5 miles south of Boulder, and 6.7 miles (revised) downstream from Gross Reservoir.

**Drainage area.**--109 sq mi.

**Records available.**--April 1888 to October 1892, May 1895 to September 1901, August 1904 to September 1966. No winter records for water years 1889-92, 1900. Monthly discharge only for some periods, published in WSP 1310. Prior to January 1911, published as "at" or "near Marshall;" January 1911 to December 1913 as "at Eldorado Springs." Records for periods June 1900 to September 1901, August 1904 to September 1908, October 1909 to September 1911 are not adjusted for diversions by Community ditch and South Boulder and Coal Creek ditch, all other records contain flow in these ditches.

**Gage.**--Water-stage recorder. Altitude of gage is 6,080 ft (from topographic map). Prior to Sept. 25, 1929, staff gage or water-stage recorder at sites 1 mile downstream at different datums. Sept. 25, 1929, to May 2, 1934, water-stage recorder at site a quarter of a mile downstream at different datum. May 3, 1934, to Sept. 3, 1938, water-stage recorder at site 250 ft upstream at datum 4.00 ft higher than present datum. Sept. 4, 1938, to May 9, 1940, staff gages at site about 300 ft upstream or water-stage recorder at site half a mile downstream at different datums.

**Average discharge.**--60 years (1895-99, 1908-9, 1911-66), 76.0 cfs (55,020 acre-ft per year), adjusted for storage and diversions.

**Extremes.**--Maximum discharge during year, 360 cfs July 15 (gage height, 2.12 ft); minimum daily, 4.1 cfs Oct. 24.

1888-92, 1895-1901, 1904-66: Maximum discharge, 7,390 cfs Sept. 2, 1938 (gage height, 9.24 ft, from floodmarks, site and datum then in use), from rating curve extended above 600 cfs on basis of slope-area measurement of peak flow; no flow Oct. 15, 1932.

**Remarks.**--Records poor. Many small diversions above station for irrigation. Water is imported above Gross Reservoir from Colorado River basin through Moffat water tunnel (see elsewhere in this report). Flow regulated since May 1, 1955, by Gross Reservoir (capacity, 43,060 acre-ft), 6.7 miles above station. City of Denver diverts water 1½ miles above station.

**Cooperation.**--Contents of Gross Reservoir and diversion by City of Denver furnished by State engineer of Colorado.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		65	12				12	27	126	157	51	12
2		71	12				11	27	113	126	54	14
3		37	12				11	27	144	120	54	16
4		16	12				13	28	154	120	54	19
5		12	11				15	37	154	97	50	19
6	60	5.2	11				15	62	154	87	50	19
7		5.2	11				15	74	157	56	50	19
8		6.3	12				15	74	160	44	50	26
9		6.3	12				14	74	160	44	48	32
10		7.4	12				13	72	154	44	48	31
11		7.4	12				14	146	150	44	46	30
12		7.4	12				14	178	150	37	35	33
13	23	7.4	12				81	168	150	33	32	33
14	6.3	7.4	12				120	164	120	34	31	32
15	5.2	7.4		10	9	8	83	164	108	34	30	24
16	5.2	8.5					29	106	74	32	23	27
17	5.2	11					30	67	65	32	19	26
18	7.4	11					30	63	63	32	18	26
19	7.4	9.6					30	63	63	40	17	24
20	6.3	6.3					29	62	60	37	14	24
21	6.3	6.3					29	62	60	35	11	24
22	5.2	12					29	62	91	34	11	24
23	5.2	12	10				28	62	106	34	11	24
24	4.1	12					28	81	104	35	11	26
25	11	13					27	87	102	34	11	26
26	54	13					26	87	104	33	10	14
27	54	13					26	104	104	44	9.6	10
28	62	13					26	144	118	51	9.6	11
29	62	13					26	157	144	51	10	11
30	62	13					27	157	157	51	10	12
31	65							150		51	10	
Total	1,176.8	435.1	335	310	252	248	866	2,846	3,569	1,703	888.2	668
Mean	38.0	14.5	10.8	10	9	8	28.9	91.8	119	54.9	28.7	22.3
Ac-ft	2,330	863	664	615	500	492	1,720	5,640	7,080	3,380	1,760	1,320

Adjusted for storage in Gross Reservoir and diversions from Colorado River basin and to Denver

Mean	28.3	17.0	12.8	11.4	9.49	15.5	22.4	91.0	107	56.5	28.2	16.6
Ac-ft	1,740	1,010	785	698	527	951	1,330	5,590	6,380	3,480	1,730	979

Observed

Adjusted

Calendar year 1965: Max	740	Min	-	Mean	96.9	Ac-ft	70,130	Mean	95.2	Ac-ft	68,890
Water year 1965-66: Max	178	Min	4.1	Mean	36.4	Ac-ft	26,370	Mean	34.8	Ac-ft	25,200

**Note.**--No gage-height record Mar. 1 to Apr. 6.

6-7303. Coal Creek near Plainview, Colo.

Location.--Lat 39°52'40", Long 105°16'36", in SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec.13, T.2 S., R.71 W., on left bank 100 ft upstream from culvert on State Highway 72,  $\frac{1}{4}$  miles south of Plainview, 5 miles downstream from Beaver Creek, and 9 miles north of Golden.

Drainage area.--15.1 sq mi.

Records available.--August 1959 to September 1966.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 6,540 ft (from topographic map). Prior to June 17, 1964, water-stage recorder at site 60 ft downstream at datum 4.49 ft lower.

Average discharge.--7 years, 3.41 cfs (2,470 acre-ft per year).

Extremes.--Maximum discharge during year, 3.6 cfs Mar. 4 (gage height, 0.69 ft); no flow for many days.

1959-66: Maximum discharge, 195 cfs June 16, 1963 (gage height, 2.44 ft, site and datum then in use), by contracted-opening measurement of peak flow; no flow for many days in each year.

Remarks.--Records fair. No diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.2	0.8	0.4	0.4	0.2	0.8	0.8	1.3	0.8	0.2	0	0
2	1.9	.8	.4	.4	.2	.6	.8	1.2	.6	.4	0	.4
3	1.5	.6	.4	.5	.2	.6	.7	1.2	.5	.2	0	.4
4	1.4	.6	.4	.5	.1	.8	.6	1.2	.4	.2	0	.1
5	1.2	.6	.4	.5	.1	.5	.6	1.1	.4	.2	0	0
6	1.1	.6	.4	.5	.1	.6	.6	1.1	.4	.2	0	0
7	1.0	.6	.4	.5	.1	.8	.6	1.1	.4	.2	0	0
8	1.0	.6	.4	.4	.1	.8	.7	1.6	1.5	.2	0	0
9	.9	.6	.4	.4	.1	.9	.7	1.4	1.5	.2	0	0
10	.8	.6	.5	.4	.1	1.1	.7	1.5	1.0	.2	0	0
11	.8	.5	.5	.4	0	1.0	.8	1.2	.7	.2	0	0
12	.8	.5	.5	.4	0	1.0	1.0	1.5	.6	.2	0	0
13	.8	.6	.5	.4	.1	1.0	1.1	1.7	.5	.1	.1	0
14	.8	.5	.6	.4	.2	1.1	1.0	1.9	.4	.2	.2	0
15	.8	.5	.5	.4	.2	1.1	1.0	1.5	.4	.1	.5	.4
16	.9	.5	.5	.4	.2	1.1	.9	1.3	.5	.1	.3	.4
17	1.0	.6	.4	.3	.3	.9	1.0	1.2	.8	0	.2	.3
18	1.2	.5	.3	.3	.4	.8	1.0	1.2	.8	0	.1	.2
19	1.2	.5	.3	.2	.4	.8	.9	1.1	.6	0	0	.3
20	1.3	.5	.4	.4	.5	.8	1.2	1.0	.5	0	0	.3
21	1.3	.5	.4	.3	.6	.8	1.3	1.0	.5	0	0	.3
22	1.2	.4	.5	.2	.5	.6	1.5	.8	.4	0	0	.1
23	1.1	.5	.5	.4	.5	.6	1.7	.8	.6	0	0	0
24	1.1	.5	.5	.3	.6	.6	1.9	.8	.5	0	0	0
25	1.0	.5	.5	.2	.6	.6	1.6	.8	.4	0	0	0
26	1.0	.5	.5	.2	.7	.7	1.6	.8	.3	0	0	.3
27	1.0	.4	.4	.2	.6	.7	1.5	.7	.3	0	0	.4
28	1.0	.4	.4	.2	.8	.7	1.4	.7	.2	0	0	.4
29	.8	.4	.4	.3	-	.7	1.4	.6	.2	0	0	.4
30	.8	.4	.7	.3	-----	.7	1.4	.6	.2	0	0	.4
31	.8	-----	.4	.3	-----	.7	-----	.6	-----	0	0	-----
Total	33.7	16.1	13.8	11.0	8.5	24.5	32.0	34.5	16.9	3.1	1.4	5.1
Mean	1.09	0.54	0.45	0.35	0.30	0.79	1.07	1.11	0.56	0.10	0.05	0.17
Ac-ft	67	32	27	22	17	49	63	68	34	6.1	2.8	10

Calendar year 1965: Max 70 Min 0.1 Mean 5.14 Ac-ft 3,720

Water year 1965-66: Max 2.2 Min 0 Mean 0.55 Ac-ft 398

Peak discharge (base, 25 cfs)--No peak above base.

6-7310. St. Vrain Creek at mouth, near Platteville, Colo.

Location.--Lat 40°15'29", long 104°52'45", in SE¼NW¼ sec.3, T.3 N., R.67 W., on right bank 140 ft downstream from bridge on county road, 1.3 miles upstream from mouth, and 4 miles northwest of Platteville.

Drainage area.--976 sq mi.

Records available.--July 1904 to December 1906, April to December 1915, March 1927 to September 1966. Prior to October 1933 monthly discharge only, published in WSP 1310.

Gage.--Water-stage recorder. Altitude of gage is 4,740 ft (from topographic map). July 1, 1904, to Dec. 31, 1906, and Apr. 1 to Dec. 31, 1915, staff gage at bridge 140 ft upstream at different datums. Feb. 24, 1927, to June 10, 1939, water-stage recorder at bridge 140 ft upstream and June 11, 1939, to Apr. 24, 1960, water-stage recorder at site 180 ft upstream at different datum.

Average discharge.--41 years (1904-6, 1927-66), 193 cfs (139,700 acre-ft per year).

Extremes.--Maximum discharge during year, 1,300 cfs Sept. 2 (gage height, 4.15 ft); minimum daily, 42 cfs May 8.

1904-6, 1915, 1927-66: Maximum discharge, 11,300 cfs Sept. 3, 1938 (gage height, 8.93 ft, site and datum then in use), from rating curve extended above 4,700 cfs; minimum daily, 12 cfs Apr. 23, 1935.

Remarks.--Records fair. Diversions above station for irrigation of about 177,000 acres. Flow partly regulated by many small reservoirs above station. Records of chemical analyses for the water year 1966 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	331	161	153	150	113	200	62	50	88	91	96	181
2	283	161	158	133	136	198	62	50	118	98	100	903
3	283	158	170	126	126	203	64	48	131	115	96	565
4	286	158	161	136	118	156	71	43	131	115	98	375
5	286	158	153	147	142	158	75	43	136	110	100	277
6	286	170	153	150	136	161	64	44	133	96	98	223
7	283	167	158	161	128	164	54	44	126	105	96	192
8	286	161	158	164	126	170	50	42	198	110	86	161
9	286	147	158	161	120	170	50	52	262	115	91	139
10	280	136	158	153	113	175	52	82	235	118	96	115
11	274	136	158	150	113	175	52	82	209	118	86	110
12	268	136	158	156	108	172	56	82	189	123	82	108
13	262	136	150	150	93	170	58	100	175	147	96	118
14	244	150	153	144	93	161	64	84	181	156	100	120
15	238	150	144	142	100	161	68	75	144	170	100	158
16	226	153	128	115	110	153	58	62	118	150	133	161
17	220	158	144	110	103	139	56	52	139	133	139	150
18	232	158	128	115	139	108	73	48	164	115	136	126
19	238	156	139	115	150	100	105	48	164	110	150	108
20	235	156	147	105	158	93	105	48	131	144	158	91
21	232	147	147	77	181	91	100	54	108	232	167	98
22	223	142	156	100	184	91	88	60	91	206	164	98
23	212	150	153	142	184	86	75	58	88	175	175	96
24	206	153	142	144	186	84	68	66	84	164	189	93
25	200	156	128	144	189	84	60	66	73	147	192	98
26	189	147	128	136	192	84	54	64	68	123	167	98
27	181	142	115	147	198	79	50	71	75	108	164	105
28	178	123	131	118	192	77	54	68	60	100	150	110
29	172	118	153	128	-	73	50	62	73	93	136	113
30	170	142	178	131	-----	73	50	62	88	77	136	110
31	164	-----	172	128	-----	68	-----	68	-----	77	153	-----
Total	7,454	4,486	4,632	4,178	3,931	4,077	1,948	1,878	3,980	3,941	3,930	5,400
Mean	240	150	149	135	140	132	64.9	60.6	133	127	127	180
Ac-ft	14,780	8,900	9,190	8,290	7,800	8,090	3,860	3,720	7,890	7,820	7,800	10,710

Calendar year 1965: Max 3,280 Min 37 Mean 320 Ac-ft 231,800  
 Water year 1965-66: Max 903 Min 42 Mean 137 Ac-ft 98,850

6-7330. Big Thompson River at Estes Park, Colo.

Location.--Lat 40°22'42", long 105°30'48", in NW¼NW¼ sec.30, T.5 N., R.72 W., on right bank in Estes Park, 600 ft downstream from bridge on State Highways 7 and 66, 900 ft downstream from Black Canyon Creek, and 0.3 mile northwest of Estes powerplant. Station is upstream from Lake Estes.

Drainage area.--137 sq mi.

Records available.--October 1946 to September 1966. Prior to October 1947, published as Thompson River at Estes Park.

Gage.--Water-stage recorder and Parshall flume with overflow weirs. Datum of gage is 7,492.5 ft above mean sea level (levels by Bureau of Reclamation). Prior to May 18, 1949, at site 740 ft downstream at different datum. May 18, 1949, to Mar. 22, 1951, at site 60 ft upstream at datum 1.2 ft higher.

Average discharge.--20 years, 126 cfs (91,220 acre-ft per year), adjusted for inflow from Alva B. Adams tunnel Aug. 10, 1947, to Aug. 2, 1950.

Extremes.--Maximum discharge during year, 427 cfs May 31 (gage height, 3.49 ft); minimum daily, 7.0 cfs Feb. 12, 22, 23.

1946-66: Maximum discharge, 1,660 cfs June 18, 1949 (gage height, 3.16 ft, site and datum then in use); maximum gage height, 6.89 ft June 17, 1965; minimum discharge not determined.

Remarks.--Records good except those for winter period, which are fair. Diversion from Colorado River basin to Big Thompson River basin above station through Alva B. Adams tunnel began Aug. 10, 1947, and ended Aug. 2, 1950. Small power development and small diversions for irrigation and municipal use above station. No diversions above station from Wind River to Lake Estes (bypassing this station) during the water year 1966.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	104	43	34	22	8	11	25	50	325	230	144	62
2	101	43	31	16	8	11	28	61	307	227	190	77
3	101	40	32	16	8	11	28	77	314	212	230	67
4	100	40	32	14	9	11	23	99	275	203	254	60
5	96	40	31	14	9	12	22	131	257	190	228	56
6	85	38	29	17	9	13	20	168	218	184	190	54
7	81	38	28	18	9	13	20	216	203	178	175	54
8	77	35	30	19	9	14	20	268	239	172	159	58
9	74	37	27	19	8	14	22	235	225	167	146	53
10	73	37	28	17	9	15	23	252	259	166	136	51
11	72	34	28	17	8	15	24	181	283	177	133	49
12	71	33	28	17	7	15	24	147	262	216	135	52
13	66	37	26	16	8	14	22	125	227	203	138	52
14	66	38	25	15	8	15	21	114	219	190	115	52
15	62	38	24	15	8	15	22	107	246	172	101	61
16	61	38	22	14	8	15	25	128	254	163	91	61
17	61	38	22	11	8	15	33	144	263	167	84	53
18	72	38	22	9.9	9	15	34	140	273	204	78	49
19	67	37	22	9.9	9	15	30	142	272	213	76	45
20	64	36	24	10	9	16	28	157	268	209	84	42
21	60	36	23	8	8	16	30	198	270	190	80	42
22	60	37	21	9	7	16	32	250	265	216	73	40
23	57	38	22	10	7	19	30	244	273	187	67	40
24	56	39	21	9	10	19	34	190	257	166	64	38
25	53	39	20	9	10	21	38	218	246	153	57	41
26	49	31	20	9	10	21	46	238	238	152	54	52
27	49	25	20	9	10	22	56	207	239	148	50	55
28	50	28	20	9	10	23	45	209	225	146	52	52
29	47	30	21	9	-	20	45	283	219	135	50	45
30	46	31	24	9	-----	20	42	334	222	125	49	44
31	44	-----	22	9	-----	23	-----	368	-----	119	57	-----
Total	2,125	1,092	779	405.8	240	495	892	5,681	7,643	5,580	3,540	1,557
Mean	68.5	36.4	25.1	13.1	8.57	16.0	29.7	183	255	180	114	51.9
Ac-ft	4,210	2,170	1,550	805	476	982	1,770	11,270	15,160	11,070	7,020	3,090

Calendar year 1965: Max 1,520 Min 9.0 Mean 181 Ac-ft 131,200  
 Water year 1965-66: Max 368 Min 7.0 Mean 82.3 Ac-ft 59,560

Peak discharge (base, 600 cfs).--No peak above base.

Note.--No gage-height record Jan. 21 to Mar. 19.

## PLATTE RIVER BASIN

6-7355. Big Thompson River near Estes Park, Colo.

Location.--Lat 40°22'35", long 105°29'06", in NE¼NE¼ sec.29, T.5 N., R.72 W., on right bank 100 ft upstream from Dry Creek, 600 ft downstream from Olympus Dam, and 2.0 miles east of Estes Park.

Drainage area.--156 sq mi.

Records available.--July 1930 to September 1966. Prior to October 1933 monthly discharge only, published in WSP 1310. Published as Thompson River near Estes Park 1934-47.

Gage.--Water-stage recorder and Parshall flume. Datum of gage is 7,422.5 ft above mean sea level (levels by Bureau of Reclamation). Prior to Jan. 29, 1934, staff gage on highway bridge 1½ miles downstream at different datum. Jan. 29, 1934, to Mar. 21, 1951, water-stage recorder at site 0.4 mile downstream at datum 10.5 ft lower.

Extremes.--Maximum discharge during year, 267 cfs June 7 (gage height, 2.60 ft); minimum daily, 9.4 cfs Feb. 8-12.

1930-66: Maximum discharge observed, 2,800 cfs June 20, 1933 (gage height, 4.0 ft, site and datum then in use), from rating curve extended above 460 cfs; minimum daily, 4.4 cfs Dec. 12, 1940, but may have been less during periods of no gage-height record.

Remarks.--Records excellent. Low flow regulated by Lake Estes since Nov. 30, 1948. Diversion from Colorado River to Big Thompson River basin above station through Alva B. Adams tunnel began Aug. 10, 1947 (see sta. 9-0130 for diversion during water year 1966); since Apr. 15, 1953, this imported water has been diverted from Lake Estes through Olympus tunnel bypassing this station. Since May 17, 1955, part of the natural flow of Big Thompson River (18,400 acre-ft in 1966) has also been diverted through Olympus tunnel and returned to the river below the station at mouth of canyon, near Drake. Small power developments and small diversions for irrigation and municipal use above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	59	46	32	24	10	10	28	51	140	135	138	66
2	63	45	34	18	10	10	31	62	143	133	160	82
3	63	44	34	17	9.9	10	31	77	140	118	143	71
4	61	42	33	15	9.9	10	27	100	133	123	144	65
5	58	43	36	15	10	11	26	133	129	115	115	61
6	48	41	32	17	10	10	24	128	119	109	108	60
7	49	40	31	18	10	11	23	129	133	104	118	60
8	52	39	31	20	9.4	11	24	148	151	112	113	63
9	55	40	30	19	9.4	11	24	128	129	113	112	58
10	54	39	31	18	9.4	13	25	135	146	111	104	55
11	53	36	31	18	9.4	16	27	98	136	121	99	53
12	52	35	31	19	9.4	16	26	98	118	163	111	58
13	47	39	28	17	9.9	16	25	92	118	149	126	57
14	52	41	26	16	9.9	16	23	91	135	120	108	58
15	52	40	26	16	9.9	16	24	88	138	112	97	66
16	52	39	25	16	9.9	16	27	126	135	108	94	65
17	52	41	24	13	10	17	35	128	146	113	89	55
18	64	41	24	13	10	15	37	118	135	136	84	51
19	58	39	24	13	10	14	31	118	125	139	81	48
20	54	39	24	12	10	17	30	121	123	120	88	45
21	52	39	24	13	10	20	32	126	128	108	84	44
22	52	37	24	15	10	20	34	126	121	126	77	42
23	50	41	25	16	10	24	32	109	128	105	72	42
24	48	41	23	16	10	23	37	96	112	112	67	40
25	45	40	22	12	10	24	40	130	121	108	62	43
26	48	34	23	12	10	26	48	125	138	113	60	52
27	51	27	21	11	10	27	56	118	144	114	54	57
28	52	31	22	9.9	10	28	46	130	133	111	57	52
29	49	35	23	10	-	25	45	160	126	111	54	45
30	47	32	24	10	-----	25	43	163	129	106	53	45
31	47	-----	24	10	-----	28	-----	168	-----	109	62	-----
Total	1,639	1,166	842	468.9	276.4	536	961	3,620	3,952	3,677	2,934	1,659
Mean	52.9	38.9	27.2	15.1	9.87	17.3	32.0	117	132	119	94.6	55.3
Ac-ft	3,250	2,310	1,670	930	548	1,060	1,910	7,180	7,840	7,290	5,820	3,290

Calendar year 1965: Max 972

Min 11

Mean 91.4

Ac-ft 66,160

Water year 1965-66: Max 168

Min 9.4

Mean 59.5

Ac-ft 43,100

6-7380. Big Thompson River at mouth of canyon, near Drake, Colo.

Location.--Lat 40°25'18", long 105°13'34", in SW¼SW¼ sec.3, T.5 N., R.70 W., on right bank at mouth of canyon, 400 ft upstream from Handy Ditch diversion dam and 6.0 miles east of Drake.

Drainage area.--304 sq mi.

Records available.--August 1887 to September 1892, May 1895 to September 1903, October 1926 to September 1933 (no winter records prior to October 1932, except water years 1927-28), April 1938 to September 1949, March 1951 to September 1966. Monthly discharge only for some periods, published in WSP 1310. Published as Big Thompson Creek at Arkins 1887-92, Big Thompson Creek near Arkins 1901-3, and as Thompson River at mouth of canyon, near Drake 1927-30, 1938-47.

Gage.--Water-stage recorder. Datum of gage is 5,297.47 ft above mean sea level (Bureau of Reclamation bench mark). Aug. 25, 1887, to Sept. 30, 1892, and Apr. 1, 1899, to Sept. 21, 1903, staff gages at sites within half a mile downstream below Handy Ditch diversion dam at different datums. May 9, 1895, to Mar. 31, 1899, staff gage at site 1½ miles downstream and 600 ft downstream from Home Supply Ditch diversion dam at different datum. Oct. 1 to Dec. 31, 1926, staff gage at site 6½ miles upstream at different datum. Jan. 1, 1927, to Sept. 30, 1933, water-stage recorder at site 1 mile upstream at different datum. Apr. 19, 1938, to Sept. 30, 1949, water-stage recorder at site 50 ft downstream at datum 1.45 ft lower.

Extremes.--Maximum discharge during year, 840 cfs July 20 (gage height, 3.70 ft); minimum daily, 13 cfs Jan. 3, 18, 20, 21. 1887-92, 1895-1903, 1926-33, 1938-49, 1951-66: Maximum discharge, 7,600 cfs July 19, 1945 (gage height, 7.55 ft, site and datum then in use), from rating curve extended above 2,200 cfs; minimum daily recorded, 3.2 cfs Nov. 12, 1959.

Remarks.--Records good except those for winter period, which are fair. Diversions above station for irrigation. Diversion from Colorado River to Big Thompson River basin above station through Alva B. Adams tunnel began Aug. 10, 1947 (see sta. 9-0130 for diversion for water year 1966); since Apr. 15, 1953, this imported water has been diverted through Olympus tunnel bypassing this station. Part of the natural flow of Big Thompson River has also been diverted through Olympus tunnel since May 17, 1955 (18,400 acre-ft in 1966), and Dille tunnel since Apr. 20, 1959 (1,550 acre-ft in 1966), and returned to the river just below this station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	60	56	26	17	16	36	56	161	134	154	90
2	88	58	36	17	16	18	35	67	154	131	189	99
3	82	58	40	13	14	15	38	84	166	117	187	95
4	86	57	50	18	17	15	35	106	138	117	181	84
5	80	57	45	19	18	17	34	131	151	119	184	78
6	72	57	38	25	16	18	32	144	128	126	144	77
7	66	54	42	28	18	18	36	136	141	124	148	75
8	66	56	38	29	18	19	42	166	164	126	146	77
9	72	51	39	28	18	21	38	158	141	131	144	77
10	72	56	39	23	18	24	30	168	136	126	136	72
11	50	49	40	26	17	25	33	114	148	138	131	70
12	69	46	36	22	19	28	33	124	126	176	124	74
13	66	48	35	18	18	26	30	103	117	179	166	74
14	64	53	37	23	18	27	30	110	131	161	138	74
15	70	53	24	22	20	27	30	103	136	136	128	78
16	67	53	17	20	19	26	30	124	128	131	117	84
17	67	53	19	15	20	27	36	144	144	128	117	74
18	74	53	24	13	20	19	46	131	151	158	108	66
19	80	53	33	15	18	27	43	126	131	166	108	61
20	72	49	42	13	18	26	34	134	128	219	117	58
21	69	50	40	13	18	28	39	138	131	146	117	54
22	66	44	42	16	18	25	44	146	121	171	103	54
23	66	48	42	17	17	24	45	131	134	144	97	54
24	64	54	35	16	18	30	42	110	117	141	93	53
25	61	51	31	15	18	30	48	124	114	151	86	51
26	60	50	34	15	18	29	56	136	128	141	78	60
27	61	20	28	18	19	31	64	124	141	146	77	75
28	64	18	31	16	18	32	61	134	131	146	74	70
29	64	35	35	16	-	33	54	168	124	141	74	61
30	61	36	36	16	-----	31	53	171	124	134	72	58
31	61	-----	34	15	-----	33	-----	184	-----	134	78	-----
Total	2,130	1,480	1,118	586	501	765	1,207	3,995	4,085	4,438	3,816	2,127
Mean	68.7	49.3	36.1	18.9	17.9	24.7	40.2	129	136	143	123	70.9
Ac-ft	4,220	2,940	2,220	1,160	994	1,520	2,390	7,920	8,100	8,800	7,570	4,220

Calendar year 1965: Max 1,360 Min 10 Mean 117 Ac-ft 84,410  
 Water year 1965-66: Max 219 Min 13 Mean 71.9 Ac-ft 52,060



## PLATTE RIVER BASIN

## Reservoirs in South Platte River basin

- 6-6955. Elevenmile Canyon Reservoir near Lake George.--Lat 38°54'19", long 105°28'30", in N½SW¼ sec.20, T.13 S., R.72 W., at north end of dam on South Platte River, 8 miles southwest of Lake George. Records available, October 1932 to September 1966. Prior to September 1938, published in WSP 1310. Gage is mercury manometer. Prior to May 12, 1964, twice daily staff gage readings. Datum of gage is at mean sea level (datum of Denver Board of Water Commissioners). Maximum contents observed during year, 92,830 acre-ft May 13 (elevation, 8,595.51 ft); minimum observed, 78,950 acre-ft Oct. 1 (elevation, 8,590.98 ft). Maximum contents observed during period 1932-66, 103,400 acre-ft Mar. 29, 1960 (elevation, 8,598.62 ft); no contents at times in 1935. Reservoir is formed by concrete arch dam completed by Denver Board of Water Commissioners in November 1932. Spillway built 5.00 ft higher Aug. 1, 1957. Storage began in October 1932. Capacity, 97,780 acre-ft between elevations 8,488.25 (invert of outlet pipe) and 8,597.00 ft (crest of spillway). Dead storage is negligible. Records given herein represent total contents. Water is for municipal use by city of Denver. Records furnished by Denver Board of Water Commissioners.
- 6-7010. Cheesman Lake near Deckers.--Lat 39°12'26", long 105°16'18", in NW¼SW¼ sec.6, T.10 S., R.70 W., at dam on South Platte River, 4 miles southwest of Deckers. Records available, September 1900 to December 1901, September 1902 to September 1966. Prior to October 1938, published in WSP 1310. Published as Lake Cheesman Reservoir prior to 1947. Staff gage read twice daily. Datum of gage is 6,622.91 ft above mean sea level (datum of Denver Board of Water Commissioners). Maximum contents observed during year, 79,420 acre-ft Oct. 3 (gage height, 212.41 ft); minimum observed, 34,850 acre-ft Sept. 23 (gage height, 148.72 ft). Maximum contents observed during 1900-1901, 1902-66, 80,820 acre-ft June 23, 1918, and June 7, 1921 (gage height, 214.00 ft); minimum observed since appreciable storage was attained, 3,650 acre-ft Apr. 20, 1933 (gage height, 55.02 ft). Reservoir is formed by masonry dam completed about October 1902. Capacity, 79,060 acre-ft at gage height 212 ft (spillway crest) above sill of lowest gate. No dead storage. Records given herein represent total contents. Water is for municipal use by City of Denver. Records furnished by Denver Board of Water Commissioners.
- 6-7375. Horsetooth Reservoir near Fort Collins.--Lat 40°36'00", long 105°10'06", in NW¼SW¼ sec.6, T.7 N., R.69 W., on right bank near abutment of Horsetooth Dam on tributaries of Cache la Poudre River, 4.8 miles west of city hall in Fort Collins. Records available, April 1951 to September 1966. Staff gage read at irregular intervals varying from 1 to 10 days. Datum of gage is 5,270.00 ft above mean sea level (levels by Bureau of Reclamation). Gage readings have been reduced to elevations above mean sea level. Maximum contents observed during year, 126,100 acre-ft May 9 (elevation, 5,420.50 ft); minimum contents, 32,280 acre-ft Sept. 19, 21 (elevation, 5,350.90 ft). Maximum contents observed during period 1951-66, 141,100 acre-ft June 23, 25, 1961 (elevation, 5,428.75 ft); minimum observed, 3,040 acre-ft Sept. 23, 1954 (elevation, 5,302.20 ft); no storage prior to Apr. 18, 1951. Reservoir is formed by earth- and rock-fill dike and dams closing openings in a subsequent valley between hogbacks. Dams completed July 21, 1949; storage began Jan. 10, 1951; dead storage pools filled Apr. 18, 1951. Usable capacity, 143,500 acre-ft above elevations 5,320 ft (invert of channel from Spring Canyon Dam), 5,310 ft (invert of channel from Dixon Canyon Dam), 5,270 ft (trashrack sill of outlet at Soldier Canyon Dam), and below maximum water surface elevation 5,430 ft (6 ft below crest of Satanka Dike). Dead storage, 8,270 acre-ft. Reservoir is used for storage of water diverted from Colorado River basin through Alva B. Adams tunnel for supplemental irrigation supply to Cache la Poudre River basin as part of the Colorado-Big Thompson project. Figures given herein represent usable contents. Records furnished by Bureau of Reclamation.
- 6-7425. Carter Lake near Berthoud.--Lat 40°19'28", long 105°12'41", in SE¼ sec.10, T.4 N., R.70 W., in hoist house 293 ft from right abutment of Carter Lake Dam on Dry Creek, 7.0 miles west of Berthoud, and 8.9 miles upstream from mouth. Records available, March 1954 to September 1966. Electric tape gage read at irregular intervals varying from 1 to 13 days. Datum of gage is 5,618.00 ft above mean sea level (levels by Bureau of Reclamation). Gage readings have been reduced to elevations above mean sea level. Maximum contents observed during year, 108,300 acre-ft Feb. 7 (elevation, 5,758.45 ft); minimum observed, 20,900 acre-ft Sept. 30 (elevation, 5,663.60 ft). Maximum contents observed during period 1954-66, 108,900 acre-ft June 27, 1962 (elevation, 5,758.94 ft); minimum observed since appreciable storage was attained, 960 acre-ft Oct. 25, 1954 (elevation, 5,621.40 ft). Reservoir is formed by earth- and rock-fill dam and dikes enlarging the natural basin of Carter Lake. Storage began in February 1954 and dead storage pool was filled Mar. 5, 1954. Usable capacity, 113,500 acre-ft between elevations 5,618.00 (trashrack sill at Carter Lake Dam outlet) and 5,763.00 ft (maximum water surface, 6 ft below crest of dam). Dead storage, 3,310 acre-ft. Water diverted from Colorado River basin through Alva B. Adams tunnel is pumped from Flatiron Reservoir into Carter Lake for supplemental irrigation supply to Little Thompson River, St. Vrain Creek, and Boulder Creek basins. Water above elevation 5,620 ft may be released for return to Flatiron Reservoir where pump turbines can operate in reverse to generate power and water can be used for irrigation in Big Thompson or Cache la Poudre River basins. It is part of the Colorado-Big Thompson project. Figures given herein represent usable contents. Records furnished by Bureau of Reclamation.

## Reservoirs in South Platte River basin--Continued

Month-end elevation and contents, water year October 1965 to September 1966

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)	Gage height (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Elevenmile Canyon Reservoir				Cheesman Lake		
Sept. 30.....	8,590.88	78,660	-	212.41	79,420	-
Oct. 31.....	8,592.43	83,210	+4,550	212.31	79,340	-80
Nov. 30.....	8,593.22	85,590	+2,380	212.22	79,260	-80
Dec. 31.....	8,593.59	86,740	+1,150	212.21	79,250	-10
Calendar year 1965...	-	-	+58,020	-	-	+58,490
Jan. 31.....	8,593.87	87,600	+860	212.17	79,210	-40
Feb. 28.....	8,593.97	87,910	+310	212.13	79,180	-30
Mar. 31.....	8,594.59	89,870	+1,960	212.28	79,310	+130
Apr. 30.....	8,595.28	92,080	+2,210	209.47	76,860	-2,450
May 31.....	8,595.39	92,440	+360	191.24	62,180	-14,680
June 30.....	8,595.38	92,400	-40	172.88	49,230	-12,950
July 31.....	8,595.39	92,440	+40	155.48	38,580	-10,650
Aug. 31.....	8,595.27	92,050	-390	150.04	35,560	-3,020
Sept. 30.....	8,595.00	91,170	-880	148.80	34,890	-670
Water year 1965-66...	-	-	+12,510	-	-	-44,530
Horsetooth Reservoir				Carter Lake		
Sept. 30.....	5,385.70	72,110	-	5,711.96	59,750	-
Oct. 31.....	-	a60,790	-11,320	-	a65,540	+5,790
Nov. 30.....	5,378.05	62,150	+1,360	5,732.33	79,880	+14,340
Dec. 31.....	-	a67,930	+5,780	-	a95,000	+15,120
Calendar year 1965...	-	-	+11,940	-	-	+35,780
Jan. 31.....	5,390.65	78,900	+10,970	5,756.69	106,300	+11,300
Feb. 28.....	5,401.95	95,510	+16,610	5,758.31	108,100	+1,800
Mar. 31.....	5,412.80	112,900	+17,390	5,757.90	107,700	-400
Apr. 30.....	-	a121,600	+8,700	-	a107,300	-400
May 31.....	5,418.80	123,100	+1,500	5,750.17	98,980	-8,320
June 30.....	5,414.10	115,100	-8,000	5,738.73	86,580	-12,400
July 31.....	-	a77,020	-38,080	-	a57,820	-28,760
Aug. 31.....	5,356.00	37,240	-39,780	5,677.00	30,240	-27,580
Sept. 30.....	5,352.90	34,190	-3,050	5,663.60	20,900	-9,340
Water year 1965-66...	-	-	-37,920	-	-	-38,850

† Elevation or gage height at 1700.

a No elevation record; contents estimated.

## PLATTE RIVER BASIN

6-7440. Big Thompson River at mouth, near La Salle, Colo.

Location.--Lat 40°21'00", long 104°47'04", in SW¼SE¼ sec.33, T.5 N., R.66 W., on left bank just southeast of gage on Evans Town ditch, 0.7 mile upstream from highway bridge, 1.6 miles upstream from mouth, and 4 miles west of La Salle.

Drainage area.--828 sq mi.

Records available.--April 1914 to October 1915, March 1927 to September 1966. Prior to October 1933 monthly discharge only, published in WSP 1310. Published as Thompson River at mouth, near La Salle 1934-47.

Gage.--Water-stage recorder. Altitude of gage is 4,680 ft (from topographic map). Apr. 1, 1914, to Oct. 31, 1915, staff gage and Mar. 1, 1927, to Sept. 30, 1951, water-stage recorder, at bridge 0.7 mile downstream at different datums. Datum lowered 0.50 ft May 21, 1962.

Extremes.--Maximum discharge during year, 300 cfs July 20 (gage height, 2.91 ft); minimum daily, 2.0 cfs May 5, 6. 1914-15, 1927-66: Maximum discharge, 6,100 cfs Aug. 4, 1951 (gage height, 7.80 ft, site and datum then in use), from rating curve extended above 4,500 cfs; maximum gage height, 8.72 ft May 9, 1957, present datum; no flow at times in 1934-35, 1948.

Remarks.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions for irrigation of about 95,000 acres above station, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	86	101	123	111	66	78	45	4.1	13	22	30	52
2	92	124	125	106	65	77	39	2.4	15	24	28	120
3	93	138	123	98	65	63	36	2.2	16	26	29	85
4	94	130	123	95	65	43	20	2.3	17	29	30	74
5	94	123	131	93	66	60	11	2.0	19	28	29	64
6	94	121	127	93	67	68	12	2.0	20	29	31	61
7	94	123	118	108	66	71	14	2.1	26	23	39	60
8	89	119	120	103	66	72	14	2.8	120	17	35	54
9	86	121	123	111	66	74	14	2.6	92	16	36	45
10	85	121	123	95	63	78	18	4.3	74	16	41	45
11	84	127	123	89	62	73	24	16	66	17	30	46
12	85	121	124	93	62	62	29	32	59	13	29	43
13	88	125	120	83	61	60	22	37	56	17	31	43
14	86	132	123	80	62	59	22	26	47	33	32	50
15	88	135	121	85	62	58	16	10	35	47	29	68
16	95	134	120	78	62	57	15	4.9	21	48	28	66
17	98	132	118	77	63	52	17	4.9	52	46	29	63
18	103	132	116	78	71	51	32	5.3	42	48	33	55
19	106	131	115	81	72	51	51	4.3	30	60	32	51
20	102	131	114	75	75	50	52	4.4	17	139	34	51
21	102	130	114	71	74	50	42	5.5	38	114	45	51
22	103	128	120	75	78	53	33	6.8	5.0	108	46	45
23	127	125	121	77	77	47	31	7.6	10	85	47	43
24	131	128	120	72	73	52	28	5.1	8.5	61	46	45
25	123	132	118	79	78	48	26	5.3	14	50	41	48
26	119	130	116	73	77	47	25	5.9	17	42	39	54
27	120	124	115	70	78	47	24	5.9	16	32	37	63
28	120	102	115	68	78	46	18	6.2	17	30	37	63
29	118	106	118	68	-	45	14	9.5	18	33	40	56
30	115	123	119	67	-----	45	9.6	14	21	30	37	50
31	106	-----	119	67	-----	47	-----	8.5	-----	30	39	-----
Total	3,126	3,749	3,725	2,619	1,920	1,784	753.6	251.9	967.3	1,313	1,089	1,714
Mean	101	125	120	84.5	68.6	57.5	25.1	8.13	32.2	42.4	35.1	57.1
Ac-ft	6,200	7,440	7,390	5,190	3,810	3,540	1,490	500	1,920	2,600	2,160	3,400

Calendar year 1965: Max 1,480 Min 3.7 Mean 81.4 Ac-ft 58,900  
 Water year 1965-66: Max 139 Min 2.0 Mean 63.0 Ac-ft 45,640

6-7475. Cache la Poudre River near Rustic, Colo.

Location.--Lat 40°41'44", long 105°41'23", in NW¼ sec. 4, T.8 N., R.74 W., on right bank 20 ft downstream from trail bridge, 500 ft south of State Highway 14, 800 ft downstream from unnamed tributary, 5.8 miles west of Rustic, 8½ miles downstream from outlet of Laramie-Poudre tunnel, and 33 miles west of Fort Collins.

Drainage area.--199 sq mi.

Records available.--August 1956 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 7,610 ft (from topographic map).

Average discharge.--10 years, 250 cfs (181,000 acre-ft per year).

Extremes.--Maximum discharge during year, 1,210 cfs May 30 (gage height, 4.87 ft); minimum daily, 12 cfs Mar. 23.  
1956-66: Maximum discharge, 3,610 cfs June 29, 1957 (gage height, 7.12 ft); minimum daily, 8.0 cfs Jan. 12, 1963.

Remarks.--Records good except those for winter period, which are poor. Natural flow of stream affected by transbasin and transmountain diversions (see elsewhere in this report), storage reservoirs, and a few small diversions for irrigation.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	87	46	42	27	17	15	23	64	1,030	488	179	179
2	102	45	39	27	16	15	26	74	997	448	217	196
3	116	42	39	26	16	16	26	100	948	402	259	171
4	105	41	39	26	16	17	20	158	892	366	317	168
5	91	42	37	26	16	17	15	271	826	390	259	208
6	84	42	35	26	16	16	20	394	718	398	256	317
7	77	42	36	25	16	16	20	590	610	348	211	320
8	72	42	36	27	15	16	20	655	620	289	185	317
9	69	43	34	26	15	17	21	605	550	280	168	324
10	69	38	34	24	15	17	23	620	498	327	150	327
11	67	37	32	23	15	18	25	480	488	274	168	202
12	64	27	32	22	14	19	26	386	439	324	214	205
13	60	35	32	21	14	19	24	358	394	324	256	205
14	59	40	30	20	14	19	27	327	394	283	289	193
15	58	45	29	20	14	19	33	366	410	268	283	205
16	56	42	28	20	14	19	35	470	410	253	274	208
17	56	42	26	20	15	19	40	502	502	223	271	205
18	66	42	25	20	15	17	47	434	754	250	241	208
19	67	39	26	18	16	17	48	448	660	268	229	211
20	64	41	27	17	16	17	46	540	590	306	238	196
21	55	34	26	16	16	17	47	625	615	265	223	199
22	62	39	27	16	16	13	43	864	645	235	223	188
23	65	42	28	17	16	12	38	892	620	214	226	179
24	64	39	28	18	16	16	34	760	575	205	185	50
25	59	39	28	18	16	18	34	802	570	185	152	42
26	55	31	26	18	16	18	40	857	530	171	155	64
27	52	35	26	17	16	19	51	718	535	217	142	55
28	58	33	27	17	16	20	53	724	498	188	145	46
29	49	38	28	18	-	21	56	844	480	145	142	42
30	50	40	28	18	-----	20	58	962	452	124	142	42
31	49	-----	28	17	-----	21	-----	1,070	-----	152	171	-----
Total	2,107	1,183	958	651	433	540	1,019	16,960	18,250	8,610	6,570	5,472
Mean	68.0	39.4	30.9	21.0	15.5	17.4	34.0	547	608	278	212	182
Ac-ft	4,180	2,350	1,900	1,290	859	1,070	2,020	33,640	36,200	17,080	13,030	10,850

Calendar year 1965: Max 2,220 Min 11 Mean 300 Ac-ft 217,100  
Water year 1965-66: Max 1,070 Min 12 Mean 172 Ac-ft 124,500

Note.--No gage-height record Jan. 4 to Mar. 18.

## PLATTE RIVER BASIN

6-7482. Fall Creek near Rustic, Colo.

Location.--Lat 40°33'06", long 105°37'35", in NW¼ sec.30, at line of sec.19, T.7 N., R.73 W., on left bank on upstream side of bridge, 1.5 miles upstream from mouth, 11 miles southwest of Rustic, and 29 miles west of Fort Collins.

Drainage area.--3.64 sq mi.

Records available.--October 1960 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 9,765 ft (from topographic map).

Average discharge.--6 years, 6.04 cfs (4,370 acre-ft per year).

Extremes.--Maximum discharge during year, 44 cfs May 23 (gage height, 2.45 ft); minimum daily, 0.3 cfs Feb. 13-16, 21-27.  
1960-66: Maximum discharge, 108 cfs June 16, 1965 (gage height, 3.41 ft), from rating curve extended above 59 cfs; minimum daily, 0.1 cfs Jan. 11-13, 19, 20, 23, 24, 1963.

Remarks.--Records good. No diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.0	2.2	1.5	0.8	0.5	0.4	1.1	1.9	1.4	1.3	8.8	5.2
2	5.0	2.2	1.5	.8	.5	.4	1.1	2.9	1.4	1.3	10	5.1
3	4.8	2.2	1.5	.8	.4	.4	.8	3.8	1.3	1.2	11	4.4
4	4.8	2.4	1.4	.7	.4	.4	.6	4.8	1.3	1.2	11	4.3
5	4.8	2.1	1.4	.7	.4	.4	.5	6.5	1.2	1.2	10	4.0
6	4.6	2.1	1.3	.7	.4	.4	.5	8.7	1.1	1.1	9.0	3.8
7	4.6	1.9	1.3	.7	.4	.4	.5	11	1.0	1.1	8.3	3.8
8	4.4	1.9	1.3	.7	.4	.4	.5	11	1.0	1.1	7.7	3.5
9	4.2	1.7	1.3	.7	.4	.4	.8	9.0	1.1	1.1	7.4	3.4
10	4.0	1.7	1.2	.7	.4	.4	.7	9.2	1.4	1.1	6.8	3.8
11	4.0	1.5	1.2	.6	.4	.4	.7	6.4	1.4	1.1	6.5	3.8
12	3.8	1.6	1.1	.6	.4	.4	.7	5.3	1.3	1.1	7.7	3.8
13	3.8	1.9	1.1	.6	.3	.4	.6	4.5	1.2	1.1	6.7	4.2
14	3.6	1.8	1.1	.6	.3	.4	.6	3.8	1.3	1.1	6.0	3.6
15	3.6	1.8	1.1	.5	.3	.5	.9	4.4	1.4	1.1	5.6	4.0
16	3.4	1.8	1.0	.5	.3	.5	1.2	5.9	1.5	1.1	5.5	3.8
17	3.4	1.8	1.0	.5	.4	.5	1.3	7.0	1.8	1.1	5.3	3.3
18	3.8	1.7	1.0	.5	.4	.4	1.0	6.4	1.9	1.4	5.3	3.0
19	3.2	1.7	1.0	.5	.4	.4	1.0	6.4	1.7	1.4	5.6	2.9
20	3.1	1.7	.9	.5	.4	.4	.9	7.7	1.6	1.2	5.8	2.8
21	3.1	1.7	.9	.5	.3	.4	.8	10	1.6	1.2	5.1	2.9
22	3.1	1.7	.9	.5	.3	.4	.8	13	1.6	1.1	4.6	2.7
23	3.2	1.7	.9	.5	.3	.4	.9	11	1.5	1.0	4.6	2.7
24	3.1	1.7	.9	.5	.3	.4	.9	8.0	1.4	9.7	4.4	2.7
25	2.8	1.7	.9	.5	.3	.4	1.3	9.6	1.4	9.2	4.0	3.8
26	2.7	1.7	.9	.5	.3	.4	2.0	9.7	1.4	9.7	4.0	5.1
27	2.7	1.7	.9	.5	.3	.5	2.2	8.7	1.4	9.6	4.0	4.0
28	2.5	1.7	.8	.5	.4	.6	1.5	11	1.4	9.2	4.0	3.8
29	2.4	1.6	.7	.5	-	.7	1.4	13	1.4	9.0	4.0	3.4
30	2.4	1.6	.8	.5	-----	.7	1.5	15	1.3	8.7	4.2	3.6
31	2.4	-----	.8	.5	-----	.8	-----	15	-----	8.5	4.6	-----
Total	112.3	54.5	33.6	18.2	10.3	14.0	29.3	250.6	41.7	340.6	197.5	111.2
Mean	3.62	1.82	1.08	0.59	0.37	0.45	0.98	8.08	13.9	11.0	6.37	3.71
Ac-ft	223	108	67	36	20	28	58	497	827	676	392	221

Calendar year 1965: Max 84 Min 0.3 Mean 8.57 Ac-ft 6,210  
Water year 1965-66: Max 19 Min 0.3 Mean 4.35 Ac-ft 3,150

Peak discharge (base, 30 cfs).--May 23 (0730) 44 cfs (2.45 ft).

6-7485.1. Little Beaver Creek near Idylwilde, Colo.

Location--Lat 40°38'20", long 105°39'40", in NW¼ sec.26, T.8 N., R.74 W., on left bank 4.5 miles south of Idylwilde and 8 miles upstream from mouth.

Drainage area--0.89 sq mi.

Records available--October 1960 to September 1966.

Gage--Water-stage recorder and Parshall flume or V-notch sharp-crested weir. Altitude of gage is 10,000 ft (from topographic map).

Average discharge--6 years, 1.01 cfs (731 acre-ft per year).

Extremes--Maximum discharge during year, 6.4 cfs May 30 (gage height, 1.20 ft); minimum daily, 0.12 cfs Apr. 4-25, 28-30.

1960-66: Maximum discharge, 19 cfs June 17, 1965 (gage height, 1.92 ft); minimum daily, 0.01 cfs Apr. 25 to May 14, 1961

Remarks--Records excellent.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.53	0.60	0.47	0.33	0.22	0.18	0.13	0.13	4.6	2.2	0.80	0.47
2	.53	.60	.47	.30	.22	.18	.13	.15	4.7	2.1	.80	.41
3	.53	.60	.44	.30	.22	.18	.13	.18	4.4	2.0	.75	.38
4	.53	.56	.44	.30	.22	.18	.12	.22	4.3	1.9	.88	.35
5	.53	.56	.44	.30	.22	.16	.12	.26	4.2	1.9	.64	.33
6	.53	.56	.44	.30	.22	.15	.12	.41	3.8	1.6	.56	.33
7	.53	.56	.44	.30	.22	.15	.12	.75	3.8	1.6	.53	.33
8	.53	.53	.44	.30	.22	.15	.12	1.2	3.8	1.6	.53	.33
9	.53	.50	.44	.30	.22	.15	.12	.84	3.8	1.5	.53	.33
10	.56	.50	.44	.30	.22	.15	.12	1.1	4.3	1.5	.53	.33
11	.56	.50	.44	.28	.22	.15	.12	.71	4.6	1.5	.53	.30
12	.56	.50	.44	.28	.22	.15	.12	.64	3.9	1.5	.56	.30
13	.56	.50	.41	.28	.22	.15	.12	.64	3.7	1.4	.50	.30
14	.56	.50	.41	.28	.22	.15	.12	.67	3.9	1.3	.47	.30
15	.56	.50	.41	.28	.22	.15	.12	.75	4.0	1.1	.47	.33
16	.56	.50	.41	.26	.22	.15	.12	.88	4.2	1.1	.44	.33
17	.56	.50	.41	.26	.22	.15	.12	1.1	4.4	1.1	.44	.30
18	.60	.50	.41	.26	.22	.15	.12	1.2	4.3	1.1	.44	.30
19	.60	.50	.41	.26	.22	.15	.12	1.2	3.8	1.0	.47	.28
20	.60	.50	.41	.26	.22	.15	.12	1.6	3.7	.98	.47	.28
21	.60	.50	.41	.26	.22	.13	.12	2.7	3.6	.98	.44	.26
22	.60	.50	.38	.26	.22	.13	.12	3.6	3.6	1.0	.41	.26
23	.60	.50	.38	.26	.22	.13	.12	2.6	3.2	.98	.41	.26
24	.60	.50	.35	.26	.22	.13	.12	2.2	3.0	.93	.38	.26
25	.60	.50	.35	.24	.20	.13	.12	2.9	2.7	.88	.38	.28
26	.60	.50	.35	.22	.20	.13	.13	2.6	2.7	.84	.38	.35
27	.60	.50	.35	.22	.20	.13	.13	2.4	2.6	.80	.35	.30
28	.60	.47	.35	.24	.20	.13	.12	3.3	2.3	.75	.35	.28
29	.60	.47	.35	.24	-	.13	.12	3.7	2.3	.71	.35	.26
30	.60	.47	.33	.24	-	.13	.12	4.6	2.2	.71	.41	.26
31	.60	-----	.33	.22	-----	.13	-----	4.7	-----	.67	.44	-----
Total	17.65	15.48	12.55	8.39	6.08	4.56	3.65	49.93	110.4	39.23	15.64	9.38
Mean	0.569	0.516	0.405	0.271	0.217	0.147	0.122	1.61	3.68	1.27	0.505	0.313
Ac-ft	35	31	25	17	12	9.0	7.2	99	219	78	31	19

Calendar year 1965: Max 16 Min 0.05 Mean 1.39 Ac-ft 1,010

Water year 1965-66: Max 4.7 Min 0.12 Mean 0.803 Ac-ft 581

Peak discharge (base, 10 cfs)--No peak above base.

6-7485.3. Little Beaver Creek near Rustic, Colo.

Location.--Lat 40°37'23", long 105°33'52", in N½ sec.34, T.8 N., R.73 W., on left bank 2.6 miles upstream from mouth and 5.5 miles south of Rustic.

Drainage area.--11.4 sq mi.

Records available.--October 1960 to September 1966.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 8,350 ft (from topographic map).

Average discharge.--6 years, 6.97 cfs (5,050 acre-ft per year).

Extremes.--Maximum discharge during year, 31 cfs May 30 (gage height, 1.02 ft); minimum daily, 1.3 cfs Jan. 22.

1960-66: Maximum discharge, 187 cfs June 17, 1965 (gage height, 1.89 ft), from rating curve extended above 94 cfs; minimum daily, 0.9 cfs Feb. 19 to Mar. 4, Mar. 9, 10, Nov. 12, 1964.

Remarks.--Records excellent. No diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.0	3.4	2.2	2.1	1.5	1.6	2.4	2.9	2.2	9.2	5.0	2.9
2	5.0	3.4	2.1	2.1	1.5	1.6	2.4	3.2	2.0	8.8	6.9	3.2
3	5.2	3.4	2.1	2.1	1.5	1.6	2.0	3.7	1.9	8.4	6.9	2.6
4	5.0	3.2	2.2	2.0	1.5	1.6	1.6	3.9	1.8	8.0	9.2	2.6
5	4.8	3.4	2.2	2.0	1.5	1.5	1.6	4.5	1.8	7.4	6.0	2.6
6	4.3	3.4	2.1	2.0	1.5	1.5	1.8	5.2	1.6	7.2	4.3	2.4
7	4.3	3.4	2.1	2.0	1.5	1.5	1.8	6.0	1.6	6.9	4.1	2.2
8	4.1	3.2	2.1	2.0	1.5	1.5	1.8	7.4	1.8	6.9	3.9	2.1
9	4.1	3.4	2.1	2.0	1.6	1.5	2.0	6.6	1.6	6.3	3.9	2.1
10	3.9	3.2	2.1	2.0	1.6	1.6	1.8	7.2	1.4	6.6	3.4	2.4
11	3.9	2.6	2.2	2.0	1.6	1.8	1.6	5.8	1.5	6.9	3.2	2.6
12	3.9	2.7	2.1	2.0	1.6	1.6	1.6	5.2	1.3	6.9	3.7	2.6
13	3.7	2.7	2.1	2.0	1.6	1.8	1.6	5.2	1.2	6.3	3.4	2.1
14	3.7	2.8	2.1	2.0	1.6	1.8	1.6	5.5	1.2	5.8	3.0	2.0
15	3.7	2.7	2.1	2.0	1.6	1.8	1.8	5.5	1.4	5.5	2.7	2.9
16	3.7	2.8	2.1	1.8	1.6	1.8	2.1	6.3	1.4	5.2	2.6	2.4
17	3.4	2.7	2.0	1.6	1.6	1.6	2.1	6.9	1.6	5.2	2.6	2.2
18	4.1	2.7	1.8	1.6	1.6	1.5	2.0	6.9	1.6	7.7	2.4	2.1
19	3.9	2.7	2.0	1.6	1.6	1.6	1.5	6.9	1.5	6.9	2.9	2.1
20	3.9	2.6	2.1	1.5	1.6	1.6	1.8	7.4	1.4	5.5	3.0	2.1
21	3.9	2.4	2.0	1.5	1.6	1.6	1.8	10	1.4	5.5	2.6	2.1
22	3.9	2.6	2.1	1.3	1.6	1.5	1.8	13	1.3	5.8	2.2	2.1
23	4.1	2.8	2.2	1.5	1.6	1.5	2.0	12	1.2	5.0	2.2	2.0
24	3.9	2.7	2.1	1.4	1.6	1.5	2.1	10	1.2	5.0	2.2	1.8
25	3.9	2.7	2.2	1.4	1.6	1.6	2.4	12	1.1	4.8	2.1	2.0
26	3.7	2.1	2.2	1.4	1.6	1.8	3.0	13	1.1	4.3	2.0	3.7
27	3.4	2.4	2.2	1.5	1.6	2.0	3.0	12	1.1	4.1	2.0	2.7
28	3.7	2.4	2.2	1.5	1.6	2.1	2.4	14	1.0	3.7	2.0	2.4
29	3.7	2.2	2.2	1.5	-	2.0	2.6	19	1.0	3.7	2.0	2.1
30	3.7	2.1	2.2	1.5	-----	2.2	2.7	2.2	9.6	3.4	2.1	2.2
31	3.7	-----	2.2	1.5	-----	2.4	-----	2.2	-----	3.7	2.7	-----
Total	125.2	84.8	65.7	54.4	44.0	52.6	60.7	271.2	431.6	186.6	107.2	71.3
Mean	4.04	2.83	2.12	1.75	1.57	1.70	2.02	8.75	14.4	6.02	3.46	2.38
Ac-ft	248	168	130	108	87	104	120	538	856	370	213	141

Calendar year 1965: Max 153 Min 1.0 Mean 11.0 Ac-ft 7,990

Water year 1965-66: Max 22 Min 1.3 Mean 4.26 Ac-ft 3,080

Peak discharge (base, 40 cfs).--No peak above base.

6-7486. South Fork Cache la Poudre River near Rustic, Colo.

Location.--Lat 40°38'30", long 105°29'30", in SW¼ sec.20, T.8 N., R.72 W., on left bank 5.7 miles upstream from mouth, 6 miles south-east of Rustic, and 22 miles west of Fort Collins.

Drainage area.--90.3 sq mi.

Records available.--August 1956 to September 1966.

Gage.--Water-stage recorder. Datum of gage is 7,596.86 ft above mean sea level (Bureau of Reclamation bench mark).

Average discharge.--10 years, 62.4 cfs (45,180 acre-ft per year).

Extremes.--Maximum discharge during year, 215 cfs June 19 (gage height, 3.02 ft); minimum daily, 5.2 cfs Feb. 5-10, 15-17, 21-27, Mar. 6-8.

1956-66: Maximum discharge, 1,260 cfs June 17, 1965 (gage height, 5.05 ft), from rating curve extended above 780 cfs; minimum not determined.

Remarks.--Records good except those for winter period, which are poor. No diversion above station. Slight regulation by small reservoirs and lakes.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	26	16	12	6.0	5.4	16	17	162	123	55	29
2	37	24	14	10	6.0	5.4	16	18	157	98	61	33
3	36	24	14	10	6.0	5.4	12	22	160	89	80	27
4	35	24	18	10	5.6	5.4	10	25	152	81	92	24
5	34	24	16	10	5.2	5.4	12	29	149	70	77	23
6	30	24	16	10	5.2	5.2	14	35	121	80	58	23
7	29	22	16	10	5.2	5.2	14	45	98	67	49	22
8	28	22	16	10	5.2	5.2	14	62	117	64	46	21
9	28	22	14	10	5.2	5.4	15	67	110	62	42	21
10	28	22	14	10	5.2	5.6	14	72	125	64	40	21
11	28	20	14	10	5.4	6.2	14	55	144	70	38	22
12	26	20	14	10	5.4	5.8	14	46	134	80	40	24
13	26	20	14	10	5.4	6.2	14	42	117	72	43	22
14	26	20	14	9.8	5.4	6.2	14	38	92	72	35	21
15	26	18	14	9.6	5.2	6.8	14	50	117	62	33	25
16	26	18	14	9.2	5.2	6.8	14	54	123	60	32	23
17	26	18	14	8.6	5.2	6.2	14	58	138	58	31	21
18	28	18	12	8.0	5.4	5.8	14	58	182	92	31	19
19	28	18	12	7.4	5.4	5.6	12	56	194	92	33	18
20	28	18	12	7.0	5.4	5.8	13	58	154	89	37	18
21	28	18	12	7.0	5.2	5.8	14	72	142	77	32	19
22	30	20	12	7.0	5.2	5.6	14	94	127	73	29	19
23	30	20	12	7.0	5.2	5.6	15	104	125	66	29	19
24	30	20	12	7.0	5.2	5.6	16	78	121	62	28	19
25	26	18	12	7.0	5.2	6.0	16	91	131	66	25	19
26	24	16	12	7.0	5.2	7.0	18	104	170	62	23	27
27	24	18	12	6.4	5.2	9.6	19	92	170	58	22	25
28	26	18	12	6.0	5.4	13	16	108	157	56	22	22
29	28	16	12	5.4	-	13	17	140	162	51	22	21
30	26	16	12	5.8	-----	13	16	157	154	50	22	21
31	26	-----	12	6.0	-----	14	-----	173	-----	46	26	-----
Total	889	602	420	263.2	150.0	213.2	435	2,120	4,205	2,212	1,233	668
Mean	28.7	20.1	13.5	8.49	5.36	6.88	14.5	68.4	140	71.4	39.8	22.3
Ac-ft	1,760	1,190	833	522	298	423	863	4,200	8,340	4,390	2,450	1,320

Calendar year 1965: Max 1,000 Min 4.2 Mean 87.9 Ac-ft 63,640

Water year 1965-66: Max 194 Min 5.2 Mean 36.7 Ac-ft 26,600

Peak discharge (base, 250 cfs).--No peak above base.

Note.--No gage-height record Oct. 7 to Mar. 29.



## PLATTE RIVER BASIN

Transbasin diversions from North Platte River basin to  
Cache la Poudre River basin in Colorado

The following seven diversions, which are equipped with water-stage recorders, divert water from tributaries of the North Platte River to the Cache la Poudre River or its tributaries. Records furnished by State engineer.

6-7455. Cameron Pass ditch diverts water from tributaries of Michigan River in sec.10, T.6 N., R.76 W., to Joe Wright Creek (tributary to Cache la Poudre River) in sec.2, T.6 N., R.76 W.

6-7460. Michigan ditch diverts water from Michigan River, headgate in sec.12, T.6 N., R.76 W., and many small tributaries and Agnes Creek (tributary to Michigan River), headgate in sec.15, T.6 N., R.76 W., to Joe Wright Creek (tributary to Cache la Poudre River) in sec.2, T.6 N., R.76 W.

6-7465. Skyline ditch diverts water from West Branch Laramie River (tributary to Laramie River), headgate in sec.14, T.8 N., R.76 W., to Chambers Lake (tributary to Cache la Poudre River) in sec.31, T.8 N., R.75 W.

6-7470. Laramie-Poudre tunnel diverts water from Laramie River in sec.7, T.8 N., R.75 W., and Rawah Creek (tributary to Laramie River) in sec.14, T.9 N., R.76 W., to Cache la Poudre River in sec.9, T.8 N., R.75 W.

6-7472. Bob Creek ditch diverts water from Nunn Creek (tributary to Laramie River) in sec.9, T.9 N., R.75 W., to Roaring Creek (tributary to Cache la Poudre River) in sec.11, T.9 N., R.75 W.

6-7500. Columbine ditch diverts water from Nunn Creek (tributary to Laramie River) in sec.3, T.9 N., R.75 W., to North Fork Cache la Poudre River (tributary to Cache la Poudre River) in sec.25, T.10 N., R.75 W.

6-7505. Wilson supply ditch diverts water from Sand Creek in sec.22, T.11 N., R.75 W., and at times includes water diverted from tributaries of Deadman Creek in sec.9, T.10 N., R.75 W. Diversion is from the Laramie River basin to Sheep Creek (tributary to North Fork Cache la Poudre River) in sec.13, T.11 N., R.75 W., in the Cache la Poudre River basin. Records herein represent total flow diverted from the Laramie River basin by Wilson supply ditch.

## Diversions, in acre-feet, water year October 1965 to September 1966

Month	6-7455 Cameron Pass ditch	6-7460 Michigan ditch	6-7465 Skyline ditch	6-7470 Laramie- Poudre tunnel	6-7472 Bob Creek ditch	6-7500 Columbine ditch	6-7505 Wilson supply ditch	Total
October.....	0	0	0	0	0	0	0	0
November.....	0	0	0	0	0	0	0	0
December.....	0	0	0	0	0	0	0	0
January.....	0	0	0	0	0	0	0	0
February.....	0	0	0	0	0	0	0	0
March.....	0	0	0	0	0	0	0	0
April.....	0	0	0	0	0	0	0	0
May.....	0	0	0	4,800	0	0	697	5,500
June.....	0	0	0	8,500	0	0	234	8,730
July.....	0	0	0	3,730	0	0	0	3,730
August.....	0	0	0	1,630	0	0	0	1,630
September.....	0	0	0	466	0	0	0	466
Water year 1965-66.....	0	0	0	19,130	0	0	931	20,060

6-7520. Cache la Poudre River at mouth of canyon, near Fort Collins, Colo.

Location.--Lat 40°39'52", long 105°13'26", in NW¼ sec.15, T.8 N., R.70 W., on left bank at mouth of canyon, 0.5 mile downstream from headgate of Poudre Valley Canal, 1.2 miles upstream from Lewstone Creek, and 9.3 miles northwest of court house in Fort Collins.

Drainage area.--1,055 sq mi.

Records available.--June to August 1881, May to July 1883, October 1883 to September 1966. Monthly discharge only for some periods, published in WSP 1310. Records for Mar. 23 to Apr. 30 and July 4 to Aug. 20, 1883, published in WSP 9, have been found to be unreliable and should not be used. Prior to 1902, published as Cache la Poudre Creek or River at or near Fort Collins.

Gage.--Water-stage recorder. Altitude of gage is 5,220 ft (from topographic map).

Extremes.--Maximum discharge during year, 1,180 cfs May 31 (gage height, 3.66 ft); minimum daily, 7.2 cfs Oct. 1. 1881, 1883-1966: Maximum discharge not determined, occurred May 20, 1904; maximum discharge determined, 21,000 cfs June 9, 1891 (from reports of State engineer of Colorado), caused by failure of Chambers Lake Dam; minimum daily discharge, 1.6 cfs Nov. 20, 28, 1948, caused by diversion of Poudre Valley Canal half a mile upstream.

Remarks.--Records good except those for winter period, which are poor. Natural flow of stream affected by transbasin and transmountain diversions (see elsewhere in this report), diversions above station for irrigation of about 50,000 acres, most of which is below station, and diversions for municipal use.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.		
1	<u>7.2</u>	21	21			24	40	50	1,000	460	144	128		
2	12	25					50	50	960	410	139	120		
3	18	26					51	78	928	380	122	105		
4	14	26					24	47	115	856	290	194	94	
5	13	<u>27</u>						39	164	832	266	<u>230</u>	94	
6	38	22	24			19	22	24	39	270	640	295	157	144
7	92	18	24						39	472	538	266	98	<u>203</u>
8	17	18	24						38	656	460	171	61	194
9	17	17	24						38	577	472	122	47	190
10	17	15	25						39	550	358	150	<u>28</u>	174
11	30	9.0	25	14	39			440	374	171	43	112		
12	92	<u>8.4</u>	24		44			325	347	174	70	61		
13	88	8.4	23		39			305	266	208	105	70		
14	90	8.4	20		29			252	<u>244</u>	160	157	70		
15	88	8.4			34			262	244	103	142	78		
16	88	15	16	19	22	27	38	347	252	88	133	88		
17	86	20					37	434	300	50	115	82		
18	100	20					66	369	661	63	90	88		
19	<u>108</u>	20					70	358	800	103	80	80		
20	100	20					54	422	648	154	86	78		
21	98	20				20	27	58	531	626	133	100	73	
22	92	18						55	776	626	122	90	68	
23	96	18						46	928	672	75	108	<u>58</u>	
24	96	20						46	728	550	43	139	73	
25	90	20						46	688	577	47	88	61	
26	86	18	16	19	22	39	45	832	564	<u>25</u>	78	66		
27	78	16					58	712	564	92	71	94		
28	76						75	648	518	98	66	78		
29	80						42	64	531	50	66	68		
30	71						37	58	856	410	44	55	68	
31	46					-----	35	-----	<u>1,030</u>	-----	90	46	-----	
Total	2,024.2	530.6	661	589	616	842	1,421	15,041	16,818	4,903	3,148	2,960		
Mean	65.3	17.7	21.3	19	22	27.2	47.4	485	561	158	102	98.7		
Ac-ft	4,010	1,050	1,310	1,170	1,220	1,670	2,820	29,830	33,360	9,720	6,240	5,870		

Calendar year 1965: Max 4,160 Min 6.4 Mean 392 Ac-ft 283,800  
 Water year 1965-66: Max 1,030 Min 7.2 Mean 136 Ac-ft 98,290

Note.--No gage-height record Dec. 14 to Mar. 12.

## PLATTE RIVER BASIN

6-7525. Cache la Poudre River near Greeley, Colo.

Location.--Lat 40°25'04", long 104°38'22", in NW¼ sec.11, T.5 N., R.65 W., on right bank 25 ft downstream from highway bridge, 3 miles east of courthouse in Greeley, and 3 miles upstream from mouth.

Drainage area.--1,877 sq mi.

Records available.--March to October 1903, August to November 1904, January 1914 to December 1919, June 1924 to September 1966. Monthly discharge only for some periods, published in WSP 1310.

Gage.--Water-stage recorder. Altitude of gage is 4,610 ft (from topographic map). Prior to Apr. 4, 1916, staff gage and Apr. 4, 1916, to Dec. 17, 1919, water-stage recorder, at sites within 2 miles downstream at different datums. May 27, 1924, to Dec. 13, 1933, at present site at datum 0.51 ft higher.

Average discharge.--47 years (1914-19, 1924-66), 96.3 cfs (69,720 acre-ft per year).

Extremes.--Maximum discharge during year, 529 cfs Sept. 2 (gage height, 4.74 ft); minimum daily, 7.8 cfs May 21, 28, 29. 1903-4, 1914-19, 1924-66: Maximum daily discharge, 4,220 cfs June 24, 26, 1917; minimum daily, 0.8 cfs Oct. 3, 1946.

Remarks.--Records good. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, diversion for municipal supply, diversions above station for irrigation of about 250,000 acres, and return flow from irrigated areas. Records of chemical analyses for the water year 1966 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	116	104	96	163	112	126	70	9.0	11	11	10	200
2	127	103	95	147	110	129	63	9.0	11	11	10	327
3	128	103	98	166	110	113	59	9.0	13	11	30	206
4	128	101	95	172	112	96	59	9.0	10	11	52	152
5	128	103	96	165	116	115	58	8.6	9.5	11	52	134
6	109	101	95	161	116	132	58	9.0	16	27	51	93
7	104	101	96	166	118	134	59	8.2	31	48	51	95
8	103	103	98	176	121	115	55	8.2	198	47	57	30
9	104	101	98	174	121	92	52	11	124	44	35	15
10	110	100	101	174	120	90	51	14	80	39	24	15
11	115	98	102	170	116	84	62	16	60	42	16	16
12	112	97	99	154	115	83	69	22	53	49	18	14
13	110	97	99	150	118	83	69	18	36	51	18	13
14	103	97	99	152	115	92	44	12	24	52	15	12
15	97	97	99	154	107	98	21	9.0	18	53	14	19
16	97	95	102	134	105	95	13	8.6	22	53	13	18
17	91	97	126	113	113	90	18	8.2	32	47	13	16
18	98	97	127	121	123	86	38	9.5	38	47	12	18
19	97	97	128	123	124	84	51	8.6	31	54	13	19
20	97	97	129	113	123	83	53	12	36	58	13	23
21	115	97	130	116	121	84	63	7.8	33	60	16	19
22	125	97	131	120	121	87	62	8.2	18	60	13	18
23	123	98	132	124	126	81	55	8.6	16	59	11	19
24	118	97	133	128	129	84	48	9.5	22	53	12	19
25	120	95	134	120	129	77	44	9.5	18	20	14	18
26	113	94	135	115	129	67	42	8.6	12	11	15	15
27	113	91	136	113	124	70	40	8.2	13	11	18	14
28	112	107	139	110	126	73	40	7.8	11	11	22	14
29	112	94	148	107	-	79	22	7.8	11	11	18	14
30	110	92	157	108	-----	76	10	8.2	11	10	18	14
31	106	-----	152	112	-----	73	-----	11	-----	10	22	-----
Total	3,441	2,951	3,604	4,321	3,320	2,871	1,448	314.1	1,018.5	1,082	696	1,599
Mean	111	98.4	116	139	119	92.6	48.3	10.1	34.0	34.9	22.5	53.3
Ac-ft	6,830	5,850	7,150	8,570	6,590	5,690	2,870	623	2,020	2,150	1,380	3,170

Calendar year 1965: Max 3,400 Min 7.5 Mean 162 Ac-ft 117,500  
 Water year 1965-66: Max 327 Min 7.8 Mean 73.1 Ac-ft 52,890

6-7540. South Platte River near Kersey, Colo.

Location.--Lat 40°24'44", long 104°33'46", in NW¼SW¼ sec.9, T.5 N., R.64 W., on downstream side of bridge on State Highway 37, 1.9 miles north of railroad in Kersey, and 2½ miles downstream from Cache la Poudre River.

Drainage area.--9,598 sq mi.

Records available.--May 1901 to December 1903, March 1905 to September 1966. Monthly discharge only for some periods, published in WSP 1310. Published as "at Kersey" 1901-3.

Gage.--Water-stage recorder since July 8, 1919. Datum of gage is 4,575.77 ft above mean sea level, datum of 1929. Prior to July 8, 1919, staff or chain gages at former bridge 150 ft downstream at different datum. July 8, 1919, to Sept. 7, 1921, at site 450 ft downstream from present site at different datum. Sept. 8, 1921, to Sept. 12, 1923, at site 750 ft downstream from present site at different datum. Sept. 13, 1923, to July 2, 1935, at site 200 ft downstream from present site at present datum.

Average discharge.--63 years, 726 cfs (525,600 acre-ft per year).

Extremes.--Maximum discharge during year, 2,640 cfs Oct. 1 (gage height, 4.93 ft); minimum daily, 52 cfs May 17. 1901-3, 1905-66: Maximum daily discharge, 31,000 cfs June 7, 1921, from rating curve extended above 17,000 cfs by logarithmic plotting; minimum daily, 28 cfs Apr. 30, 1955.

Remarks.--Records good. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 888,000 acres, and return flow from irrigated areas. Records of chemical analyses and suspended sediment loads for the water year 1966 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,300	892	932	742	560	611	312	80	70	76	86	450
2	2,050	892	916	712	540	604	292	74	74	76	90	716
3	1,900	892	908	698	530	560	292	62	80	72	110	1,480
4	1,900	884	900	727	550	435	264	58	84	72	128	1,090
5	1,820	868	884	742	570	488	253	54	88	68	134	812
6	1,730	844	876	756	566	566	242	54	94	78	160	632
7	1,650	836	860	780	560	566	239	69	128	102	239	500
8	1,560	804	884	796	560	554	216	72	542	102	186	430
9	1,510	780	884	804	554	548	186	78	740	100	165	366
10	1,440	765	884	788	554	560	165	58	524	94	145	260
11	1,410	742	884	772	560	542	160	55	380	100	134	320
12	1,340	735	900	764	548	512	158	72	334	108	128	295
13	1,300	735	804	756	566	500	155	72	284	110	124	274
14	1,260	735	750	740	554	500	152	64	239	106	118	267
15	1,190	742	735	740	518	506	94	57	183	108	114	278
16	1,140	742	720	716	560	554	72	60	152	110	114	302
17	1,090	742	705	653	554	536	66	52	168	108	128	306
18	1,080	772	720	639	566	500	104	57	309	112	142	274
19	1,150	824	720	590	611	476	277	57	232	118	162	256
20	1,260	916	735	536	611	465	518	66	219	130	171	236
21	1,250	916	735	488	604	465	530	57	183	145	180	236
22	1,260	876	742	510	611	460	445	58	150	174	186	219
23	1,300	860	758	540	611	470	380	58	138	201	186	213
24	1,310	860	742	570	604	488	375	58	132	130	189	204
25	1,240	868	698	610	590	465	312	62	118	102	198	204
26	1,200	860	690	640	584	450	204	60	110	90	204	207
27	1,180	892	682	540	578	380	150	58	100	92	204	204
28	1,160	892	675	550	597	358	134	57	88	92	207	216
29	1,010	860	720	550	-	354	112	58	80	90	210	210
30	985	884	750	560	-----	326	88	60	78	90	216	198
31	932	-----	758	600	-----	326	-----	66	-----	90	232	-----
Total	42,907	24,910	24,551	20,609	15,971	15,125	6,947	1,923	6,101	3,246	4,990	11,655
Mean	1,384	830	792	665	570	488	232	62.0	203	105	161	388
Ac-ft	85,100	49,410	48,700	40,880	31,680	30,000	13,780	3,810	12,100	6,440	9,900	23,120

Calendar year 1965: Max 16,200 Min 60 Mean 1,276 Ac-ft 905,600  
 Water year 1965-66: Max 2,300 Min 52 Mean 490 Ac-ft 354,900

## PLATTE RIVER BASIN

6-7585. South Platte River near Weldona, Colo.

Location.--Lat 40°19'20", long 103°55'15", in SW¼SW¼ sec.7, T.4 N., R.58 W., on left bank 400 ft downstream from bridge on State Highway 144, 2.8 miles southeast of Weldona, and 4.2 miles upstream from Bijou Creek.

Drainage area.--13,245 sq mi.

Records available.--October 1952 to September 1966.

Gage.--Water-stage recorder. Datum of gage is 4,307.80 ft above mean sea level, datum of 1929.

Average discharge.--14 years, 439 cfs (317,800 acre-ft per year).

Extremes.--Maximum discharge during year, 1,590 cfs Oct. 1 (gage height, 5.07 ft); minimum daily, 44 cfs Apr. 29.  
1952-66: Maximum discharge, 18,800 cfs June 19, 1965 (gage height, 10.33 ft), from rating curve extended above 6,300 cfs; minimum daily, 43 cfs Dec. 9, 1952.

Remarks.--Records good. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.550	962	800	537	610	591	122	98	211	142	82	128
2	1.500	898	573	537	630	555	90	57	187	202	156	275
3	1.430	838	484	555	650	490	110	46	125	198	198	290
4	1.470	830	451	567	677	425	128	82	122	194	206	484
5	1.550	808	435	537	688	451	128	98	122	175	285	531
6	1.550	792	410	549	694	525	128	95	119	171	315	415
7	1.530	838	400	561	701	555	110	113	139	179	335	280
8	1.500	860	395	537	734	446	101	98	507	194	375	146
9	1.460	845	395	537	740	400	92	98	621	310	365	82
10	1.430	815	390	537	727	375	98	101	385	370	310	65
11	1.370	800	430	537	714	215	63	104	335	385	245	57
12	1.360	778	484	537	701	187	132	104	270	390	150	52
13	1.330	770	507	573	694	175	98	122	227	245	116	85
14	1.300	762	468	573	669	142	70	125	160	236	142	250
15	1.300	770	440	603	657	122	66	107	146	236	119	310
16	1.270	770	430	621	620	116	63	82	136	236	110	350
17	1.250	778	410	627	605	101	47	88	122	245	160	390
18	1.250	770	420	651	640	90	49	92	119	215	260	360
19	1.380	800	425	663	660	85	160	95	113	198	330	360
20	1.400	882	385	622	785	85	206	95	113	194	360	330
21	1.460	922	400	574	815	98	150	92	113	179	360	295
22	1.490	922	410	540	770	101	110	119	110	236	345	270
23	1.470	914	410	530	708	101	95	116	107	206	275	265
24	1.490	906	440	540	682	90	92	116	98	232	255	260
25	1.490	930	456	574	651	107	95	116	98	232	255	255
26	1.280	938	484	620	621	122	78	116	110	202	245	215
27	1.160	922	543	620	603	122	68	122	101	202	206	211
28	1.120	946	567	600	591	122	70	125	85	146	232	183
29	1.150	930	555	620	-	122	44	125	85	104	198	175
30	1.030	914	525	650	-----	122	88	128	110	92	142	183
31	1.010	-----	531	610	-----	122	-----	142	-----	88	128	-----
Total	42,330	25,610	14,453	17,939	19,037	7,360	2,951	3,217	5,296	6,634	7,260	7,552
Mean	1,365	854	466	579	680	237	98.4	104	177	214	234	252
Ac-ft	83,960	50,800	28,670	35,580	37,760	14,600	5,850	6,380	10,500	13,160	14,400	14,980

Calendar year 1965: Max 13,500 Min 53 Mean 818 Ac-ft 592,600  
Water year 1965-66: Max 1,550 Min 44 Mean 437 Ac-ft 316,600

6-7600. South Platte River at Balzac, Colo.

Location.--Lat 40°24'24", long 103°27'58", in NE¼ sec.13, T.5 N., R.55 W., on right bank just upstream from highway bridge at Balzac siding, 2.8 miles northeast of Union and 7.0 miles downstream from Beaver Creek.

Drainage area.--16,852 sq mi.

Records available.--October 1916 to September 1966. Prior to October 1933 monthly discharge only, published in WSP 1310.

Gage.--Water-stage recorder. Datum of gage is 4,091.06 ft above mean sea level, datum of 1929. Prior to Oct. 18, 1935, chain gage or water-stage recorder at various sites near present site at different datums. Oct. 18 to Dec. 16, 1935, staff gage and Dec. 17, 1935, to Aug. 20, 1947, water-stage recorder, at site 250 ft upstream at present datum. Since Oct. 1, 1936, supplementary water-stage recorder on secondary channel 600 ft to the left at datum 1.69 ft lower.

Average discharge.--50 years, 363 cfs (262,800 acre-ft per year).

Extremes.--1964-65: Maximum discharge during water year, 123,000 cfs June 18 (gage height, 13.32 ft); minimum daily, 10 cfs Dec. 11-13, 16.

1965-66: Maximum discharge during water year, 3,840 cfs Sept. 3; minimum daily, 15 cfs Mar. 31 to Apr. 3, Apr. 10, 11.

1916-66: Maximum discharge, 123,000 cfs June 18, 1965 (gage height, 13.32 ft), from rating curve extended above 6,400 cfs on basis of contracted-opening measurement of peak flow; minimum daily, 1.3 cfs Jan. 25, 1947.

Remarks.--Records good prior to June 16 and poor thereafter in water year 1965, and fair in water year 1966. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, ground-water withdrawals, diversions above station for irrigation of about 1,065,000 acres, and return flow from irrigated areas. Records of chemical analyses for water years 1965-66 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1964 to September 1965

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	144	260	11	16	12	13	16	258	210	630	1,760	291
2	145	344	12	17	12	13	16	211	243	248	1,620	258
3	148	400	11	22	12	14	16	211	203	165	2,240	235
4	150	350	11	22	22	22	16	182	173	141	2,730	242
5	153	251	11	16	21	24	18	146	170	117	2,180	244
6	156	137	11	15	13	16	17	121	67	99	1,530	251
7	158	117	12	14	12	15	16	126	170	91	923	266
8	157	65	12	14	12	14	18	115	98	144	671	286
9	160	54	11	14	12	14	128	123	48	182	580	299
10	160	44	11	14	12	14	314	125	42	161	318	307
11	188	30	10	14	15	14	310	131	42	167	207	424
12	217	22	10	14	18	14	267	159	33	193	201	452
13	224	18	10	13	18	15	192	171	58	168	285	398
14	216	16	14	14	12	15	155	180	464	180	173	372
15	208	18	13	14	15	14	130	200	766	161	146	324
16	219	18	10	14	19	13	141	180	4,330	250	145	285
17	211	22	12	14	22	13	146	170	3,320	295	211	359
18	199	20	12	15	16	13	195	172	27,700	213	238	554
19	186	17	11	14	14	15	190	168	13,400	187	235	718
20	182	15	12	15	14	14	172	168	13,300	184	920	858
21	129	14	12	15	14	15	159	168	10,400	206	829	1,040
22	92	12	12	15	13	14	162	168	8,680	184	1,140	976
23	87	11	14	14	12	14	164	182	6,920	241	3,620	855
24	118	11	14	14	14	15	162	181	6,020	107	4,070	672
25	141	11	13	14	14	15	154	200	5,110	2,180	2,480	568
26	157	12	14	14	16	18	163	263	4,260	3,290	1,310	508
27	163	12	14	14	14	18	171	283	3,460	4,440	562	487
28	183	11	14	14	13	21	149	278	2,790	4,960	444	464
29	215	11	13	14	-	16	181	298	2,040	4,730	353	562
30	185	11	13	14	-----	16	252	268	1,260	3,800	293	656
31	228	-----	14	13	-----	16	-----	188	-----	2,900	313	-----
Total	5,279	2,334	374	460	413	477	4,254	5,794	120,777	31,014	32,727	14,211
Mean	170	77.8	12.1	14.8	14.8	15.4	142	187	4,026	1,000	1,056	474
Ac-ft	10,470	4,630	742	912	819	946	8,440	11,490	239,600	61,520	64,910	28,190

Calendar year 1964: Max 1,180 Min 9.6 Mean 110 Ac-ft 79,620  
 Water year 1964-65: Max 27,700 Min 10 Mean 598 Ac-ft 432,600

## PLATTE RIVER BASIN

6-7600. South Platte River at Balzac, Colo.--Continued

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	755	488	978	716	690	177	15	39	39	45	84	142
2	1,270	353	810	703	720	201	15	39	59	59	75	603
3	1,200	298	636	703	770	186	15	59	90	91	64	1,600
4	1,190	331	572	708	830	144	21	86	107	106	86	621
5	1,070	278	521	690	910	296	31	98	101	104	93	585
6	1,030	178	519	676	940	471	21	84	100	89	119	589
7	1,150	360	504	697	960	680	22	77	107	84	149	494
8	1,110	411	499	707	950	386	18	75	592	80	185	355
9	1,070	415	508	679	940	180	16	85	583	73	220	243
10	1,030	399	501	674	900	124	15	100	172	94	277	176
11	964	382	539	674	870	201	15	104	100	145	200	132
12	949	367	572	665	860	394	19	112	78	169	126	109
13	945	365	618	669	820	376	25	124	63	159	111	102
14	909	353	626	669	750	247	58	125	51	138	94	104
15	879	690	624	655	700	55	38	121	39	167	90	213
16	788	962	613	707	680	40	33	113	39	162	83	262
17	753	954	600	736	660	28	35	100	42	150	76	279
18	733	958	592	726	799	24	35	117	39	150	66	270
19	904	973	585	747	970	23	48	114	37	139	86	252
20	892	974	582	736	1,040	22	162	103	33	136	152	242
21	942	1,000	580	762	1,070	22	209	99	28	138	213	241
22	964	1,040	584	760	914	21	132	94	68	159	201	202
23	945	1,050	587	690	609	21	108	93	92	202	193	164
24	942	1,060	602	620	554	21	98	99	77	192	199	148
25	988	1,050	617	600	342	18	95	102	64	207	245	159
26	919	1,050	636	610	252	17	86	92	56	209	237	163
27	746	1,040	704	630	224	17	66	80	50	279	230	154
28	667	1,010	719	630	216	17	56	62	24	253	199	130
29	685	1,040	720	650	-	17	42	44	30	163	197	86
30	613	1,030	721	670	-----	17	39	42	57	124	197	77
31	536	-----	699	680	-----	15	-----	36	-----	100	156	-----
Total	28,538	20,859	19,168	21,239	20,940	4,458	1,588	2,718	3,017	4,366	4,703	9,897
Mean	921	695	618	685	748	144	52.9	87.7	101	141	152	297
Ac-ft	56,600	41,370	38,020	42,130	41,530	8,840	3,150	5,390	5,980	8,660	9,330	17,650

Calendar year 1965: Max 27,700 Min 12 Mean 764 Ac-ft 552,800  
 Water year 1965-66: Max 1,600 Min 15 Mean 385 Ac-ft 278,700

6-7640. South Platte River at Julesburg, Colo.

Location.--Lat 40°58'46", long 102°15'15", in NE¼ sec.33, T.12 N., R.44 W., on left bank 215 ft downstream from bridge on U. S. Highway 385, 0.9 mile southeast of Julesburg, 3 miles upstream from Colorado-Nebraska State line, and 8 miles downstream from Lodgepole Creek.

Drainage area.--23,138 sq mi.

Records available.--April 1902 to September 1966. Monthly discharge only for some periods, published in WSP 1310. Published as "near Julesburg" 1903-8, 1915-16 and as "at Ovid" 1922-24.

Gage.--Water-stage recorder. Datum of gage is 3,446.76 ft above mean sea level, datum of 1929. Apr. 1, 1902, to May 10, 1922, staff or chain gages, and Oct. 1, 1924, to Sept. 22, 1965, water-stage recorder on channel 1,600 ft to right at several sites within 1,800 ft of present site at various datums. May 11, 1922, to Sept. 30, 1924, water-stage recorder and supplemental chain gages at site about 8½ miles upstream at Ovid at different datum. Oct. 1, 1956, to Dec. 10, 1958, water-stage recorder at site 135 ft downstream at present datum (used as a supplemental gage Oct. 1, 1941, to Sept. 30, 1956). Since Sept. 23, 1965, supplemental water-stage recorder on channel 1,600 ft to right at site 800 ft downstream.

Average discharge.--64 years, 459 cfs (332,300 acre-ft per year).

Extremes.--Maximum discharge during year, 1,460 cfs Oct. 19; minimum daily, 26 cfs Aug. 30.

1902-66: Maximum discharge, 37,600 cfs June 20, 1965 (gage height, 10.44 ft, from floodmark in gage well); no flow Aug. 18-20, 1902, July 25 to Aug. 7, 1903.

Remarks.--Records good except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation of about 1,220,000 acres above station, and return flow from irrigated areas. Records of chemical analyses and water temperatures for the water year 1966 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	899	910	1,290	904	680	1,160	292	155	37	90	66	41
2	941	855	1,280	885	820	1,130	293	139	39	94	58	51
3	1,030	885	1,240	906	920	1,090	289	125	46	136	53	52
4	1,110	902	1,130	907	1,080	950	287	113	42	95	54	54
5	1,120	878	1,040	887	1,130	910	291	104	42	66	49	168
6	1,110	882	988	939	1,110	930	292	91	44	54	48	301
7	1,240	800	935	930	1,120	970	289	88	43	55	48	275
8	1,250	710	915	930	1,120	1,000	277	81	105	46	50	261
9	1,260	735	886	928	1,130	970	285	75	211	40	84	253
10	1,240	766	863	924	1,140	949	297	66	286	38	93	204
11	1,210	766	863	924	1,160	821	313	73	280	36	65	151
12	1,180	750	869	933	1,090	729	363	70	229	34	71	137
13	1,210	741	869	920	990	716	363	69	183	33	71	104
14	1,130	737	873	920	900	716	346	61	152	32	66	88
15	1,110	739	877	942	820	687	321	58	132	28	57	94
16	1,100	743	885	911	840	608	295	54	121	29	52	158
17	1,080	865	892	890	800	523	286	55	109	30	50	127
18	1,160	1,040	899	820	830	419	276	54	107	30	45	117
19	1,420	1,110	902	780	880	384	282	54	104	30	45	124
20	1,340	1,130	900	720	980	340	290	54	92	30	44	141
21	1,270	1,160	902	650	1,100	320	287	58	79	33	39	154
22	1,240	1,180	885	520	1,180	319	275	53	71	246	34	144
23	1,240	1,230	874	460	1,160	267	291	50	70	167	32	143
24	1,240	1,260	873	400	1,160	310	291	46	181	109	30	143
25	1,230	1,260	867	350	1,180	308	276	41	110	94	28	165
26	1,220	1,280	876	360	1,180	305	275	38	96	80	28	181
27	1,220	1,280	895	600	1,180	291	270	36	101	112	28	187
28	1,160	1,280	901	710	1,180	292	206	35	109	269	27	191
29	1,060	1,260	892	580	-	293	173	34	91	94	28	175
30	997	1,280	886	640	-----	306	165	35	83	83	26	183
31	957	-----	910	630	-----	302	-----	36	-----	76	29	-----
Total	35,974	29,414	29,157	23,800	28,860	19,315	8,536	2,101	3,395	2,389	1,498	4,567
Mean	1,160	980	941	768	1,301	623	285	67.8	113	77.1	48.3	152
Ac-ft	71,350	58,340	57,830	47,210	57,240	38,310	16,930	4,170	6,730	4,740	2,970	9,060

Calendar year 1965: Max 30,000 Min 19 Mean 852 Ac-ft 616,700  
 Water year 1965-66: Max 1,420 Min 26 Mean 518 Ac-ft 374,900

Note.--No gage-height record Jan. 26 to Mar. 8.



## KANSAS RIVER BASIN

6-8250, South Fork Republican River near Idalia, Colo.

Location.--Lat 39°37'00", long 102°14'30", in SE¼SW¼ sec.13, T.5 S., R.44 W., on left bank 0.7 mile east of U. S. Highway 385, 1½ miles upstream from Landsman Creek, 4 miles upstream from Bonny Dam, and 6½ miles southeast of Idalia.

Drainage area.--1,300 sq mi, approximately.

Records available.--May 1950 to September 1966.

Gage.--Water-stage recorder. Prior to Aug. 10, 1951, at site 4 miles upstream at different datum. Aug. 10, 1951, to Sept. 30, 1955, at site 2½ miles upstream at different datum.

Average discharge.--16 years, 33.1 cfs (23,960 acre-ft per year).

Extremes.--Maximum discharge during year, 1,940 cfs Sept. 2 (gage height, 9.75 ft); no flow June 26 to July 11.  
1950-66: Maximum discharge, 14,300 cfs May 16, 1957; maximum gage height, 10.25 ft June 17, 1965; no flow at times in 1952-54, 1959-61, 1963-66.

Maximum flood known since at least 1865, 103,000 cfs May 31, 1935, by slope-area measurement three-quarters of a mile upstream.

Remarks.--Records poor. Diversions above station for irrigation.

Cooperation.--Eleven discharge measurements furnished by Bureau of Reclamation.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	31	32	33	28	41	35	28	12	0	6.0	0.7
2	29	29	32	34	30	46	34	31	11	0	5.2	175
3	32	29	31	20	33	45	37	32	6.7	0	4.8	118
4	30	28	29	21	36	34	40	31	4.4	0	3.6	14
5	29	28	30	22	38	53	40	26	28	0	3.2	9.5
6	29	28	30	22	40	64	36	25	4.0	0	1.6	6.0
7	29	28	30	25	42	40	31	26	9.5	0	1.6	5.2
8	28	28	30	25	42	39	26	25	19	0	4.0	5.2
9	27	31	32	25	42	40	31	26	19	0	2.3	6.0
10	28	31	34	20	42	40	32	27	18	0	2.0	8.1
11	31	33	31	23	40	38	34	25	17	0	1.7	8.1
12	31	36	28	24	40	36	44	26	17	11	2.1	8.8
13	28	35	30	24	36	37	36	26	18	38	1.5	12
14	30	35	32	24	34	38	32	28	15	22	3.2	14
15	32	33	34	27	32	38	30	28	14	10	.9	26
16	31	32	33	26	30	36	29	27	13	6.7	.2	30
17	39	35	32	26	31	34	30	26	12	4.4	.2	21
18	45	35	23	26	31	35	30	27	12	3.6	.2	20
19	39	34	24	26	35	38	31	29	10	19	.2	21
20	36	33	25	23	40	35	31	23	10	15	2.1	21
21	37	34	25	23	35	35	30	20	5.2	14	14	18
22	36	34	28	24	35	32	31	15	24	15	1.5	18
23	36	35	32	24	35	44	32	10	1.7	13	14	18
24	37	36	27	24	40	44	33	15	1.2	10	1.7	16
25	34	38	30	21	38	42	34	12	.2	30	14	19
26	33	36	23	22	42	40	33	13	0	36	4.9	25
27	34	35	23	23	42	40	30	11	0	26	.4	20
28	35	32	25	21	41	39	31	11	0	26	.2	18
29	34	32	27	19	-	39	29	10	0	17	.4	15
30	28	31	31	25	-	37	28	11	0	14	.3	16
31	30	-	33	28	-	36	-	12	-	12	.1	-
Total	1,006	975	906	750	1,030	1,235	980	682	255.1	342.7	232.1	712.6
Mean	32.5	32.5	29.2	24.2	36.8	39.8	32.7	22.0	8.50	11.1	7.49	23.8
Ac-ft	2,000	1,930	1,800	1,490	2,040	2,450	1,940	1,350	506	680	460	1,410

Calendar year 1965: Max 2,020 Min 0 Mean 42.1 Ac-ft 30,480  
Water year 1965-66: Max 175 Min 0 Mean 24.9 Ac-ft 18,060

Peak discharge (base, 1,000 cfs).--Sept. 2 (2145) 1,940 cfs (9.75 ft).

6-8255. Landsman Creek near Hale, Colo.

Location.--Lat 39°34'30", long 102°15'10", in SE¼ sec.35, T.5 S., R.44 W., on right bank 900 ft upstream from bridge on U. S. Highway 385, 3.2 miles upstream from mouth, 5.2 miles southwest of Bonny Dam, and 7 miles southwest of Hale.

Drainage area.--268 sq mi.

Records available.--May 1950 to September 1966.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 3,720 ft (from topographic map). Prior to Aug. 3, 1965, at site 1,200 ft downstream; at datum 0.68 ft lower prior to Oct. 21, 1950, and June 6 to Aug. 10, 1951; at datum 0.79 ft higher Oct. 21, 1950, to June 5, 1951; and at present datum subsequent to Aug. 10, 1951.

Average discharge.--16 years, 4.70 cfs (3,400 acre-ft per year).

Extremes.--Maximum discharge during year, 1,190 cfs July 25 (gage height, 10.47 ft); minimum daily, 0.1 July 6, 8-11, Sept. 7-30.

1950-66: Maximum discharge, 4,570 cfs July 24; 1957 (gage height, 8.84 ft, site then in use), from rating curve extended above 940 cfs on basis of slope-area measurement at gage height 7.69 ft; no flow for several days in 1955, 1965.

Maximum stage known, about 10 ft May 30, 31, 1935 (at former site, present datum), from information by local resident.

Remarks.--Records poor. Small diversions above station for irrigation.

Cooperation.--Six discharge measurements furnished by Bureau of Reclamation.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.8	1.4	1.3	1.3	1.1	2.1	1.7	0.9	0.3	0.3	0.4	0.2
2	1.6	1.4	1.2	1.2	1.2	2.2	1.7	.9	.2	.2	.2	.2
3	1.4	1.2	1.3	1.3	1.3	1.5	1.7	.8	.2	.2	.2	.2
4	1.4	1.2	1.3	1.3	1.4	1.0	1.8	.7	.2	.2	.2	.2
5	1.3	1.3	1.3	1.3	1.6	1.3	1.7	.6	.2	.2	.2	.2
6	1.2	1.3	1.3	1.3	1.9	1.7	1.7	.6	.8	.1	.2	.2
7	1.1	1.3	1.3	1.4	2.4	1.8	1.5	.6	.4	.2	.2	.1
8	1.1	1.3	1.3	1.4	2.6	1.8	1.5	.6	.4	.1	.2	.1
9	1.0	1.3	1.3	1.4	2.7	1.9	1.5	.6	.4	.1	.2	.1
10	.9	1.3	1.5	1.2	2.7	1.9	1.5	.6	.3	.1	.2	.1
11	.9	1.3	1.6	1.3	2.6	1.7	1.7	.6	.3	.1	.2	.1
12	.9	1.2	1.4	1.4	2.6	1.6	2.6	.8	.3	.2	.2	.1
13	1.0	1.2	1.5	1.4	2.4	1.7	2.1	.8	.3	.6	.2	.1
14	1.0	1.2	1.3	1.3	2.4	1.6	2.0	.6	.3	.3	.2	.1
15	1.0	1.2	1.4	1.3	2.2	1.5	1.7	.5	.3	.3	.2	.1
16	1.0	1.1	1.2	1.4	2.3	1.4	1.7	.5	.4	.3	.2	.1
17	2.2	1.2	1.3	1.2	2.3	1.2	1.5	.3	.3	.3	.2	.1
18	3.0	1.3	1.3	1.1	2.4	1.1	1.7	.6	.4	.2	.2	.1
19	2.7	1.2	1.4	1.5	2.5	1.2	1.7	.6	.4	.3	.2	.1
20	2.4	1.2	1.5	1.4	2.3	1.2	1.7	.5	.3	.3	.2	.1
21	2.3	1.2	1.5	1.3	2.1	1.4	1.7	.4	.2	.3	.2	.1
22	2.1	1.2	1.8	1.3	2.1	1.6	1.5	.4	.2	.3	.2	.1
23	1.8	1.3	1.6	1.4	2.3	2.4	1.5	.3	.2	.3	.2	.1
24	1.8	1.3	1.3	1.4	2.2	2.2	1.4	.3	.2	.3	.2	.1
25	1.7	1.3	1.6	1.3	2.3	2.3	1.3	.3	.3	281	.2	.1
26	1.7	1.2	1.3	1.2	2.3	2.2	1.3	.3	.3	42	.2	.1
27	1.7	1.2	1.3	1.3	2.3	2.2	.9	.3	.3	1.5	.2	.1
28	1.6	1.1	1.5	1.2	2.1	2.1	.9	.2	.3	242	.2	.1
29	1.6	1.2	1.9	1.1	-	1.9	.9	.2	.3	6.4	.2	.1
30	1.5	1.2	1.9	1.0	-----	1.8	.9	.2	.3	1.9	.2	.1
31	1.3	-----	1.5	1.1	-----	1.7	-----	.3	-----	.9	.2	-----
Total	48.0	37.3	44.2	40.0	60.6	53.2	47.0	15.9	9.3	581.5	6.4	3.6
Mean	1.55	1.24	1.43	1.29	2.16	1.72	1.57	0.51	0.31	18.8	0.21	0.12
Ac-ft	95	74	88	79	120	106	93	32	18	1,150	13	7.1

Calendar year 1965: Max 992 Min 0 Mean 8.63 Ac-ft 6,250

Water year 1965-66: Max 281 Min 0.1 Mean 2.59 Ac-ft 1,880

Peak discharge (base, 350 cfs).--July 25 (1515) 1,190 cfs (10.47 ft); July 28 (0945) 1,100 cfs (10.32 ft).

6-8260. Bonny Reservoir near Hale, Colo.

Location.--Lat 39°38'00", long 102°10'40", in SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec.9, T.5 S., R.43 W., in stair well to outlet conduit of Bonny Dam on South Fork Republican River, 2 miles west of Hale and 3 miles downstream from Landsman Creek.

Records available.--October 1950 to September 1966.

Gage.--Mercury manometer gage. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

Extremes.--Maximum contents observed during year, 42,010 acre-ft Mar. 16, 17 (elevation, 3,672.33 ft); minimum observed, 34,140 acre-ft July 25 (elevation, 3,668.26 ft).

1950-66: Maximum contents observed, 55,030 acre-ft May 17, 1957 (elevation, 3,678.10 ft); minimum observed since appreciable contents was attained, 22,520 acre-ft Oct. 6-14, 1952 (elevation, 3,661.20 ft).

Remarks.--Reservoir is formed by earth-fill dam. Storage began July 6, 1950; dam completed May 4, 1951. Capacity of reservoir, 170,200 acre-ft below elevation 3,710 ft (crest of spillway) of which 128,800 acre-ft is for flood control and 39,900 acre-ft for irrigation. Dead storage, 1,420 acre-ft below elevation 3,635.50 ft (sill of trashrack at outlet conduit). Figures given herein represent total contents.

Cooperation.--Records furnished by Bureau of Reclamation.

Contents, in acre-feet, between 0500 and 0700, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41.360	36.160	35.580	37.500	39.170	41.010	41.750	39.900	36.780	35.360	35.430	34.450
2	41.150	36.000	35.600	37.540	39.190	41.070	41.710	39.720	36.650	35.280	35.430	34.410
3	40.970	35.850	35.670	37.580	39.210	41.150	41.580	39.570	36.590	35.260	35.300	34.890
4	40.810	35.650	35.730	37.600	39.250	41.170	41.580	39.370	36.520	35.230	35.240	35.040
5	40.630	35.500	35.850	37.690	39.330	41.190	41.580	39.170	36.460	35.190	35.190	35.060
6	40.420	35.480	35.870	37.750	39.410	41.240	41.580	38.950	36.360	35.090	35.150	35.060
7	40.200	35.480	35.910	37.830	39.530	41.340	41.580	38.740	36.180	35.020	35.000	35.040
8	40.020	35.460	35.970	37.890	39.550	41.420	41.540	38.520	36.230	34.990	35.080	35.040
9	39.840	35.450	36.020	37.980	39.610	41.500	41.500	38.270	36.270	34.890	35.080	35.000
10	39.640	35.450	36.060	38.020	39.660	41.650	41.500	38.020	36.270	34.890	35.130	35.000
11	39.430	35.450	36.160	38.020	39.740	41.690	41.480	37.790	36.270	34.860	35.170	34.970
12	39.250	35.460	36.250	38.060	39.800	41.730	41.670	37.560	36.250	34.800	35.130	34.910
13	39.050	35.460	36.310	38.110	39.860	41.790	41.750	37.390	36.230	34.720	35.090	34.910
14	38.870	35.460	36.360	38.150	39.960	41.870	41.750	37.350	36.190	34.710	35.090	34.840
15	38.700	35.480	36.460	38.250	40.020	41.970	41.750	37.350	36.160	34.620	35.000	34.820
16	38.520	35.480	36.540	38.170	40.060	42.010	41.770	37.310	36.080	34.580	35.080	34.910
17	38.350	35.480	36.590	38.170	40.120	42.010	41.730	37.310	36.020	34.470	35.020	34.950
18	38.410	35.480	36.630	38.270	40.200	41.930	41.690	37.310	36.020	34.430	35.020	34.910
19	38.290	35.480	36.650	38.500	40.260	41.890	41.600	37.310	36.020	34.390	34.890	34.910
20	38.150	35.500	36.720	38.560	40.320	41.870	41.500	37.280	36.020	34.370	34.950	34.910
21	37.980	35.500	36.780	38.620	40.400	41.830	41.420	37.280	36.020	34.320	34.950	34.910
22	37.870	35.520	36.860	38.640	40.460	41.810	41.300	37.280	35.870	34.250	34.890	34.910
23	37.680	35.520	36.910	38.740	40.540	41.750	41.210	37.180	35.780	34.230	34.890	34.910
24	37.490	35.520	36.980	38.780	40.630	41.710	41.110	37.120	35.740	34.190	34.840	34.910
25	37.350	35.520	37.020	38.860	40.730	41.710	41.010	37.080	35.690	34.140	34.820	34.860
26	37.180	35.520	37.080	38.890	40.810	41.710	40.870	37.000	35.630	34.410	34.800	34.860
27	37.000	35.560	37.120	38.930	40.870	41.710	40.680	36.980	35.560	34.490	34.740	34.860
28	36.840	35.580	37.180	38.970	40.950	41.710	40.520	36.950	35.560	34.910	34.690	34.860
29	36.670	35.560	37.280	39.030	-	41.710	40.300	36.890	35.520	35.360	34.630	34.860
30	36.520	35.580	37.390	39.070	-----	41.710	40.060	36.860	35.440	35.380	34.580	34.780
31	36.330	-----	37.450	39.130	-----	41.710	-----	36.780	-----	35.410	34.490	-----
(†)	3,669.44	3,669.04	3,670.03	3,670.90	3,671.81	3,672.18	3,671.37	3,669.68	3,668.97	3,668.95	3,668.45	3,668.61
(‡)	-5,220	-750	+1,870	+1,680	+1,820	+760	-1,650	-3,280	-1,340	-30	-920	+290

Calendar year 1965..... ‡ -90

Water year 1965-66..... ‡ -6,770

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-ft.

6-8265. South Fork Republican River near Hale, Colo.

Location.--Lat 39°37'25", long 102°09'45", in SW¼NE¼ sec.15, T.5 S., R.43 W., on right bank half a mile downstream from Bonny Dam and 1 mile west of Hale.

Records available.--October 1946 to September 1948, May 1951 to September 1966.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 3,610 ft (from topographic map). Oct. 1, 1946, to Sept. 30, 1948, at site 4 miles downstream at different datum.

Average discharge.--15 years (1951-66), 25.8 cfs (18,680 acre-ft per year).

Extremes.--Maximum discharge during year, 140 cfs Oct. 17 (gage height, 4.74 ft); minimum daily, 5.5 cfs July 5, Sept. 21.

1946-48, 1951-66: Maximum discharge, 3,790 cfs May 28, 1947; maximum gage height, 4.87 ft Apr. 28, 1947, site and datum then in use; no flow Aug. 11-13, 1947.

Greatest flood known occurred May 13, 1935, stage and discharge not determined. A discharge of 103,000 cfs was determined at a site near Newton, 5½ miles upstream, with a drainage area of approximately 1,270 sq mi.

Remarks.--Records excellent. Flow regulated by Bonny Reservoir since July 6, 1950 (see sta. 6-8260). Many diversions above station for irrigation. Water diverted by Hale ditch from Bonny Reservoir bypasses station ( ,160 acre-ft diverted in 1966).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	117	112	17	7.0	6.5	7.0	39	117	6.2	5.8	6.2	6.5
2	117	112	6.2	7.0	6.5	7.0	39	117	6.5	6.2	6.2	7.0
3	121	112	6.2	7.0	6.5	7.6	39	117	6.5	5.8	6.5	7.0
4	121	117	6.2	7.0	6.5	7.6	39	117	6.5	5.8	6.5	6.5
5	121	64	6.2	7.0	6.5	5.8	39	121	6.5	5.5	6.2	6.5
6	121	37	6.2	6.5	6.5	6.5	39	121	6.5	5.8	6.2	6.5
7	121	37	6.2	6.5	7.0	7.0	39	121	6.5	5.8	6.2	6.2
8	121	37	6.2	6.5	7.0	7.0	39	121	7.6	5.8	6.5	6.2
9	126	35	6.2	6.5	7.0	7.0	39	126	7.0	5.8	7.0	6.2
10	126	34	6.2	6.5	7.0	7.0	39	126	6.5	5.8	6.2	6.2
11	130	34	6.2	7.0	7.0	7.0	41	130	6.5	5.8	6.2	6.2
12	130	34	6.2	7.0	7.0	7.0	41	126	6.5	5.8	6.2	6.5
13	130	32	6.2	7.0	7.0	7.0	41	63	6.5	5.8	6.2	6.5
14	130	32	6.2	7.0	7.0	7.0	41	32	6.5	5.8	6.2	6.5
15	135	32	6.2	7.0	7.0	7.0	41	34	6.5	6.5	6.2	6.5
16	135	32	6.2	7.0	6.5	16	41	28	6.5	6.5	6.5	6.2
17	135	32	6.5	7.0	6.5	37	41	27	6.2	6.5	6.5	6.2
18	135	32	6.5	6.5	6.5	41	68	20	6.5	7.0	6.5	5.8
19	130	34	6.5	6.5	6.5	41	83	16	6.2	7.0	6.5	5.8
20	130	34	6.5	6.2	6.5	41	83	12	5.8	6.5	7.6	5.8
21	130	34	6.5	5.8	6.5	41	83	11	5.8	6.5	6.5	5.5
22	130	34	6.5	6.2	6.5	43	83	11	5.8	6.5	6.5	5.8
23	130	34	7.0	6.2	6.5	41	83	8.7	5.8	6.5	7.0	5.8
24	130	34	7.0	6.5	6.5	39	83	7.0	5.8	6.5	7.0	5.8
25	126	34	7.0	6.5	6.5	39	86	7.0	5.8	6.5	7.0	5.8
26	121	34	7.0	6.5	7.0	39	86	7.0	5.8	7.0	6.5	6.2
27	121	34	6.5	6.5	7.0	39	102	7.0	6.2	7.6	6.5	6.2
28	117	34	7.0	6.5	7.0	39	112	6.5	5.8	7.6	6.5	6.2
29	112	32	7.0	7.0	-	39	112	6.5	5.8	7.0	6.5	5.8
30	112	32	7.0	7.0	-----	39	112	6.5	5.8	6.5	6.5	6.2
31	112	-----	7.0	7.0	-----	39	-----	6.5	-----	6.2	6.5	-----
Total	3,873	1,361	211.5	207.4	188.0	717.5	1,853	1,776.7	188.4	195.7	201.3	186.1
Mean	125	45.4	6.82	6.69	6.71	23.1	61.8	57.3	6.28	6.31	6.49	6.20
Ac-ft	7,680	2,700	420	411	373	1,420	3,680	3,520	374	388	399	369

Calendar year 1965: Max 135 Min 4.8 Mean 52.9 Ac-ft 38,280  
 Water year 1965-66: Max 135 Min 5.5 Mean 30.0 Ac-ft 21,740

## ARKANSAS RIVER BASIN

7-0820. Lake Fork above Sugar Loaf Reservoir, Colo.

Location.--Lat 39°16'11", long 106°23'40", in NW¼ sec.13, T.9 S., R.81 W., on left bank 1,000 ft upstream from water line of Sugar Loaf Reservoir (Turquoise Lake) at elevation 9,780 ft and 5.7 miles west of Leadville.

Drainage area.--23.9 sq mi (revised).

Records available.--May 1946 to September 1966. Monthly discharge only for some periods, published in WSP 1241 and 1311.

Gage.--Water-stage recorder. Altitude of gage is 9,800 ft (from topographic map).

Average discharge.--20 years, 42.1 cfs (30,480 acre-ft per year).

Extremes.--Maximum discharge during year, 209 cfs June 2 (gage height, 2.78 ft); minimum not determined.

1946-66: Maximum discharge, 841 cfs June 28, 1957 (gage height, 5.22 ft), from rating curve extended above 500 cfs; minimum daily recorded, 1.0 cfs Sept. 10-15, 1959.

Revisions.--The maximum discharge for the water year 1962 has been revised to 478 cfs June 14, 1962 (gage height, 4.16 ft), superseding figure previously published.

Remarks.--Records good except those for period of no gage-height record, which are poor. No diversion above station. Transmountain diversions from Colorado River basin to Busk Creek above station through Busk-Ivanhoe tunnel (see elsewhere in this report).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28								185	79	21	11
2	31								186	59	25	11
3	33								178	50	30	11
4	31							35	169	44	39	11
5	29								157	41	34	11
6								60	132	39	28	11
7	26							70	120	36	26	11
8	23							80	125	34	24	11
9	22							100	97	33	23	11
10	21							148	109	32	21	11
11	21							148	99	33	20	11
12	20							115	94	42	26	12
13	20							91	88	33	27	11
14	19							73	87	32	22	11
15	19							66	92	30	21	14
16	20	15	12	10	9.5	9.0	20					
17	20							68	93	30	19	12
18	22							80	94	30	18	11
19	22							88	98	33	18	11
20	22							97	89	35	19	9.4
								118	89	40	25	9.0
21	21							134	89	33	21	9.0
22	20							141	82	32	17	9.0
23	20							144	73	29	16	8.7
24	19							147	65	30	11	8.1
25	19							158	57	33	10	8.7
26	18							164	55	30	9.8	8.4
27	18							151	54	27	9.8	8.4
28	18							143	52	26	9.4	8.7
29	18							160	50	25	9.0	8.4
30	18							172	50	25	9.4	8.1
31	17							188		23	11	
Total	677	450	372	310	266	279	600	3,279	3,009	1,098	619.4	306.9
Mean	21.8	15	12	10	9.5	9.0	20	106	100	35.4	20.0	10.2
Ac-ft	1,340	893	738	615	528	553	1,190	6,500	5,970	2,180	1,230	609

Calendar year 1965: Max 604 Min - Mean 63.0 Ac-ft 45,640

Water year 1965-66: Max 188 Min - Mean 30.9 Ac-ft 22,350

Note.--No gage-height record Oct. 22 to May 9.

7-0830. Halfmoon Creek near Malta, Colo.

Location.--Lat 39°11'10", long 106°22'55", in NW¼ sec.18, T.10 S., R.80 W., on right bank 118 ft upstream from culvert, 2 miles upstream from mouth, and 3½ miles southwest of Malta.

Drainage area.--23 sq mi.

Records available.--July 1946 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 9,740 ft (from topographic map). Prior to Dec. 1, 1960, at site 185 ft downstream; at datum 3.18 ft lower prior to May 13, 1948, and 3.00 ft lower thereafter.

Average discharge.--20 years, 29.3 cfs (21,210 acre-ft per year).

Extremes.--Maximum discharge during year, 188 cfs July 1 (gage height, 3.17 ft); minimum daily, 5.6 cfs Jan. 3, 19, Mar. 4, 5.  
1946-66: Maximum discharge, 450 cfs June 30, 1957 (gage height, 3.48 ft, site and datum then in use); minimum not determined.

Remarks.--Records good except those for winter period, which are poor. No regulation or diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	14	10	6.6	6.4	6.4	7.0	12	91	140	37	17
2	21	14	10	6.0	6.2	6.0	7.0	23	98	98	39	17
3	21	14	10	5.6	6.0	5.8	6.6	37	98	86	49	17
4	21	14	11	6.0	6.0	5.6	6.6	42	96	79	62	17
5	20	13	12	6.2	6.4	5.6	6.6	50	84	79	49	15
6	19	13	11	6.2	6.8	5.8	6.6	54	78	74	40	16
7	18	13	11	6.2	6.8	6.0	7.0	58	76	73	37	16
8	19	13	11	6.2	6.8	6.2	7.2	60	78	70	37	14
9	19	14	11	6.2	6.8	6.2	7.6	60	73	66	32	13
10	19	17	11	6.0	6.8	6.2	7.6	56	79	65	28	13
11	18	15	10	6.0	6.6	6.0	7.6	40	74	66	26	13
12	18	10	8.6	6.0	6.6	6.0	7.4	32	76	79	29	13
13	17	11	8.6	6.0	6.6	6.0	7.4	30	84	65	27	12
14	17	13	8.2	6.0	6.6	6.2	8.0	30	92	58	24	12
15	16	12	8.0	6.0	6.4	6.2	8.0	30	99	54	23	15
16	17	10	7.0	5.8	6.4	6.2	8.0	35	99	50	22	12
17	17	10	5.8	5.8	6.4	5.8	8.0	40	94	53	22	10
18	18	9.0	6.0	5.8	6.8	5.8	7.6	45	94	59	21	10
19	17	10	6.0	5.6	7.0	6.0	7.4	50	94	62	22	9.5
20	17	9.2	6.4	5.8	7.0	6.0	7.2	53	96	58	29	9.0
21	17	9.0	6.6	5.8	6.6	5.8	7.4	64	91	54	23	9.0
22	17	8.6	7.0	6.0	6.6	5.8	8.0	64	92	47	22	7.5
23	17	10	7.4	6.0	6.6	6.0	7.8	56	92	50	21	7.5
24	17	9.6	7.0	6.0	6.6	6.2	7.8	64	92	54	20	7.5
25	17	9.0	6.4	6.0	6.6	6.2	9.0	79	89	46	18	7.5
26	16	9.0	6.4	6.2	6.6	6.2	9.0	76	84	45	18	7.0
27	16	8.6	6.6	6.4	6.6	6.4	9.0	62	79	52	18	7.0
28	16	9.0	7.0	6.4	6.6	6.4	9.2	56	79	47	17	6.5
29	15	9.2	7.0	6.4	-	6.8	9.4	66	79	40	17	6.5
30	14	9.4	7.0	6.4	-----	7.0	9.8	87	87	37	17	6.5
31	14	-----	7.0	6.4	-----	7.0	-----	91	-----	34	18	-----
Total	546	339.6	258.0	188.0	184.2	189.8	232.8	1,602	2,617	1,940	864	343.0
Mean	17.6	11.3	8.32	6.06	6.58	6.12	7.76	51.7	87.2	62.6	27.9	11.4
Ac-ft	1,080	674	512	373	365	376	462	3,180	5,190	3,850	1,710	680

Calendar year 1965: Max 258 Min 3.0 Mean 42.5 Ac-ft 30,760

Water year 1965-66: Max 140 Min 5.6 Mean 25.5 Ac-ft 18,460

Peak discharge (base, 150 cfs).--July 1 (0030) 188 cfs (3.17 ft).

Note.--No gage-height record Dec. 2 to May 19.

## ARKANSAS RIVER BASIN

7-0837. Arkansas River near Malta, Colo.

Location.--Lat 39°10'05", long 106°19'25", in NW¼ sec.22, T.10 S., R.80 W., on left bank 56 ft downstream from bridge on U. S. Highway 24, 3 miles downstream from Halfmoon Creek, 4.2 miles south of Malta, and 5.8 miles south of Leadville.

Drainage area.--228 sq mi.

Records available.--October 1964 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 9,300 ft (from topographic map).

Extremes.--Maximum discharge during year, 590 cfs May 9 (gage height, 3.36 ft); maximum gage height, 4.38 ft Feb. 14 (backwater from ice); minimum daily discharge, 52 cfs Mar. 5.

1964-66: Maximum discharge, 1,300 cfs June 16, 1965 (gage height, 4.44 ft); minimum daily, 43 cfs Mar. 17, 1965.

Remarks.--Records good except those for winter period, which are fair. Diversions for irrigation above station of about 5,600 acres. Sugar Loaf Reservoir is on tributary above station (capacity, 17,400 acre-ft). Transmountain diversions from Colorado River basin to Arkansas River basin enter above this station (see elsewhere in this report).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	198	109	99	75	66	56	108	244	426	386	175	84
2	198	111	88	73	65	58	106	231	382	292	192	84
3	186	113	97	70	64	56	88	286	346	258	225	88
4	172	108	91	70	63	54	78	334	354	244	244	86
5	162	108	90	70	63	52	152	377	338	234	216	83
6	158	108	88	72	64	54	210	440	306	258	183	81
7	158	102	87	74	64	56	210	490	292	310	162	83
8	165	99	87	75	64	58	219	550	275	310	148	80
9	152	104	87	73	64	60	234	550	268	261	132	79
10	140	104	87	72	63	60	234	500	300	213	135	80
11	132	102	87	72	62	60	237	386	272	216	128	80
12	128	111	87	72	61	60	234	350	258	268	160	83
13	126	115	83	72	60	61	228	278	254	250	162	81
14	126	106	87	72	57	62	180	228	254	254	132	78
15	124	108	86	72	56	64	106	213	282	240	124	83
16	126	104	83	71	56	65	119	213	330	219	120	77
17	138	106	78	69	56	62	128	234	330	244	122	74
18	152	101	79	67	58	59	130	258	318	282	117	71
19	148	97	79	68	58	63	119	303	292	286	126	70
20	140	94	79	70	58	64	145	346	310	278	165	69
21	130	97	79	66	58	64	138	386	359	244	140	69
22	126	94	78	64	58	61	145	395	386	231	119	67
23	124	99	80	60	58	60	150	364	372	228	108	66
24	124	99	80	60	58	61	142	364	359	204	104	66
25	120	101	80	60	58	64	152	390	346	175	101	66
26	119	93	80	62	58	68	189	382	346	170	96	65
27	117	93	80	64	58	73	207	386	300	175	91	66
28	115	91	79	66	56	81	207	354	237	186	88	66
29	113	91	78	66	-	83	219	364	240	175	86	64
30	111	91	77	67	-----	91	240	386	261	160	83	65
31	111	-----	76	67	-----	101	-----	431	-----	150	84	-----
Total	4,339	3,059	2,596	2,131	1,684	1,991	5,054	11,013	9,393	7,401	4,268	2,254
Mean	140	102	83.7	68.7	60.1	64.2	168	355	313	239	138	75.1
Ac-ft	8,610	6,070	5,150	4,230	3,340	3,950	10,020	21,840	18,630	14,680	8,470	4,470

Calendar year 1965: Max 1,070 Min 43 Mean 259 Ac-ft 187,600  
 Water year 1965-66: Max 550 Min 52 Mean 151 Ac-ft 109,500

7-0845. Lake Creek above Twin Lakes Reservoir, Colo.

Location.--Lat 39°03'45", long 106°24'20", in SE¼ sec.26, T.11 S., R.81 W., on left bank 1.6 miles upstream from water line of Twin Lakes Reservoir at elevation 9,190 ft and 1.8 miles southwest of village of Twin Lakes.

Drainage area.--75 sq mi.

Records available.--April 1946 to September 1962, October 1963 to September 1966. Monthly discharge only for some periods, published in WSP 1241, 1311, and 1731.

Gage.--Water-stage recorder. Altitude of gage is 9,280 ft (from topographic map). Prior to May 20, 1950, at site 190 ft downstream at different datum. May 20, 1950, to Apr. 7, 1953, at site 10 ft upstream at present datum.

Average discharge.--19 years, 164 cfs (118,700 acre-ft per year).

Extremes.--Maximum discharge during year, 974 cfs May 8 (gage height, 3.82 ft); minimum daily, 13 cfs Mar. 5-20.  
1946-62, 1963-66: Maximum discharge, 3,150 cfs June 10, 1952 (gage height, 5.74 ft), from rating curve extended above 1,400 cfs; minimum not determined.

Remarks.--Records good except those for period of no gage-height record, which are poor. No diversion above station. Records include inflow from Roaring Fork River in Colorado River basin through Twin Lakes tunnel (see elsewhere in this report).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	99	48	44	33	31	17	29	129	771	594	129	55
2	104	46	44	33	31	17	29	168	827	528	134	53
3	110	45	44	33	31	17	29	300	841	440	158	55
4	140	43	44	33	27	17	29	445	806	375	256	55
5	147	43	44	33	27	13	29	618	720	365	256	55
6	138	41	44	33	27	13	29	771	618	360	204	53
7	114	43	44	33	27	13	29	841	564	328	170	53
8	71	50	44	33	27	13	29	876	588	300	147	52
9	65	85	44	33	27	13	16	911	516	278	139	51
10	63	45	34	33	27	13	16	778	564	264	136	51
11	74	40	34	33	27	13	16	522	534	282	126	51
12	110	46	34	33	27	13	16	405	558	355	131	55
13	100	48	34	33	27	13	16	323	582	287	116	51
14	85	62	34	33	27	13	16	282	630	253	95	50
15	73	63	34	33	27	13	16	256	684	236	92	57
16	76	60	34	33	27	13	16	300	648	232	84	50
17	85	60	34	33	17	13	16	375	618	225	77	45
18	90	57	34	31	17	13	16	415	612	256	75	40
19	85	54	34	31	17	13	54	492	624	310	75	38
20	83	46	34	31	17	13	53	568	624	292	94	37
21	81	46	34	31	17	29	61	654	600	216	80	35
22	81	46	34	31	17	29	56	654	624	190	71	33
23	76	46	34	31	17	29	42	528	618	216	65	32
24	73	46	34	31	17	29	52	600	582	239	60	31
25	68	46	34	31	17	29	71	757	528	274	60	31
26	65	46	34	31	17	29	71	792	456	236	60	31
27	51	44	34	31	17	29	82	666	456	185	58	30
28	62	44	34	31	17	29	91	600	474	166	58	30
29	60	44	34	31	-	29	98	654	468	156	56	28
30	53	44	34	31	-----	29	115	771	468	140	56	27
31	50	-----	34	31	-----	29	-----	813	-----	129	57	-----
Total	2,632	1,477	1,144	995	648	595	1,225	17,264	13,203	3,707	3,375	1,315
Mean	84.9	49.2	36.9	32.1	23.1	19.2	40.8	557	607	281	109	43.8
Ac-ft	5,220	2,930	2,270	1,970	1,290	1,180	2,430	34,240	36,110	17,270	6,690	2,610

Calendar year 1965: Max 2,050 Min - Mean 247 Ac-ft 178,500  
Water year 1965-66: Max 911 Min 13 Mean 158 Ac-ft 114,200

Note.--No gage-height record Nov. 21 to Apr. 18.



## ARKANSAS RIVER BASIN

7-0860. Arkansas River at Granite, Colo.

Location.--Lat 39°02'38", long 106°15'55", in SW¼ sec.31, T.11 S., R.79 W., on right bank at Granite, 100 ft east of U. S. Highway 24, 100 ft downstream from county bridge, and 200 ft upstream from Cache Creek.

Drainage area.--427 sq mi.

Records available.--April to October 1895, May to December 1897, August to September 1898, March to October 1899, April to May 1901 (gage heights and discharge measurements only in 1895, 1899, and 1901), April 1910 to September 1966. Monthly discharge only for some periods, published in WSP 1311.

Gage.--Water-stage recorder. Datum of gage is 8,914.86 ft above mean sea level, datum of 1929. Prior to Apr. 6, 1910, staff gages near present site at different datums. Apr. 6, 1910, to Oct. 25, 1917, water-stage recorder or staff gage at site 832 ft upstream at different datum. Oct. 26, 1917, to Oct. 26, 1960, water-stage recorder at site 168 ft downstream at present datum.

Average discharge.--56 years (1910-66), 355 cfs (257,000 acre-ft per year).

Extremes.--Maximum discharge during year, 1,470 cfs May 8 (gage height, 4.15 ft); minimum daily, 74 cfs Feb. 19 to Mar. 3. 1895, 1897-99, 1910-66: Maximum discharge, 5,360 cfs June 28, 1957 (gage height, 7.20 ft); minimum not determined.

Remarks.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 6,700 acres. Sugar Loaf and Twin Lakes Reservoirs are on tributaries above station (combined capacity, 70,680 acre-ft). Transmountain diversions from Colorado River basin to Arkansas River basin enter above this station (see elsewhere in this report).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	310	193	146	110	98	74	160	750	1,090	696	786	157
2	300	190	146	110	98	74	155	768	1,130	612	350	157
3	278	193	146	110	89	74	150	867	1,110	552	408	480
4	278	182	146	110	89	108	150	948	903	531	438	750
5	274	176	146	110	89	108	200	1,070	732	492	396	723
6	266	173	146	110	89	108	225	1,190	636	474	360	723
7	258	168	146	110	89	108	260	1,310	588	840	325	759
8	254	162	146	110	89	108	350	1,290	573	948	278	750
9	238	168	146	110	89	108	500	1,180	573	894	244	486
10	229	170	146	110	89	108	700	1,120	939	804	241	138
11	232	165	113	110	89	108	750	849	975	813	226	140
12	217	173	113	110	89	108	700	636	876	930	498	150
13	208	176	113	110	89	108	660	492	894	930	696	148
14	208	168	113	110	89	108	644	426	957	948	678	138
15	205	168	113	110	89	108	573	402	1,050	948	696	155
16	211	168	113	110	89	108	588	396	1,120	921	696	145
17	235	170	113	110	89	108	588	420	1,120	894	678	138
18	278	165	113	110	89	108	588	444	1,070	948	628	136
19	286	160	113	110	74	108	588	498	1,020	939	628	131
20	278	162	113	98	74	108	566	612	993	966	696	131
21	254	170	113	98	74	143	559	768	1,080	921	669	129
22	235	155	113	98	74	143	588	804	1,220	921	652	129
23	229	170	113	98	74	143	612	759	1,260	669	636	129
24	217	168	113	98	74	143	604	750	1,240	340	620	116
25	217	176	113	98	74	143	596	768	1,220	300	612	107
26	211	165	113	98	74	143	644	777	1,120	355	205	105
27	208	165	113	98	74	143	652	786	993	360	179	105
28	202	165	113	98	74	143	652	723	939	360	173	107
29	193	165	113	98	-	143	660	714	984	345	165	102
30	193	165	113	98	-	143	705	822	669	325	143	103
31	190	-	113	98	-	143	-	921	-	604	148	-
Total	7,392	5,114	3,833	3,266	2,360	3,631	15,367	24,260	29,074	21,580	14,148	7,667
Mean	238	170	124	105	84.3	117	512	783	969	696	456	256
Ac-ft	14,660	10,140	7,600	6,480	4,680	7,200	30,480	48,120	57,670	42,800	28,060	15,210

Calendar year 1965: Max 2,500 Min - Mean 499 Ac-ft 361,300  
 Water year 1965-66: Max 1,310 Min 74 Mean 377 Ac-ft 273,100

Note.--No gage-height record Nov. 27 to Apr. 12.

## 7-0865. Clear Creek above Clear Creek Reservoir, Colo.

Location.--Lat 39°01'05", long 106°16'40", in SE¼ sec.12, T.12 S., R.80 W., on right bank 0.5 mile upstream from water line of Clear Creek Reservoir at elevation 8,878 ft, 0.4 mile downstream from unnamed tributary, and 1.9 miles southwest of Granite.

Drainage area.--59 sq mi.

Records available.--May 1946 to September 1966. Monthly discharge only for some periods, published in WSP 1241 and 1311.

Gage.--Water-stage recorder. Altitude of gage is 8,890 ft (from topographic map). May 7, 1946, to Apr. 20, 1954, water-stage recorder at site 133 ft upstream at different datum. Apr. 21, 1954, to May 28, 1958, water-stage recorder 333 ft upstream at different datum. Datum raised 2.19 ft Apr. 21, 1954.

Average discharge.--20 years, 70.8 cfs (51,260 acre-ft per year).

Extremes.--Maximum discharge during year, 293 cfs May '31 (gage height, 2.18 ft); minimum daily, 13 cfs Mar. 10-20.

1946-65: Maximum daily discharge, 1,300 cfs June 29, 1957; maximum gage height recorded, 4.34 ft (site and datum then in use) June 16, 1952; minimum discharge not determined.

Remarks.--Records good except those for period of no gage-height record, which are poor. Diversions for irrigation of about 250 acres above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	36	29	21	17	14	15	27	237	186	96	37
2	56	37	29	21	17	14	15	40	248	156	99	36
3	56	35	29	21	17	14	15	60	254	136	128	37
4	58	35	23	21	17	14	15	90	242	130	136	36
5	58	33	23	21	17	14	15	120	218	128	120	31
6	55	33	23	21	17	14	15	150	194	126	98	34
7	54	32	23	21	17	14	15	170	167	118	87	32
8	53	32	23	21	17	14	15	180	172	112	77	32
9	52	32	23	21	17	14	21	170	153	112	77	32
10	48	31	23	21	17	13	21	158	170	108	71	31
11	48	32	23	21	17	13	21	134	147	110	70	32
12	46	31	23	21	14	13	21	116	158	124	71	33
13	46	31	23	21	14	13	21	102	177	108	70	32
14	45	30	23	19	14	13	21	95	196	99	66	32
15	45	31	23	19	14	13	21	92	203	98	73	41
16	46	31	23	19	14	13	21	94	191	107	64	38
17	50	32	23	19	14	13	21	101	196	104	59	36
18	53	31	23	19	14	13	21	110	182	132	56	33
19	48	28	21	19	14	13	21	138	184	167	58	32
20	45	30	21	19	14	13	21	167	186	128	71	32
21	45	31	21	19	14	15	21	186	184	151	66	30
22	46	34	21	19	14	15	21	179	198	142	59	28
23	45	30	21	19	14	15	21	162	184	147	55	28
24	44	29	21	19	14	15	21	174	177	194	53	28
25	43	29	21	19	14	15	21	203	167	179	49	28
26	41	29	21	19	14	15	21	189	160	153	45	28
27	39	29	21	17	14	15	21	179	151	140	44	28
28	39	29	21	17	14	15	21	182	140	132	41	28
29	37	29	21	17	-	15	21	189	145	116	40	27
30	37	29	21	17	-----	15	21	234	156	108	39	27
31	37	-----	21	17	-----	15	-----	259	-----	99	39	-----
Total	1,471	941	705	605	425	434	582	4,450	5,537	4,050	2,177	959
Mean	47.5	31.4	22.7	19.5	15.2	14.0	19.4	144	185	131	70.2	32.0
Ac-ft	2,920	1,870	1,400	1,200	843	861	1,150	8,830	10,980	8,030	4,320	1,900

Calendar year 1965: Max 650 Min - Mean 105 Ac-ft 76,060

Water year 1965-66: Max 259 Min 13 Mean 61.2 Ac-ft 44,300

Peak discharge (base, 400 cfs).--No peak above base.

Note.--No gage-height record Nov. 24 to May 9.

## ARKANSAS RIVER BASIN

7-0872. Arkansas River at Buena Vista, Colo.

Location.--Lat 38°50'55", long 106°07'25", in NW¼ sec.9, T.14 S., R.78 W., on right bank at northeast corner of Buena Vista city limits and 1.8 miles upstream from Cottonwood Creek.

Drainage area.--611 sq mi.

Records available.--October 1964 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 7,920 ft (from topographic map).

Extremes.--Maximum discharge during year, 1,740 cfs May 8 (gage height, 4.36 ft); minimum daily, 110 cfs Mar. 6.  
1964-66: Maximum discharge, 3,540 cfs July 13, 1965 (gage height, 6.32 ft); minimum daily, 93 cfs Mar. 18, 19, 1965.

Remarks.--Records good. Natural flow of stream affected by transmountain diversions (see elsewhere in this report), storage reservoirs (combined capacity, 81,890 acre-ft), diversions above station for irrigation of 7,400 acres, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	434	251	210	160	150	124	193	785	1,340	892	850	213
2	414	248	201	150	150	124	201	805	1,360	832	557	223
3	382	248	201	150	145	120	182	886	1,340	770	562	498
4	366	242	204	150	145	120	158	1,030	1,140	740	620	760
5	366	230	204	150	150	115	168	1,180	958	685	598	740
6	362	230	201	150	150	110	260	1,390	850	655	552	735
7	362	223	199	150	160	120	263	1,580	805	1,030	498	775
8	346	216	204	145	175	115	269	1,580	740	1,070	446	790
9	330	220	201	140	172	120	292	1,410	715	1,000	386	701
10	316	223	208	135	157	120	292	1,330	991	922	366	228
11	320	218	204	135	149	135	710	988	1,090	928	342	220
12	309	230	201	135	149	132	720	765	1,010	1,040	537	228
13	302	230	193	140	130	127	715	616	1,030	1,040	750	228
14	298	220	199	140	138	128	715	522	1,100	1,040	725	220
15	295	226	193	145	126	137	650	486	1,230	1,050	750	233
16	295	218	190	140	128	147	655	502	1,320	1,010	745	223
17	323	220	180	140	126	147	665	510	1,310	994	720	218
18	382	216	170	140	133	114	670	552	1,240	1,050	675	216
19	398	206	180	145	128	132	650	625	1,170	1,070	650	208
20	386	204	175	145	128	138	655	720	1,170	1,100	725	206
21	358	210	170	145	128	144	640	922	1,270	1,050	735	204
22	330	193	180	140	128	127	665	970	1,410	1,050	720	199
23	323	216	185	140	122	121	685	874	1,480	911	685	197
24	306	206	175	140	120	127	665	826	1,440	550	670	178
25	295	220	160	140	121	142	665	922	1,390	446	655	168
26	292	216	165	145	127	140	685	1,020	1,250	584	369	166
27	279	216	175	150	122	147	690	952	1,120	539	263	155
28	269	216	180	150	122	160	695	862	1,060	539	251	151
29	254	204	175	150	-	166	700	856	1,110	518	233	145
30	254	206	180	145	-----	168	745	1,010	926	494	210	145
31	251	-----	170	145	-----	184	-----	1,170	-----	694	213	-----
Total	10,197	6,622	5,833	4,475	3,879	4,151	15,918	28,646	34,365	26,293	17,058	9,571
Mean	329	221	188	144	139	134	531	924	1,146	848	550	319
Ac-ft	20,230	13,130	11,570	8,880	7,690	8,230	31,570	56,820	68,160	52,150	33,830	18,980

Calendar year 1965: Max 3,190 Min 93 Mean 645 Ac-ft 467,100  
Water year 1965-66: Max 1,580 Min 110 Mean 458 Ac-ft 331,300

7-0890. Cottonwood Creek below Hot Springs, near Buena Vista, Colo.

Location.--Lat 38°48'46", long 106°13'18", in SE¼SE¼ sec.21, T.14 S., R.79 W., on left bank a quarter of a mile downstream from Cottonwood Hot Springs, 1 mile downstream from confluence of Middle Cottonwood and South Cottonwood Creeks, 3 miles upstream from North Cottonwood Creek, and 5½ miles southwest of Buena Vista.

Drainage area.--65 sq mi.

Records available.--October 1910 to September 1923, August 1949 to September 1966. Monthly discharge only for some periods, published in WSP 1311.

Gage.--Water-stage recorder. Datum of gage is 8,532 ft (river-profile survey). Prior to Oct. 1, 1923, staff gage near present site at different datum.

Average discharge.--30 years, 58.7 cfs (42,500 acre-ft per year).

Extremes.--Maximum discharge during year, 217 cfs May 31 (gage height, 2.38 ft); minimum, 20 cfs Mar. 18 (gage height, 1.15 ft).  
1910-23, 1949-66: Maximum discharge, 1,180 cfs July 1, 1957 (gage height, 4.52 ft, from floodmarks), from rating curve extended above 690 cfs; minimum observed, 10 cfs Mar. 20-23, 25, Apr. 9, 1914.

Remarks.--Records good. Several small diversions above station for irrigation.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	74	51	37	33	27	24	24	30	172	129	56	32
2	76	51	37	31	27	24	25	34	163	98	60	30
3	72	50	37	32	27	24	24	40	156	84	72	30
4	70	49	37	32	27	24	24	48	147	76	76	30
5	66	49	37	32	27	24	23	57	136	71	62	30
6	65	48	37	32	27	23	24	80	118	66	58	30
7	62	48	37	32	27	23	24	101	109	64	56	30
8	60	47	37	31	27	23	24	118	114	60	52	29
9	59	49	37	31	26	23	25	120	112	58	50	28
10	58	46	37	31	26	23	25	116	134	57	48	28
11	58	44	37	31	26	23	25	74	118	59	46	28
12	57	44	37	31	26	23	25	66	103	59	46	31
13	56	44	36	31	26	23	23	57	103	56	52	30
14	55	45	35	31	26	23	22	55	105	57	46	30
15	55	45	34	31	26	23	23	55	109	55	44	33
16	57	43	35	31	25	24	22	57	112	55	42	32
17	70	44	34	30	25	23	24	60	131	55	40	30
18	66	42	34	30	25	22	25	68	123	80	40	29
19	59	42	34	30	25	23	25	80	114	74	40	29
20	56	42	34	30	25	23	24	98	107	94	42	28
21	56	42	34	30	25	23	24	118	116	76	44	27
22	57	36	34	30	25	23	25	120	107	86	42	27
23	57	45	34	30	25	22	25	105	96	78	40	28
24	58	42	34	30	25	23	24	125	90	90	38	28
25	57	41	34	28	25	23	25	149	86	84	36	29
26	55	38	33	28	24	23	26	149	86	72	34	30
27	55	34	33	28	24	24	26	103	86	68	32	29
28	54	35	33	28	24	24	26	109	80	64	32	30
29	54	37	33	28	-	24	27	125	78	62	30	29
30	54	37	34	28	-----	24	28	158	90	58	30	30
31	52	-----	33	28	-----	24	-----	181	-----	55	32	-----
Total	1,860	1,310	1,089	939	720	722	736	2,856	3,401	2,200	1,418	884
Mean	60.0	43.7	35.1	30.3	25.7	23.3	24.5	92.1	113	71.0	45.7	29.5
Ac-ft	3,690	2,600	2,160	1,860	1,430	1,430	1,460	5,660	6,750	4,360	2,810	1,750

Calendar year 1965: Max 410 Min 17 Mean 83.7 Ac-ft 60,610  
Water year 1965-66: Max 181 Min 22 Mean 49.7 Ac-ft 35,970

Peak discharge (base, 300 cfs).--No peak above base.

Note.--No gage-height record Aug. 1 to Sept. 6.

## 7-0912. Arkansas River near Nathrop, Colo.

Location.--Lat 38°39'10", long 106°03'00", in SE¼SW¼ sec.23, T.51 N., R.8 E., on right bank 300 ft upstream from end of Chaffee County road 60, in Browns Canyon, 3.7 miles downstream from Browns Creek, 6.7 miles south of Nathrop, and 9 miles north of Salida.

Drainage area.--1,060 sq mi.

Records available.--October 1964 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 7,350 ft (from topographic map).

Extremes.--Maximum discharge during year, 2,000 cfs May 8 (gage height, 5.92 ft); minimum daily, 168 cfs Mar. 23.  
1964-66: Maximum discharge, 4,480 cfs July 13, 1965 (gage height, 7.79 ft); minimum daily, 150 cfs Mar. 4, 1965.

Remarks.--Records good. Natural flow of stream affected by transmountain diversions (see elsewhere in this report), storage reservoirs, power developments, diversions for irrigation of about 15,000 acres, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	620	420	357	280	250	208	253	828	1,590	1,030	970	294
2	590	416	348	270	245	211	268	858	1,620	984	798	294
3	560	416	348	260	240	199	246	928	1,580	900	768	470
4	540	411	362	260	255	217	220	1,090	1,360	858	888	858
5	530	402	366	270	255	214	205	1,280	1,170	804	858	828
6	515	398	357	275	250	200	310	1,510	1,030	756	762	822
7	496	388	357	279	260	217	326	1,780	984	930	678	858
8	478	375	362	272	270	211	326	1,880	882	1,170	610	882
9	465	380	362	275	265	214	352	1,670	852	1,090	540	798
10	452	388	370	260	246	214	357	1,580	1,090	1,020	510	395
11	447	388	366	268	246	217	691	1,210	1,300	1,000	478	322
12	438	402	357	275	240	214	780	977	1,150	1,110	601	326
13	429	402	339	260	236	205	780	804	1,140	1,130	882	326
14	429	398	344	257	236	208	780	678	1,240	1,130	846	318
15	420	398	334	275	220	214	726	625	1,350	1,170	876	330
16	429	388	326	268	210	220	720	630	1,460	1,110	870	326
17	510	393	326	246	220	220	720	640	1,510	1,110	840	314
18	555	388	322	240	233	176	732	684	1,460	1,170	792	310
19	570	375	334	256	223	187	714	762	1,360	1,250	780	302
20	565	370	344	257	223	196	708	852	1,340	1,320	840	298
21	535	380	320	253	223	202	702	1,080	1,410	1,250	864	294
22	510	334	310	230	223	187	726	1,160	1,560	1,260	834	290
23	506	380	322	240	223	168	750	1,070	1,650	1,160	792	286
24	492	380	314	235	208	179	732	1,030	1,610	846	768	260
25	478	398	306	250	211	190	720	1,100	1,540	576	756	243
26	474	384	310	235	211	202	738	1,240	1,430	780	532	243
27	465	357	306	255	208	202	756	1,130	1,290	696	357	246
28	447	362	314	260	208	214	738	1,050	1,180	708	339	230
29	424	344	314	260	-	220	756	1,030	1,240	672	322	223
30	424	348	322	255	-----	220	786	1,190	1,130	640	294	223
31	420	-----	306	250	-----	236	-----	1,440	-----	761	283	-----
Total	15,213	11,563	10,425	8,026	6,538	6,382	17,618	33,786	39,508	30,391	21,328	12,209
Mean	491	385	336	259	234	206	587	1,090	1,317	980	688	407
Ac-ft	30,170	22,930	20,680	15,920	12,970	12,660	34,940	67,010	78,360	60,280	42,300	24,220

Calendar year 1965: Max 4,260 Min 150 Mean 886 Ac-ft 641,400  
Water year 1965-66: Max 1,880 Min 168 Mean 584 Ac-ft 422,500

## 7-0915. Arkansas River at Salida, Colo.

Location.--Lat 38°32'45", long 106°00'36", in NE¼ sec.31, T.50 N., R.9 E., on right bank at Salida, 450 ft upstream from bridge (relocated) on State Highway 291 and 2.7 miles upstream from South Arkansas River.

Drainage area.--1,218 sq mi.

Records available.--April to October 1895, May to December 1897, August 1898 to September 1899, April to October 1900, April 1901 to October 1903, October 1909 to September 1966. Monthly discharge only for some periods, published in WSP 1311.

Gage.--Water-stage recorder. Datum of gage is 7,050.45 ft above mean sea level, datum of 1929. Apr. 11, 1895, to Nov. 18, 1903, staff gage and Nov. 3, 1909, to Dec. 2, 1936, water-stage recorder, at site 1½ miles downstream at different datum. Dec. 3, 1936, to Dec. 5, 1957, water-stage recorder at same site at datum 1.00 ft higher.

Average discharge.--60 years (1898-99, 1901-3, 1909-66), 626 cfs (453,200 acre-ft per year).

Extremes.--Maximum discharge during year, 2,690 cfs May 8 (gage height, 2.68 ft); minimum daily, 210 cfs Mar. 23.

1895-1903, 1909-66: Maximum discharge, 9,220 cfs June 29, 1957 (gage height, 7.82 ft, present datum); minimum observed, 100 cfs Oct. 4, 6, 7, 1898.

Remarks.--Records good. Natural flow of stream affected by transmountain diversions (see elsewhere in this report), storage reservoirs (combined capacity, 81,890 acre-ft), diversions for irrigation of about 18,000 acres above station, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	661	482	410	352	306	274	286	914	1.830	1.100	1.060	264
2	616	482	410	332	300	274	300	969	1.910	1.100	860	264
3	598	482	410	319	274	252	300	1.060	1.880	991	780	332
4	562	482	418	326	280	252	280	1.230	1.560	936	958	850
5	562	482	418	332	293	252	258	1.440	1.310	860	936	840
6	544	482	410	319	293	252	338	1.760	1.140	810	820	830
7	535	474	306	345	286	258	378	2.240	1.080	914	730	870
8	544	458	397	352	312	258	378	2.480	969	1.270	634	925
9	517	450	397	332	312	258	384	2.010	936	1.210	535	820
10	499	458	404	326	280	258	384	1.930	1.110	1.100	499	442
11	482	458	397	326	280	264	643	1.410	1.460	1.080	466	264
12	458	458	390	332	293	252	800	1.100	1.280	1.220	508	269
13	450	466	390	326	312	242	810	892	1.250	1.250	903	264
14	442	450	390	319	293	242	810	750	1.370	1.230	870	258
15	442	450	371	332	293	247	760	652	1.490	1.260	914	258
16	442	450	364	332	286	252	740	643	1.660	1.210	914	264
17	544	450	345	312	274	252	750	661	1.740	1.200	881	258
18	598	450	345	312	286	220	760	700	1.690	1.280	820	258
19	616	442	338	332	286	225	750	780	1.520	1.350	800	258
20	607	442	345	338	280	230	740	850	1.520	1.460	850	258
21	589	442	345	332	274	247	740	1.100	1.590	1.390	892	258
22	553	410	345	312	280	230	760	1.250	1.840	1.390	860	258
23	458	434	358	312	286	210	800	1.140	2.010	1.350	800	258
24	458	442	352	312	300	225	760	1.090	1.950	903	760	252
25	535	450	338	306	286	230	760	1.160	1.810	580	740	242
26	526	442	338	312	286	247	790	1.320	1.670	810	571	242
27	526	404	338	319	286	242	810	1.250	1.450	720	319	242
28	499	410	338	319	274	258	800	1.140	1.320	700	306	236
29	490	410	338	332	-	264	810	1.100	1.350	700	286	225
30	482	410	345	326	-----	258	850	1.260	1.310	680	274	230
31	482	-----	338	326	-----	269	-----	1.590	-----	740	258	-----
Total	16,317	13,502	11,428	10,104	9,091	7,694	18,729	37,871	45,005	32,794	21,804	11,489
Mean	526	450	369	326	289	248	624	1,222	1,500	1,058	703	383
Ac-ft	32,360	26,780	22,670	20,040	16,050	15,260	37,150	75,120	89,270	65,050	43,250	22,790

Calendar year 1965: Max 4,620 Min 221 Mean 967 Ac-ft 700,100

Water year 1965-66: Max 2,480 Min 210 Mean 643 Ac-ft 465,800

7-0937. Arkansas River near Wellsville, Colo.

Location.--Lat 38°30'10", long 105°56'21", in NE¼ sec.14, T.49 N., R.9 E., on right bank 50 ft upstream from Chaffee-Fremont County line, 2 miles northwest of Wellsville, 2.8 miles downstream from South Arkansas River, and 3.5 miles southeast of Salida.

Drainage area.--1,485 sq mi.

Records available.--April 1961 to September 1966.

Gage.--Water-stage recorder. Datum of gage is 6,883.4 ft above mean sea level (river-profile survey).

Average discharge.--5 years, 698 cfs (505,300 acre-ft per year).

Extremes.--Maximum discharge during year, 2,080 cfs Aug. 1 (gage height, 5.75 ft); minimum daily, 229 cfs Mar. 23.  
1961-66: Maximum discharge, 4,390 cfs July 13, 1965 (gage height, 7.36 ft); minimum daily, 110 cfs Jan. 12, 1963.

Remarks.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions for irrigation of about 26,000 acres, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	665	536	510	432	348	306	288	823	1,490	1,000	989	348
2	641	532	500	400	340	306	302	860	1,550	1,000	767	352
3	623	532	500	380	324	282	299	920	1,530	905	706	397
4	596	528	490	384	332	274	268	1,090	1,360	860	958	845
5	596	516	480	400	336	268	241	1,270	1,150	809	988	838
6	592	512	460	404	332	292	311	1,480	1,000	767	788	830
7	578	508	460	416	340	313	360	1,600	965	1,140	680	852
8	556	496	488	408	368	306	360	1,700	875	1,190	632	890
9	552	496	488	400	356	316	364	1,650	845	1,140	564	802
10	548	504	496	388	328	316	364	1,500	988	1,050	540	539
11	536	508	496	392	324	313	559	1,300	1,280	1,020	512	376
12	532	508	488	392	332	313	730	1,000	1,130	1,140	540	372
13	524	520	472	372	348	299	730	830	1,090	1,190	845	368
14	516	524	468	376	299	296	736	695	1,200	1,160	809	364
15	516	520	464	392	320	302	700	636	1,290	1,200	845	360
16	524	520	444	388	288	313	680	628	1,400	1,140	852	376
17	610	520	428	348	302	313	695	610	1,480	1,140	838	360
18	655	516	416	348	313	264	700	636	1,460	1,190	788	348
19	665	504	420	376	324	274	690	700	1,350	1,270	760	344
20	660	492	432	372	316	274	680	781	1,330	1,350	809	332
21	646	500	428	352	313	274	680	1,000	1,380	1,280	868	328
22	618	472	440	324	316	260	685	1,150	1,530	1,270	830	328
23	614	492	464	332	316	229	724	1,040	1,630	1,280	802	328
24	610	508	452	328	299	241	695	996	1,580	882	760	310
25	596	512	432	348	310	244	695	1,050	1,520	574	742	292
26	587	512	444	328	306	264	712	1,200	1,450	754	631	285
27	574	476	436	352	306	260	730	1,120	1,280	690	424	282
28	556	488	440	356	292	274	718	1,020	1,200	670	404	268
29	540	490	440	364	-	271	730	996	1,210	660	384	257
30	532	490	460	360	-----	268	767	1,100	1,160	636	364	254
31	536	-----	436	360	-----	278	-----	1,360	-----	655	336	-----
Total	18,094	15,232	14,272	11,572	9,028	8,803	17,193	32,741	38,703	31,012	21,755	13,225
Mean	584	508	460	373	322	284	573	1,056	1,290	1,000	702	441
Ac-ft	35,890	30,210	28,310	22,930	17,910	17,460	34,100	64,940	76,770	61,510	43,150	26,230

Calendar year 1965: Max 4,120 Min 198 Mean 978 Ac-ft 708,100

Water year 1965-66: Max 1,700 Min 229 Mean 635 Ac-ft 459,400

7-0945. Arkansas River at Parkdale, Colo.

Location.--Lat 38°29'14", long 105°22'23", in NE¼NW¼ sec.18, T.18 S., R.71 W., on left bank at Parkdale, 100 ft upstream from Bumback Gulch, 300 ft upstream from bridge on U. S. Highway 50, and 0.9 mile upstream from Copper Gulch.

Drainage area.--2,548 sq mi.

Records available.--October 1945 to September 1955, October 1964 to September 1966. Monthly discharge only for October 1945 to May 1946, published in WSP 1311.

Gage.--Water-stage recorder. Altitude of gage is 5,720 ft (from topographic map). Prior to Oct. 1, 1964, at site 600 ft downstream at different datum.

Average discharge.--12 years, 789 cfs (571,200 acre-ft per year).

Extremes.--Maximum discharge during year, 4,290 cfs Aug. 1 (gage height, 6.68 ft); minimum daily, 320 cfs Sept. 30.

1945-55, 1964-66: Maximum discharge, 5,880 cfs June 22, 1947 (gage height, 9.02 ft, site and datum then in use), from rating curve extended above 3,000 cfs; minimum daily, 224 cfs Apr. 5, 1954.

Remarks.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, diversions for irrigation of about 35,000 acres above station, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	868	652	552	507	458	415	376	836	1,470	1,030	1,250	395
2	852	652	558	474	458	420	390	884	1,570	1,120	1,290	390
3	828	639	546	441	436	385	405	920	1,530	1,000	960	390
4	796	632	552	452	446	376	395	1,020	1,460	940	1,090	534
5	788	620	558	480	468	390	348	1,190	1,190	892	1,080	796
6	780	620	546	512	474	420	348	1,380	1,060	852	960	812
7	764	606	534	512	452	441	463	1,590	980	812	868	836
8	740	588	529	524	468	441	463	1,760	892	1,200	804	884
9	725	582	540	507	446	446	446	1,630	852	1,200	740	868
10	695	594	540	502	441	452	458	1,570	868	1,110	665	725
11	672	606	552	502	420	452	481	1,400	1,290	1,100	626	425
12	672	594	534	502	436	446	780	1,110	1,190	1,140	594	405
13	658	606	524	480	480	446	772	900	1,120	1,220	748	400
14	652	613	524	485	405	425	788	780	1,190	1,200	860	395
15	646	600	518	502	430	430	764	665	1,260	1,240	860	385
16	639	600	480	496	410	446	718	620	1,400	1,200	884	395
17	756	594	480	458	420	446	725	620	1,500	1,200	892	385
18	852	600	458	441	436	410	732	639	1,510	1,210	884	380
19	860	594	468	502	436	380	740	695	1,420	1,320	860	376
20	836	570	502	490	430	395	732	756	1,370	1,440	852	372
21	820	570	502	463	425	390	732	884	1,370	1,370	876	368
22	780	564	518	425	436	380	740	1,080	1,510	1,340	900	368
23	772	540	540	441	425	340	780	1,110	1,630	1,400	892	364
24	764	588	534	441	410	340	756	1,030	1,600	1,100	876	364
25	748	582	507	458	425	352	748	1,030	1,550	780	836	352
26	732	606	512	446	420	364	748	1,160	1,520	780	812	336
27	718	546	518	474	436	364	764	1,160	1,380	788	552	336
28	688	540	529	485	415	368	764	1,080	1,260	875	463	340
29	665	540	524	496	-	372	772	1,020	1,250	820	446	324
30	652	540	552	502	-----	372	788	1,070	1,330	695	425	320
31	652	-----	534	485	-----	368	-----	1,340	-----	652	410	-----
Total	23,070	17,778	16,265	14,885	12,242	12,472	18,916	32,929	39,522	33,026	25,255	14,020
Mean	744	593	525	480	437	402	631	1,062	1,317	1,065	815	467
Ac-ft	45,760	35,260	32,260	29,520	24,280	24,740	37,520	65,310	78,390	65,510	50,090	27,810

Calendar year 1965: Max 4,380 Min 276 Mean 1,101 Ac-ft 796,800  
 Water year 1965-66: Max 1,760 Min 320 Mean 713 Ac-ft 516,500



## ARKANSAS RIVER BASIN

7-0950. Grape Creek near Westcliffe, Colo.

Location.--Lat 38°11'10", long 105°28'59", in NW¼ sec.31, T.21 S., R.72 W., on left bank 0.5 mile upstream from water line of De Weese Reservoir at elevation 7,665 ft, 0.5 mile downstream from Swift Creek, and 3.6 miles northwest of Westcliffe.

Drainage area.--320 sq mi.

Records available.--October 1924 to September 1961, October 1962 to September 1966. Monthly discharge only for some periods, published in WSP 1311.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 7,690 ft (from topographic map). Prior to Mar. 17, 1939, at site 30 ft upstream at same datum.

Average discharge.--41 years, 31.6 cfs (22,880 acre-ft per year).

Extremes.--Maximum discharge during year, 7,460 cfs Aug. 2 (gage height, 8.45 ft), from rating curve extended above 320 cfs on basis of slope-area measurement of peak flow; minimum daily, 2.2 cfs July 6, 7.  
1924-61, 1962-66: Maximum discharge, that of Aug. 2, 1966; minimum daily, 0.1 cfs June 19-22, 1936.

Remarks.--Records good except those for period of no gage-height record, which are poor. Diversions above station for irrigation of about 15,000 acres.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	59	36	27				27	9.8	29	11	233	17
2	52	35	28				27	8.9	22	6.4	1,620	16
3	50	34	29				30	5.8	12	4.7	840	15
4	47	32	29				28	5.8	7.4	3.6	185	12
5	46	31	29				26	3.6	5.2	3.0	232	11
6	44	31	24				46	3.6	8.0	2.2	227	14
7	44	32	29				56	5.8	6.9	2.2	94	13
8	44	31	31				36	11	6.9	3.6	97	13
9	43	31	28				30	13	11	3.6	67	13
10	41	31	29				30	18	30	4.2	52	12
11	40	30	30				30	13	25	5.2	101	12
12	39	28	28				36	13	15	6.9	65	12
13	36	28	26				34	4.9	13	8.0	51	11
14	35	29	24				34	2.9	11	12	38	11
15	34	27	22			11	31	15	6.9	12	32	12
16	34	26		11	10		28	11	11	8.0	34	12
17	88	29					26	8.0	22	6.9	41	11
18	108	27					26	8.9	4.6	7.4	36	11
19	92	28					25	8.0	37	28	31	9.8
20	71	27					32	12	19	29	34	9.8
21	55	29					41	9.8	17	34	45	9.8
22	50	25					45	7.4	17	5.9	64	8.9
23	47	29	18				37	5.8	9.8	34	45	11
24	45	30					28	5.8	8.0	19	41	13
25	43	39					21	5.8	6.9	15	30	12
26	40	51				15	18	7.4	6.9	11	25	12
27	39	30				18	15	9.8	13	11	21	12
28	39	29				21	12	8.9	14	19	20	12
29	37	29				29	12	14	15	30	20	11
30	37	31				27	12	12	12	24	18	9.8
31	36					27		12		16	18	
Total	1,515	925	701	341	280	412	879	350.9	463.9	439.9	4,457	359.1
Mean	48.9	30.8	22.6	11	10	13.3	29.3	11.3	15.5	14.2	144	12.0
Ac-ft	3,000	1,830	1,390	676	555	817	1,740	696	920	873	8,840	712

Calendar year 1965: Max 845 Min - Mean 56.2 Ac-ft 40,660

Water year 1965-66: Max 1,620 Min 2.2 Mean 30.5 Ac-ft 22,060

Peak discharge (base, 250 cfs).--Aug. 2 (1930) 7,460 cfs (8.45 ft); Aug. 6 (1200) 302 cfs (2.04 ft).

Note.--No gage-height record Dec. 16 to Mar. 28.

7-0960. Arkansas River at Canon City, Colo.

**Location.**--Lat 38°26'02", long 105°15'24", in SE¼SE¼ sec.31, T.18 S., R.70 W., on right bank 800 ft upstream from Sand Creek, 0.7 mile downstream from Grape Creek, and 0.7 mile upstream from First Street Bridge in Canon City.

**Drainage area.**--3,117 sq mi.

**Records available.**--January 1888 to September 1966. Monthly discharge only for some periods, published in WSP 1311. Published as "near Canyon" 1900-1906.

**Gage.**--Water-stage recorder. Datum of gage is 5,342.13 ft above mean sea level, datum of 1929, supplementary adjustment of 1960. Prior to Mar. 27, 1922, staff gage, chain gage, or water-stage recorder at sites about a quarter of a mile upstream at various datums. Mar. 27, 1922, to Sept. 30, 1957, water-stage recorder at present site at datum 2.49 ft higher. Oct. 1, 1957, to Nov. 15, 1962, water-stage recorder at present site at datum 1.49 ft higher.

**Average discharge.**--78 years, 720 cfs (521,300 acre-ft per year).

**Extremes.**--Maximum discharge during year, 4,990 cfs Aug. 1 (gage height, 6.96 ft); minimum daily, 155 cfs Sept. 30. 1888-1966: Maximum discharge, 19,000 cfs Aug. 2, 1921 (gage height, 10.7 ft, site and datum then in use, from floodmark), from rating curve extended above 5,000 cfs; minimum daily, 69 cfs May 13, 1959.

**Remarks.**--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions for irrigation of about 56,000 acres, and return flow from irrigated areas. Records of chemical analysis for the water year 1966 are published in Part 2 of this report.

Discharge, in cubic feet per second; water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	831	628	576	460	360	334	286	726	1,500	1,000	977	296
2	786	635	570	430	360	330	278	786	1,660	1,060	1,740	340
3	759	594	564	390	350	290	306	840	1,590	930	2,290	332
4	726	564	552	404	350	278	294	966	1,530	831	1,830	461
5	726	529	558	422	355	298	223	1,160	1,240	777	1,280	680
6	694	518	558	445	370	326	187	1,390	1,100	710	1,070	640
7	678	518	552	450	380	330	286	1,710	975	656	986	634
8	656	502	558	460	404	326	294	1,890	885	1,100	890	664
9	614	485	564	445	399	318	298	1,740	822	1,200	860	672
10	607	496	558	422	386	338	302	1,660	849	1,100	730	574
11	588	502	552	412	358	342	294	1,470	1,250	1,060	576	284
12	588	490	529	412	350	330	635	1,210	1,220	1,130	552	239
13	576	507	507	394	394	330	678	975	1,110	1,200	820	228
14	558	518	502	394	322	322	678	768	1,160	1,180	800	225
15	558	507	496	417	330	326	678	570	1,240	1,230	712	225
16	552	507	435	408	318	326	607	496	1,380	1,180	770	222
17	656	507	399	382	318	318	628	485	1,500	1,160	790	213
18	804	512	404	362	342	270	642	502	1,530	1,160	740	204
19	813	502	426	404	362	249	642	546	1,430	1,260	696	204
20	786	485	485	408	358	270	642	642	1,340	1,580	720	207
21	768	485	485	378	354	298	649	795	1,320	1,610	800	201
22	734	480	512	358	362	290	628	1,070	1,450	1,460	850	201
23	718	450	534	358	354	252	686	1,140	1,610	1,570	810	198
24	702	518	524	378	346	246	670	1,040	1,640	1,270	800	201
25	686	512	490	370	346	263	642	993	1,620	813	704	185
26	656	552	490	370	338	263	656	1,110	1,530	621	664	178
27	642	507	502	378	358	266	670	1,160	1,430	710	452	172
28	621	502	496	378	334	274	678	1,070	1,240	836	372	172
29	621	512	507	366	-	252	678	984	1,190	710	349	157
30	635	529	518	370	-----	270	678	1,020	1,280	702	324	155
31	635	-----	507	370	-----	263	-----	1,280	-----	570	304	-----
Total	20,974	15,553	15,910	12,395	9,958	9,188	15,513	32,194	39,621	32,376	26,258	9,364
Mean	677	518	513	400	336	296	517	1,039	1,321	1,044	847	312
Ac-ft	41,600	30,850	31,560	24,590	19,750	18,220	30,770	63,860	78,590	64,220	52,080	18,570

Calendar year 1965: Max 5,740 Min 190 Mean 1,141 Ac-ft 826,400  
 Water year 1965-66: Max 2,290 Min 155 Mean 656 Ac-ft 474,700

## ARKANSAS RIVER BASIN

7-0992. Arkansas River near Portland, Colo.

Location.--Lat 38°20'16", long 104°56'24", in NW¼SW¼ sec.6, T.20 S., R.67 W., on left bank 1.2 miles downstream from Willow Spring Creek and 5.3 miles southeast of Portland. Prior to Apr. 20, 1966, at site 500 ft upstream.

Drainage area.--4,280 sq mi.

Records available.--October 1964 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 4,950 ft (from topographic map). Prior to Apr. 20, 1966, at site 500 ft upstream at same datum.

Extremes.--Maximum discharge during year, 10,360 cfs July 20 (gage height, 8.52 ft); minimum daily, 260 cfs Apr. 5.

1964-66: Maximum discharge, 23,900 cfs Aug. 21 (gage height, 11.85 ft), from rating curve extended above 7,400 cfs on basis of slope-area measurement of peak flow; minimum daily, 160 cfs Oct. 2-4, 1964.

Remarks.--Records fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions for irrigation of about 68,000 acres, and return flow from irrigated areas. Records of chemical analyses and suspended sediment loads for the water year 1966 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	805	679	624	510	370	365	310	752	1,500	1,030	1,380	544
2	770	646	591	530	370	343	300	810	1,630	1,080	2,390	576
3	759	646	580	510	360	335	310	900	1,600	965	2,290	566
4	713	646	570	490	370	320	310	1,050	1,510	883	2,530	598
5	724	613	530	500	380	315	260	1,200	1,340	838	1,680	892
6	700	580	550	490	390	360	270	1,500	1,200	768	1,600	874
7	680	580	560	490	400	370	290	1,700	1,090	738	1,440	865
8	660	580	624	520	424	410	305	2,000	1,010	921	1,480	892
9	620	580	668	490	431	410	310	1,780	943	1,080	1,300	901
10	620	540	646	459	424	417	310	1,700	965	1,010	1,140	829
11	600	560	635	459	410	424	305	1,520	1,250	954	1,060	532
12	600	570	624	450	431	400	700	1,330	1,310	1,020	943	442
13	580	613	570	430	459	400	748	1,200	1,190	1,090	1,130	424
14	560	657	591	430	473	405	724	910	1,210	1,210	1,330	415
15	560	635	560	440	460	400	782	700	1,270	1,220	1,300	410
16	540	646	520	440	420	370	805	510	1,430	1,260	1,270	400
17	660	840	550	420	420	370	782	500	1,570	1,190	1,270	385
18	800	770	530	400	460	300	670	500	1,640	1,160	1,240	370
19	820	635	570	440	480	280	670	570	1,560	1,260	1,240	375
20	800	540	540	440	473	310	670	650	1,460	2,280	1,300	375
21	780	550	520	400	445	310	669	710	1,460	1,510	1,330	365
22	760	540	550	370	431	310	657	800	1,560	1,340	1,400	365
23	740	540	540	370	424	280	682	1,200	1,680	1,720	1,370	355
24	720	613	550	400	417	280	689	1,110	1,690	1,940	1,360	360
25	700	646	530	390	417	300	669	1,000	1,660	1,210	1,260	335
26	680	713	510	400	410	300	657	1,100	1,620	1,040	1,190	320
27	660	702	500	400	410	300	682	1,200	1,510	1,200	943	310
28	660	668	530	400	400	300	682	1,110	1,340	1,180	738	305
29	660	679	520	380	-	290	689	1,000	1,220	1,310	689	285
30	657	646	530	400	-----	280	689	1,000	1,280	1,380	615	280
31	646	-----	530	400	-----	280	-----	1,220	-----	1,150	566	-----
Total	21,234	18,853	17,443	13,648	11,759	10,534	16,596	33,232	41,698	36,937	40,774	14,945
Mean	685	628	563	440	420	340	553	1,072	1,390	1,192	1,315	498
Ac-ft	42,120	37,390	34,600	27,070	23,320	20,890	32,920	65,910	82,710	73,260	80,870	29,640

Calendar year 1965: Max 5,680 Min 176 Mean 1,124 Ac-ft 813,600

Water year 1965-66: Max 2,530 Min 260 Mean 761 Ac-ft 550,700

7-0994. Arkansas River above Pueblo, Colo.

Location.--Lat 38°16'15", long 104°43'15", in NE¼NE¼ sec.36, T.20 S., R.66 W., on left bank 280 ft upstream from headgate of West Pueblo ditch, a quarter of a mile downstream from Rock Canyon Barrier Dam, and 7 miles west of Pueblo.

Drainage area.--4,670 sq mi.

Records available.--October 1965 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 4,740 ft (from topographic map).

Extremes.--Maximum discharge during year, 10,100 cfs Aug. 1 (gage height, 13.12 ft), from rating curve extended above 1,600 cfs on basis of slope-area measurement of peak flow; minimum daily, 94 cfs Sept. 30.

Remarks.--Records fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions above station for irrigation of about 88,000 acres and return flow from irrigated areas. Records of chemical analyses and suspended-sediment loads for the water year 1966 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	784	445	450	470	410	306	142	580	1,220	900	1,590	160
2	746	445	450	430	380	311	168	620	1,260	797	2,120	210
3	692	435	460	400	360	262	173	650	1,240	762	1,890	200
4	650	410	370	400	330	270	230	706	1,340	678	2,080	180
5	614	395	430	400	370	260	196	832	1,180	614	1,350	650
6	572	390	440	400	360	239	137	1,050	1,000	554	1,130	600
7	548	375	450	400	360	266	157	1,340	884	502	1,000	600
8	536	365	440	430	360	284	241	1,560	860	626	900	650
9	494	355	430	430	350	266	227	1,540	769	839	1,000	678
10	476	355	450	430	330	266	230	1,310	783	797	700	614
11	488	365	450	400	330	280	241	1,210	956	769	650	380
12	530	375	440	390	330	262	366	1,050	1,140	790	700	160
13	488	375	420	380	350	244	596	876	1,000	853	450	130
14	445	380	430	380	350	226	596	713	972	980	800	120
15	440	395	450	370	340	222	584	638	1,040	964	750	150
16	420	370	460	390	330	208	542	524	1,170	1,000	750	182
17	494	476	460	390	330	227	508	460	1,330	876	750	160
18	614	530	460	400	320	217	542	445	1,390	876	700	150
19	656	524	470	400	330	182	566	475	1,330	932	650	160
20	644	420	460	400	350	154	626	530	1,200	1,680	900	140
21	638	395	460	400	330	173	608	578	1,170	1,970	650	120
22	632	390	500	370	325	176	560	790	1,240	1,200	700	114
23	596	365	520	360	325	176	572	892	1,360	1,460	650	112
24	590	395	480	370	316	150	590	853	1,410	1,020	700	123
25	578	430	460	380	306	142	566	811	1,390	1,020	650	157
26	584	460	460	450	316	147	530	860	1,350	720	600	230
27	542	470	460	430	320	142	524	980	1,240	638	450	271
28	518	410	500	400	320	140	542	924	1,090	720	300	176
29	488	410	500	380	-	142	530	860	948	832	270	128
30	460	410	500	420	-----	154	560	846	980	834	200	94
31	445	-----	520	440	-----	144	-----	972	-----	620	170	-----
Total	17,402	12,315	14,230	12,490	9,528	6,638	12,650	26,475	34,242	27,823	26,200	7,799
Mean	561	410	459	403	340	214	422	854	1,141	898	845	260
Ac-ft	34,520	24,430	28,220	24,770	18,900	13,170	25,090	52,510	67,920	55,190	51,970	15,470

Calendar year 1965: Max - Min - Mean - Ac-ft -  
 Water year 1965-66: Max 2,120 Min 94 Mean 569 Ac-ft 412,100

Note.--No gage-height record Nov. 26 to Feb. 21, Aug. 8 to Sept. 8.

7-0995. Arkansas River near Pueblo, Colo.

Location.--Lat 38°16'02", long 104°39'26", in SE¼NW¼ sec.34, T.20 S., R.65 W., on right bank at intake of south-side waterworks, 1.6 miles upstream from Dry Creek and 2.5 miles west of city hall in Pueblo.

Drainage area.--4,686 sq mi.

Records available.--May to June 1885, January 1886 to December 1887, May to August 1889, September 1894 to September 1966. Monthly discharge only for some periods, published in WSP 1311. Published as "at Rock Canyon" 1889 and as "at Pueblo" 1885-87, 1894-1924.

Gage.--Water-stage recorder and concrete control on river; water-stage recorder and Parshall flume at north-side waterworks intake. Datum of river gage is 4,689.74 ft above mean sea level, datum of 1929, supplementary adjustment of 1960. May 16, 1885, to Sept. 12, 1886, staff gage at site 2½ miles downstream, at different datum; June 1, 1887, to Aug. 31, 1889, staff gage at site 6½ miles upstream, at different datum. Sept. 19, 1894, to May 25, 1925, staff gage, chain gage, or water-stage recorder about 2½ miles downstream at various sites and datums.

Average discharge.--73 years (1886-87, 1894-1966), 711 cfs (514,700 acre-ft per year).

Extremes.--Maximum discharge during year, 10,600 cfs Aug. 1 (gage height, 6.70 ft); minimum daily, 109 cfs Sept. 30. 1885-87, 1889, 1894-1966: Maximum discharge, 103,000 cfs June 3, 1921 (gage height, 24.66 ft, site and datum then in use), from rating curve extended above 6,800 cfs on basis of float measurement at gage height 11.2 ft and slope-area measurement of peak flow; minimum daily, 18 cfs (including 13 cfs diverted into intake of north-side waterworks) Apr. 7, 1935.

Remarks.--Records good except those for winter period, which are fair. Records include water diverted above station into intake of north-side waterworks for municipal supply of Pueblo, but not water diverted by south-side waterworks. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions above station for irrigation of about 88,000 acres, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	789	475	462	480	420	326	148	594	1340	1020	1520	170
2	767	475	462	453	396	325	166	655	1390	876	2790	214
3	701	466	471	427	374	288	184	686	1360	854	2370	207
4	667	456	383	446	345	287	231	730	1460	742	2630	188
5	612	428	435	436	373	279	216	907	1240	650	1600	632
6	588	419	453	408	367	250	154	1130	1020	562	1250	612
7	567	401	444	407	366	272	160	1350	940	492	1050	612
8	547	394	435	442	366	279	231	1580	883	630	944	653
9	507	370	435	442	354	258	223	1650	816	1100	980	661
10	459	369	444	433	342	267	230	1420	816	1050	755	610
11	477	369	453	415	334	274	251	1320	964	948	670	386
12	527	377	444	406	338	267	355	1160	1240	946	717	191
13	477	377	435	390	356	253	574	1020	1070	890	459	148
14	431	385	444	392	348	242	593	771	1010	984	866	136
15	422	393	462	384	338	236	556	715	1040	1120	778	155
16	413	379	471	400	348	223	527	546	1200	1190	744	199
17	422	481	471	403	336	242	488	472	1440	996	755	179
18	632	527	462	421	333	242	542	454	1520	984	700	154
19	688	540	480	363	342	195	563	489	1380	995	670	160
20	678	421	471	413	359	181	623	547	1260	1620	978	148
21	667	386	471	405	351	187	613	624	1250	2400	689	136
22	666	368	508	379	335	197	573	811	1310	1520	754	121
23	644	359	527	367	335	187	582	992	1430	1670	688	116
24	621	375	498	372	325	160	622	989	1480	1310	755	112
25	610	417	471	394	317	160	587	895	1440	1050	698	142
26	599	471	480	476	326	160	546	917	1380	830	649	121
27	570	480	462	430	326	148	536	1040	1530	766	521	425
28	538	426	498	410	327	148	574	1020	1250	993	307	181
29	527	426	498	400	-	166	556	965	1040	1050	287	139
30	517	426	498	430	-----	160	584	917	1090	1050	222	109
31	468	-----	527	450	-----	148	-----	1000	-----	627	182	-----
Total	17,798	12,636	14,455	12,874	9,777	7,007	12,788	28,366	36,589	31,915	28,978	8,017
Mean	574	421	466	415	349	226	426	915	1,220	1,030	935	267
Ac-ft	35,300	25,060	28,670	25,540	19,390	13,900	25,360	56,260	72,570	63,300	57,480	15,900

Calendar year 1965: Max 9,960 Min 139 Mean 1,105 Ac-ft 800,300  
 Water year 1965-66: Max 2,790 Min 109 Mean 606 Ac-ft 438,700

## 7-1037. Fountain Creek near Colorado Springs, Colo.

Location.--Lat 38°51'17", long 104°52'39", in SE¼SW¼ sec.3, T.14 S., R.67 W., on left bank 200 ft upstream from diversion to city of Colorado Springs, half a mile east of bridge on U. S. Highway 24 near west city limits of Colorado Springs, and 1 mile downstream from Sutherland Creek.

Drainage area.--102 sq mi.

Records available.--April 1958 to September 1966.

Gage.--Water-stage recorder and Parshall flume with overflow weirs. Altitude of gage is 6,110 ft (from topographic map).

Average discharge.--8 years, 12.0 cfs (8,690 acre-ft per year).

Extremes.--Maximum discharge during year, 317 cfs July 24 (gage height, 3.46 ft); minimum daily, 6.7 cfs July 2.

1958-66: Maximum discharge, 2,630 cfs Aug. 4, 1964 (gage height, 5.27 ft), from rating curve extended above 190 cfs on basis of slope-area measurements at gage heights 3.87, 4.52, and 5.27 ft; minimum daily, 2.3 cfs Mar. 25, 1965.

Remarks.--Records fair. Natural flow of stream affected by storage reservoirs, power developments, diversions for irrigation and municipal use, and at times, transbasin diversion from Beaver Creek drainage and transmountain diversions from Colorado River basin.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	16	17	11	12	11	8.8	9.3	11	10	18	17
2	18	15	14	10	12	11	9.0	9.0	10	6.7	27	25
3	15	13	13	11	12	11	10	9.3	9.3	7.5	32	27
4	11	13	13	11	12	10	11	9.5	9.3	7.6	39	25
5	9.8	14	12	12	12	10	10	9.5	8.6	9.8	33	23
6	11	12	11	12	11	9.5	11	9.0	11	13	42	24
7	14	12	10	12	9.1	12	11	8.8	8.8	11	33	25
8	12	12	9.1	11	8.0	12	11	8.5	9.1	10	32	22
9	11	14	12	12	8.0	12	11	16	9.6	12	30	17
10	9.0	13	14	14	8.1	13	11	15	9.1	11	31	13
11	11	12	13	18	8.8	11	10	9.8	8.3	11	31	12
12	15	13	13	15	8.0	11	9.5	13	7.8	13	31	12
13	14	15	13	12	8.0	11	9.1	13	7.6	13	29	11
14	15	16	15	10	8.5	11	9.0	14	7.6	14	23	10
15	15	16	13	13	8.5	11	8.8	13	7.6	17	16	14
16	16	13	12	13	9.0	11	9.1	12	9.5	12	14	19
17	20	13	11	13	9.0	11	8.5	13	13	11	11	18
18	26	12	11	13	9.3	11	8.3	12	17	23	9.6	14
19	23	12	13	13	11	14	8.3	11	12	34	15	11
20	21	11	16	13	9.6	13	9.1	10	11	34	38	9.3
21	19	13	14	13	8.6	12	9.3	9.5	11	40	39	8.3
22	18	16	17	13	9.8	12	9.3	9.6	10	37	36	7.6
23	18	15	17	13	11	11	9.0	9.5	9.8	33	26	7.6
24	17	11	16	13	12	14	8.6	9.3	9.6	68	24	8.1
25	14	12	17	13	8.8	13	8.3	8.6	8.1	31	22	8.1
26	16	15	17	12	8.1	11	7.6	9.0	9.0	18	21	9.3
27	14	12	16	12	9.3	10	7.6	9.0	9.0	16	18	26
28	15	12	16	12	10	10	7.6	9.0	9.0	17	17	27
29	14	14	17	12	-	9.6	8.1	9.8	11	20	16	22
30	13	15	15	12	-----	9.5	9.8	9.5	13	14	15	16
31	12	-----	13	12	-----	9.0	-----	9.5	-----	13	15	-----
Total	475.8	402	430.1	386	271.5	347.6	278.7	327.0	296.7	587.6	783.6	488.3
Mean	15.3	13.4	13.9	12.5	9.70	11.2	9.29	10.5	9.89	19.0	25.3	16.3
Ac-ft	944	797	853	766	539	689	553	649	588	1,170	1,550	969

Calendar year 1965: Max 233 Min 2.3 Mean 22.4 Ac-ft 16,210

Water year 1965-66: Max 68 Min 6.7 Mean 13.9 Ac-ft 10,070

Peak discharge (base, 250 cfs, revised).--July 24 (1615) 317 cfs (3.46 ft).

## ARKANSAS RIVER BASIN

7-1039. West Monument Creek near Pikeview, Colo.

Location.--Lat 38°58'17", long 104°53'56", in SW¼ sec.28, T.12 S., R.67 W., on right bank in Air Force Academy Reservation, 4 miles upstream from mouth and 11½ miles northwest of Pikeview.

Drainage area.--15.4 sq mi.

Records available.--October 1957 to September 1966.

Gage.--Water-stage recorder and Parshall flume. Datum of gage is 7,080.78 ft (City of Colorado Springs bench mark).

Average discharge.--9 years, 0.68 cfs (492 acre-ft per year).

Extremes.--Maximum discharge during year, 8.6 cfs May 10 (gage height, 0.80 ft); no flow for many days.

1957-66: Maximum discharge, about 400 cfs June 17, 1965 (gage height, 4.80 ft, from floodmark), estimated on basis of slope-area measurement of peak flow at point 1.6 miles downstream; no flow for many days in each year.

Remarks.--Records fair. Natural flow of stream affected by storage reservoirs (combined capacity, 1,520 acre-ft) and diversions for municipal use.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.4	0.4	0			0	0.3	1.2	0.3	0	0	0.1
2	.5	2.1	.1			0	.3	1.0	.4	0	0	0
3	.7	2.1	0			0	.1	.8	.2	.2	.7	.3
4	.7	1.1	.1			0	.2	1.0	.3	0	.7	.3
5	.5	1.0	.1			.0	.2	.9	.1	.2	.5	.6
6	.6	.7	.2			0	.1	.9	0	.1	.4	3.4
7	.7	.3	0			0	.2	1.0	.4	.3	.6	4.0
8	.5	.3	.1			0	.1	.9	.2	.1	.6	.5
9	.6	.2	0			0	.4	1.1	0	0	.5	.5
10	.6	.2	0			0	.4	3.0	.2	0	.4	.8
11	.6	.1	0			0	.3	.5	0	0	.2	.3
12	.6	.2	.1			0	.2	.5	1.1	0	.1	0
13	.4	.1	0			0	.2	.4	.8	.4	.1	0
14	.3	.1	0			0	.1	.4	.4	.3	.2	0
15	.4	.2	0			0	.3	.7	.1	0	.3	0
16	.4	.2	0			0	.4	.6	.3	.1	.4	.3
17	.5	.1	0			0	.3	.8	1.8	.2	.4	.1
18	.5	0	0			0	.4	.4	1.2	.5	.6	.1
19	.6	.1	0			0	.3	.5	.4	.2	.8	.2
20	.7	0	0			0	.4	.6	.3	1.3	1.0	.3
21	.6	.1	0			0	.2	.5	.1	.2	1.0	.3
22	.3	.1	0			0	.3	.4	.5	0	.6	.3
23	.7	.2	0			0	.2	.7	.4	0	.6	.4
24	.7	.3	0			0	.2	.4	.2	.4	.4	.3
25	.1	.1	0			0	.7	.4	.1	1.3	.5	.4
26	.1	.1	0			0	.7	.4	.2	2.4	.6	.7
27	.3	0	0			0	.9	.2	2.7	2.4	.5	.7
28	.4	.6	0			0	.6	.3	1.4	.3	.3	.4
29	0	0	0		-	0	.9	.3	.7	0	.3	.4
30	0	.1	0			.1	1.3	.3	.3	0	.2	.1
31	0		0			.1		.4		0	.2	
Total	14.0	11.1	0.7	0	0	0.2	11.2	21.5	15.1	10.9	13.7	15.8
Mean	0.45	0.37	0.02	0	0	0.006	0.37	0.69	0.50	0.35	0.44	0.53
Ac-ft	28	22	1.4	0	0	0.4	22	43	30	22	27	31

Calendar year 1965: Max 130 Min 0 Mean 1.97 Ac-ft 1,420  
 Water year 1965-66: Max 4.0 Min 0 Mean 0.31 Ac-ft 227

## 7-1045. Templeton Gap Floodway at Colorado Springs, Colo.

Location.--Lat 38°53'17", long 104°49'01", in SE¼ sec.30, T.13 S., R.66 W., on left bank 75 ft upstream from head of concrete flume, 400 ft upstream from bridge on U. S. Highways 85 and 87, and three-quarters of a mile north of Colorado Springs.

Drainage area.--8.46 sq mi.

Records available.--July 1951 to September 1966.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 6,200 ft (from topographic map).

Average discharge.--15 years, 0.13 cfs (94 acre-ft per year).

Extremes.--Maximum discharge during year, 325 cfs June 17 (gage height, 2.42 ft); no flow for most of year.

1951-66: Maximum discharge, 572 cfs June 17, 1965 (gage height, 2.84 ft), from rating curve based on computation of flow at critical depth at gage heights, 1.3, 1.4, 1.8, and 3.0 ft; no flow for most of time.

Remarks.--Records good. This is an artificial channel constructed to divert flood flows from normally dry channels around Colorado Springs during periods of heavy rainfall.

Discharge, in cubic feet per second, water year October 1965 to September 1966

June 17.....	34	Aug. 20.....	16
18.....	3.1	21.....	15
July 19.....	.3	22.....	5.1
24.....	.5	23.....	.6
31.....	.4	Sept. 2.....	.8
Aug. 4.....	3.8	27.....	1.1
11.....	.1	28.....	2.9

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
June.....	37.1	34	0	1.24	74
July.....	1.2	.5	0	.04	2.4
August.....	40.6	16	0	1.31	81
September.....	4.8	2.9	0	.16	9.5
Calendar year 1965...	-	103	0	.41	294
Water year 1965-66...	-	34	0	.23	166

Note.--Flow occurred only on days listed above.



7-1058. Fountain Creek at Security, Colo.

Location.--Lat 38°43'46", long 104°44'00", in SW¼ sec.24, T.15 S., R.66 W., on right bank 60 ft upstream from Carson Road bridge, half a mile southwest of south end of Security, 3½ miles northeast of Fountain, and 5½ miles upstream from Jimmy Camp Creek.

Drainage area.--488 sq mi.

Records available.--October 1964 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 5,640 ft (from topographic map).

Extremes.--Maximum discharge during year not determined; minimum daily, 6.6 cfs July 4.

1964-66: Maximum discharge, 25,000 cfs July 24, 1965 (gage height, 11.30 ft, from floodmarks), from rating curve extended above 2,900 cfs on basis of slope-area measurement of peak flow; minimum daily, 1.9 cfs Mar. 1, 1965.

Remarks.--Records poor. Natural flow of stream affected by storage reservoirs, power developments, diversions for irrigation of about 5,100 acres, municipal use, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	33	18	37	67	74	26	31	23	26	40	45
2	50	36	19	31	67	61	26	33	19	16	50	60
3	63	33	17	33	67	56	24	33	16	12	57	76
4	61	34	18	41	67	50	23	29	16	6.6	100	70
5	61	33	18	41	63	63	25	27	14	7.7	74	68
6	59	30	18	43	59	74	31	29	16	11	108	70
7	48	30	14	41	61	78	32	31	19	13	70	74
8	48	26	18	36	59	61	31	34	20	13	63	60
9	48	15	15	37	61	85	31	52	24	9.3	63	45
10	40	12	18	36	63	82	27	33	28	11	61	35
11	34	14	22	40	70	70	24	24	29	9.8	93	30
12	29	15	19	43	74	63	24	37	25	9.3	59	30
13	37	12	18	40	67	70	23	33	24	14	40	27
14	50	12	13	38	61	74	23	26	22	24	45	25
15	50	14	16	54	61	67	22	23	20	25	40	40
16	50	18	16	52	56	63	20	23	26	37	36	44
17	56	17	17	61	59	59	18	22	40	34	34	30
18	100	20	20	63	63	50	18	20	140	45	30	25
19	144	19	24	63	70	45	18	23	63	48	45	20
20	108	15	24	59	63	41	18	21	48	50	80	17
21	93	14	24	70	61	37	26	18	36	70	80	15
22	89	13	32	61	63	34	31	18	31	60	70	14
23	61	14	22	61	63	34	34	19	22	80	60	14
24	36	16	22	63	70	40	34	14	20	120	54	28
25	48	9.8	22	63	67	36	29	11	19	90	50	30
26	43	18	26	74	70	29	28	12	18	60	45	38
27	45	18	37	63	70	27	28	13	21	42	40	50
28	38	19	38	67	74	28	28	16	21	45	35	54
29	43	24	25	82	-	24	31	18	22	50	30	40
30	37	20	31	78	-----	24	31	20	18	40	28	30
31	31	-----	41	74	-----	27	-----	22	-----	35	28	-----
Total	1,750	603.8	682	1,645	1,816	1,626	784	765	860	1,113.7	1,708	1,204
Mean	56.5	20.1	22.0	53.1	64.9	52.5	26.1	24.7	28.7	35.9	55.1	40.1
Ac-ft	3,470	1,200	1,350	3,260	3,600	3,230	1,560	1,520	1,710	2,210	3,390	2,390

Calendar year 1965: Max 5,650 Min 1.9 Mean 97.3 Ac-ft 70,420

Water year 1965-66: Max 144 Min 6.6 Mean 39.9 Ac-ft 28,870

Note.--No gage-height record Aug. 15 to Sept. 30.

7-1095. Arkansas River near Avondale, Colo.

Location.--Lat 38°14'53", long 104°23'55", in NE¼SW¼ sec.1, T.21 S., R.63 W., on right bank 15 ft downstream from bridge on Sixmile Road, 0.3 mile upstream from Sixmile Creek, and 2.6 miles west of Avondale.

Drainage area.--6,327 sq mi.

Records available.--May 1939 to September 1951, February 1965 to September 1966.

Gage.--Water-stage recorder. Datum of gage is 4,509.53 ft above mean sea level, datum of 1929. Prior to February 1965 at site 550 ft downstream at datum 1.37 ft lower.

Average discharge.--13 years, 882 cfs (638,500 acre-ft per year).

Extremes.--Maximum discharge during year, 8,550 cfs Aug. 2 (gage height, 7.27 ft); minimum daily, 210 cfs Sept. 24.

1939-51, 1965-66: Maximum discharge, about 50,000 cfs June 18, 1965 (gage height, 9.77 ft), from rating curve extended above 6,700 cfs on basis of records for station near Pueblo and indirect measurements of peak flow on Fountain Creek at Pueblo, Chico Creek near North Avondale, and Arkansas River near North Avondale; minimum daily, 50 cfs Apr. 2, 1940.

Remarks.--Records fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation of about 123,000 acres and municipal use, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	218	690	645	671	604	531	290	635	1,280	1,120	998	580
2	874	679	652	645	590	506	310	710	1,380	852	3,710	740
3	830	679	652	627	593	470	340	720	1,340	866	2,050	720
4	816	664	645	601	578	428	383	735	1,480	745	1,800	750
5	794	656	638	619	612	417	376	808	1,370	685	2,140	796
6	774	638	641	634	630	438	332	944	1,190	635	1,340	872
7	758	630	634	656	634	452	308	1,200	1,010	588	1,140	866
8	747	623	638	656	634	474	350	1,400	965	588	1,040	859
9	713	627	638	656	627	452	350	1,540	904	852	1,040	872
10	694	619	638	634	619	428	350	1,380	878	852	965	840
11	698	619	645	634	590	417	383	1,220	911	808	885	780
12	709	634	638	619	567	400	420	1,180	1,180	778	866	700
13	701	616	630	597	571	380	649	1,080	1,100	833	944	540
14	679	619	627	582	567	376	694	852	1,020	930	1,020	370
15	675	638	641	593	524	373	694	840	1,080	1,020	980	385
16	664	604	641	578	510	373	679	700	1,220	1,050	937	398
17	694	630	656	567	535	390	645	620	1,310	898	944	340
18	781	690	638	542	571	400	690	610	1,440	900	911	300
19	830	698	623	553	604	360	682	660	1,420	900	892	305
20	826	660	641	593	597	329	709	670	1,280	1,500	980	270
21	812	623	656	586	590	326	698	700	1,270	2,700	1,080	806
22	808	608	664	499	590	344	698	840	1,300	1,660	1,160	338
23	794	608	690	477	582	357	656	1,020	1,390	1,800	1,080	220
24	781	604	682	528	571	318	664	988	1,500	2,320	1,080	210
25	774	619	667	531	567	318	645	924	1,420	1,060	995	225
26	770	641	667	542	560	308	616	924	1,360	1,380	944	245
27	770	645	660	571	553	310	597	1,060	1,410	904	904	397
28	732	630	667	531	560	318	630	1,080	1,250	1,060	796	391
29	724	627	690	564	-	325	660	988	1,080	1,030	730	355
30	713	630	686	560	-----	305	635	965	1,090	1,100	660	290
31	682	-----	698	634	-----	282	-----	1,000	-----	802	620	-----
Total	23,535	19,148	20,228	18,280	16,330	11,905	16,133	28,993	36,828	33,216	35,631	15,760
Mean	759	638	653	590	583	384	538	935	1,228	1,071	1,149	525
Ac-ft	46,680	37,980	40,120	36,260	32,390	23,610	32,000	57,510	73,050	65,880	70,670	31,260

Calendar year 1965: Max - Min - Mean - Ac-ft -  
 Water year 1965-66: Max 3,710 Min 210 Mean 756 Ac-ft 547,400

7-1110. Huerfano River at Manzanares Crossing, near Redwing, Colo.

Location--Lat 37°43'40", long 105°21'00", in sec.5, T.27 S., R.71 W., on left bank at Manzanares Crossing, 500 ft downstream from private bridge, a quarter of a mile downstream from Manzanares Creek, and 3½ miles southwest of Redwing.

Drainage area--73 sq mi.

Records available--July 1923 to September 1966. Monthly discharge only for some periods, published in WSP 1311.

Gage--Water-stage recorder. Altitude of gage is 8,270 ft (from topographic map). Prior to Sept. 8, 1934, at sites about 500 ft upstream at different datums. Sept. 8, 1934, to Mar. 15, 1937, at datum 1.36 ft higher, Mar. 16, 1937, to Sept. 30, 1945, at datum 0.86 ft higher, and Oct. 1, 1945, to Apr. 25, 1946, at datum 0.36 ft higher than present datum.

Average discharge--43 years, 32.3 cfs (23,380 acre-ft per year).

Extremes--Maximum discharge during year, 2,420 cfs Aug. 5 (gage height, 4.15 ft); minimum daily, 10 cfs for many days.  
1923-66: Maximum discharge, 10,200 cfs Aug. 2, 1951 (gage height, 8.14 ft), from rating curve extended above 270 cfs on basis of slope-area measurement of peak flow; minimum daily determined, 4 cfs Jan. 22, 1937.

Remarks--Records good except those for period of no gage-height record, which are poor. Diversions above station for irrigation of about 1,800 acres.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	47	27	17	13	13	13	17	20	56	46	45	18
2	44	27	17	12	14	13	17	22	50	41	55	17
3	41	28	17	13	15	11	14	25	48	36	65	17
4	39	28	18	13	15	10	12	27	48	34	69	16
5	38	26	19	13	16	10	15	31	48	32	144	16
6	37	25	18	13	16	10	15	36	45	31	100	16
7	36	25	16	14	15	10	15	40	44	31	50	15
8	35	25	16	15	14	11	16	46	44	30	38	16
9	34	25	15	15	13	12	16	46	46	32	36	17
10	33	25	15	15	12	12	17	40	55	31	35	17
11	32	24	14	15	13	13	16	36	48	34	34	17
12	32	24	11	15	12	14	14	36	45	57	37	16
13	31	22	11	14	12	14	15	34	44	57	34	15
14	30	20	10	14	12	14	15	32	45	49	30	15
15	29	19	10	14	12	14	15	29	46	46	29	15
16	28	18	10	12	13	14	16	30	46	46	30	14
17	34	18	10	11	13	14	17	30	45	41	31	14
18	32	17	12	13	14	14	16	34	49	45	28	14
19	29	17	12	13	13	14	15	36	48	55	27	14
20	26	16	12	11	13	14	14	37	47	74	28	14
21	27	16	12	10	13	13	16	41	57	63	28	12
22	27	14	12	12	13	11	17	42	60	60	26	12
23	27	17	11	13	13	11	16	41	55	53	26	11
24	27	16	12	13	13	12	16	41	49	48	27	11
25	26	17	12	14	13	13	16	41	46	42	24	10
26	26	16	12	14	13	13	17	47	48	40	22	10
27	26	15	11	13	13	14	17	46	42	39	22	11
28	26	15	10	13	13	14	16	45	39	42	21	10
29	26	16	12	14	-	14	17	42	38	57	21	10
30	27	17	14	14	-----	14	20	46	37	62	20	10
31	27	-----	14	15	-----	14	-----	53	-----	50	19	-----
Total	979	615	412	413	374	394	475	1,152	1,418	1,404	1,201	420
Mean	31.6	20.5	13.3	13.3	13.4	12.7	15.8	37.2	47.3	45.3	38.7	14.0
Ac-ft	1,940	1,220	817	819	742	781	942	2,280	2,810	2,780	2,380	833

Calendar year 1965: Max 182 Min - Mean 36.7 Ac-ft 26,580  
Water year 1965-66: Max 144 Min 10 Mean 25.4 Ac-ft 18,360

Peak discharge (base, 200 cfs)--July 13 (1445) 204 cfs (1.62 ft); Aug. 8 (2045) 2,420 cfs (4.15 ft).

Note--No gage-height record Nov. 26 to Mar. 28.

7-1140. Cucharas River at Boyd Ranch, near La Veta, Colo.

Location.--Lat 37°27'12", long 105°03'08", in SE<sup>1</sup>NE<sup>1</sup>SE<sup>1</sup> sec.24, T.30 S., R.69 W., on left bank at Boyd Ranch, 29 ft downstream from private bridge, 1.4 miles downstream from Chaparral Creek, and 6.5 miles southwest of La Veta.

Drainage area.--56 sq mi.

Records available.--October 1934 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 7,781 ft (from topographic map).

Average discharge.--32 years, 24.1 cfs (17,450 acre-ft per year).

Extremes.--Maximum discharge during year, 165 cfs Aug. 1 (gage height, 2.66 ft); minimum daily not determined.

1934-66: Maximum discharge, 444 cfs May 23, 1955 (gage height, 4.05 ft); minimum daily, 2 cfs for several days November 1934 to January 1935, Sept. 29, 1950.

Remarks.--Records good except those for period of no gage-height record, which are poor. Diversions for irrigation of about 500 acres above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	9.8	9.1				8.8	14	25	18	32	10
2	9.8	8.0	9.8				9.4	14	25	16	25	9.8
3	9.8	8.4	10				8.8	14	25	15	33	9.1
4	9.8	8.4	8.8			7.0	5.8	14	25	15	5.8	9.1
5	9.8	9.1	7.4				11	15	25	14	42	9.1
6	9.8	9.1	9.1				12	15	25	13	34	9.1
7	9.8	9.1	11			7.4	10	17	23	13	29	9.1
8	10	8.8	9.1			7.8	10	23	22	12	26	8.8
9	10	9.1	7.4			8.0	9.8	28	22	12	24	8.0
10	10	9.1	7.4			8.4	10	29	25	12	22	8.0
11	10	9.1	7.0			8.4	9.8	27	22	12	22	8.0
12	10	8.4	8.0			8.8	9.1	26	21	12	22	7.7
13	10	9.1	9.8			8.8	9.1	25	20	13	21	7.4
14	10	8.4	9.1			8.8	8.8	24	19	13	19	7.4
15	9.8	8.4	8.5	8.5	7.5	8.8	8.8	23	19	12	17	7.4
16	10	8.4				8.4	9.4	23	21	12	17	7.4
17	14	8.4				7.4	9.8	22	22	11	16	7.0
18	13	8.4				7.4	9.8	22	24	12	15	7.4
19	12	8.0				7.4	9.8	22	22	13	15	7.4
20	11	8.4				7.0	8.8	20	22	14	15	7.0
21	10	8.4				7.0	12	20	23	15	15	7.0
22	10	8.4				6.1	10	20	23	13	15	7.0
23	10	10	9.5			6.4	10	20	22	19	15	7.4
24	10	9.4				7.0	12	21	20	19	16	7.0
25	11	11				6.4	13	22	20	14	13	6.4
26	11	9.1				6.4	14	23	20	14	12	6.4
27	11	8.2				6.4	14	23	20	16	11	6.7
28	11	8.4				6.4	14	23	19	22	11	6.4
29	10	9.0				6.4	14	23	20	28	11	6.4
30	10	9.4				7.0	14	22	20	27	10	6.4
31	10	-----			-----	7.7	-----	24	-----	21	10	-----
Total	322.6	265.2	283.5	263.5	210	228.0	315.8	658	661	472	643	231.3
Mean	10.4	8.84	9.15	8.5	7.5	7.35	10.5	21.2	22.0	15.2	20.7	7.71
Ac-ft	640	526	562	523	417	452	626	1,310	1,310	936	1,280	459

Calendar year 1965: Max 107 Min 3.9 Mean 20.4 Ac-ft 14,780

Water year 1965-66: Max 58 Min - Mean 12.5 Ac-ft 9,030

Peak discharge (base, 150 cfs).--Aug. 1 (1500) 165 cfs (2.66 ft).

Note.--No gage-height record Dec. 15 to Mar. 8.

## ARKANSAS RIVER BASIN

7-1160. Huerfano River below Huerfano Valley Dam, near Undercliffe, Colo.

Location.--Lat 38°00', long 104°28', in S½ sec.32, T.23 S., R.63 W., at left end of diversion dam for Huerfano Valley ditch, 8 miles southwest of Undercliffe.

Drainage area.--1,673 sq mi.

Records available.--October 1939 to September 1966.

Gage.--Water-stage recorder. Datum of gage is 4,886.29 ft above mean sea level, datum of 1929. Prior to July 26, 1950, at site 0.3 mile downstream at datum 14.27 ft lower and July 26, 1950, to Dec. 15, 1954, at site 0.3 mile downstream at datum 16.27 ft lower.

Average discharge.--27 years, 35.5 cfs (25,700 acre-ft per year).

Extremes.--Maximum discharge during year, 15,700 cfs Sept. 26 (gage height, 13.8 ft, from floodmark); no flow for many days. 1939-66: Maximum discharge, 16,800 cfs July 5, 1958 (gage height, 14.5 ft), from rating curve extended above 380 cfs on basis of computation of flow-over-dam at gage heights 11.04 and 14.5 ft; no flow at times in nearly every year. Maximum stage and discharge known since at least 1900, that of July 5, 1958, from information by local residents.

Remarks.--Records poor. Diversions above station for irrigation of about 43,000 acres.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.4	0.7	1.1	1.0					0	0	181	1.0
2	5.9	.7	6.6	1.0			1.0		0	0	512	2.0
3	5.4	.7	1.3	1.0					0	0	3.9	2.0
4	4.1	.7	0	.9					0	0	179	1.0
5	3.6	.7	0	.9		15	.6		0	0	377	0
6	2.9	.8	0				.4		0	0	302	0
7	2.0	.8	1.7				.3		0	3.4	40	0
8	2.6	.7	5.2		1.0		0		0	2.4	5.1	0
9	2.0	.8	4.5				0		0	0	2.0	1.2
10	1.2	1.1	3.8			8.1	0		0	0	2.0	.7
11	.8	1.1	3.6	1.0		6.6	0		0	0	4.2	.1
12	.8	1.0	3.6			4.9	0		0	0	228	2.2
13	.7	.7	3.0			4.9	0		0	0	8.0	5.6
14	.7	.8	2.8				0		0	3.6	5.0	5.9
15	.6	.7	6.2				0		0	3.5	3.0	8.7
16	.2	.5	8.7				0		0	4.4	7.4	8.7
17	2.2	.7	4.0				0		0	3.8	7.2	1.1
18	1.7	.7	4.0		10		0		2.0	3.6	6.2	3.9
19	1.5	.7	4.0	2.0			0		2.0	3.3	4.0	3.0
20	.9	.7	4.0				0		5.0	8.2	4.0	7.4
21	.7	.7	4.0			2.0	1.6		4.0	3.6	7.6	6.6
22	.7	.6	4.0				7.4		3.0	15.1	29.1	6.6
23	.7	.7	4.0		25		6.2		5.0	5.15	1.5	6.2
24	.7	.5	0				2.6		1.0	8.8	5.0	5.9
25	.6	.4	0	2.0			.7		0	8.2	6.2	5.9
26	3.0	.2	0				0		0	7.9	3.0	600
27	1.8	.1	1.0				0		0	0	2.0	200
28	.8	.5	1.0				0		0	1.6	2.0	80
29	.7	.7	1.0				0		0	1.8	1.1	5.8
30	.7	1.2	1.0				0		0	13.6	3.0	3.2
31	.7	---	1.0				---		---	2.0	3.0	---
Total	58.3	20.9	95.0	43.8	265.0	195.5	38.2	0	22.0	1,432.8	2,298.2	1,127.7
Mean	1.88	0.70	3.06	1.41	9.46	6.31	1.27	0	0.73	46.2	74.1	37.6
Ac-ft	116	41	188	87	526	388	76	0	44	2,840	4,560	2,240

Calendar year 1965: Max 409 Min 0 Mean 6.80 Ac-ft 4,930  
 Water year 1965-66: Max 600 Min 0 Mean 15.3 Ac-ft 11,100

Peak discharge (base, 3,000 cfs)

Note.--No gage-height record Dec. 28 to Mar. 9, Sept. 26-28.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
7-23	2100	5.58	3,680	9-6	2300	13.8	15,700
8-5	0230	5.27	3,320				

7-1170. Arkansas River near Nepesta, Colo.

Location.--Lat 38°11'03", long 104°10'22", in SW¼SE¼ sec.25, T.21 S., R.61 W., on right bank 0.7 mile upstream from headgate of Oxford Farmers Co. canal, 1.9 miles northwest of Nepesta, 2.7 miles upstream from Kramer Creek, and 6.6 miles downstream from Huerfano River. Prior to Apr. 5, 1966, at site 0.7 mile upstream.

Drainage area.--9,345 sq mi, of which 54 sq mi is probably noncontributing.

Records available.--April to October 1903, April to November 1912, October 1913 to September 1966. Monthly discharge only for some periods, published in WSP 1311. Records originally published for October 1933 to June 1936 did not include diversion to Oxford Farmers Co. canal, but monthly figures only for this period have been adjusted for diversion and published in WSP 1311.

Records for river below Oxford Farmers Co. canal (diversion to canal not included), published as "at Nepesta," September 1897 to October 1902 (irrigation seasons only), April to October 1904, June 1906 to September 1908 (irrigation seasons only), September 1909 to December 1910, February to September 1911 (gage heights and discharge measurements only), October 1911 to November 1912, March to August 1913 (discharge measurements only), October 1913 to September 1936. Monthly discharge only for some periods, published in WSP 1311.

Gage.--Water-stage recorder. Altitude of gage is 4,385 ft (from topographic map). Prior to June 5, 1921, staff gages or water-stage recorders at various sites within 4½ miles upstream and 3 miles downstream at different datums. June 5, 1921, to Apr. 4, 1966, water-stage recorders at sites on river or river and canal within 0.7 mile downstream at various datums.

Average discharge.--53 years (1913-66), 691 cfs (500,300 acre-ft per year).

Extremes.--Maximum discharge during year, 19,000 cfs Sept. 27 (gage height, 7.17 ft); minimum daily, 94 cfs Sept. 8.

1897-1904, 1906-12, 1913-66: Maximum discharge, 180,000 cfs June 4, 1921 (gage height not determined), by slope-area measurement of peak flow at point 8 miles upstream; no flow at times in 1902, 1910, 1931, 1934.

Remarks.--Records fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 230,000 acres, and return flow from irrigated areas. Records of chemical analyses for the water year 1966 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	878	400	519	836	590	560	211	220	918	544	588	256
2	213	480	588	757	580	540	208	234	1,020	635	4,450	229
3	849	620	616	726	580	470	192	270	776	794	1,330	392
4	798	600	645	653	580	470	278	310	677	663	1,380	376
5	776	647	646	589	570	500	280	360	663	614	2,090	285
6	768	556	646	606	560	480	275	504	691	540	1,180	164
7	779	476	664	681	576	470	216	670	874	492	1,250	107
8	791	444	655	680	594	455	206	863	691	462	1,110	24
9	776	452	654	688	642	365	256	976	516	432	1,070	128
10	682	430	635	668	681	223	265	677	468	432	719	120
11	628	418	643	610	611	200	270	733	480	404	726	120
12	676	425	643	592	557	215	300	812	534	330	628	325
13	622	456	636	609	583	178	300	677	432	387	952	211
14	525	456	617	573	480	153	270	540	444	486	456	164
15	518	496	634	590	430	283	280	480	534	582	444	161
16	494	486	632	625	420	223	270	480	607	642	376	220
17	454	416	660	624	390	227	252	528	785	528	310	193
18	568	541	633	623	391	256	224	522	976	498	340	184
19	683	568	614	623	652	233	234	570	852	504	300	168
20	607	651	509	641	703	186	252	600	681	663	295	175
21	561	575	408	638	714	190	325	635	600	2,530	663	154
22	606	557	433	620	714	225	320	698	576	1,530	594	135
23	561	539	513	600	705	282	252	907	684	1,040	456	132
24	566	480	554	550	696	252	260	767	821	1,860	492	132
25	600	488	650	540	637	204	270	558	758	220	498	128
26	581	510	739	540	591	188	242	863	719	940	387	140
27	610	591	726	550	546	183	216	907	812	414	300	4,170
28	554	564	754	570	529	190	206	907	621	758	360	404
29	543	510	829	590	-	204	216	776	534	677	350	325
30	409	528	783	600	-----	214	206	733	522	830	345	220
31	300	-----	792	600	-----	216	-----	698	-----	642	315	-----
Total	19,676	15,360	19,670	19,392	16,302	9,035	7,552	19,475	20,266	22,073	24,754	10,012
Mean	635	512	635	626	582	291	252	628	676	712	799	334
Ac-ft	39,030	30,470	39,010	38,460	32,330	17,920	14,980	38,630	40,200	43,780	49,100	19,860

Calendar year 1965: Max 18,700 Min 142 Mean 1,094 Ac-ft 792,100  
 Water year 1965-66: Max 4,450 Min 94 Mean 558 Ac-ft 403,800

## ARKANSAS RIVER BASIN

7-1195. Apishapa River near Fowler, Colo.

Location.--Lat 38°05'28", long 103°58'52", in SE¼NW¼ sec.35, T.22 S., R.59 W., near right bank on downstream side of county highway bridge, 4 miles southeast of Fowler and 5.4 miles upstream from mouth.

Drainage area.--1,125 sq mi.

Records available.--April 1922 to September 1925, May 1939 to September 1966. Monthly discharge only for some periods, published in WSP 1311.

Gage.--Water-stage recorder. Datum of gage is 4,317.05 ft above mean sea level, datum of 1929. Prior to Aug. 29, 1923, at site 3 miles downstream at different datum. Aug. 29, 1923, to Sept. 30, 1925, at present site at different datum.

Average discharge.--30 years, 35.3 cfs (25,560 acre-ft per year).

Extremes.--Maximum discharge during year, 7,750 cfs July 24 (gage height, 12.11 ft); minimum daily, 0.5 cfs July 15, 16.

1922-25, 1939-66: Maximum discharge, 83,000 cfs Aug. 22, 1923, by slope-area measurement 2 miles upstream from present station, caused by failure of Apishapa Dam 31 miles upstream; no flow Feb. 5, 1951.

Remarks.--Records fair. Waste water from Oxford Farmers Co. and Rocky Fork Highline canals enters river above station. Diversions above station for irrigation of about 4,700 acres.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32.0	21	42	96	17	50	2.2	1.4	15	1.7	24	3
2	32.0	61	43	92	17	47	2.0	1.6	18	1.4	40	9
3	24	77	44	90	18	69	1.8	1.6	25	1.4	43	3
4	25	80	45	67	18	80	1.8	1.2	23	6.8	30	3
5	21	92	46	30	18	16	2.0	1.2	7.6	1.6	57	3
6	15	90	47	5.0	18	6.8	2.0	1.1	26	1.7	61	3
7	12	97	45	17	18	5.4	1.7	1.1	24	1.7	33	3
8	13	105	34	4.5	16	5.4	2.8	8	20	1.6	33	3
9	13	120	32	3.8	16	5.4	1.7	5.0	18	1.6	77	3.0
10	14	126	29	4.5	18	5.4	1.6	3.0	14	1.2	84	3.5
11	12	126	25	10	15	10	1.6	2.8	10	1.0	398	3.8
12	13	114	17	42	15	6.8	1.7	4.0	8.6	1.0	187	4.0
13	17	108	17	43	16	5.4	1.4	2.5	5.8	.6	277	4.0
14	21	111	29	48	13	3.8	1.6	4.0	7.6	.6	45	5.4
15	22	114	40	59	12	5.8	1.6	3.8	3.2	.5	24	6.3
16	21	123	46	69	9.0	2.8	1.7	2.5	2.0	.5	18	6.3
17	27	123	50	50	7.6	16	1.8	2.2	2.2	3.5	150	5.8
18	39	117	54	35	9.7	32	1.7	2.0	2.8	1.2	20	5.8
19	54	117	60	20	12	10	1.7	2.0	1.7	1.1	12	10
20	45	117	64	14	15	15	1.7	1.8	1.7	1.2	10	9.0
21	42	39	70	10	15	17	1.7	1.7	1.6	1.2	521	7.6
22	32	34	62	10	20	39	1.6	1.7	1.6	3.2	1,960	6.8
23	22	40	52	11	33	17	1.4	3.2	2.0	1,330	187	6.3
24	21	48	50	11	45	14	1.4	3.0	2.5	1,930	29	5.8
25	12	67	58	12	55	7.6	1.2	2.5	2.5	82	57	5.4
26	5.0	67	74	13	52	2.5	1.2	2.8	2.5	732	23	6.3
27	4.2	42	100	14	54	3.2	1.1	4.2	1.8	24	15	599
28	4.0	37	110	15	52	4.2	1.2	2.8	1.6	107	10	37
29	3.5	37	105	15	-	3.2	1.2	1.8	1.7	4.0	7	18
30	9.7	42	105	16	-----	2.8	1.4	1.8	2.5	216	5	12
31	16	-----	100	16	-----	2.2	-----	1.1	-----	48	3	-----
Total	643.4	2,492	1,695	942.8	624.3	510.7	49.5	82.1	256.5	4,509.3	4,440	801.1
Mean	20.8	83.1	54.7	30.4	22.3	16.5	1.65	2.65	8.55	145	143	26.7
Ac-ft	1,280	4,940	3,360	1,870	1,240	1,010	98	163	509	8,940	8,810	1,590

Calendar year 1965: Max 5,100 Min 0.5 Mean 61.6 Ac-ft 44,570  
 Water year 1965-66: Max 1,960 Min 0.5 Mean 46.7 Ac-ft 33,810

Peak discharge (base, 3,000 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
7-24	0030	12.11	7,750	8-22	0645	9.70	5,940
7-26	1100	6.35	3,320				

7-1197. Arkansas River at Catlin Dam, near Fowler, Colo.

Location.--Lat 38°07'35", long 103°56'40", in NE¼ sec.19, T.22 S., R.58 W., on right bank at diversion dam for Catlin Canal, 1,470 ft downstream from Apishapa River and 4 miles east of Fowler.

Drainage area.--10,901 sq mi.

Records available.--October 1964 to September 1966.

Gage.--Water-stage recorders on river and on Catlin Canal. Datum of river gage is 4,270.00 ft above mean sea level, datum of 1929, supplementary adjustment of 1960.

Extremes.--Maximum discharge during year, 13,200 cfs Sept. 27 (gage height, 4.28 ft); minimum daily, 110 cfs Sept. 26.

1964-66: Maximum discharge, 43,200 cfs June 18, 1965 (gage height, 7.95 ft), from rating curve extended above 13,000 cfs on basis of flow-over-dam computation of peak flow; minimum daily, 67 cfs Dec. 8, 1964.

Remarks.--Records fair. Discharge computed by combining discharge of river below canal with that of Catlin Canal. Natural flow of stream affected by transmountain diversions, storage reservoirs, ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	821	396	515	725	648	422	193	181	653	499	533	377
2	866	341	533	626	630	392	204	197	884	507	3,410	364
3	836	439	604	548	610	362	191	220	878	628	947	372
4	700	498	591	510	600	342	224	252	616	560	1,090	492
5	708	496	548	522	605	348	244	272	749	542	2,170	396
6	675	504	568	549	630	365	253	352	558	504	885	377
7	725	521	566	591	636	406	213	501	941	417	1,330	377
8	701	523	555	654	610	437	144	775	921	380	1,070	401
9	743	534	537	625	657	419	183	805	590	362	1,060	437
10	647	537	543	598	681	353	188	790	509	335	946	176
11	648	540	552	521	653	346	185	563	453	321	812	433
12	638	529	552	502	602	331	192	704	468	238	719	391
13	657	565	533	479	600	328	207	599	415	236	916	319
14	502	546	524	470	301	297	192	489	366	343	564	287
15	470	488	539	522	533	320	203	334	468	455	454	262
16	446	525	619	536	407	346	205	357	564	465	377	210
17	454	490	708	349	426	320	222	337	623	426	433	210
18	498	525	698	436	458	291	190	470	745	375	341	210
19	642	639	634	565	522	266	194	462	777	374	295	193
20	499	645	575	558	575	238	223	490	669	380	296	191
21	515	560	403	528	582	236	269	521	581	1,980	654	180
22	617	539	504	488	560	240	325	532	549	1,020	2,620	163
23	584	523	494	458	537	215	277	632	581	2,180	505	147
24	541	497	547	479	473	265	234	722	679	5,030	371	127
25	572	522	575	510	453	234	226	500	728	373	387	154
26	562	555	729	530	446	237	211	532	659	2,000	259	110
27	592	543	632	545	438	250	226	683	626	547	191	3,700
28	563	523	632	510	435	232	241	637	622	769	215	475
29	521	469	582	522	-	221	220	663	465	626	247	372
30	497	496	582	595	-----	223	170	647	420	1,050	277	271
31	426	-----	624	645	-----	209	-----	556	-----	729	344	-----
Total	18,866	15,508	17,798	16,696	15,308	9,491	6,449	15,775	18,827	24,651	24,718	12,174
Mean	609	517	574	539	547	306	215	509	628	795	797	406
Ac-ft	37,420	30,760	35,300	33,120	30,360	18,830	12,790	31,290	37,340	48,890	49,030	24,150

Calendar year 1965: Max 18,300 Min 129 Mean 1,131 Ac-ft 818,800

Water year 1965-66: Max 5,030 Min 110 Mean 538 Ac-ft 389,300



## ARKANSAS RIVER BASIN

7-1230. Arkansas River at La Junta, Colo.

Location.--Lat 37°59', long 103°32', in NE¼ sec.2, T.24 S., R.55 W., on downstream side near middle of bridge on State Highway 109 in La Junta, 500 ft upstream from King Arroyo.

Drainage area.--12,210 sq mi, of which 115 sq mi is probably noncontributing.

Records available.--May to August 1889, September 1893 to December 1895 (gage heights, discharge measurements, and flood data only), April to October 1903, June to November 1908 (gage heights and discharge measurements only), April 1912 to September 1966. Monthly discharge only for some periods, published in WSP 1311. Published as "near La Junta" in 1903.

Gage.--Water-stage recorder, and chain gage read twice daily. Datum of gage is 4,039.60 ft above mean sea level, datum of 1929. Prior to Apr. 11, 1912, staff gages at several sites within 2 miles at various datums. Apr. 11, 1912, to June 12, 1940, water-stage recorder and staff or chain gages at several sites within 1 mile at various datums.

Average discharge.--54 years (1912-66), 258 cfs (186,800 acre-ft per year).

Extremes.--Maximum discharge during year, 11,700 cfs Sept. 27 (gage height, 9.25 ft); minimum daily, 3.7 cfs Apr. 18, 19.

1889, 1893-95, 1903, 1908, 1912-66: Maximum discharge, 200,000 cfs June 4, 1921 (gage height, 18.4 ft, at present site, datum then in use), from rating curve extended above 15,000 cfs on basis of slope-area measurement of peak flow; no flow Jan. 20-23, Mar. 20-22, 1915.

Remarks.--Records fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 400,000 acres, and return flow from irrigated areas. Records of chemical analyses for the water year 1966 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	216	196	132	300	114	96	16	64	64	76	17
2	49	224	208	126	300	82	96	16	41	31	805	22
3	42	240	208	90	290	34	88	14	39	101	165	113
4	38	264	204	75	290	25	88	13	86	159	200	62
5	31	252	182	144	290	27	88	13	98	143	159	94
6	52	232	162	35	290	25	23	13	112	98	284	90
7	38	204	147	25	300	24	20	28	73	76	182	46
8	34	212	132	22	340	23	18	68	76	64	143	17
9	30	248	129	34	400	20	13	98	90	43	116	12
10	35	208	129	23	300	20	11	120	79	31	83	11
11	32	208	126	17	290	27	16	85	67	31	112	24
12	32	200	123	16	260	52	18	108	62	31	188	20
13	32	200	126	18	250	40	88	92	76	46	194	24
14	32	196	150	19	250	27	80	82	79	53	116	39
15	202	208	153	16	250	37	72	80	76	464	121	46
16	348	208	123	14	240	24	64	80	50	116	86	86
17	397	208	220	35	232	25	48	90	67	59	83	37
18	433	200	316	100	256	32	37	80	178	79	83	34
19	397	200	316	160	280	22	37	85	127	109	83	28
20	397	200	276	190	325	19	64	47	112	148	76	29
21	356	182	264	160	316	23	48	123	56	176	94	22
22	343	190	289	180	294	18	40	117	43	824	3,500	23
23	316	190	284	190	312	19	32	95	94	2,450	109	14
24	302	190	284	160	312	37	20	100	70	5,350	75	14
25	289	190	256	300	276	37	18	75	105	421	82	13
26	268	196	284	310	244	35	23	117	154	148	62	13
27	268	190	352	320	162	16	14	68	116	154	56	3,930
28	260	186	264	310	224	13	13	78	105	98	56	67
29	240	190	216	290	-	11	10	92	90	98	56	27
30	224	186	216	280	-----	12	13	85	105	109	46	10
31	208	-----	153	270	-----	10	-----	80	-----	98	27	-----
Total	5,768	6,218	6,488	4,061	7,873	930	3,654	2,258	2,590	11,872	7,518	4,984
Mean	186	207	209	131	281	30.0	12.2	72.8	86.3	383	243	166
Ac-ft	11,440	12,330	12,870	8,050	15,620	1,840	725	4,480	5,140	23,550	14,910	9,890

Calendar year 1965: Max 20,000 Min 5.8 Mean 616 Ac-ft 446,100

Water year 1965-66: Max 5,350 Min 3.7 Mean 167 Ac-ft 120,800

7-1240. Arkansas River at Las Animas, Colo.

Location.--Lat 38°05'08", long 103°12'50", in SW¼ sec.35, T.22 S., R.52 W., on left bank 0.4 mile downstream from bridge on U. S. Highway 50, 1.5 miles north of courthouse in Las Animas, and 3½ miles upstream from Purgatoire River.

Drainage area.--14,417 sq mi, of which 441 sq mi is probably noncontributing.

Records available.--May to November 1898 (gage heights only), August to November 1909 (gage heights and discharge measurements only), May 1939 to September 1966.

Gage.--Water-stage recorder. Datum of gage is 3,874.97 ft above mean sea level, datum of 1929. May 13 to Nov. 12, 1898, and Aug. 1 to Nov. 10, 1909, staff gage within half a mile of present site at different datum.

Average discharge.--27 years, 229 cfs (165,800 acre-ft per year).

Extremes.--Maximum discharge during year, 6,200 cfs July 24 (gage height, 11.57 ft); minimum daily, 10 cfs June 8, 23.

1939-66: Maximum discharge, 44,000 cfs May 20, 1955 (gage height, 15.03 ft), from rating curve extended above 24,000 cfs on basis of slope-area measurement of peak flow; minimum daily, 0.9 cfs July 31, Aug. 1, 3, 1964.

Remarks.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 412,000 acres, and return flow from irrigated areas. Records of chemical analysis for the water year 1966 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	240	196	169	270	208	25	17	17	14	62	18
2	49	230	236	151	330	154	20	16	18	14	36	17
3	47	230	240	142	360	133	18	17	18	14	226	18
4	45	264	230	133	360	80	20	16	16	14	50	32
5	30	268	222	172	360	70	25	16	12	14	56	21
6	28	272	205	154	370	70	28	14	11	14	64	20
7	28	233	196	90	380	80	36	14	12	15	60	19
8	28	208	181	70	430	64	60	12	10	15	70	18
9	30	208	163	62	500	60	52	12	12	15	36	19
10	30	222	184	74	440	62	45	12	15	15	41	18
11	36	226	181	72	430	43	36	22	15	16	49	18
12	35	222	169	66	450	40	49	23	15	11	36	16
13	35	230	181	50	460	50	50	20	15	16	56	18
14	70	216	193	50	470	64	49	17	14	23	145	21
15	107	199	216	56	470	62	45	17	12	47	84	24
16	320	193	240	40	400	54	52	15	12	58	40	19
17	605	193	240	23	360	43	60	15	12	28	33	18
18	540	193	382	35	438	38	52	14	12	20	35	18
19	382	187	338	193	347	41	38	14	12	14	30	24
20	360	190	347	220	420	43	47	15	12	15	33	20
21	347	181	312	180	474	36	47	28	17	17	45	18
22	324	175	347	210	450	23	36	22	12	195	1,500	17
23	316	181	316	220	438	35	23	17	10	1,770	1,110	16
24	316	172	296	210	382	94	22	17	11	3,710	73	16
25	296	184	292	310	352	100	22	18	12	1,140	47	15
26	260	193	226	350	329	60	20	17	14	169	33	14
27	268	199	288	360	252	45	23	20	16	133	29	2,770
28	268	199	324	330	219	35	35	18	16	104	29	1,020
29	252	193	230	300	-	30	21	17	16	82	28	98
30	248	181	236	270	-----	26	16	16	16	70	21	61
31	233	-----	226	250	-----	26	-----	17	-----	104	18	-----
Total	5,987	6,282	7,633	5,012	10,941	1,969	1,072	525	412	7,886	4,175	4,441
Mean	193	209	246	162	391	63.5	35.7	16.9	13.7	254	135	148
Ac-ft	11,880	12,460	15,140	9,940	21,700	3,910	2,130	1,040	817	15,640	8,280	8,810

Calendar year 1965: Max 15,100 Min 1.5 Mean 493 Ac-ft 357,100  
 Water year 1965-66: Max 3,710 Min 10 Mean 154 Ac-ft 111,700

## 7-1245. Purgatoire River at Trinidad, Colo.

Location.--Lat 37°10'15", long 104°30'31", in SW¼SE¼ sec.13, T.33 S., R.64 W., on left bank 90 ft downstream from railroad bridge, 680 ft downstream from Animas Street Bridge in Trinidad.

Drainage area.--795 sq mi.

Records available.--October 1895 to September 1899, August to December 1905, November 1906 to March 1907, October 1907 to November 1908, May to August 1909 (gage heights and discharge measurements only), September 1909 to November 1912, October 1915 to September 1960, October 1961 to September 1966. Monthly discharge only for some periods, published in WSP 1311. Prior to October 1915, published as "Purgatory River."

Gage.--Water-stage recorder. Datum of gage is 5,979.76 ft above mean sea level, datum of 1929. May 1, 1896, to July 31, 1899, staff gage on downstream side of Animas Street Bridge 680 ft upstream at datum 1.7 ft higher. Aug. 25, 1905, to Nov. 30, 1912, chain gage on upstream side of Animas Street Bridge at present datum. Apr. 1, 1916, to Nov. 10, 1921, inclined gage painted on concrete bank protection wall at site 410 ft downstream at right bank and 200 ft upstream from Commercial Street Bridge at datum 0.99 ft lower. Nov. 11, 1921, to Nov. 30, 1922, water-stage recorder at site about three-quarters of a mile upstream and 150 ft downstream from former Main Street Bridge at different datum. Dec. 1, 1922, to Mar. 19, 1934, water-stage recorder at site about half a mile upstream at different datum. Mar. 20, 1934, to Dec. 10, 1950, water-stage recorder at site 1,490 ft upstream at foot of State Street at datum 7.00 ft higher. Dec. 11, 1950, to Sept. 30, 1955, water-stage recorder at site 180 ft upstream at datum 2.00 ft higher. Since May 30, 1955, supplemental chain gage at site 90 ft upstream on downstream side of railroad bridge; at datum 3.00 ft lower prior to Oct. 1, 1962, and at present datum thereafter.

Average discharge.--58 years (1895-99, 1907-8, 1909-12, 1915-60, 1961-66), 88.5 cfs (64,070 acre-ft per year).

Extremes.--1961-62: Maximum discharge during water year, not determined; minimum daily, 6.5 cfs Aug. 15, 16.

1964-65: Maximum discharge during water year, 15,700 cfs June 17 (gage height, 13.35 ft, from floodmark); minimum daily, 4.5 cfs Feb. 12, 13.

1965-66: Maximum discharge during water year, 9,660 cfs July 23 (gage height, 8.33 ft); minimum daily, 6.8 cfs Dec. 23.

1895-99, 1905-12, 1915-60, 1961-66: Maximum discharge, 28,000 cfs May 19, 1955 (gage height, 14.35 ft, site and datum then in use), from rating curve extended above 2,800 cfs on basis of indirect measurements of peak flow above and below station; no flow for several days during summer of 1896, June 11, 1950, Sept. 20, 25, 28, 29, Oct. 3-5, 7, 8, 1956.

Maximum discharge known since at least 1859, 45,400 cfs Sept. 30, 1904 (gage height, 16.6 ft, at site 680 ft upstream), by slope-area measurement of peak flow.

Remarks.--Records poor. Diversions above station for irrigation of about 6,500 acres.

Discharge, in cubic feet per second, water year October 1961 to September 1962

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	78	37	28	40	30	42	150	123	175	81	10
2	81	65	37	30	47	42	40	119	142	126	68	30
3	68	40	40	54	44	24	34	105	150	116	50	23
4	60	50	34	30	44	21	31	108	116	108	42	14
5	60	42	38	16	34	20	35	108	101	165	31	10
6	68	34	47	18	31	35	40	138	101	119	29	14
7	60	44	34	15	34	26	40	190	101	101	24	10
8	54	47	32	13	34	21	40	235	170	94	23	11
9	62	47	28	11	26	21	42	245	210	98	96	10
10	81	40	25	10	26	21	44	240	166	68	31	9.5
11	72	34	21	30	29	16	50	240	150	57	15	9.0
12	65	68	20	37	24	12	42	245	146	1,370	110	12
13	57	37	20	34	27	14	42	275	162	250	35	9.0
14	57	31	20	30	34	18	57	265	150	185	10	11
15	54	34	21	30	27	25	105	200	150	350	6.5	8.0
16	65	50	22	29	27	37	146	210	142	158	6.5	13
17	60	34	24	26	24	40	158	185	142	205	34	11
18	60	54	25	29	20	29	166	162	130	162	13	12
19	57	34	28	33	21	27	175	138	112	146	10	8.5
20	54	68	28	37	35	23	210	123	94	126	17	162
21	47	47	40	42	18	23	215	130	91	72	16	34
22	47	34	42	21	17	18	210	123	98	37	15	23
23	44	40	72	26	20	16	154	112	88	42	12	32
24	47	35	20	26	17	18	116	101	84	91	10	34
25	37	34	50	27	21	19	126	84	88	220	10	40
26	44	35	68	24	18	18	146	98	98	150	10	40
27	60	34	24	21	15	18	166	101	105	88	9.5	37
28	62	37	20	27	13	18	166	116	112	112	9.5	60
29	62	31	18	27	-	20	175	142	91	138	9.0	42
30	78	37	23	32	-----	52	190	112	226	108	9.5	34
31	21	-----	18	34	-----	68	-----	98	-----	84	10	-----
Total	1,868	1,295	976	847	767	790	3,203	4,898	3,839	5,321	852.5	773.0
Mean	60.3	43.2	31.5	27.3	27.4	25.5	107	158	128	172	27.5	25.8
Ac-ft	3,710	2,570	1,940	1,680	1,520	1,570	6,350	9,720	7,610	10,550	1,690	1,530

Calendar year 1961: Max - Min - Mean - Ac-ft -  
 Water year 1961-62: Max 1,370 Min 6.5 Mean 69.7 Ac-ft 50,440

Peak discharge (base, 2,000 cfs).--July 12 (1430) unknown (10.4 ft).

## 7-1245. Purgatoire River at Trinidad, Colo.--Continued

Discharge, in cubic feet per second, water year October 1964 to September 1965

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	14	14	6.5	8	8.5	17	40	127	264	588	74
2	21	15	12	5	8	8	21	53	140	150	588	70
3	19	18	12	5	6	8	17	81	134	144	660	67
4	16	20	9.6	5	6	8.5	15	65	140	153	460	56
5	14	20	9.6	5	7	9	15	58	181	107	364	50
6	14	20	7.6	5.5	7.5	9	12	50	164	88	294	53
7	14	19	7.6	5	8	9.5	11	63	118	560	245	101
8	13	20	7.6	5	7.5	10	14	67	137	460	239	189
9	11	20	8.0	6	7.5	11	13	70	208	200	202	107
10	8.6	19	9.2	5	7.5	12	13	69	198	100	185	160
11	8.0	15	8.8	5.5	5.5	12	15	60	177	70	160	168
12	8.3	10	8.3	5.5	4.5	12	16	48	177	60	147	121
13	9.0	14	8.3	6	4.5	12	16	67	153	150	127	96
14	8.6	14	8.0	6	5	13	16	69	227	250	101	84
15	8.3	18	11	6	6	13	15	63	227	233	127	74
16	7.6	21	11	6.5	8	14	14	72	2,700	168	137	67
17	7.2	19	9.5	6.5	13	13	12	46	5,000	144	279	65
18	7.6	18	9.5	7	13	11	11	52	2,500	180	434	93
19	8.6	15	10	7	12	10	12	144	1,000	486	918	81
20	8.6	12	11	6	12	10	13	104	720	457	412	91
21	8.3	11	11	6.5	11	11	17	112	600	150	452	96
22	13	13	12	7	9	15	19	140	500	98	340	79
23	12	16	13	7	8	14	26	450	550	98	416	74
24	10	21	12	7	7	12	29	279	500	406	137	74
25	10	21	11	6.5	8	12	31	221	650	246	112	70
26	9.0	20	10	7.5	12	15	48	185	516	272	96	65
27	9.6	19	10	5.5	13	17	46	147	287	436	86	63
28	11	16	9	6	10	18	40	118	189	279	88	61
29	11	15	7.5	7	-	19	31	96	168	227	104	58
30	13	21	7	8	-	19	33	101	430	272	94	58
31	14	-----	7.5	8	-----	16	-----	130	-----	287	84	-----
Total	354.3	514	302.6	191.0	234.5	381.5	608	3,320	18,818	7,195	8,676	2,565
Mean	11.4	17.1	9.76	6.16	8.38	12.3	20.3	107	627	232	280	85.5
Ac-ft	703	1,020	600	379	465	757	1,210	6,590	37,320	14,270	17,210	5,090

Calendar year 1964: Max 1,190 Min 3.7 Mean 41.8 Ac-ft 30,350

Water year 1964-65: Max 5,000 Min 4.5 Mean 118 Ac-ft 85,610

## Peak discharge (base, 2,000 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-23	†1900	-	-	6-25	2200	4.74	2,570	7-19	1500	5.57	3,250	8-18	1530	8.85	7,580
6-16	-	-	-	6-30	1700	-	+2,800	7-24	2100	5.27	2,810	8-19	1600	8.56	7,050
6-17	2000	13.35	15,700	7-7	1800	4.78	2,390								

† Estimated.

Note.--No gage-height record Dec. 16 to Mar. 28, June 16-25.

## ARKANSAS RIVER BASIN

7-1245. Purgatoire River at Trinidad, Colo.--Continued

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	57	34	27	12	28	23	22	50	102	202	46	79
2	54	36	24	12	28	23	22	50	96	62	445	83
3	43	37	26	13	28	20	22	47	90	42	810	57
4	43	37	27	13	28	17	22	50	83	43	1,130	61
5	47	35	29	13	28	17	20	55	76	44	450	47
6	52	35	28	14	28	17	21	59	75	42	1,470	278
7	51	34	26	14	28	17	22	65	68	48	176	58
8	50	32	32	14	28	18	22	76	58	41	204	44
9	48	31	35	23	28	17	22	83	79	37	137	36
10	47	30	36	24	28	17	20	62	112	34	270	28
11	46	27	37	36	26	17	22	58	90	37	513	62
12	46	29	28	36	27	17	22	62	78	190	141	36
13	44	29	30	46	28	17	24	67	79	115	87	23
14	43	29	34	47	22	18	24	55	73	85	82	14
15	42	29	34	50	20	18	23	36	65	59	77	34
16	41	29	31	54	26	17	22	35	470	61	72	31
17	61	29	31	54	28	17	22	34	161	59	67	19
18	68	29	31	52	28	15	24	42	110	47	64	17
19	54	29	27	52	28	17	27	44	110	553	64	18
20	50	27	22	51	30	17	35	42	139	283	65	25
21	47	27	21	51	27	15	34	38	92	249	73	51
22	44	27	10	50	28	15	32	68	94	90	87	31
23	42	27	68	54	27	17	28	87	85	966	71	51
24	41	28	80	52	24	17	24	81	73	1,070	73	24
25	41	29	92	48	22	17	26	73	61	105	73	32
26	39	28	92	48	21	16	27	68	55	62	67	36
27	38	17	86	48	21	15	29	67	79	71	58	22
28	38	19	92	47	22	14	39	75	87	565	489	21
29	38	17	10	37	-	14	44	71	70	404	73	22
30	37	17	11	35	-----	17	44	64	180	448	61	22
31	35	-----	12	28	-----	15	-----	76	-----	57	61	-----
Total	1,427	863	710.0	1,128	735	528	787	1,840	3,090	6,171	7,556	1,362
Mean	46.0	28.8	22.9	36.4	26.2	17.0	26.2	59.4	103	199	244	45.4
Ac-ft	2,830	1,710	1,410	2,240	1,460	1,050	1,560	3,640	6,130	12,240	14,990	2,700

Calendar year 1965: Max 5,000 Min 4.5 Mean 123 Ac-ft 89,230

Water year 1965-66: Max 1,470 Min 6.8 Mean 71.8 Ac-ft 51,960

## Peak discharge (base, 2,000 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
6-16	1800	4.30	2,650	8-3	2000	6.29	5,640
7-19	1630	5.54	4,510	8-6	0100	6.84	6,680
7-23	1645	8.33	9,660	8-12	1730	4.30	2,650
7-28	1600	6.40	5,800	8-28	1530	4.84	3,460

7-1250. Purgatoire River near Hoehne, Colo.

Location.--Lat 37°14'50", long 104°23'50", in sec.13, T.32 S., R.63 W., on left bank 5 ft downstream from bridge on county road, 40 ft upstream from diversion dam for Hoehne ditch, 2½ miles southwest of Hoehne, and 8 miles northeast of city hall in Trinidad.

Drainage area.--857 sq mi.

Records available.--September 1954 to September 1966.

Gage.--Water-stage recorder. Datum of gage is 5,740.99 ft above mean sea level, datum of 1929.

Average discharge.--12 years, 27.9 cfs (20,200 acre-ft per year).

Extremes.--Maximum discharge during year, 5,480 cfs July 29 (gage height, 6.71 ft); no flow for many days.

1954-66: Maximum discharge, 35,000 cfs May 19, 1955 (gage height, 13.97 ft), from rating curve extended above 180 cfs by logarithmic plotting on basis of flow-over-dam computations at gage heights, 3.2, 4.5, and 7.34 ft; no flow for many days in each year.

Greatest flood known since at least 1859 occurred Sept. 30, 1904.

Remarks.--Records poor. Flow partly regulated by off-stream reservoirs and a flood control dam on unnamed creek in Pinon Canyon.

Divisions above station for irrigation of about 10,500 acres. Diversion by Hoehne ditch 40 ft below gage is not included in these records.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.2	4.6	0	0.6	1.8	1.2	0	2.0	0.9	6.4	11	0.8
2	3.1	3.6	0	.6	1.8	4.7	0	1.6	2.4	4.8	258	.6
3	3.6	3.6	0	1.4	1.5	4.2	0	0	3.0	2.6	410	.4
4	5.6	3.6	.1	.9	1.2	4.6	0	.6	.9	0	1,010	.4
5	3.1	1.0	0	1.6	1.2	3.8	.1	.9	.4	.4	553	.4
6	0	0	0	2.1	1.3	5.1	.1	.1	2.1	0	752	74
7	.6	.1	0	1.5	1.3	5.1	.1	0	1.2	0	2.7	14
8	.3	.5	.1	4.2	1.3	5.1	.3	.3	.2	0	32	8.2
9	.1	0	.1	1.4	1.6	2.6	0	.3	3.6	0	9.3	3.5
10	0	0	0	2.1	1.6	2.5	0	0	6.9	0	.6	1.1
11	0	0	0	2.3	1.1	4.4	0	0	.2	0	292	14
12	0	3.8	0	1.3	1.6	2.5	0	.2	.1	10	22	8.9
13	.2	4.7	0	1.2	1.2	2.0	0	.1	5.7	8.3	4.1	.9
14	.4	0	0	1.4	1.2	1.5	0	0	4.6	3.9	.2	0
15	0	.1	0	1.0	1.0	1.0	0	0	2.1	.5	.4	12
16	.2	.2	.3	1.0	.7	.5	0	0	11.0	.1	.6	14
17	.7	1.3	.3	1.2	.4	.2	0	.3	36	0	.4	.2
18	.4	.4	.6	1.0	.1	.1	0	.5	0	.8	.4	0
19	1.5	.3	.7	.8	.1	0	0	.1	.8	201	.4	0
20	.9	.3	1.0	.8	.1	0	3.1	0	15	18	.5	.5
21	.2	.3	2.5	.7	.2	0	0	0	23	22	.6	.7
22	2.2	.2	.4	.8	.2	0	0	.9	.2	26	0	.6
23	3.2	.1	.4	.9	.3	0	0	.1	0	516	78	1.4
24	3.6	0	.4	.6	1.8	0	0	1.8	0	470	0	.3
25	3.1	0	3.8	.8	3.4	0	0	2.2	0	.7	.3	.4
26	4.1	0	4.2	1.0	2.0	0	0	3.1	.4	.4	.1	8.1
27	2.6	.3	2.8	1.5	2.4	0	0	3.1	0	9.9	.2	.3
28	2.6	.1	1.3	1.5	1.9	0	0	4.1	0	282	190	0
29	3.1	.4	.3	1.5	-	0	0	6.2	0	629	.2	0
30	4.1	.3	0	1.8	-----	0	.3	2.5	1.6	252	.4	0
31	3.6	-----	.2	1.5	-----	0	-----	4.1	-----	2.6	.2	-----
Total	56.3	29.8	31.2	41.0	34.3	51.1	4.0	35.1	221.3	2,467.4	3,629.6	165.7
Mean	1.82	0.99	1.01	1.32	1.22	1.65	0.13	1.13	7.38	79.6	117	5.52
Ac-ft	112	59	62	81	68	101	7.9	70	439	4,890	7,200	329

Calendar year 1965: Max 3,310 Min 0 Mean 54.3 Ac-ft 39,300  
 Water year 1965-66: Max 1,010 Min 0 Mean 18.5 Ac-ft 13,420

Peak discharge (base, 2,000 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
7-19	1815	5.23	2,770	7-29	2030	6.71	5,480
7-23	1845	6.59	5,240	8-6	0230	6.00	4,090

7-1251. Frijole Creek near Alfalfa, Colo.

Location.--Lat 37°12'00", long 104°11'40", in NW¼ sec.2, T.33 S., R.61 W., on right bank at downstream side of bridge on U. S. Highway 160, 1 mile upstream from mouth, 4 miles west of Alfalfa, and 16 miles east of city limits of Trinidad.

Drainage area.--80 sq mi.

Records available.--March 1957 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 5,400 ft (from topographic map).

Average discharge.--9 years, 4.24 cfs (3,070 acre-ft per year).

Extremes.--Maximum discharge during year, 2,060 cfs Aug. 1 (gage height, 8.37 ft); no flow for many days.

1957-66: Maximum discharge, 10,600 cfs June 17, 1965 (gage height, 17.25 ft), from rating curve extended above 180 cfs on basis of slope-area measurement at gage height 8.81 ft and contracted-opening measurement at gage height 17.25 ft; no flow for many days in each year.

Flood of June 22, 1954, reached a stage of 17.23 ft, from floodmarks (discharge, 13,500 cfs, from rating curve extended above 8,800 cfs on basis of contracted-opening measurements of peak flow).

Remarks.--Records fair. Minor diversions above station for irrigation.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0				0	0		0	0	1.0	391	6.9
2	0				0	0		0	0	.9	216	4.5
3	0				0	0		0	0	0	3	5.5
4	0				0	0		0	0	0	205	1.2
5	0				0	0		0	0	0	17	.1
6	0				0	0		0	0	0	1	.4
7	0				0	0		0	0	0	.1	1.3
8	0				0	0		0	0	0	0	.2
9	0				0	0		0	0	0	0	0
10	0				0	0		0	0	0	13	0
11	0				0	0		0	0	0	12	0
12	0				0	0		0	0	0	8.2	0
13	0				0	0		0	0	0	8.6	0
14	0				0	0		0	0	.8	6.1	0
15	0				0	0		0	0	.9	5.0	214
16	0				0	0		0	.1	.8	4.3	10
17	70				0	.4		0	1.7	.9	2.8	1
18	10				.1	1.0		0	.8	1.0	.7	.5
19	.5				.1	0		0	0	213	.6	.1
20	.2				.1	0		0	0	118	1.1	0
21	0				.3	0		0	0	2.8	12	0
22	0				.6	0		0	0	2.9	8.6	0
23	0				1.0	0		0	0	62	2.2	0
24	0				1.0	0		0	0	140	1.0	0
25	0				1.0	0		0	0	.7	.3	0
26	0				1.0	0		0	0	.3	.2	8.5
27	0				1.0	0		0	0	4.0	.1	19
28	0				0	0		0	0	12	0	6.4
29	0				-	0		5.7	0	41	0	4.3
30	0				-----	0		2.1	.3	86	0	3.3
31	0				-----	0		0	-----	1.7	0	-----
Total	80.7	0	0	0	6.2	1.4	0	7.8	2.9	690.7	919.9	287.2
Mean	2.60	0	0	0	0.22	0.05	0	0.25	0.10	22.3	29.7	9.57
Ac-ft	160	0	0	0	12	2.8	0	15	5.8	1,370	1,820	570

Calendar year 1965: Max 1,440 Min 0 Mean 18.2 Ac-ft 13,170  
 Water year 1965-66: Max 391 Min 0 Mean 5.47 Ac-ft 3,960

Peak discharge (base, 700 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
7-19	1715	8.00	1,840	8- 4	1945	6.94	1,270
7-23	2315	7.67	1,640	9-15	1645	7.35	1,480
8- 1	2130	8.37	2,060				

7-1255. San Francisco Creek near Alfalfa, Colo.

Location.--Lat 37°11'10", long 104°07'50", in sec.8, T.33 S., R.60 W., on downstream side of right abutment of bridge on U. S. Highway 160, half a mile upstream from mouth, 1½ miles south of Alfalfa, and 20 miles east of Trinidad.

Drainage area.--160 sq mi.

Records available.--October 1954 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 5,320 ft (from topographic map).

Average discharge.--12 years, 9.46 cfs (6,850 acre-ft per year).

Extremes.--Maximum discharge during year, 6,370 cfs Aug. 12 (gage height, 9.08 ft); no flow for many days.

1954-66: Maximum discharge, 15,500 cfs May 19, 1955, from rating curve extended above 250 cfs on basis of slope-area measurement of peak flow; maximum gage height, 13.24 ft (from highwater mark in gage well) June 18, 1965; no flow for many days in each year.

Flood of July 22, 1954, reached a stage of 14.40 ft, from floodmarks (discharge, 26,300 cfs, by contracted-opening measurement of peak flow).

Remarks.--Records fair except those for period of no gage-height record, which are poor. Diversions above station for irrigation of about 500 acres.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.3	0.2	0.3	0.3	0.8	0.6	0.1	0.1	0.1	0	47	7.5
2	.2	.2	.3	.3	.9	.5	.1	.1	.1	0	83	1.4
3	.2	.2	.3	.3	.9	.4	.1	.1	.1	0	2	2.0
4	.2	.2	.3	.3	1.0	.4	.1	.1	.1	0	67	2.0
5	.1	.2	.3	.3	1.0	.4	.1	0	.1	0	6.8	.4
6	.2	.2	.3	.4	1.0	.4	.1	0	.1	0	.6	.4
7	.2	.2	.3	.5	1.0	.4	.1	0	.1	0	1.5	.3
8	.2	.2	.3	.5	1.0	.4	.1	0	.1	0	.3	.3
9	.2	.3	.3	.5	1.0	.3	.1	.1	.1	0	.3	.2
10	.1	.3	.4	.5	.9	.3	.1	.1	.1	0	.3	.1
11	.1	.3	.4	.5	.9	.3	.1	0	.1	0	.3	.1
12	.1	.3	.4	.4	.8	.3	.1	.1	.1	0	458	.1
13	.1	.4	.4	.4	.8	.3	.1	.1	.1	0	21	.1
14	.1	.3	.3	.4	.8	.7	.1	.1	.1	0	2.0	.1
15	.1	.4	.3	.4	.8	.3	.1	0	.1	0	1.0	603
16	.1	.4	.3	.4	.9	2.0	.1	0	.1	0	2.0	11
17	46	.3	.3	.4	.9	6.8	.1	0	.1	0	1.0	1.0
18	14	.3	.3	.4	.9	.6	.1	.1	.1	.2	.6	.8
19	1.8	.4	.3	.4	.9	.3	.1	.1	.1	106	.4	.6
20	1.0	.4	.3	.4	1.0	.2	.1	0	0	8.2	.3	.5
21	.7	.4	.3	.4	1.0	.2	.1	0	0	3.4	308	.4
22	.7	.4	.3	.4	1.0	.2	0	0	0	1.2	6.8	.3
23	.5	.4	.3	.5	1.0	.2	.1	0	0	1.2	1.4	.3
24	.5	.3	.3	.5	.8	.2	.1	0	0	38	1.2	.9
25	.4	.3	.3	.5	.9	.2	.1	0	0	13	1.2	.8
26	.4	.3	.4	.5	.9	.1	.1	.1	0	1.0	.7	.5
27	.4	.3	.4	.6	.8	.1	.1	.1	0	.6	.5	.3
28	.3	.2	.3	.6	.7	.1	.1	.1	0	.4	.4	.4
29	.3	.2	.3	.7	.1	.1	0	.1	0	51	.3	.3
30	.3	.3	.4	.7	-----	.1	.1	.1	0	.8	60	.2
31	.3	-----	.4	.8	-----	.1	-----	.1	-----	.4	84	-----
Total	70.1	88	10.1	14.2	25.3	17.5	28	1.7	1.9	225.4	1158.1	636.3
Mean	2.26	0.29	0.33	0.46	0.90	0.56	0.09	0.05	0.06	7.27	37.4	21.2
Ac-ft	139	17	20	28	50	35	5.6	3.4	3.8	447	2,300	1,260

Calendar year 1965: Max 2,200 Min 0 Mean 21.0 Ac-ft 15,240

Water year 1965-66: Max 603 Min 0 Mean 5.95 Ac-ft 4,310

Peak discharge (base, 1,000 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
8-12	1900	9.08	6,370	9-15	1645	7.26	3,880
8-21	1445	4.84	1,700				

Note.--No gage-height record Jan. 19 to Feb. 22.



7-1260. Purgatoire River near Alfalfa, Colo.

Location.--Lat 37°11'30", long 104°07'30", in NW¼ sec.9, T.33 S., R.60 W., on right bank 700 ft downstream from San Francisco Creek, 1½ miles southeast of Alfalfa, and 20 miles east of Trinidad.

Drainage area.--1,320 sq mi.

Records available.--March 1905 to September 1907 (published as "Purgatory River"), March 1924 to September 1928, October 1951 to September 1966. Monthly discharge only for some periods, published in WSP 1311.

Gage.--Water-stage recorder. Altitude of gage is 5,280 ft (from topographic map). Mar. 22, 1905, to Sept. 30, 1907, staff gage 650 ft downstream at different datum. Feb. 27, 1924, to Sept. 30, 1928, water-stage recorder 1 mile downstream at different datum. Oct. 1, 1951, to July 5, 1955, water-stage recorder at site 150 ft upstream at datum 3.0 ft higher.

Average discharge.--21 years, 57.6 cfs (41,700 acre-ft per year).

Extremes.--Maximum discharge during year, 6,100 cfs Aug. 12 (gage height, 12.95 ft); minimum daily, 2.4 cfs May 23, 24.

1905-7, 1924-28, 1951-66: Maximum discharge, 41,900 cfs May 19, 1955 (gage height, 31.9 ft, from floodmarks, present site and datum), from rating curve extended above 2,700 cfs on basis of slope-area measurements at gage heights 9.79, 13.35, 15.75, 27.30, 30.60, and 31.9 ft; no flow at times in most years.

Remarks.--Records poor. Diversions above station for irrigation of about 29,000 acres.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	14	18	24	16	21	7.8	3.0	8.3	27	403	102
2	15	15	19	26	17	20	7.8	3.1	7.5	10	1,060	60
3	13	14	19	27	19	19	9.2	5.3	5.1	8	191	45
4	13	14	20	29	21	18	10	4.4	4.4	7	1,410	60
5	14	13	21	30	23	18	11	4.2	4.2	6	875	40
6	14	13	21	29	26	17	10	3.4	4.1	6	1,060	25
7	13	13	21	28	29	17	9.2	4.4	3.4	4.6	139	85
8	15	13	20	27	32	16	8.9	7.0	3.4	3.4	44	50
9	13	14	19	25	36	16	8.9	6.2	3.9	3.4	66	30
10	13	13	18	24	35	16	8.9	6.0	3.6	3.2	22	24
11	14	13	18	22	33	16	8.6	5.5	8.9	3.2	396	17
12	13	11	16	20	31	16	7.2	6.5	3.4	3.2	568	25
13	12	12	15	20	27	16	7.5	6.0	3.4	21	199	30
14	12	13	14	19	22	15	8.3	7.0	3.1	7.0	80	20
15	13	13	13	18	21	14	8.0	6.5	3.0	3.4	90	954
16	20	14	12	18	20	15	7.5	3.7	3.9	4.2	40	119
17	195	12	13	17	21	16	6.2	4.6	170	4.8	25	70
18	29	12	14	17	22	12	6.8	4.6	31	4.8	20	45
19	18	12	15	17	22	11	8.0	4.4	7.5	307	15	25
20	15	12	16	18	23	11	12	3.1		358	15	15
21	16	13	17	17	23	10	15	2.8		125	395	15
22	15	13	19	17	23	12	11	3.1		112	204	15
23	16	14	17	16	24	9.5	7.2	2.4		123	120	15
24	15	14	16	16	24	10	5.8	2.4	6	892	66	23
25	15	14	18	15	24	11	5.5	2.5		170	50	24
26	13	14	20	15	23	11	5.3	3.2		18	35	24
27	13	14	21	16	23	10	3.9	3.6		17	20	67
28	13	15	23	17	22	10	4.4	3.1		212	15	58
29	14	16	25	19	-	10	4.2	6.4		360	228	26
30	14	17	24	18	-----	9.8	3.4	23	13	1,160	111	17
31	13	---	22	16	-----	9.8	-----	7.2	-----	52	182	-----
Total	636	404	564	637	682	433.1	237.5	158.6	355.1	4,036.2	8,144	2,125
Mean	20.5	13.5	18.2	20.5	24.4	14.0	7.92	5.12	11.8	130	263	70.8
Ac-ft	1,260	801	1,120	1,260	1,350	859	471	315	704	8,010	16,150	4,210

Calendar year 1965: Max 7,620 Min 1.5 Mean 142 Ac-ft 103,000  
 Water year 1965-66: Max 1,410 Min 2.4 Mean 50.4 Ac-ft 36,520

Peak discharge (base, 2,500 cfs)

Note.--No gage-height record Dec. 19 to Mar. 10.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
7-19	1900	9.24	3,100	8-12	1845	12.95	6,100
7-30	0115	11.41	4,830	8-21	1945	8.70	2,720
8-1	2300	9.42	3,240	9-15	1900	12.26	5,510
8-6	0730	10.47	4,080				

7-1263. Purgatoire River near Thatcher, Colo.

Location.--Lat 37°21'30", long 103°53'40", in sec.10, T.31 S., R.58 W., 250 ft downstream from county road bridge at gas line crossing, 1.2 miles downstream from Van Bremer Arroyo, and 18 miles southeast of Thatcher.

Drainage area.--1,935 sq mi.

Records available.--July to September 1966.

Gage.--Water-stage recorder.

Extremes.--Maximum discharge during water year, 10,000 cfs Sept. 16 (gage height, 11.01 ft); no flow July 12, 13.

Floods of July 22, 1954, and May 19, 1955, reached a stage of 26.7 and 25.2 ft (from floodmarks), respectively. Flood of June 18, 1965, reached a stage of 23.5 ft, from floodmarks (discharge, 47,700 cfs).

Remarks.--Records good.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1										10	71	144
2										7.0	1,430	76
3										6.5	427	48
4										6.0	1,180	66
5										5.5	1,230	52
6										5.0	949	28
7										17	288	64
8										10	248	59
9										3.5	148	31
10										1.0	81	24
11										.2	290	19
12										0	160	30
13										0	657	38
14										10	92	22
15										15	125	86
16										6.2	42	1,650
17										7.6	37	104
18										4.1	20	42
19										138	16	27
20										568	16	22
21										137	14	18
22										85	516	18
23										70	100	18
24										890	70	24
25										547	65	24
26										110	33	25
27										166	24	96
28										388	16	65
29										364	143	28
30										1,270	66	18
31										174	358	
Total										5,021.6	8,912	2,966
Mean										162	287	98.9
Ac-ft										9,960	17,680	5,880

Calendar year 1965: Max - Min - Mean - Ac-ft -  
 Water year 1965-66: Max - Min - Mean - Ac-ft -

Peak discharge (base, 2,700 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
7-24	0630	7.80	2,860	8-6	1315	7.91	3,000
7-30	0600	8.35	3,660	8-31	0030	8.02	3,150
8-2	0600	7.91	3,000	9-16	0030	11.01	10,000

7-1265. Purgatoire River at Ninemile Dam, near Higbee, Colo.

Location.--Lat 37°44', long 103°29', in NW¼ sec.7, T.27 S., R.54 W., on left bank 850 ft upstream from Ninemile Dam, 4 miles southwest of Higbee, and 5½ miles upstream from Smith Canyon.

Drainage area.--2,900 sq mi.

Records available.--October 1924 to September 1966. Monthly discharge only for some periods, published in WSP 1311.

Gage.--Water-stage recorder. Datum of gage is 4,240.59 ft above mean sea level, datum of 1929. Prior to Oct. 28, 1934, water-stage recorder at site 550 ft downstream at datum 0.60 ft higher. Oct. 28, 1934, to May 19, 1955, water-stage recorder (destroyed by flood) at present site and datum. May 25, 1955, to June 13, 1956, staff or chain gages at nearby sites at different datums. June 14 to Dec. 5, 1956, chain gage at present site and datum.

Average discharge.--42 years, 104 cfs (75,290 acre-ft per year).

Extremes.--Maximum discharge during year, 26,900 cfs Sept. 27 (gage height, 9.79 ft); no flow May 7, June 24-26.

1924-66: Maximum discharge, 105,000 cfs (estimated) June 18, 1965 (gage height, 19.6 ft, from floodmarks); no flow at times in most years.

Remarks.--Records poor. Diversions for irrigation of about 32,000 acres above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	18	30	47	23	21	10	1.4	2.0	5.6	255	453
2	23	17	30	46	23	19	10	1.4	2.6	5.6	453	114
3	22	16	30	41	30	17	10	1.2	7.4	5.6	1,020	52
4	19	16	37	37	20	25	10	.8	8.0	5.6	1,000	52
5	18	16	37	37	22	24	10	.2	3.8	3.2	1,360	49
6	17	16	37	31	22	23	10	.2	3.8	4.4	1,740	47
7	17	16	37	38	23	25	10	0	4.4	4.4	2,970	49
8	17	16	33	31	12	27	9.0	.2	1.6	818	400	54
9	17	15	28	25	13	28	9.0	.4	1.0	100	290	74
10	16	15	29	20	14	29	10	.4	.6	23	186	47
11	15	15	29	13	18	25	9.0	.4	.4	25	163	40
12	15	15	28	7.4	17	74	9.0	.4	.2	9.0	810	271
13	14	16	26	9.0	18	60	9.0	.4	.4	4.4	1,400	78
14	13	16	28	10	13	24	9.0	.4	.4	30	625	52
15	13	14	24	3.2	12	22	8.0	.4	.2	517	284	50
16	12	14	22	2.6	16	18	7.4	1.2	.2	290	245	3,280
17	20	14	24	5.0	40	15	7.4	1.0	.2	43	955	509
18	50	16	27	6.0	68	14	7.4	.6	15	24	220	194
19	126	16	36	6.4	66	13	7.4	.8	25	4.4	160	102
20	68	18	42	6.8	60	13	7.4	.8	16	735	100	76
21	49	18	45	7.0	70	13	31	.8	4.4	950	82	62
22	33	17	43	12	105	12	24	1.0	12	100	6,420	50
23	28	18	35	15	76	12	23	.4	8	160	625	43
24	24	18	36	18	76	12	17	.4	0	340	135	37
25	23	22	39	22	16	11	14	2.6	0	545	85	36
26	20	24	36	22	16	10	9.0	3.2	0	314	92	22
27	20	25	35	20	19	10	5.6	2.6	54	182	57	11,300
28	20	25	46	22	23	10	3.2	2.0	50	194	44	332
29	20	28	31	22	-	10	1.8	2.0	19	245	38	142
30	19	29	33	22	-----	10	1.6	1.8	10	1,140	60	85
31	18	-----	54	20	-----	10	-----	1.8	-----	970	95	-----
Total	809	539	1,047	624.4	931	636	309.2	31.2	243.4	7,797.2	22,369	17,752
Mean	26.1	18.0	33.8	20.1	33.2	20.5	10.3	1.01	8.11	252	722	592
Ac-ft	1,600	1,070	2,080	1,240	1,850	1,260	613	62	483	15,470	44,370	35,210

Calendar year 1965: Max 18,000 Min 0 Mean 219 Ac-ft 158,300

Water year 1965-66: Max 11,300 Min 0 Mean 145 Ac-ft 105,300

Peak discharge (base, 3,000 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
7-8	0100	6.16	6,970	8-22	0600	9.54	25,200
7-15	0030	5.47	3,770	9-16	1300	7.60	14,000
7-30	2000	6.19	7,110	9-27	0700	9.79	26,900
8-13	0030	6.18	7,060				

7-1285. Purgatoire River near Las Animas, Colo.

Location.--Lat 38°02'02", long 103°12'00", in sec.23, T.23 S., R.52 W., near left bank on downstream side of pier of bridge on State Highway 101, 2.3 miles southwest of courthouse in Las Animas and 4.5 miles upstream from mouth.

Drainage area.--3,503 sq mi.

Records available.--May to September 1889, July to October 1909 (gage heights and discharge measurements only), January 1922 to September 1931, July 1948 to September 1966. Monthly discharge only for some periods, published in WSP 1311. Published as Purgatoire Creek at Las Animas in 1889 and as Purgatory River near Las Animas in 1909.

Gage.--Water-stage recorder. Datum of gage is 3,877.94 ft above mean sea level, datum of 1929. May 22 to Sept. 30, 1889, staff gage, July 31 to Oct. 9, 1909, chain gage, and Apr. 1, 1922, to June 30, 1924, water-stage recorder, at railroad bridge 4 miles downstream at various datums. July 1, 1924, to Sept. 30, 1931, water-stage recorder at present site at various datums and July 23, 1948, to Sept. 30, 1955, at datum 2.00 ft higher. Supplementary water-stage recorder at site 1.6 miles downstream at different datum since July 12, 1966.

Average discharge.--27 years (1922-31, 1948-66), 138 cfs (99,910 acre-ft per year).

Extremes.--Maximum discharge during year, 17,300 cfs Sept. 27 (gage height, 5.58 ft, from floodmark); minimum daily, 0.9 cfs June 5. 1889, 1922-31, 1948-66: Maximum discharge, 70,000 cfs May 20, 1955 (gage height, 17.00 ft, present datum), from rating curve extended above 38,000 cfs by logarithmic plotting; no flow at times in 1924-25, 1927, 1949.

Remarks.--Records fair. Diversions for irrigation of about 36,000 acres above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	44	33	30	18	62	8.9	4.7	2.0	1.7	338	76
2	44	39	28	35	19	62	7.3	4.5	1.7	1.7	188	300
3	42	39	28	40	19	50	6.6	4.5	1.5	1.7	928	124
4	30	35	24	40	19	50	7.0	3.9	1.2	1.5	729	124
5	28	39	24	35	20	54	7.3	3.4	.9	1.5	1,080	64
6	23	34	23	32	20	57	7.0	3.1	1.7	1.5	962	37
7	24	32	24	29	21	36	6.3	3.1	1.8	1.7	792	25
8	20	29	24	40	21	62	5.7	3.1	1.7	1.7	383	25
9	17	30	31	42	23	57	5.0	4.5	1.8	87	334	14
10	14	30	37	33	25	50	4.7	1.0	1.8	15	224	14
11	14	31	39	37	30	71	5.0	4.7	1.8	5.3	176	21
12	12	31	39	28	35	71	8.9	4.2	1.8	3.9	185	7.2
13	12	32	43	50	40	54	6.3	3.6	3.1	3.6	1,060	145
14	14	35	46	50	45	42	7.0	3.1	2.1	3.2	508	64
15	17	37	43	40	40	50	7.6	2.6	2.0	52	282	37
16	23	37	41	40	35	36	6.3	2.3	2.0	201	140	1,000
17	710	36	39	34	32	26	6.3	2.1	2.0	46	623	814
18	516	34	38	29	30	30	5.3	2.1	2.0	18	250	195
19	156	32	38	29	25	31	6.0	2.6	2.4	7.4	45	126
20	148	30	39	29	35	21	7.3	2.6	4.4	6.8	35	84
21	103	30	39	30	50	16	7.3	2.6	7.6	736	115	62
22	75	30	38	30	75	36	4.7	2.3	3.9	582	2,330	54
23	58	31	35	30	80	54	5.7	2.3	3.1	2,180	670	43
24	47	32	31	30	89	50	5.0	2.3	2.6	1,160	140	31
25	43	35	29	27	86	52	4.7	2.3	2.1	940	65	19
26	43	40	26	25	102	31	3.6	2.3	1.8	520	55	11
27	43	43	24	23	86	20	3.4	2.6	1.7	324	45	7,540
28	43	40	24	22	57	12	8.9	2.3	1.8	234	40	1,250
29	43	37	25	20	-	13	5.3	2.3	1.7	452	45	215
30	43	36	29	19	-----	16	4.7	2.3	1.7	320	31	149
31	43	-----	28	18	-----	15	-----	2.3	-----	1,150	17	-----
Total	2,497	1,040	1,009	996	1,177	1,287	185.1	100.6	128.9	9,060.2	12,815	12,670.2
Mean	80.5	34.7	32.5	32.1	42.0	41.5	6.17	3.25	4.30	292	413	422
Ac-ft	4,950	2,060	2,000	1,980	2,330	2,550	367	200	256	17,970	25,420	25,130

Calendar year 1965: Max 35,700 Min 1 Mean 380 Ac-ft 275,000

Water year 1965-66: Max 7,540 Min 0.9 Mean 118 Ac-ft 85,220

Peak discharge (base, 6,000 cfs).--Aug. 22 (1800) 9,280 cfs (unknown); Sept. 27 (1915) 17,300 cfs (5.88 ft).

Note.--No gage-height record Jan. 17 to Feb. 18.

## ARKANSAS RIVER BASIN

7-1300. John Martin Reservoir at Caddoa, Colo.

Location.--Lat 38°04'05", long 102°56'13", in NE¼NW¼ sec.8, T.23 S., R.49 W., at dam on Arkansas River at Caddoa, 3.2 miles southeast of Hasty and 58 miles upstream from Colorado-Kansas State line.

Drainage area.--18,915 sq mi, of which 785 sq mi is probably noncontributing.

Records available.--January 1943 to September 1966.

Gage.--Water-stage recorder for elevations above about 3,785 ft and reference point and tape gage read once daily for those below. Datum of gage is 3,760.00 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark); gage readings have been reduced to elevations above mean sea level. Prior to 1953 water-stage recorder and staff gage at same datum.

Extremes.--Maximum contents during year, 376,300 acre-ft Dec. 23, Jan. 20 (elevation, 3,851.98 ft); minimum, 174,900 acre-ft July 22 (elevation, 3,831.10 ft).  
1943-66: Maximum contents, 429,600 acre-ft Aug. 25, 1965 (elevation, 3,856.16 ft); no contents at times in 1943, 1945-47, 1952-57, 1959-65.

Remarks.--Reservoir is formed by concrete and earth-fill dam. Storage began while dam was under construction prior to 1943, and record of contents began Jan. 1, 1943. Capacity, 642,400 acre-ft at elevation 3,870.00 ft (top of spillway gates), of which 364,400 acre-ft (between elevations 3,766.8 ft, elevation of no contents, and 3,851.00 ft, is for conservation and 278,000 acre-ft (between elevations 3,851.00 and 3,870.00 ft) is reserved for flood control. No dead storage. Figures given herein represent total contents.

Cooperation.--Record of contents furnished by Corps of Engineers.

Month-end elevation and contents, water year October 1965 to September 1966

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	3,851.38	369,000	-
Oct. 31.....	3,851.91	375,400	+6,400
Nov. 30.....	3,851.90	375,300	-100
Dec. 31.....	3,851.92	375,600	+300
Calendar year 1965.....	-	-	+375,200
Jan. 31.....	3,851.94	375,800	+200
Feb. 28.....	3,851.89	375,200	-600
Mar. 31.....	3,851.83	374,500	-700
Apr. 30.....	3,848.85	339,400	-35,100
May 31.....	3,843.17	278,800	-60,600
June 30.....	3,836.96	221,500	-57,300
July 31.....	3,832.86	188,200	-33,300
Aug. 31.....	3,834.02	197,300	+9,100
Sept. 30.....	3,834.23	199,000	+1,700
Water year 1965-66.....	-	-	-170,000

† Elevation at 2400.

7-1305. Arkansas River below John Martin Reservoir, Colo.

Location.--Lat 38°05'02", long 102°55'10", in NW¼ sec. 4, T.23 S., R.49 W., on left bank 1.1 miles upstream from Caddoa Creek, 1.7 miles downstream from John Martin Dam, and 2.9 miles southeast of Hasty.

Drainage area.--18,917 sq mi, of which 785 sq mi is probably noncontributing.

Records available.--March 1938 to September 1966. Published as "at Caddoa" prior to October 1947.

Gage.--Water-stage recorder. Datum of gage is 3,737.40 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark). Prior to Feb. 22, 1940, at site 3 miles upstream at datum 22.83 ft higher. Feb. 22, 1940, to Feb. 4, 1943, at site 700 ft upstream at datum 3.64 ft higher than present datum.

Average discharge.--28 years, 353 cfs (255,600 acre-ft per year), adjusted for storage in John Martin Reservoir.

Extremes.--Maximum discharge during year, 1,410 cfs May 23 (gage height, 3.68 ft); minimum daily, 7.1 cfs Mar. 17.

1938-66: Maximum discharge, 40,000 cfs Apr. 24, 1942 (gage height, 10.46 ft, site and datum then in use), from rating curve extended above 12,000 cfs on basis of flow-over-dam and critical-depth measurement of peak flow; no flow at times in 1945-47; minimum daily prior to construction of John Martin Reservoir, 5 cfs July 16, 1939.

Remarks.--Records excellent. Storage and diversions above station for irrigation of about 438,000 acres and for flood control. Flow regulated by John Martin Reservoir (see preceding page). Records of chemical analyses and water temperatures for the water year 1966 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	144	221	378	197	282	107	780	907	708	618	780
2	46	172	178	336	272	120	38	612	870	720	572	678
3	46	230	140	233	474	109	13	511	876	732	583	600
4	45	186	124	68	495	130	13	501	882	732	583	600
5	45	215	142	81	383	130	198	506	888	744	589	600
6	81	283	183	36	383	130	336	506	876	1,010	583	600
7	134	283	243	164	383	167	340	798	882	1,190	589	684
8	154	269	290	120	459	323	549	994	876	1,190	583	750
9	194	243	283	118	744	359	702	1,000	888	1,190	583	654
10	227	186	256	118	732	236	702	1,000	900	1,240	589	566
11	233	175	256	147	480	127	702	956	894	1,250	594	566
12	227	192	256	162	383	122	702	1,070	900	1,260	549	560
13	227	175	256	130	560	104	732	1,070	858	1,250	117	560
14	262	178	256	85	642	85	774	1,040	768	1,170	151	560
15	272	178	259	85	490	66	774	1,040	804	1,160	243	560
16	280	178	259	83	428	81	780	1,050	810	1,150	233	560
17	227	180	262	83	378	71	780	1,080	949	1,140	212	572
18	162	178	262	83	428	11	780	1,100	1,030	1,190	212	572
19	122	180	262	85	354	75	774	1,070	1,030	1,220	227	527
20	113	180	294	127	378	93	672	1,030	1,030	1,250	297	438
21	124	183	331	373	600	30	600	1,030	1,010	1,260	340	408
22	115	186	331	307	618	87	654	986	1,000	1,270	301	408
23	107	206	331	212	495	77	678	1,070	994	1,270	286	336
24	107	240	354	197	490	51	690	1,090	900	1,040	286	259
25	113	252	393	140	490	49	684	1,090	858	956	283	262
26	127	280	388	183	495	49	744	1,080	852	986	280	259
27	127	297	388	249	594	49	768	1,040	864	956	236	259
28	127	297	383	345	538	49	774	1,030	768	870	212	262
29	122	294	378	323	-	142	774	1,030	684	798	236	383
30	122	266	378	215	-----	262	780	1,040	708	792	433	418
31	124	-----	378	183	-----	224	-----	1,030	-----	792	708	-----
Total	4,457	6,506	8,715	5,376.1	13,363	3,753.2	17,614	29,230	26,556	32,486	12,308	15,241
Mean	144	217	281	173	477	121	587	943	885	1,048	397	508
Ac-ft	8,840	12,900	17,290	10,660	26,510	7,440	34,940	57,980	52,670	64,440	24,410	30,230

Calendar year 1965: Max 3,830 Min 1.5 Mean 435 Ac-ft 314,700  
 Water year 1965-66: Max 1,270 Min 7.1 Mean 481 Ac-ft 348,300

## 7-1330. Arkansas River at Lamar, Colo.

Location.--Lat 38°06'15", long 102°37'08", in SE¼ sec.30, T.22 S., R.46 W., on right bank 450 ft upstream from bridge on U. S. Highways 50 and 287 and 1.2 miles north of city hall in Lamar.

Drainage area.--19,780 sq mi, of which 950 sq mi is probably noncontributing.

Records available.--May 1913 to September 1955, April 1959 to September 1966. Monthly discharge only for some periods, published in WSP 1311.

Gage.--Water-stage recorder. Datum of gage is 3,599.81 ft above mean sea level, datum of 1929. Prior to June 4, 1941, at site 450 ft downstream on highway bridge at datum 5.07 ft higher. June 4, 1941, to Apr. 3, 1946, at site 1,250 ft downstream and Apr. 4, 1946, to Sept. 30, 1955, at site 600 ft downstream, both at datum 4.07 ft higher.

Average discharge.--49 years, 231 cfs (167,200 acre-ft per year).

Extremes.--Maximum discharge during year, 1,600 cfs Aug. 13 (gage height, 6.91 ft); minimum daily, 0.9 cfs Aug. 25.

1913-55, 1959-66: Maximum discharge, 130,000 cfs June 5, 1921 (gage height, 17.0 ft, present datum), from rating curve extended above 10,000 cfs by logarithmic plotting and confirmed by relationship of discharges at La Junta 60 miles upstream and Syracuse 52 miles downstream; maximum gage height, 18.90 ft (from floodmark) June 18, 1965; no flow at times in 1913-15, 1953.

Remarks.--Records good. Flow regulated by John Martin Reservoir (see station no. 7-1300). Natural flow of stream affected by trans-mountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 487,000 acres, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	4.7	11	195	170	518	152	359	399	192	371	403
2	36	6.5	9.5	202	210	217	80	304	318	185	290	439
3	33	7.0	10	167	280	165	41	115	347	180	276	391
4	30	7.0	11	88	450	238	20	75	395	171	282	391
5	25	6.5	27	57	430	211	18	53	407	160	268	387
6	26	8.5	27	37	400	154	18	43	430	185	276	395
7	21	9.0	25	67	450	137	22	61	423	367	276	403
8	15	8.0	22	180	500	232	57	379	407	415	371	363
9	12	8.5	19	141	600	383	324	509	379	443	391	347
10	15	9.0	15	139	760	387	339	500	403	473	391	335
11	18	9.0	11	141	660	192	339	435	425	518	383	307
12	17	9.0	10	185	540	150	387	478	425	536	359	300
13	14	8.5	23	195	450	148	395	514	427	570	883	293
14	11	9.0	23	139	686	133	478	514	363	504	192	282
15	9.5	9.0	22	119	585	121	478	509	339	468	64	279
16	9.0	8.5	26	119	520	102	478	486	343	468	48	272
17	44	9.0	29	131	480	67	478	491	379	451	29	268
18	102	8.5	27	120	420	50	447	545	560	468	10	272
19	37	8.0	27	110	470	44	415	514	580	451	5.5	272
20	11	7.5	29	110	420	75	435	491	565	527	6.5	268
21	20	7.0	50	150	527	81	431	491	560	478	300	220
22	35	6.5	117	220	758	65	351	451	560	565	127	211
23	33	7.0	158	205	545	97	431	491	540	560	83	205
24	33	6.0	160	195	522	88	451	595	500	522	33	100
25	32	6.0	182	175	522	59	447	555	415	435	2	57
26	32	5.0	188	155	527	51	451	550	407	451	11	33
27	35	11	190	190	634	47	443	536	395	415	20	70
28	36	16	190	220	680	45	407	451	375	415	12	211
29	17	20	190	310	-	44	379	455	229	371	9.5	123
30	7.5	16	192	260	-----	152	367	455	208	375	19	205
31	7.0	-----	195	190	-----	268	-----	478	-----	375	272	-----
Total	817.0	261.2	2215.5	4912	14196	4721	9559	12883	12503	12694	6059.4	8102
Mean	26.4	8.71	71.5	158	507	152	319	416	417	409	195	270
Ac-ft	1,620	518	4,390	9,740	28,160	9,360	18,960	25,550	24,800	25,180	12,020	16,070

Calendar year 1965: Max 25,000 Min 0.1 Mean 361 Ac-ft 261,200  
 Water year 1965-66: Max 833 Min 0.9 Mean 244 Ac-ft 176,400





## 7-1375. Arkansas River near Coolidge, Kans.

Location.--Lat 38°01'34", long 102°00'41", in NE¼ sec.26, T.23 S., R.43 W., on right bank at downstream side of bridge, 1 mile south of Coolidge, and 1.9 miles downstream from Colorado-Kansas State line. Prior to Apr. 1, 1966, at site 0.3 mile upstream.

Drainage area.--25,410 sq mi, of which 1,708 sq mi is probably noncontributing.

Records available.--May to October 1903, March to May 1921, October 1950 to September 1966. Monthly discharge only for some periods, published in WSP 1311.

Gage.--Water-stage recorder. Datum of gage is 3,330.84 ft above mean sea level, datum of 1929. May 5 to Oct. 31, 1903, staff gage, and Mar. 1 to May 31, 1921, water-stage recorder at present site at different datums. Oct. 1, 1950, to Mar. 31, 1966, water-stage recorder at site 0.3 mile upstream at datum 3.00 ft higher.

Average discharge.--16 years, 238 cfs (172,300 acre-ft per year).

Extremes.--Maximum discharge during year, 2,980 cfs June 19 (gage height, 5.75 ft), from rating curve extended above 700 cfs; minimum daily, 122 cfs Oct. 14, July 7.

1903, 1921, 1950-66: Maximum discharge, 158,000 cfs June 17, 1965 (gage height, 14.8 ft, present site and datum, from floodmarks), from rating curve extended above 13,000 cfs on basis of slope-area measurement of peak flow; no flow for many days in 1903, 1954, 1960.

Remarks.--Records good. Combined flow of river and Frontier ditch (see preceding page) represents entire flow that enters Kansas.

Flow regulated by John Martin Reservoir (see station no. 7-1300). Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversion for irrigation of about 500,000 acres, and return flow from irrigated areas. Records of chemical analyses and water temperatures for the water year 1966 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	236	159	245	439	280	748	300	432	601	236	535	249
2	227	153	233	439	290	632	270	464	541	220	460	432
3	218	155	208	431	310	463	220	411	480	200	370	464
4	212	168	175	401	330	384	180	258	438	196	330	422
5	198	210	143	338	380	345	170	216	401	200	391	411
6	178	227	127	269	450	345	160	192	422	157	335	411
7	157	230	124	239	510	352	170	160	443	122	295	406
8	153	269	124	230	600	345	220	139	448	280	480	432
9	145	275	141	260	700	384	250	241	448	396	469	518
10	140	263	175	260	800	459	325	448	427	427	469	443
11	140	251	215	257	840	463	432	513	513	438	518	350
12	140	233	239	254	770	376	496	502	513	427	535	310
13	131	233	251	251	682	338	513	502	469	422	1,000	325
14	122	251	269	272	663	328	518	524	486	438	952	305
15	127	236	275	282	829	310	535	491	448	406	459	305
16	147	233	300	260	696	282	535	496	396	411	315	345
17	269	215	278	230	650	251	547	508	375	422	300	448
18	447	224	314	210	557	233	553	530	677	443	236	422
19	401	230	272	205	546	215	595	577	1,140	448	196	406
20	289	239	254	175	557	212	601	589	649	655	145	375
21	263	230	272	190	511	230	662	565	595	595	645	355
22	230	221	334	230	590	208	607	559	595	668	530	320
23	210	212	384	270	760	198	541	448	583	766	355	305
24	198	208	348	310	676	195	589	448	583	778	315	285
25	198	212	338	300	670	208	541	518	518	688	258	224
26	178	251	342	280	676	200	486	524	454	589	245	196
27	168	278	362	260	722	198	486	524	443	571	236	204
28	165	278	384	230	801	198	486	508	432	726	204	189
29	170	275	401	220	-	195	480	480	391	607	176	228
30	170	254	415	240	-----	195	448	508	290	530	151	204
31	168	-----	431	260	-----	224	-----	601	-----	502	128	-----
Total	6,195	6,873	8,373	8,492	16,846	9,714	12,916	13,876	15,199	13,964	12,033	10,289
Mean	200	229	270	274	602	313	431	448	507	450	388	343
Ac-ft	12,290	13,630	16,610	16,840	33,410	19,270	25,620	27,520	30,150	27,700	23,870	20,410

Calendar year 1965: Max 101,000 Min 4.0 Mean 1,067 Ac-ft 772,600  
 Water year 1965-66: Max 1,140 Min 122 Mean 369 Ac-ft 267,300

8-2135. Rio Grande at Thirtymile Bridge, near Creede, Colo.

Location.--Lat 37°43'30", long 107°15'20", in NE¼ sec.13, T.40 N., R.4 W., on right bank 70 ft below bridge, 500 ft upstream from Squaw Creek, three-quarters of a mile downstream from Rio Grande Reservoir, and 20 miles southwest of Creede.

Drainage area.--163 sq mi.

Records available.--June 1909 to September 1923, May 1925 to September 1966. No winter records 1910, 1926. Monthly discharge only for some periods, published in WSP 1312.

Gage.--Water-stage recorder. Altitude of gage is 9,300 ft (from topographic map). June 1, 1909, to Apr. 7, 1912, chain gage at site about a quarter of a mile downstream at different datum. Apr. 8, 1912, to Sept. 30, 1923, staff or chain gage 500 ft upstream at different datum. May 16, 1925, to Sept. 30, 1934, water-stage recorder at present site at datum 0.40 ft higher.

Average discharge.--53 years (1910-23, 1926-66), 217 cfs (157,100 acre-ft per year).

Extremes.--Maximum discharge during year, 1,220 cfs May 30 (gage height, 3.19 ft); minimum daily, 18 cfs Nov. 22 to Dec. 10.

1909-23, 1925-66: Maximum discharge, 7,500 cfs June 28, 1927 (gage height, 7.03 ft, present datum), from rating curve extended above 1,200 cfs; minimum daily, 0.1 cfs Nov. 2-4, 1960.

Remarks.--Records good except those for period of no gage-height record, which are poor. Flow regulated by Rio Grande Reservoir (capacity, 51,110 acre-ft) since 1912. Natural flow of stream affected by transmountain diversions from Colorado River basin to drainage area above station through Raber-Lohr and Fuchs ditches (see elsewhere in this report). No known diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	241	90	18	19	20	21	21	446	1,120	806	217	61
2	190	67	18	19	20	21	21	424	1,000	806	217	63
3	190	59	18	19	20	21	21	452	964	792	229	61
4	205	48	18	19	20	21	21	634	972	757	237	63
5	241	45	18	19	20	21	22	799	988	743	233	63
6	249	45	18	19	20	21	22	722	1,030	750	213	63
7	253	45	18	19	20	21	22	900	1,080	701	201	59
8	253	35	18	19	20	21	22	1,060	1,060	596	131	56
9	253	31	18	19	20	21	22	1,070	1,040	570	109	50
10	221	31	18	19	20	21	22	1,040	1,050	628	109	48
11	186	31	19	20	20	21	23	722	1,070	628	101	48
12	175	31	19	20	20	21	23	526	1,080	634	88	50
13	168	31	19	20	20	21	23	365	1,090	602	83	55
14	168	31	19	20	20	21	23	386	1,090	589	83	55
15	168	31	19	20	20	21	63	355	1,080	556	83	61
16	168	31	19	20	20	21	137	330	988	538	80	63
17	168	31	19	20	20	21	158	413	932	589	80	65
18	168	31	19	20	20	21	175	538	785	722	78	65
19	168	22	19	20	20	21	183	750	876	785	76	65
20	161	19	19	20	20	21	126	900	1,030	884	76	55
21	151	19	19	20	21	21	83	956	1,050	828	80	50
22	151	18	19	20	21	21	93	892	1,000	806	85	50
23	137	18	19	20	21	21	112	860	940	806	85	51
24	128	18	19	20	21	21	114	988	884	331	85	51
25	128	18	19	20	21	21	128	1,120	828	179	85	43
26	128	18	19	20	21	21	161	1,080	820	165	74	40
27	128	18	19	20	21	21	209	916	844	144	69	39
28	144	18	19	20	21	21	245	806	844	137	61	39
29	154	18	19	20	-	21	245	860	828	137	55	39
30	144	18	19	20	-	21	285	1,110	806	158	51	40
31	134	-----	19	20	-----	21	-----	1,180	-----	201	53	-----
Total	5,521	966	579	610	568	651	2,825	23,600	29,169	17,568	3,507	1,611
Mean	178	32.2	18.7	19.7	20.3	21.0	94.2	761	972	567	113	53.7
Ac-ft	10,950	1,920	1,150	1,210	1,130	1,290	5,600	46,810	57,860	34,850	6,960	3,200

Calendar year 1965: Max 1,720 Min - Mean 266 Ac-ft 192,500  
 Water year 1965-66: Max 1,180 Min 18 Mean 239 Ac-ft 172,900

Note.--No gage-height record Nov. 28 to Apr. 13.

8-2145. North Clear Creek below Continental Reservoir, Colo.

Location.--Lat 37°53'18", long 107°12'10", in NE¼SW¼ sec.21, T.42 N., R.3 W., on left bank 100 ft below bridge, 1,000 ft downstream from Continental Reservoir, and 15 miles west of Creede.

Drainage area.--51.7 sq mi.

Records available.--May 1929 to September 1966. Monthly discharge only for some periods, published in WSP 1312. Prior to October 1960, published as Clear Creek below Continental Reservoir.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 10,200 ft (from topographic map). Prior to Oct. 2, 1951, at site 150 ft upstream at different datum.

Average discharge.--37 years, 31.2 cfs (22,590 acre-ft per year).

Extremes.--Maximum discharge during year, 256 cfs May 10 (gage height, 2.85 ft); minimum daily, 0.8 cfs for many days.

1929-66: Maximum discharge, 362 cfs May 8, 1952 (gage height, 3.66 ft), from rating curve extended above 120 cfs; no flow June 22, 23, 1935.

Remarks.--Records good except those for period of no gage-height record, which are poor. Flow regulated by Continental Reservoir (capacity, 26,720 acre-ft). No diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8	0.8	0.8	0.8	0.8	0.8	0.9	157	75	163	43	12
2	.8	.8	.8	.8	.8	.8	.9	65	79	144	43	8.6
3	.8	.8	.8	.8	.8	.8	.9	138	79	148	50	8.6
4	.8	.8	.8	.8	.8	.8	.9	218	73	150	51	8.9
5	.8	.8	.8	.8	.8	.8	.9	218	69	150	53	9.2
6	.8	.8	.8	.8	.8	.8	.9	218	69	148	59	9.5
7	.8	.8	.8	.8	.8	.8	.9	237	69	148	60	9.5
8	.8	.8	.8	.8	.8	.8	.9	246	69	126	60	9.5
9	.9	.8	.8	.8	.8	.8	.9	246	69	174	62	9.5
10	.8	.8	.8	.8	.8	.8	.9	249	69	210	64	12
11	.9	.8	.8	.8	.8	.8	.9	186	69	208	64	12
12	.9	.8	.8	.8	.8	.8	.9	140	69	220	56	12
13	.9	.8	.8	.8	.8	.8	.9	91	58	220	46	12
14	.9	.8	.8	.8	.8	.8	.9	56	52	208	46	12
15	.9	.8	.8	.8	.8	.8	20	53	47	201	22	12
16	.9	.8	.8	.8	.8	.9	34	56	38	201	68	12
17	.9	.8	.8	.8	.8	.9	37	64	30	203	65	17
18	.9	.8	.8	.8	.8	.9	53	85	29	152	65	19
19	.9	.8	.8	.8	.8	.9	63	101	30	100	65	19
20	.9	.8	.8	.8	.8	.9	64	111	62	87	65	19
21	.9	.8	.8	.8	.8	.9	59	119	95	80	65	19
22	.9	.8	.8	.8	.8	.9	56	120	95	70	65	19
23	.9	.8	.8	.8	.8	.9	51	120	82	126	65	20
24	.9	.8	.8	.8	.8	.9	38	120	70	102	65	16
25	.9	.8	.8	.8	.8	.9	25	117	68	72	13	14
26	.9	.8	.8	.8	.8	.9	22	95	62	72	19	14
27	.9	.8	.8	.8	.8	.9	32	82	102	68	19	14
28	.9	.8	.8	.8	.8	.9	53	74	130	63	19	14
29	.9	.8	.8	.8	-	.9	82	70	144	42	16	14
30	.9	.8	.8	.8	-----	.9	119	70	161	42	17	14
31	.9	-----	.8	.8	-----	.9	-----	70	-----	43	17	-----
Total	27.0	24.0	24.8	24.8	22.4	26.4	820.6	3,992	2,213	4,141	957.8	401.3
Mean	0.87	0.80	0.80	0.80	0.80	0.85	27.4	129	73.8	134	30.9	13.4
Ac-ft	54	48	49	49	44	52	1,630	7,920	4,390	8,210	1,900	796

Calendar year 1965: Max 275 Min 0.8 Mean 38.2 Ac-ft 27,680  
 Water year 1965-66: Max 249 Min 0.8 Mean 34.7 Ac-ft 25,140

Note.--No gage-height record Oct. 22 to Apr. 14.

8-2165. Willow Creek at Creede, Colo.

Location.--Lat 37°51'20", long 106°55'40", in SE¼ sec.25, T.42 N., R.1 W., on left bank at north city limits of Creede, 8 ft upstream from entrance to paved channel just downstream from Windy Gulch, half a mile downstream from confluence of East and West Willow Creeks, and 2½ miles upstream from mouth.

Drainage area.--35.3 sq mi.

Records available.--May 1951 to September 1966.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 8,880 ft (from topographic map). Prior to Sept. 2, 1953, at site 17 ft upstream at same datum.

Average discharge.--15 years, 21.9 cfs (15,850 acre-ft per year).

Extremes.--Maximum discharge during year, 250 cfs (estimated) May 7 (gage height, 3.33 ft); minimum daily 4.2 cfs Mar. 23.

1951-66: Maximum discharge, 430 cfs June 5, 1957; maximum gage height, 4.16 ft May 23, 1958; minimum daily discharge, 0.2 cfs Mar. 25, 1956, probably caused by snowslide upstream.

Remarks.--Records good except those for periods of no gage-height record or indefinite stage-discharge relation, which are poor. Diversions above station for municipal supply of Creede.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	14				6	14	52	45	31	55	13
2	20	14				5.5	16	63	50	26	69	13
3	20	14				5.5	15	83	50	25	63	12
4	20	14				5	12	99	45	22	57	12
5	20	14				5.5	11	116	40	22	52	11
6	19	14				6	11	121	40	20	46	11
7	18	13				6.5	12	140	42	19	42	11
8	18	12				6.5	13	120	43	18	39	10
9	17	12				7	14	100	45	16	38	9.8
10	17	12				7	14	85	49	16	34	9.8
11	16	11				8	14	60	44	18	30	9.8
12	16	12				7.5	12	55	43	17	30	9.8
13	16	12				8	12	50	42	17	29	9.0
14	16	12				8.5	12	45	40	16	30	9.0
15	15	12				9.5	14	50	39	17	27	14
16	17	12	9	7	6	9	17	55	38	22	26	11
17	18	12				8	18	65	38	22	24	9.8
18	16	10				6	17	70	38	21	22	9.8
19	15	9.6				5.5	15	75	36	21	22	9.0
20	16	9.6				6.5	14	80	36	20	25	9.0
21	15	10				6.2	13	70	35	21	22	9.0
22	16	8.8				4.8	16	65	36	24	20	8.6
23	16	12				4.2	15	75	33	25	20	8.6
24	16	12				5.0	16	65	30	31	18	9.0
25	16	11				5.9	20	55	28	34	17	9.0
26	16	9.6				6.5	27	50	30	34	16	8.6
27	16	9.5				7.4	34	55	30	35	16	8.6
28	15	10				7.8	35	55	26	37	15	8.6
29	14	10				8.8	37	55	27	38	14	8.6
30	14	10				9.6	40	60	34	40	14	8.1
31	14					12		50		46	14	
Total	518	348.1	279	217	168	215.2	530	2,239	1,152	771	946	299.5
Mean	16.7	11.6	9	7	6	6.94	17.7	72.2	38.4	24.9	30.5	9.98
Ac-ft	1,030	690	553	430	333	427	1,050	4,440	2,280	1,530	1,880	594

Calendar year 1965: Max 264 Min - Mean 37.7 Ac-ft 27,330  
 Water year 1965-66: Max 140 Min 4.2 Mean 21.0 Ac-ft 15,240

Peak discharge (base, 120 cfs).--May 7 (1930) about 250 cfs (3.33 ft).

Note.--No gage-height record Nov. 27 to Mar. 20. Stage-discharge relation indefinite May 7 to June 6.

## 8-2175. Rio Grande at Wagonwheel Gap, Colo.

Location.--Lat 37°46'00", long 106°49'50", in NE¼ sec.35, T.41 N., R.1 E., on right bank 250 ft upstream from private bridge, 0.2 mile upstream from Goose Creek, and 0.3 mile west of town of Wagonwheel Gap.

Drainage area.--780 sq mi.

Records available.--May 1951 to September 1966.

Gage.--Water-stage recorder. Datum of gage is 8,431.26 ft above mean sea level, datum of 1929.

Average discharge.--15 years, 503 cfs (364,200 acre-ft per year).

Extremes.--Maximum discharge during year, 3,000 cfs May 8 (gage height, 4.54 ft); minimum daily, 100 cfs Mar. 4.

1951-66: Maximum discharge, 4,870 cfs July 26, 1957 (gage height, 5.38 ft); minimum daily, 46 cfs Dec. 9, 1956.

Remarks.--Records good except those for winter period, which are poor. Flow regulated by Santa Maria, Rio Grande, and Continental Reservoirs (total capacity, 121,400 acre-ft). Diversions above station for irrigation. Transmountain diversions to drainage area above station from Colorado River basin (see elsewhere in this report).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	550	311	180	170		120	306	1,180	2,320	1,570	628	232
2	509	271	170	150		120	360	1,360	2,100	1,510	616	232
3	482	249	170	130		110	365	1,180	2,000	1,440	628	229
4	482	236	180	140		100	298	1,660	1,940	1,380	616	225
5	509	222	190	150		110	262	2,010	1,890	1,360	592	225
6	509	212	180	150		120	266	2,150	1,880	1,350	562	222
7	514	215	180	150		120	280	2,410	1,890	1,310	526	222
8	498	212	190	150		130	311	2,640	1,850	1,210	504	215
9	492	208	190	160		130	320	2,550	1,850	1,110	430	208
10	492	192	200	150		140	347	2,500	1,900	1,200	410	201
11	450	192	200	150		140	334	2,010	1,830	1,260	400	201
12	430	180	190	140		150	284	1,620	1,840	1,260	390	215
13	400	183	180	150		160	271	1,370	1,830	1,240	390	215
14	395	177	170	140		180	254	1,140	1,810	1,200	365	208
15	390	174	160	140		210	271	1,110	1,800	1,150	375	280
16	415	171	150	150	140	230	465	1,180	1,720	1,110	320	275
17	455	174	130	140		220	544	1,270	1,650	1,140	302	245
18	430	166	140	130		200	550	1,570	1,570	1,210	293	229
19	400	161	120	150		220	538	1,820	1,500	1,230	298	225
20	385	156	130	140		210	509	2,060	1,690	1,250	298	222
21	360	166	130	140		200	425	2,150	1,800	1,240	306	212
22	360	136	160	140		190	455	2,140	1,780	1,160	288	208
23	352	163	150	140		180	450	2,080	1,660	1,170	293	198
24	338	161	160	150		180	476	2,250	1,590	1,060	293	201
25	334	168	150	140		190	509	2,390	1,480	598	284	201
26	334	138	140	130		190	592	2,250	1,440	586	275	189
27	329	120	140	140		198	710	1,990	1,540	562	266	180
28	324	130	150	120		201	794	1,730	1,540	550	262	180
29	324	140	160	130		222	843	1,710	1,520	526	245	177
30	329	150	180	140		232	962	2,060	1,570	526	229	174
31	320	-----	200	130	-----	271	-----	2,510	-----	598	232	-----
Total	12,891	5,534	5,120	4,430	3,920	5,374	13,351	58,050	52,780	34,066	11,916	6,446
Mean	416	184	165	143	140	173	445	1,873	1,759	1,099	384	215
Ac-ft	25,570	10,980	10,160	8,790	7,780	10,660	26,480	115,100	104,700	67,570	23,640	12,790

Calendar year 1965: Max 3,270 Min - Mean 753 Ac-ft 545,000  
 Water year 1965-66: Max 2,640 Min 100 Mean 586 Ac-ft 424,200

Note.--No gage-height record Jan. 20 to Mar. 1.

8-2185. Goose Creek at Wagonwheel Gap, Colo.

Location.--Lat 37°45'07", long 106°49'46", in SW¼SE¼ sec.35, T.41 N., R.1 E., on left bank a quarter of a mile downstream from Pierce Creek, 1 mile upstream from mouth, 1 mile south of Wagonwheel Gap, and 8.8 miles southeast of Creede.

Drainage area.--90 sq mi, approximately.

Records available.--June 1954 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 8,460 ft (from topographic map).

Average discharge.--12 years, 58.6 cfs (42,420 acre-ft per year).

Extremes.--Maximum discharge during year, 322 cfs May 7 (gage height, 3.67 ft); minimum not determined.

1954-66: Maximum discharge, 645 cfs July 27, 1957 (gage height, 4.44 ft); minimum daily, 9.6 cfs Nov. 15, 16, Dec. 5, 1956.

Flood in June 1927 is the greatest known including those in October 1911 and June 18, 1949. Flood in October 1911 probably exceeded that of June 18, 1949, from information by local residents.

Remarks.--Records good except those for winter period, which are poor. Several small diversions above station for irrigation. Lake Humphreys (capacity, 842 acre-ft) above station with a fixed spillway and no gates has slight effect on flow.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	80	42					64	135	245	99	49	23
2	76	39					70	143	237	86	50	22
3	74	37					64	149	233	78	67	22
4	74	34					52	170	221	70	52	23
5	72	33					50	194	205	67	54	23
6	70	32					48	225	191	65	46	23
7	69	33					49	241	177	60	40	23
8	67	31					52	245	170	58	38	23
9	64	32					55	237	191	55	38	23
10	62	29				24	64	254	191	57	32	23
11	60	28					60	194	185	57	32	23
12	58	27					52	177	180	55	36	25
13	55	30					49	152	165	50	40	24
14	55	28					48	137	150	50	32	22
15	54	28					52	127	145	49	31	25
16	62	28	29	22	21		62	137	138	49	28	25
17	65	28					69	149	130	46	28	24
18	60	27					65	174	132	50	27	23
19	55	25					57	184	130	57	31	23
20	54	24					50	205	124	60	34	23
21	52	28				26	48	213	124	58	37	22
22	52	20				26	54	237	119	57	31	22
23	50	30				27	49	237	114	58	29	23
24	50	29				28	55	245	110	52	28	23
25	50	31				27	65	237	101	48	27	23
26	50	28				30	90	213	103	49	26	23
27	49	23				37	112	194	114	50	26	22
28	46	21				42	119	194	99	50	26	22
29	43	20				42	130	198	92	50	24	22
30	44	20				48	135	233	96	57	23	22
31	44					57		299		54	23	
Total	1,816	865	899	682	588	870	1,989	6,129	4,612	1,801	1,085	689
Mean	58.6	28.8	29	22	21	28.1	66.3	198	154	58.1	35.0	23.0
Ac-ft	3,600	1,720	1,780	1,350	1,170	1,730	3,950	12,160	9,150	3,570	2,150	1,370

Calendar year 1965: Max 512 Min - Mean 107 Ac-ft 77,180  
 Water year 1965-66: Max 299 Min - Mean 60.3 Ac-ft 43,690

Peak discharge (base, 200 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-7	2330	3.67	322	5-31	1930	3.66	317
5-24	0100	3.59	286	6-10	0200	3.50	245

Note.--No gage-height record Nov. 26 to Mar. 24.

## RIO GRANDE BASIN

8-2195. South Fork Rio Grande at South Fork, Colo.

Location.--Lat 37°39'40", long 106°38'50", in sec.4, T.39 N., R.3 E., on left bank near U. S. Highway 160, a quarter of a mile downstream from Church Creek, 1½ miles upstream from mouth, and 1½ miles southwest of village of South Fork.

Drainage area.--216 sq mi.

Records available.--August 1910 to September 1922, May 1936 to September 1966. Monthly discharge only for some periods, published in WSP 1312.

Gage.--Water-stage recorder. Datum of gage is 8,221.79 ft above mean sea level, datum of 1929. Aug. 9, 1910, to Mar. 28, 1915, staff or chain gage and Mar. 29, 1915, to Sept. 30, 1922, water-stage recorder, at bridges 1 mile downstream at different datums.

Average discharge.--42 years, 212 cfs (153,500 acre-ft per year).

Extremes.--Maximum discharge during year, 1,230 cfs May 7 (gage height, 4.58 ft); minimum daily, 39 cfs Feb. 14-16.

1910-22, 1936-66: Maximum discharge, 8,000 cfs Oct. 5, 1911 (gage height, 9.7 ft, from floodmarks, present site and datum), from rating curve extended above 1,500 cfs; minimum daily, 14 cfs Nov. 28, 29, 1960.

Maximum stage known since at least 1873, that of Oct. 5, 1911. Flood of June 29, 1927, reached a stage about 1 ft lower than that of Oct. 5, 1911, from information by local resident.

Remarks.--Records good except those for winter period, which are poor. Transmountain diversions from Colorado River basin to drainage area above station through Treasure Pass ditch (see elsewhere in this report). Natural flow of stream affected by a few small diversions for irrigation, slight regulation by Beaver Creek Reservoir (capacity, 4,760 acre-ft) and several smaller storage reservoirs.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	255	137	62	58	47	56	240	554	916	212	84	55
2	258	136	66	55	48	53	270	614	861	178	85	53
3	235	130	74	49	49	52	265	673	780	152	87	52
4	218	129	80	48	51	58	222	745	682	141	121	56
5	208	113	80	47	52	60	198	820	619	136	143	56
6	200	96	83	50	52	63	195	949	574	127	113	62
7	192	96	84	52	55	64	210	1,000	542	118	102	115
8	186	92	82	52	55	66	232	1,060	506	145	94	118
9	180	98	80	54	53	68	250	1,030	502	220	92	113
10	176	85	80	56	49	70	275	1,060	619	200	91	96
11	170	72	80	56	45	72	275	830	570	198	89	106
12	162	65	76	57	40	67	250	725	560	198	91	119
13	154	74	70	55	40	66	222	606	530	186	92	110
14	150	71	65	52	39	73	228	530	480	186	74	98
15	143	70	64	52	39	78	240	522	440	192	73	94
16	164	71	62	52	39	80	290	570	410	200	73	75
17	182	70	57	50	42	80	329	646	360	192	85	60
18	182	65	56	48	42	78	341	785	330	200	89	57
19	200	66	56	49	41	80	299	883	280	208	89	55
20	192	64	53	49	41	84	265	944	260	205	103	52
21	184	71	53	48	43	90	245	960	250	205	95	55
22	180	49	52	46	45	88	235	996	230	200	87	53
23	178	74	50	45	48	84	218	972	215	178	81	54
24	176	73	50	45	48	96	220	984	210	78	74	54
25	170	73	50	46	50	110	238	954	215	78	68	62
26	164	56	52	45	53	113	299	830	220	82	59	54
27	158	56	52	46	54	127	359	755	230	84	57	50
28	152	58	53	47	56	143	404	715	192	85	57	50
29	148	60	55	48	-	152	440	710	198	92	54	48
30	148	62	57	49	-----	168	502	765	202	101	52	48
31	145	-----	59	49	-----	202	-----	1,020	-----	98	52	-----
Total	5,610	2,432	1,993	1,555	1,316	2,741	8,256	25,207	12,983	4,875	2,606	2,130
Mean	181	81.1	64.3	50.2	47.0	88.4	275	813	433	157	84.1	71.0
Ac-ft	11,130	4,820	3,950	3,080	2,610	5,440	16,380	50,000	25,750	9,670	5,170	4,220

Calendar year 1965: Max 2,140 Min - Mean 336 Ac-ft 243,500  
 Water year 1965-66: Max 1,060 Min 39 Mean 196 Ac-ft 142,200

Peak discharge (base, 900 cfs)

Note.--No gage-height record Dec. 19 to Mar. 24.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-7	2330	4.58	1,230	5-31	1630	4.45	1,110
5-22	2230	4.44	1,150				

## 8-2200. Rio Grande near Del Norte, Colo.

Location.--Lat 37°41'20", long 106°27'40", in NW¼ sec.29, T.40 N., R.5 E., on right bank 20 ft downstream from county highway bridge, 5 miles upstream from Pinos Creek, and 6 miles west of Del Norte.

Drainage area.--1,320 sq mi, approximately.

Records available.--June 1889 to September 1966. Monthly discharge only for some periods, published in WSP 1312.

Gage.--Water-stage recorder. Datum of gage is 7,980.25 ft above mean sea level, datum of 1929. Prior to May 16, 1908, staff gage at site 4 miles downstream at different datum. May 16, 1908, to Nov. 8, 1910, staff or chain gage on bridge at present site and datum.

Average discharge.--77 years, 914 cfs (661,700 acre-ft per year).

Extremes.--Maximum discharge during year, 4,450 cfs May 8 (gage height, 4.10 ft); minimum daily, 160 cfs Jan. 25.

1889-1966: Maximum discharge, 18,000 cfs Oct. 5, 1911 (gage height, 6.80 ft), from rating curve extended above 12,900 cfs; minimum daily, 69 cfs Aug. 21, 1902.

Maximum stage known since at least 1873, that of Oct. 5, 1911, from information by local residents.

Remarks.--Records good except those for winter period, which are fair. Small diversions above station for irrigation. Flow regulated by Beaver Creek Reservoir since 1910, Santa Maria Reservoir since 1912, Rio Grande Reservoir since 1913, and Continental Reservoir since 1925 (total capacity, 126,100 acre-ft), and by several smaller reservoirs. Transmountain diversions to drainage area above station from Colorado River basin (see elsewhere in this report).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	946	574	300	230	220	210	664	1,830	3,700	1,870	762	253
2	910	540	300	220	210	220	762	2,210	3,440	1,800	729	253
3	848	500	300	210	190	210	779	2,000	3,140	1,670	779	242
4	822	481	296	200	180	200	656	2,540	2,930	1,620	813	253
5	822	455	296	210	190	200	554	3,080	2,820	1,560	804	248
6	822	419	269	220	210	210	568	3,440	2,720	1,550	737	248
7	822	413	264	230	230	220	574	3,460	2,680	1,510	664	291
8	804	413	275	220	220	240	626	4,090	2,590	1,440	626	296
9	788	413	286	220	210	260	656	3,950	2,590	1,380	568	291
10	779	383	308	210	200	270	721	3,990	2,790	1,410	520	275
11	754	353	291	210	190	280	721	3,290	2,610	1,520	500	280
12	713	347	275	200	200	290	649	2,720	2,590	1,510	494	318
13	688	353	264	200	210	310	603	2,270	2,540	1,460	520	318
14	656	341	248	200	190	320	568	1,920	2,460	1,440	462	296
15	649	341	264	210	170	330	581	1,830	2,390	1,410	468	318
16	696	330	258	200	170	340	788	1,920	2,270	1,370	419	395
17	804	335	237	190	190	350	983	2,030	2,190	1,350	377	318
18	779	318	212	180	200	290	1,000	2,460	2,160	1,430	371	286
19	754	308	220	190	210	380	955	2,820	1,980	1,500	365	280
20	721	296	220	180	210	455	883	3,170	2,100	1,490	389	275
21	688	308	240	180	220	443	779	3,340	2,220	1,550	407	269
22	680	258	250	180	220	401	788	3,420	2,190	1,410	371	264
23	672	308	270	170	210	313	745	3,270	2,060	1,410	365	253
24	656	341	220	170	200	347	762	3,440	1,970	1,350	365	253
25	641	347	180	160	210	377	822	3,560	1,810	796	335	264
26	626	302	200	170	220	383	974	3,380	1,740	721	308	253
27	611	212	210	180	230	425	1,200	3,040	1,830	696	296	231
28	603	189	210	180	230	474	1,320	2,750	1,840	680	291	226
29	588	226	220	190	-	500	1,450	2,630	1,780	664	275	221
30	603	264	230	200	-----	527	1,620	3,000	1,840	672	253	217
31	588	-----	240	210	-----	588	-----	3,800	-----	688	242	-----
Total	22,533	10,668	7,853	6,120	5,740	10,363	24,751	90,650	71,970	40,927	14,875	8,185
Mean	727	356	253	197	205	334	825	2,924	2,399	1,320	480	273
Ac-ft	44,690	21,160	15,580	12,140	11,390	20,550	49,090	179,800	142,800	81,180	29,500	16,230

Calendar year 1965: Max 5,920 Min 105 Mean 1,286 Ac-ft 931,200  
 Water year 1965-66: Max 4,090 Min 160 Mean 862 Ac-ft 624,100



## RIO GRANDE BASIN

8-2205. Pinos Creek near Del Norte, Colo.

Location.--Lat 37°35'30", long 106°26'50", in sec.29, T.39 N., R.5 E., on left bank just downstream from Bennett Creek, 8 miles southwest of Del Norte.

Drainage area.--53 sq mi, approximately.

Records available.--April 1919 to September 1924, May 1936 to September 1966. No winter records prior to 1950 except water years 1941, 1944-47. Monthly discharge only for some periods, published in WSP 1312.

Gage.--Water-stage recorder and rectangular box flume. Altitude of gage is 8,350 ft (from topographic map). May 1, 1919, to Sept. 30, 1924, staff gages at sites about 1,000 ft downstream at different datums.

Average discharge.--22 years (1940-41, 1943-47, 1949-66), 24.0 cfs (17,380 acre-ft per year).

Extremes.--Maximum discharge during year, 162 cfs May 9 (gage height, 1.62 ft); minimum not determined.

1919-24, 1936-66: Maximum discharge not determined, occurred June 3, 1922, caused by failure of private fish-lake dam; maximum discharge determined, 720 cfs Aug. 3, 1936 (gage height, 4.19 ft), by slope-area measurement of peak flow; minimum daily recorded, 1.8 cfs Sept. 26-28, 1951.

Maximum stage known since at least 1903, that of June 3, 1922, from information by local residents.

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

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	14				9.2	23	66	86	29	18	12
2	20	14				9.0	26	74	81	26	36	10
3	18	12				8.6	24	80	74	24	31	10
4	18	14				8.2	18	97	69	22	32	10
5	17	13				8.2	16	113	66	21	39	10
6	16	13				8.6	16	118	63	21	32	10
7	16	12				8.6	16	116	60	19	29	11
8	16	12				8.8	17	123	62	17	24	10
9	16	12				9.0	25	127	59	16	23	9.2
10	15	12				9.6	27	132	64	18	22	8.8
11	14	10				10	27	86	59	20	21	9.2
12	15	12				9.6	24	83	56	16	21	9.2
13	15	12				9.4	23	71	51	17	24	8.8
14	15	12				9.8	21	69	49	18	21	8.4
15	15	12				9.8	23	74	47	22	19	8.8
16	16	12	7.8	7.2	8.2	10	30	84	45	21	18	8.4
17	21	12				10	35	97	45	20	20	8.0
18	17	11				10	34	110	42	21	17	7.6
19	16	9.6				9.8	26	108	39	25	16	7.6
20	16	11				9.6	25	102	37	26	17	7.6
21	16	12				10	23	103	39	26	17	7.6
22	16	8.0				10	23	103	37	21	15	7.2
23	16	12				9.6	23	105	32	18	16	7.6
24	16	12				9.8	26	102	29	20	16	7.2
25	15	12				10	31	95	28	18	14	7.2
26	16	8.8				12	45	89	35	19	13	7.2
27	15	9.2				13	60	81	36	23	12	6.8
28	14	8.5				14	65	78	29	21	12	6.8
29	13	7.8				14	74	74	28	18	12	7.2
30	14	7.8				16	68	74	29	25	12	6.8
31	13					19		102		20	14	
Total	497	339.7	241.8	223.2	229.6	323.2	914	2,936	1,476	648	633	256.2
Mean	16.0	11.3	7.8	7.2	8.2	10.4	30.5	94.7	49.2	20.9	20.4	8.54
Ac-ft	986	674	480	443	455	641	1,810	5,820	2,930	1,290	1,260	508

Calendar year 1965: Max 344 Min - Mean 53.1 Ac-ft 38,470  
 Water year 1965-66: Max 132 Min - Mean 23.9 Ac-ft 17,290

Peak discharge (base, 120 cfs)

Note.--No gage-height record Nov. 28 to Mar. 24.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-9	2300	1.62	162	5-31	1600	1.52	138
5-17	2300	1.50	139				

## 8-2215. Rio Grande near Monte Vista, Colo.

Location.--Lat 37°36'30", long 106°08'50", at west line of sec.19, T.39 N., R.8 E., on left bank 25 ft downstream from bridge on U. S. Highway 285, 2 miles north of Monte Vista, and 12 miles downstream from San Francisco Creek.

Drainage area.--1,590 sq mi, approximately.

Records available.--May 1926 to September 1966. Monthly discharge only for some periods, published in WSP 1312.

Gage.--Water-stage recorder. Datum of gage is 7,654.16 ft above mean sea level, datum of 1929. May 1, 1926, to July 5, 1927, staff or slope gage near present site at datum 0.50 ft lower. July 6-22, 1927, chain gage and July 23, 1927, to Feb. 22, 1934, water-stage recorder, near present site at datum 0.50 ft higher. Feb. 23, 1934, to Aug. 19, 1936, water-stage recorder at present site and datum. Aug. 20 to Dec. 30, 1936, water-stage recorder at site 75 ft downstream at present datum. Dec. 31, 1936, to Apr. 2, 1937, water-stage recorder at present site and datum. Apr. 3, 1937, to June 14, 1938, water-stage recorder at site 75 ft downstream at present datum.

Average discharge.--40 years, 324 cfs (234,600 acre-ft per year).

Extremes.--Maximum discharge during year, 1,580 cfs May 8 (gage height, 4.77 ft); minimum daily, 13 cfs Nov. 21.  
1926-66: Maximum discharge, 18,500 cfs June 30, 1927 (gage height, 7.35 ft, present datum, from floodmarks); minimum daily, 1.5 cfs Apr. 14, 1959.

Remarks.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 90,000 acres. Flow regulated by Beaver Creek, Santa Maria, Rio Grande, and Continental Reservoirs (total capacity, 126,100 acre-ft), and by several smaller reservoirs. Transmountain diversions to drainage area above station from Colorado River basin (see elsewhere in this report).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	946	172	276	230	230	230	525	515	1,030	475	161	107
2	910	179	258	235	230	225	475	609	888	460	137	102
3	838	122	262	225	210	220	420	415	1,030	397	140	94
4	772	80	272	210	200	215	370	540	813	361	97	100
5	606	54	276	220	210	210	343	771	855	298	161	102
6	574	30	249	225	215	210	260	940	855	252	97	102
7	574	27	285	230	230	220	226	693	813	188	62	107
8	535	23	303	240	240	235	180	1,190	735	152	76	123
9	470	22	308	230	240	250	174	1,220	753	140	87	123
10	460	22	345	220	220	270	194	1,270	795	123	90	115
11	445	22	316	215	205	280	219	992	747	155	87	115
12	375	22	276	210	200	300	170	966	894	146	87	140
13	326	22	240	210	205	310	87	907	920	120	112	143
14	228	22	220	210	210	330	31	705	881	118	92	132
15	200	21	208	215	215	340	20	670	783	110	90	118
16	196	35	228	220	200	350	74	855	642	115	97	158
17	316	34	240	210	200	360	226	855	609	112	72	104
18	385	37	240	195	205	370	312	1,020	631	126	83	58
19	340	24	220	195	210	330	236	1,140	587	170	76	56
20	276	20	210	200	220	350	72	1,180	636	149	90	72
21	244	13	210	200	220	440	129	1,130	658	143	112	74
22	212	45	215	195	220	430	129	1,210	642	118	94	72
23	204	35	230	190	215	410	126	1,160	587	107	56	60
24	196	128	245	185	210	392	110	1,200	555	120	53	69
25	179	140	250	180	220	379	126	1,230	490	92	58	87
26	162	176	260	180	220	379	180	1,180	470	92	53	94
27	165	190	250	185	230	410	252	1,110	485	112	65	90
28	143	182	215	195	230	450	334	1,010	470	102	76	78
29	150	182	210	205	-	480	490	998	406	92	78	74
30	168	216	220	215	-----	485	500	1,090	425	87	92	65
31	168	-----	225	220	-----	530	-----	1,160	-----	112	104	-----
Total	11,763	2,297	7,762	6,495	6,060	10,390	6,990	29,931	21,085	5,344	2,835	2,934
Mean	379	76.6	250	210	216	335	233	966	703	172	91.5	97.8
Ac-ft	23,330	4,560	15,400	12,880	12,020	20,610	13,860	59,370	41,820	10,600	5,620	5,820

Calendar year 1965 : Max 3,690 Min 3.6 Mean 487 Ac-ft 352,900  
Water year 1965-66 : Max 1,270 Min 13 Mean 312 Ac-ft 225,900

Note.--No gage-height record Jan. 17 to Mar. 23.

## 8-2230. Rio Grande at Alamosa, Colo.

Location.--Lat 37°29', long 105°53', in SE¼ sec.4, T.37 N., R.10 E., on right bank a quarter of a mile northwest of city limits of Alamosa and 9 miles upstream from Alamosa Creek.

Drainage area.--1,710 sq mi, approximately.

Records available.--May 1912 to September 1966. Monthly discharge only for some periods, published in WSP 1312.

Gage.--Water-stage recorder. Datum of gage is 7,532.66 ft above mean sea level, datum of 1929. Prior to Apr. 7, 1915, staff or chain gage and Apr. 7, 1915, to Nov. 5, 1935, water-stage recorder, at railroad and highway bridges in Alamosa 1 to 2½ miles downstream at different datums. Nov. 6, 1935, to June 30, 1942, water-stage recorder at present site at datum 1.00 ft higher.

Average discharge.--54 years, 258 cfs (186,800 acre-ft per year).

Extremes.--Maximum discharge during year, 980 cfs Oct. 1 (gage height, 4.79 ft); minimum daily, 18 cfs Sept. 24-28.

1912-66: Maximum discharge, 14,000 cfs July 1, 1927 (gage height, 8.37 ft, site and datum then in use); maximum gage height, 10.62 ft June 20, 1949; minimum daily discharge, 1.0 cfs May 19, 1950.

Flood in October 1911 (stage, 0.2 ft lower than July 1, 1927, from floodmark) probably exceeded that of July 1, 1927, and is probably the greatest known since at least 1884, from information by local resident.

Remarks.--Records fair except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

Revisions.--Revised figures of discharge, in cubic feet per second, for the water year 1965, superseding those previously published, are given herewith:

1965		1965-Con.		1965-Con.	
Sept. 20.....	380	Sept. 24.....	633	Sept. 28.....	781
21.....	677	25.....	641	29.....	870
22.....	665	26.....	677	30.....	938
23.....	625	27.....	729		

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
Sept.....	9,032	938	57	301	17,910
Water year 1964-65.....	-	2,360	17	224	161,900

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	932	223	245	235	230	255	543	67	175	58	40	26
2	810	221	279	240	235	260	540	75	160	57	41	29
3	772	225	279	240	230	250	498	118	122	56	44	32
4	713	186	289	230	220	245	471	56	181	55	45	31
5	597	160	307	220	210	240	430	52	112	55	48	27
6	474	142	299	220	215	245	375	76	92	56	50	26
7	448	129	283	230	220	260	330	99	100	55	52	25
8	418	112	309	240	230	270	295	55	118	53	56	26
9	382	105	350	240	240	280	259	176	95	52	55	30
10	340	90	378	235	230	295	247	213	80	52	55	34
11	318	86	380	230	220	310	259	235	91	52	53	36
12	297	82	340	225	210	330	267	107	73	53	53	33
13	265	79	300	215	210	340	225	94	95	61	53	41
14	229	78	270	215	215	360	164	80	122	68	52	51
15	183	77	250	220	220	380	129	69	88	63	51	54
16	188	76	240	220	210	400	110	66	70	58	51	50
17	215	78	230	220	210	420	130	106	69	51	50	54
18	320	80	200	210	215	452	235	126	67	48	44	52
19	390	80	225	200	220	450	318	175	69	43	30	39
20	375	78	230	200	230	492	259	207	69	40	30	32
21	342	75	230	210	230	510	111	190	65	43	32	29
22	320	73	235	210	230	510	74	170	66	46	51	24
23	293	79	240	200	230	442	68	175	66	50	48	19
24	279	92	250	190	230	412	64	146	67	52	36	18
25	263	132	260	185	230	415	58	160	60	48	31	18
26	249	152	265	180	230	418	52	175	59	44	28	18
27	233	181	270	190	240	420	52	172	58	42	26	18
28	229	193	250	200	250	442	52	133	57	40	24	18
29	213	183	230	210	-	471	51	115	58	40	22	20
30	211	201	240	220	-----	504	53	116	59	40	21	22
31	223	-----	240	220	-----	510	-----	132	-----	40	21	-----
Total	11,521	3,748	8,393	6,700	6,290	11,588	6,719	3,936	2,663	1,571	1,293	932
Mean	372	125	271	216	225	374	224	127	88.8	50.7	41.7	31.1
Ac-ft	22,850	7,430	16,650	13,290	12,480	22,980	13,330	7,810	5,280	3,120	2,560	1,850

Calendar year 1965: Max 2,360 Min 46 Mean 276 Ac-ft 199,800  
 Water year 1965-66: Max 932 Min 18 Mean 179 Ac-ft 129,600

Note.--No gage-height record Jan. 24 to Mar. 11.

Closed basin in San Luis Valley, Colo.

8-2245. Kerber Creek at Ashley Ranch, near Villa Grove, Colo.

Location.--Lat 38°15', long 106°08', in sec.7, T.46 N., R.8 E., on left bank at Ashley Ranch, 5 miles upstream from Little Kerber Creek and 10 miles west of Villa Grove.

Drainage area.--38 sq mi, approximately.

Records available.--June 1923 to September 1926 (published as Kerber Creek near Villa Grove), May 1936 to September 1966. Monthly discharge only for some periods, published in WSP 1312.

Gage.--Water-stage recorder. Altitude of gage is 8,900 ft (from topographic map). Prior to Dec. 10, 1963, at site 150 ft upstream at datum 1.50 ft higher.

Average discharge.--33 years, 12.8 cfs (9,270 acre-ft per year).

Extremes.--Maximum discharge during year, 127 cfs July 21 (gage height, 1.44 ft); minimum daily, 1.8 cfs Sept. 20-22.

1923-26, 1936-66: Maximum discharge, 407 cfs May 14, 1941, from rating curve extended above 140 cfs; maximum gage height, 5.04 ft (site and datum then in use) May 11, 1947 (backwater from beaver dam); minimum daily discharge, 0.2 cfs Sept. 3, 1950, July 30 to Aug. 2, 1963, but may have been less during periods of no gage-height record.

Maximum discharge known since at least 1872, that of May 14, 1941, from information by local residents.

Remarks.--Records good except those for winter period, which are poor. No diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.8	7.8					13	19	30	9.4	4.1	2.2
2	7.8	7.8					14	24	29	8.6	9.4	2.7
3	7.8	7.8					14	31	27	7.0	6.5	2.7
4	7.8	7.8					24	31	26	6.5	6.0	2.2
5	7.0	8.6					24	36	24	5.1	4.6	3.2
6	6.5	8.6					16	34	22	4.6	4.1	3.6
7	6.5	7.8					13	35	19	4.6	3.6	3.2
8	6.5	7.0					13	38	19	4.6	3.2	3.2
9	6.5	7.0					11	40	19	4.1	2.7	3.2
10	6.5	7.8					12	38	19	4.1	2.2	3.2
11	6.5	8.6					12	36	18	4.6	2.7	3.2
12	6.5	9.4					12	35	17	4.6	2.7	3.6
13	6.5	5.1					7.0	32	17	4.6	3.6	2.7
14	6.5	6.5				3.5	7.8	31	15	5.1	3.2	3.2
15	7.0	6.0					8.6	29	15	5.1	3.2	4.1
16	7.8	7.0					9.4	27	15	5.1	2.7	2.7
17	16	4.1					9.4	26	17	4.1	4.1	2.0
18	14	4.1					8.6	24	16	4.1	3.2	2.0
19	12	4.2					9.4	24	16	3.6	2.7	2.0
20	10	4.5					9.4	25	16	5.1	4.6	1.8
21	10	6.0					13	26	17	10	4.1	1.8
22	10	5.8					13	27	16	6.0	3.2	1.8
23	10	5.6					12	29	13	7.8	3.2	2.0
24	11	5.8					12	29	13	7.8	2.7	2.0
25	9.4	6.2					12	30	12	5.6	2.2	2.0
26	10	6.0				6.0	12	30	12	7.8	2.0	2.0
27	10	6.0				6.5	12	30	12	7.0	2.0	2.2
28	9.4	6.0				7.2	13	30	10	6.0	2.0	2.7
29	9.4	6.2				7.8	15	29	10	6.0	2.0	2.2
30	8.6	6.4				13	16	30	11	5.1	2.0	2.0
31	8.6					13		30		4.6	2.0	
Total	269.9	197.5	201.5	186.0	126.0	141.0	377.6	935	522	178.3	106.5	77.4
Mean	8.71	6.58	6.5	6.0	4.5	4.55	12.6	30.2	17.4	5.75	3.44	2.58
Ac-ft	535	392	400	369	250	280	749	1,850	1,040	354	211	154

Calendar year 1965: Max 114 Min - Mean 18.7 Ac-ft 13,540

Water year 1965-66: Max 40 Min 1.8 Mean 9.09 Ac-ft 6,580

Peak discharge (base, 70 cfs).--July 21 (1400) 127 cfs (1.44 ft).

Note.--No gage-height record Nov. 29 to Mar. 29.

## RIO GRANDE BASIN

Closed basin in San Luis Valley, Colo.

8-2270. Saguache Creek near Saguache, Colo.

Location.--Lat 38°10', long 106°17', in SE¼ sec.10, T.45 N., R.6 E., on left bank just upstream from Ford Creek, 10 miles northwest of Saguache.

Drainage area.--595 sq mi.

Records available.--August 1910 to September 1912, June 1914 to September 1966. Monthly discharge only for some periods, published in WSP 1312.

Gage.--Water-stage recorder. Altitude of gage is about 8,050 ft (estimated from nearby U. S. Coast and Geodetic Survey level line). Prior to Apr. 9, 1934, at sites three-quarters of a mile downstream at different datums.

Average discharge.--54 years, 70.7 cfs (51,180 acre-ft per year).

Extremes.--Maximum discharge during year, 106 cfs May 6 (gage height, 1.25 ft); minimum daily, 11 cfs Mar. 6, 7.

1910-12, 1914-66: Maximum discharge, 790 cfs Aug. 3, 1964 (gage height, 2.85 ft), from rating curve extended above 83 cfs; minimum daily recorded, 8.2 cfs Dec. 22, 1950, Aug. 17, 1951.

Greatest flood known occurred in 1869. Flood in 1884 or 1886 exceeded that of Aug. 3, 1964, from information by local residents.

Remarks.--Records good except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions from Colorado River basin to drainage area above station through Tarbell ditch (see elsewhere in this report) and diversions above station for irrigation.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	68	58	40	33	14	15	92	88	136	81	79	36
2	66	57	41	30	13	15	96	94	107	70	81	37
3	63	56	44	27	13	14	83	102	105	59	105	38
4	61	54	48	25	14	13	58	103	92	53	78	36
5	59	54	45	26	14	12	44	118	90	50	58	36
6	58	53	45	27	14	11	50	131	90	50	54	36
7	57	52	45	29	14	11	52	133	92	48	51	36
8	56	53	48	28	14	12	54	133	87	50	47	36
9	57	54	46	28	14	12	57	140	88	45	47	34
10	57	52	45	29	13	12	61	129	113	44	47	34
11	57	50	45	30	12	12	61	109	107	47	46	34
12	58	49	42	30	12	12	56	109	85	50	46	37
13	59	57	35	29	13	13	52	102	73	49	49	37
14	60	53	36	29	13	15	51	88	71	49	48	33
15	62	53	33	30	13	17	51	81	67	50	54	33
16	70	54	33	31	13	18	59	74	76	53	46	35
17	90	54	32	29	13	18	67	76	92	60	45	32
18	83	52	30	25	13	19	64	79	79	66	44	31
19	76	51	31	24	13	21	60	85	78	70	40	30
20	70	51	32	25	13	25	52	90	85	76	51	30
21	70	52	30	26	13	26	49	96	107	68	59	30
22	70	51	31	21	13	26	53	103	105	74	48	30
23	70	51	30	18	13	28	60	96	83	79	45	29
24	69	51	30	17	13	37	61	94	67	85	44	29
25	68	57	29	16	13	49	63	109	59	96	42	30
26	68	52	29	17	14	51	85	109	61	74	38	30
27	66	43	30	17	15	63	100	113	85	71	37	32
28	63	39	31	16	15	73	94	115	73	76	37	33
29	61	36	32	16	-	79	87	113	64	76	37	32
30	60	37	32	16	-----	74	83	107	71	76	35	30
31	59	-----	33	16	-----	88	-----	118	-----	76	36	-----
Total	2,011	1,536	1,133	760	374	891	1,955	3,237	2,588	1,971	1,574	996
Mean	64.9	51.2	36.5	24.5	13.4	28.7	65.2	104	86.3	63.6	50.8	33.2
Ac-ft	3,990	3,050	2,250	1,510	742	1,770	3,880	6,420	5,130	3,910	3,120	1,980

Calendar year 1965: Max 535 Min - Mean 106 Ac-ft 76,700  
 Water year 1965-66: Max 140 Min 11 Mean 52.1 Ac-ft 37,740

Peak discharge (base, 210 cfs).--No peak above base.

Note.--No gage-height record Jan. 1 to Mar. 24.

Closed basin in San Luis Valley, Colo.

8-2275. North Crestone Creek near Crestone, Colo.

Location.--Lat 38°00'49", long 105°41'32", on right bank in canyon, 1½ miles northeast of Crestone, Saguache County, and 3¼ miles upstream from South Crestone Creek.

Drainage area.--10.7 sq mi.

Records available.--May 1936 to September 1966 (no winter records prior to 1948).

Gage.--Water-stage recorder. Altitude of gage is 8,360 ft (from topographic map).

Average discharge.--19 years (1947-66), 10.6 cfs (7,670 acre-ft per year).

Extremes.--Maximum discharge during year, 50 cfs May 31 (gage height, 1.75 ft); minimum not determined.

1936-66: Maximum discharge, 735 cfs Aug. 6, 1936 (gage height, 4.33 ft), from rating curve extended above 160 cfs on basis of slope-area measurement of peak flow; minimum daily recorded, 0.4 cfs Apr. 3, 1945.

Maximum stage known probably since at least 1884 occurred in October 1911. No flood since that in October 1911 has exceeded the flood of Aug. 6, 1936, from information by local residents.

Remarks.--Records good except those for winter period, which are poor. No diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	11					8.2	14	41	17	12	7.8
2	18	10					9.8	21	39	16	28	7.4
3	18	10					8.2	24	36	15	29	7.4
4	18	9.8					6.5	25	33	14	41	6.8
5	19	9.4					5.0	31	30	14	43	6.5
6	18	9.8					5.0	35	26	13	38	6.5
7	17	9.4					5.4	36	23	12	31	6.2
8	17	9.0					5.5	38	23	12	28	6.0
9	17	9.0					5.2	34	24	12	26	6.0
10	16	8.6					5.4	32	28	13	23	6.0
11	16	8.2				3.4	5.4	24	26	16	20	6.2
12	16	7.8					5.0	22	28	17	17	6.0
13	16	7.8					5.2	17	28	17	16	5.8
14	15	7.0					5.2	16	27	19	14	5.5
15	14	7.0					5.5	17	28	19	13	6.5
16	14	6.8	5.5	4.7	3.5		6.8	21	23	14	13	6.0
17	15	6.8					7.8	22	25	14	12	5.8
18	14	6.5					6.8	27	28	13	12	5.8
19	14	6.2					6.2	28	24	16	11	5.5
20	13	6.0					5.2	30	22	21	14	5.5
21	13	6.2				3.0	4.8	32	23	19	13	5.0
22	12	6.0				2.7	4.8	32	23	21	12	4.8
23	12	6.8				2.4	4.8	30	22	16	12	4.5
24	12	6.8				2.2	5.0	30	22	15	12	4.3
25	12	6.5				2.1	6.5	35	20	14	11	4.1
26	11	6.0				2.2	11	31	21	13	10	3.8
27	11	6.0				3.0	11	29	22	12	9.8	3.8
28	11	5.5				3.6	12	28	20	12	9.8	4.1
29	11	5.5				4.1	11	29	19	12	9.0	3.6
30	11	5.5				4.8	12	36	17	11	8.6	3.6
31	11					6.5		43		10	8.6	
Total	451	226.9	170.5	145.7	98.0	104.6	206.2	869	771	459	556.8	166.8
Mean	14.5	7.56	5.5	4.7	3.5	3.37	6.87	28.0	25.7	14.8	18.0	5.56
Ac-ft	895	450	338	289	194	207	409	1,720	1,530	910	1,100	331

Calendar year 1965: Max 102 Min - Mean 17.3 Ac-ft 12,510

Water year 1965-66: Max 43 Min - Mean 11.6 Ac-ft 8,380

Peak discharge (base, 60 cfs).--No peak above base.

Note.--No gage-height record Dec. 23 to Mar. 23.

## RIO GRANDE BASIN

Closed basin in San Luis Valley, Colo.

8-2305. Carnero Creek near La Garita, Colo.

Location.--Lat 37°52', long 106°19', in sec.28, T.42 N., R.6 E., on left bank 4 miles northwest of La Garita and 5½ miles downstream from North Fork.

Drainage area.--117 sq mi.

Records available.--April 1919 to September 1966. No winter records prior to water year 1945 except water years 1926, 1941. Monthly discharge only for some periods, published in WSP 1312.

Gage.--Water-stage recorder. Altitude of gage is 8,200 ft (from topographic map). Prior to Aug. 6, 1925, staff gage or water-stage recorder at site 300 ft downstream at different datum. Aug. 6, 1925, to Apr. 20, 1929, staff gage or water-stage recorder at present site and datum.

Average discharge.--24 years (1925-26, 1940-41, 1944-66), 10.8 cfs (7,820 acre-ft per year).

Extremes.--Maximum discharge during year, 64 cfs July 24 (gage height, 1.05 ft); minimum daily, 1.6 cfs July 10.  
1919-66: Maximum discharge, 1,600 cfs July 21, 1945 (gage height, 5.75 ft), from rating curve extended above 160 cfs; no flow for several days during summer months in 1951, 1955-56, 1963.

Remarks.--Records good except those for winter period, which are poor. Diversions above station for irrigation.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	9.0	5.0				16	14	15	7.6	12	3.0
2	10	8.6	5.2				17	14	12	5.8	6.9	3.0
3	9.5	8.6	5.4				12	14	9.5	4.5	15	3.0
4	9.0	7.2	5.3				9.5	14	9.0	3.5	9.5	3.0
5	9.0	6.9	5.2				8.8	13	8.3	3.0	7.2	2.8
6	8.6	6.6	5.0				8.0	13	8.0	2.8	6.2	3.0
7	8.6	6.6	5.0				6.9	13	8.0	2.4	4.8	3.8
8	8.3	6.2	5.2			4.8	8.6	13	7.6	2.4	4.5	3.2
9	8.0	6.6	5.2				8.3	15	8.0	2.2	4.2	2.8
10	8.3	5.8	5.8				9.0	16	12	1.6	4.2	2.8
11	8.3	5.8					8.6	14	11	1.8	3.8	2.6
12	8.3	5.2					7.2	15	8.6	3.5	3.8	2.8
13	8.3	7.2					5.8	16	7.6	3.5	4.2	2.8
14	8.3	6.6					6.6	15	6.6	4.5	4.2	2.8
15	8.3	6.9		3.8	3.7		6.6	14	5.8	3.8	6.2	2.4
16	8.6	7.2				6.5	8.6	12	6.2	3.2	5.5	2.2
17	18	10				9.0	9.0	12	8.0	4.5	4.5	2.2
18	20	8.0				10	9.0	12	6.9	4.5	4.2	2.2
19	16	6.6				11	8.6	12	6.2	4.5	4.8	2.6
20	15	6.6				9.5	6.6	12	6.2	8.6	12	2.2
21	14		4.5			10	6.9	11	8.0	12	8.0	2.6
22	15					8.0	10	11	8.3	12	7.2	2.4
23	15					8.3	9.0	11	5.8	13	6.3	2.2
24	15					7.6	12	11	4.5	18	5.5	2.2
25	13	6.2				7.2	11	11	3.8	12	4.8	2.6
26	11					7.6	13	12	3.8	8.3	3.8	3.0
27	10					14	15	12	4.8	8.0	3.5	3.0
28	10					15	14	12	5.0	7.6	4.0	3.2
29	9.5					12	14	12	4.0	6.9	3.2	3.0
30	9.5					10	14	11	5.2	6.9	3.0	3.0
31	9.0					15		11		8.0	3.0	
Total	340.4	204.2	146.8	117.8	103.6	232.7	299.6	398	223.7	190.9	180.0	82.4
Mean	11.0	6.81	4.74	3.8	3.7	7.51	9.99	12.8	7.46	6.16	5.81	2.75
Ac-ft	675	405	291	234	205	462	594	789	444	379	357	163

Calendar year 1965: Max 184 Min - Mean 24.1 Ac-ft 17,450  
Water year 1965-66: Max 20 Min 1.6 Mean 6.90 Ac-ft 5,000

Peak discharge (base, 110 cfs).--No peak above base.

GPO 889-740

Note.--No gage-height record Dec. 13 to Mar. 18.

Closed basin in San Luis Valley, Colo.

8-2310. La Garita Creek near La Garita, Colo.

Location.--Lat 37°48'50", long 106°19'10", in sec.9, T.41 N., R.6 E., on right bank 4 miles southwest of La Garita and 4½ miles downstream from Little La Garita Creek.

Drainage area.--61 sq mi, approximately.

Records available.--April 1919 to September 1966. No winter records prior to water year 1948 except water years 1926, 1941, 1945-46. Monthly discharge only for some periods, published in WSP 1312.

Gage.--Water-stage recorder. Altitude of gage is 8,030 ft (from topographic map). Apr. 1, 1919, to June 23, 1927, staff gages and June 24, 1927, to Nov. 13, 1935, water-stage recorder, at sites within a quarter of a mile downstream at different datums.

Average discharge.--23 years (1925-26, 1940-41, 1944-46, 1947-66), 12.9 cfs (9,340 acre-ft per year).

Extremes.--Maximum discharge during year, 50 cfs Aug. 3 (gage height, 0.95 ft); minimum daily, 3.3 cfs Sept. 30.  
1919-66: Maximum discharge, 530 cfs July 9, 1957 (gage height, 3.00 ft), from rating curve extended above 140 cfs; minimum daily recorded, 0.2 cfs Sept. 28, 29, 1956.

Remarks.--Records good except those for winter period, which are poor. Diversions above station for irrigation.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	9.0					16	24	19	9.9	13	4.6
2	11	9.0					17	24	14	7.0	17	4.2
3	11	9.0					12	24	13	5.4	16	4.2
4	10	8.6					9.5	24	11	5.0	12	4.2
5	9.9	8.6					8.4	27	11	5.0	12	3.9
6							8.6	26	11	5.0	9.5	4.6
7	9.5	8.6					9.0	23	11	5.0	8.2	4.6
8	9.0	8.2					11	24	11	5.0	7.4	4.6
9	9.0	8.2					12	23	11	4.4	7.4	4.2
10	9.0	7.4				6.3	15	23	13	4.4	7.4	4.2
11	9.0	7.0					17	21	12	6.6	6.6	4.2
12	8.6	7.4					10	20	9.9	9.0	6.2	4.4
13	9.0	7.8					8.6	19	9.5	6.6	7.4	4.2
14	9.0	7.4					9.0	19	8.6	5.0	6.6	4.2
15	9.0	7.0	7.0	6.6	6.5		11	14	8.6	5.0	7.4	4.2
16	9.0	7.0					19	13	9.5	5.8	6.2	4.2
17	13	8.2					20	13	9.5	4.6	7.4	4.2
18	12	6.2					13	16	9.0	7.4	5.8	3.9
19	9.9	5.8					8.6	16	8.2	12	5.4	3.7
20	11	5.8					7.4	16	8.2	12	13	3.9
21	11	5.4				5.8	7.0	16	9.5	7.4	9.5	4.2
22	11	5.2				5.6	9.9	16	9.9	9.0	7.4	4.2
23	12	5.6				5.4	8.2	16	8.2	10	9.5	4.2
24	12	6.0				5.4	11	14	7.0	9.5	8.2	4.2
25	12	6.8				5.8	13	15	6.2	10	6.2	4.2
26	12	7.0				8.2	22	16	5.8	11	5.4	4.2
27	12	6.4				9.9	23	16	7.4	16	5.8	4.2
28	11	6.0				9.9	19	16	6.6	14	5.8	3.9
29	10	6.0			-	9.9	22	16	5.8	13	5.4	3.5
30	10	6.2			-	9.9	24	14	12	12	5.0	3.3
31	9.9	-			-	15	-	15	-	11	5.0	-
Total	321.3	215.0	217.0	204.6	182.0	216.8	401.2	579	296.4	253.0	255.1	124.5
Mean	10.4	7.17	7.0	6.6	6.5	6.99	13.4	18.7	9.88	8.16	8.23	4.15
Ac-ft	637	426	430	406	361	430	796	1,150	588	502	506	247

Calendar year 1965: Max 130 Min - Mean 25.9 Ac-ft 18,760

Water year 1965-66: Max 27 Min 3.3 Mean 8.95 Ac-ft 6,480

Peak discharge (base, 80 cfs).--No peak above base.

Note.--No gage-height record Dec. 20 to Mar. 18.



## 8-2360. Alamosa Creek above Terrace Reservoir, Colo.

Location.--Lat 37°23', long 106°21', in sec.8, T.36 N., R.6 E., on left bank 3 miles upstream from Terrace Reservoir Dam and 15 miles northwest of Capulin.

Drainage area.--107 sq mi.

Records available.--September 1911 to September 1912 (published as Rio Alamosa near Monte Vista), May to June 1914, April 1915 to September 1927, October 1934 to September 1966. No winter records water years 1919-23. Monthly discharge only for some periods, published in WSP 1312.

Gage.--Water-stage recorder. Altitude of gage is 8,600 ft (from topographic map). Sept. 29, 1911, to Sept. 30, 1912, staff gage at ranger station 1.8 miles upstream at different datum. Apr. 25, 1914, to May 6, 1915, staff gage and May 7, 1915, to Sept. 30, 1927, water-stage recorder, near present site at different datums. Datum lowered 0.27 ft Mar. 28, 1925.

Average discharge.--40 years (1911-12, 1915-18, 1923-27, 1934-66), 115 cfs (83,260 acre-ft per year).

Extremes.--Maximum discharge during year, 897 cfs May 7 (gage height, 2.93 ft); minimum not determined.

1911-12, 1914-27, 1934-66: Maximum discharge, 5,200 cfs Oct. 5, 1911 (gage height, 11.0 ft, site and datum then in use, from floodmark), from rating curve extended above 1,000 cfs on basis of computation of peak flow over dam about 8 miles upstream; minimum not determined.

Maximum stage known since at least 1854, that of Oct. 5, 1911, from information by local residents.

Remarks.--Records good except those for winter period, which are poor. No diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	113	48					102	339	397	191	75	31
2	113	46					120	380	366	151	123	31
3	113	43					123	448	357	130	111	30
4	108	42					93	508	352	113	108	30
5	106	39					77	557	330	108	179	29
6												
7	102	39					70	606	310	104	120	29
8	97	36					71	620	294	97	93	29
9	93	35					95	660	282	93	80	31
10	88	38					106	613	274	88	73	29
11	84	33					130	564	266	84	64	29
12												
13	79	30					130	414	262	91	59	30
14	77	28					113	362	270	88	59	33
15	73	31					108	314	274	79	68	31
16	71	30					123	298	266	73	56	27
17	68	29					108	326	250	70	52	31
18												
19	71	30	26	18	21		140	397	226	71	48	36
20	88	30					170	454	215	71	52	29
21	80	30					176	496	206	68	45	25
22	68	29					140	508	194	71	42	24
23	61	25					120	514	194	97	45	23
24												
25	63	31					32	108	532	182	102	45
26	63	20					34	108	528	185	80	38
27	61	31					35	99	490	182	73	39
28	61	31					36	106	496	170	79	58
29	59	33					29	122	484	156	66	42
30												
31	59	24					30	179	436	156	66	39
1	56	23					39	236	386	165	80	36
2	54	22					46	243	362	140	82	36
3	52	21					51	274	366	135	79	35
4	52	21					56	318	397	138	97	35
5	49						75	496		79	36	18
Total	2,382	948	806	558	588	1,023	4,108	14,351	7,194	2,821	1,991	810
Mean	76.8	31.6	26	18	21	33.0	137	463	240	91.0	64.2	27.0
Ac-ft	4,720	1,880	1,600	1,110	1,170	2,030	8,150	28,460	14,270	5,600	3,950	1,610

Calendar year 1965: Max 1,250 Min - Mean 177 Ac-ft 127,800  
 Water year 1965-66: Max 660 Min - Mean 103 Ac-ft 74,540

Peak discharge (base, 670 cfs).--May 7 (2230) 897 cfs (2.93 ft); May 21 (2100) 748 cfs (2.74 ft).

Note.--No gage-height record Dec. 14 to Mar. 24.

8-2380. La Jara Creek at Gallegos Ranch, near Capulin, Colo.

Location.--Lat 37°12'30", long 106°11'20", in NE¼ sec.10, T.34 N., R.7 E., on left bank 2.7 miles downstream from Canyon Del Rancho, 7 miles southwest of Capulin, and 16½ miles downstream from La Jara Reservoir.

Drainage area.--98 sq mi, approximately.

Records available.--April 1916 to November 1917, April 1919 to November 1923, May 1936 to September 1966. No winter records prior to 1950 except water year 1944. Monthly discharge only for some periods, published in WSP 1312.

Gage.--Water-stage recorder. Altitude of gage is 8,130 ft (from topographic map). Apr. 1, 1916, to Nov. 30, 1917, and Apr. 1, 1919, to Nov. 30, 1923, near present site at different datums.

Average discharge.--18 years (1943-44, 1949-66), 15.6 cfs (11,290 acre-ft per year).

Extremes.--Maximum discharge during year, 159 cfs Aug. 1 (gage height, 3.70 ft); minimum not determined. 1916-17, 1919-23, 1936-66: Maximum discharge, 653 cfs Apr. 22, 1919, Apr. 15, 1937 (gage height, 5.94 ft, present site and datum); minimum daily recorded, 2.2 cfs Nov. 6, 1951.

Remarks.--Records good except those for winter period, which are poor. Small diversions above station for irrigation. Flow regulated by La Jara Reservoir (capacity, 14,040 acre-ft).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.8	7.7				8.8	3.7	4.8	2.3	8.0	1.2	6.8
2	8.8	8.0				9.6	3.9	4.4	2.0	7.1	1.4	6.8
3	8.4	7.7				9.0	4.0	4.5	1.4	6.8	1.0	6.5
4	8.4	7.7				9.2	2.6	4.5	1.2	6.5	1.0	6.5
5	8.0	7.4				10	2.2	3.8	1.2	6.5	1.4	6.5
6	8.0	7.4				11	2.2	3.5	1.1	6.8	1.8	6.5
7	8.0	7.4				11	2.4	3.2	1.1	6.8	1.1	6.5
8	8.0	7.1				11	3.3	3.0	1.1	6.8	8.8	6.5
9	8.0	7.4				10	3.6	2.7	1.1	6.8	7.4	6.5
10	8.0	7.4				11	4.2	2.9	1.1	6.8	7.4	6.8
11	8.0	7.1				13	4.5	2.7	1.0	7.7	8.0	7.1
12	8.4	7.7				12	3.4	2.3	8.8	9.2	8.0	6.8
13	6.8	6.8				13	3.3	2.2	8.4	8.0	8.8	6.5
14	5.0	6.8				14	3.0	1.9	8.0	7.4	9.2	6.5
15	5.0	6.5				15	3.1	1.7	8.0	7.4	8.4	6.5
16	5.6	6.8	8.5	6.8	7.8	15	3.8	1.5	8.0	7.1	7.7	6.5
17	7.7	6.8				16	4.4	1.4	9.6	7.4	7.4	6.5
18	7.4	6.8				18	4.4	1.4	9.6	9.2	7.1	6.2
19	7.1	7.4				17	2.5	1.2	8.4	8.0	7.1	6.2
20	9.2	7.8				15	3.2	1.4	8.0	9.6	7.1	6.5
21	9.6	8.4				14	3.4	1.6	8.0	1.1	7.4	6.5
22	9.2	8.8				11	3.5	1.6	8.0	8.0	8.0	6.5
23	8.8	9.6				12	2.8	1.6	7.1	7.7	8.0	6.5
24	8.8	9.6				11	2.8	1.6	6.8	8.0	8.4	7.1
25	8.8	10				10	3.2	1.6	6.8	7.1	8.8	7.7
26	8.8	8.4				12	4.0	1.8	6.8	6.8	8.8	6.8
27	8.4	7.1				16	4.8	2.0	7.7	8.0	8.4	6.5
28	8.4	7.0				20	4.5	2.3	7.4	9.6	8.0	6.8
29	8.4	7.0				22	4.9	2.0	6.5	8.0	7.7	6.8
30	8.0	7.2				23	5.3	1.8	8.0	7.7	7.4	6.8
31	8.0					3.2		1.8		7.4	7.1	
Total	247.8	228.8	263.5	210.8	218.4	431.6	1,069	747	295.9	239.2	279.4	199.2
Mean	7.99	7.63	8.5	6.8	7.8	13.9	35.6	24.1	9.86	7.72	9.01	6.64
Ac-ft	492	454	523	418	433	856	2,120	1,480	587	474	554	395

Calendar year 1965: Max 185 Min - Mean 22.3 Ac-ft 16,130  
 Water year 1965-66: Max 53 Min - Mean 12.1 Ac-ft 8,790

Note.--No gage-height record Dec. 13 to Mar. 18.

8-2400. Rio Grande above mouth of Trinchera Creek, near La Sauses, Colo.

Location.--Lat 37°19', long 105°45', in sec.35, T.36 N., R.11 E., on right bank a quarter of a mile upstream from Trinchera Creek, 3½ miles north of La Sauses, and 13 miles southeast of Alamosa.

Drainage area.--5,740 sq mi, approximately (includes 2,940 sq mi in closed basin in northern part of San Luis Valley, Colo.).

Records available.--May 1936 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 7,500 ft (estimated from nearby level lines).

Average discharge.--30 years, 238 cfs (172,300 acre-ft per year).

Extremes.--Maximum discharge during year, 872 cfs Oct. 1 (gage height, 4.48 ft); minimum daily, 18 cfs Sept. 29, 30.  
1936-66: Maximum discharge, 5,470 cfs June 21, 1949 (gage height, 9.50 ft), from rating curve extended above 3,600 cfs; minimum daily, 0.4 cfs July 4, 1940.

Remarks.--Records good except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	852	293	320	370	285	290	586	134	259	149	29	38
2	828	296	315	360	300	300	611	168	288	140	54	38
3	779	296	315	350	310	310	604	198	328	133	45	39
4	751	281	320	345	315	320	566	184	331	145	49	42
5	709	250	325	340	295	325	562	112	350	151	62	42
6	608	229	320	340	295	320	534	98	350	140	98	39
7	514	211	320	350	310	310	469	142	328	127	127	35
8	493	196	330	350	325	305	430	166	309	117	140	35
9	478	190	340	340	330	315	397	170	278	106	125	36
10	433	184	360	340	340	340	367	298	259	97	112	38
11	400	178	380	320	340	360	353	334	254	87	89	42
12	376	170	390	310	310	390	385	328	242	80	78	45
13	350	164	390	310	290	420	397	283	220	69	77	45
14	314	160	380	310	280	470	350	293	200	61	71	47
15	269	156	375	320	270	510	296	298	184	56	74	52
16	233	154	350	320	250	550	254	252	172	54	77	55
17	269	162	325	300	250	622	203	196	166	49	77	54
18	309	164	300	290	250	628	229	174	164	47	71	54
19	418	162	290	290	255	569	314	152	164	56	68	56
20	469	160	290	280	260	558	406	134	156	70	59	51
21	448	162	300	260	270	583	311	118	149	66	58	45
22	430	162	320	240	275	576	216	108	145	58	58	39
23	409	166	340	230	275	534	180	110	136	45	57	35
24	382	182	350	230	280	496	172	124	122	37	62	30
25	367	196	330	230	290	475	164	138	112	33	62	24
26	348	233	315	230	280	475	147	151	124	30	51	23
27	336	233	310	230	280	466	149	162	133	30	46	24
28	306	264	315	240	285	481	143	174	125	31	43	23
29	293	278	320	250	-	514	143	196	125	33	39	18
30	281	295	330	260	-----	552	122	205	152	31	33	18
31	288	-----	350	270	-----	569	-----	218	-----	30	36	-----
Total	13,740	6,227	10,315	9,205	8,095	13,933	10,060	5,818	6,325	2,358	2,127	1,162
Mean	443	208	333	297	289	449	335	188	211	76.1	68.6	38.7
Ac-ft	27,250	12,350	20,460	18,260	16,060	27,640	19,950	11,540	12,550	4,680	4,220	2,300

Calendar year 1965: Max 2,260 Min 47 Mean 376 Ac-ft 272,400  
Water year 1965-66: Max 852 Min 18 Mean 245 Ac-ft 177,300

Note.--No gage-height record Feb. 6 to Mar. 16.

8-2405. Trinchera Creek above Turners Ranch, near Fort Garland, Colo.

Location.--Lat 37°22', long 105°17', in Sangre de Cristo Grant, on right bank just downstream from confluence of North and South Forks, 1 mile upstream from Turners Ranch and 7 miles southeast of Fort Garland, Costilla County.

Drainage area.--45 sq mi, approximately.

Records available.--April 1923 to September 1966. No winter records prior to 1935 except water year 1928. Monthly discharge only for some periods, published in WSP 1312.

Gage.--Water-stage recorder. Prior to Apr. 12, 1929, at site 200 ft upstream at different datum.

Average discharge.--33 years (1927-28, 1934-66), 23.7 cfs (17,160 acre-ft per year).

Extremes.--Maximum discharge during year, 54 cfs May 31 (gage height, 2.58 ft); maximum gage height, 2.65 ft Nov. 29 (backwater from ice); minimum daily discharge, 5.8 cfs Feb. 14, 15, 18-23.

1923-66: Maximum discharge, 689 cfs May 27, 1942, from rating curve extended above 240 cfs; maximum gage height, 3.73 ft May 10, 1947; minimum daily discharge recorded, 3.0 cfs Oct. 3, 1942.

Outstanding floods occurred in 1886 and in October 1911. The flood in 1886 probably exceeded that in October 1911 and the flood in October 1911 probably exceeded all subsequent floods, from information by local residents.

Remarks.--Records good except those for periods of no gage-height record, which are poor. No regulation or diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	13	10	12	7.2	6.6	13	28	43	22	16	11
2	13	13	11	11	7.0	6.4	15	29	40	20	17	10
3	13	12	13	9.0	7.0	6.0	14	31	37	19	18	10
4	13	12	13	8.5	7.0	6.0	13	33	37	18	26	10
5	12	12	12	6.8	7.0	6.2	11	36	37	18	17	9.9
6	12	12	12	6.6	7.0	6.4	12	40	36	17	15	9.9
7	12	12	10	6.6	7.2	6.6	12	42	35	17	15	9.9
8	13	11	11	6.6	7.2	6.6	13	48	33	16	14	9.1
9	13	11	10	6.6	7.4	7.0	14	50	32	16	15	9.1
10	13	11	9.5	6.8	7.0	7.4	15	53	40	16	15	9.1
11	13	11	8.7	7.0	6.2	7.6	15	49	35	17	14	9.1
12	13	10	8.5	7.0	6.2	7.2	14	47	32	18	13	9.1
13	12	11	8.2	7.0	6.0	7.4	15	42	30	16	13	7.9
14	12	10	8.0	7.0	5.8	7.8	14	40	29	16	13	7.5
15	12	10	8.0	7.0	5.8	8.2	15	37	28	15	12	7.5
16	13	10	8.2	6.8	6.0	8.2	17	37	28	14	14	7.5
17	14	10	8.2	6.6	6.0	8.0	18	36	29	13	14	7.5
18	14	9.9	8.2	6.8	5.8	7.8	16	38	28	13	13	7.5
19	14	9.5	8.0	6.8	5.8	8.0	16	38	27	14	13	7.5
20	13	10	8.0	6.8	5.8	8.4	15	38	27	13	13	7.5
21	13	10	8.6	6.6	5.8	8.4	16	41	29	13	12	7.2
22	14	11	9.0	6.6	5.8	8.0	14	42	28	12	13	6.9
23	14	12	9.2	6.6	5.8	8.0	14	43	26	12	12	6.9
24	13	11	10	6.6	6.0	8.8	15	44	24	15	13	7.2
25	13	11	11	6.6	6.2	10	16	44	23	13	12	7.2
26	13	11	11	6.6	6.6	9.9	20	43	24	13	11	7.2
27	13	10	11	6.8	6.8	9.5	23	42	24	16	11	7.5
28	13	9.4	12	7.0	6.8	9.5	26	42	23	15	12	7.5
29	13	9.4	13	7.0	-	9.5	28	41	22	18	12	7.5
30	13	9.4	13	7.2	-	9.9	28	38	23	18	11	7.2
31	13	-	13	7.4	-	11	-	42	-	16	11	-
Total	404	324.6	314.3	224.3	180.2	246.3	487	1,254	909	489	430	248.9
Mean	13.0	10.8	10.1	7.24	6.44	7.95	16.2	40.5	30.3	15.8	13.9	8.30
Ac-ft	801	644	623	445	357	489	966	2,490	1,800	970	853	494

Calendar year 1965: Max 95 Min - Mean 22.8 Ac-ft 16,510

Water year 1965-66: Max 53 Min 5.8 Mean 15.1 Ac-ft 10,930

Peak discharge (base, 50 cfs).--May 10 (1300) 53 cfs (2.57 ft); May 31 (2000) 54 cfs (2.58 ft).

Note.--No gage-height record Dec. 18 to Mar. 22.

8-2415. Sangre de Cristo Creek near Fort Garland, Colo.

Location.--Lat 37°25', long 105°25', in W½ sec.23, T.30 S., R.72 W., on left bank at road bridge, 1 mile east of Fort Garland and 6 miles upstream from Ute Creek.

Drainage area.--190 sq mi, approximately.

Records available.--March to October 1916, May 1923 to September 1930, October 1931 to September 1966. No winter records prior to 1946 except water year 1941. Monthly discharge only for some periods, published in WSP 1312.

Gage.--Water-stage recorder. Altitude of gage is 7,930 ft (estimated from nearby U. S. Coast and Geodetic Survey level line). Mar. 15 to Oct. 9, 1916, staff gage and Cippoletti weir near present site 600 ft upstream from Garland Canal at different datum. May 7, 1923, to Feb. 29, 1964, water-stage recorder at site 1 mile upstream at different datum.

Average discharge.--22 years (1940-41, 1945-66), 19.9 cfs (14,410 acre-ft per year).

Extremes.--Maximum discharge during year, 174 cfs July 23 (gage height, 2.07 ft); minimum daily, 0.2 cfs Sept. 25.

1916, 1923-66: Maximum discharge, 1,520 cfs Aug. 31, 1936, from rating curve extended above 280 cfs on basis of slope-area measurement at gage height, 6.10 ft (site and datum then in use); maximum gage height, 7.82 ft (site and datum then in use) June 4, 1957; no flow at times in many years.

Outstanding floods occurred in 1886 and in October 1911. The flood in 1886 probably exceeded that in October 1911 and the flood in October 1911 probably exceeded all subsequent floods, from information by local residents.

Remarks.--Records good except those for period of no gage-height record, which are poor. A few diversions above station for irrigation.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.4	6.4	7.8				32	35	16	3.2	3.8	0.4
2	6.8	6.8	7.8				34	33	16	2.6	3.2	.4
3	6.4	6.0	6.0				35	34	13	2.0	7.4	.4
4	6.0	5.7	6.8				26	35	12	1.6	11	.4
5	6.0	5.7	6.8				21	36	10	1.4	7.7	.4
6	5.3	5.4	5.7			9.0	24	35	10	1.2	6.4	.4
7	5.3	5.4	5.4				23	35	9.8	1.2	5.0	.6
8	5.3	5.0	5.7				24	36	9.4	1.0	4.1	.4
9	5.3	6.0	6.8				24	38	9.8	1.0	3.2	.4
10	5.3	6.0	9.8				26	39	14	1.0	2.0	.4
11	5.0	5.4	7.1				29	38	15	1.0	1.6	.4
12	5.0	5.0	6.4				30	35	11	6.8	1.6	.4
13	5.3	6.0	5.7				31	35	9.0	3.5	1.6	.6
14	5.3	6.0	6.0				30	31	7.8	4.4	1.8	.6
15	5.0	5.4	6.0				31	30	7.1	4.7	1.6	.6
16	5.3	5.7		3.8	6.0		32	27	7.1	3.2	1.4	.4
17	7.1	6.0					36	27	7.4	2.9	1.0	.4
18	9.4	5.7					38	25	7.4	1.8	.8	.6
19	9.8	6.0					38	24	7.1	1.4	.8	.6
20	9.0	6.0					32	23	7.1	1.4	.6	.8
21	8.5	6.4	5.5			13	32	23	7.8	1.8	.6	.8
22	7.8	5.4					15	34	21	8.2	.6	.4
23	7.8	5.2					16	27	20	6.0	1.4	.4
24	7.4	5.6					18	27	20	4.4	5.4	.4
25	7.1	6.0					18	26	19	3.5	2.0	.5
26	7.1	5.7					18	26	18	3.2	1.6	.5
27	6.8	5.6					28	29	17	3.2	1.6	.5
28	6.8	5.6					29	33	17	2.9	1.6	.4
29	6.4	5.7					26	33	17	2.9	5.4	.4
30	6.4	6.0					22	34	14	3.8	10	.4
31	6.4	-----	-----	-----	-----	-----	28	-----	14	-----	5.0	.6
Total	203.8	172.8	187.8	117.8	168.0	411.0	897	851	251.9	97.5	72.3	13.8
Mean	6.57	5.76	6.06	3.8	6.0	13.3	29.9	27.5	8.40	3.15	2.33	0.46
Ac-ft	404	343	372	234	333	815	1,780	1,690	500	193	143	27

Calendar year 1965: Max 80 Min 1.2 Mean 13.4 Ac-ft 9,690  
 Water year 1965-66: Max 39 Min 0.2 Mean 9.44 Ac-ft 6,830

Peak discharge (base, 75 cfs).--July 23 (2000) 174 cfs (2.07 ft).

No gage-height record Dec. 19 to Mar. 22.

8-2425. Ute Creek near Fort Garland, Colo.

Location.--Lat 37°27', long 105°26', in S½ sec.10, T.30 S., R.72 W., on left bank 1½ miles north of Fort Garland and 6 miles upstream from mouth.

Drainage area.--32 sq mi, approximately.

Records available.--March to October 1916, May 1923 to September 1966. Monthly discharge only for some periods, published in WSP 1312.

Gage.--Water-stage recorder. Altitude of gage is 8,030 ft (from topographic map). Mar. 18 to Oct. 9, 1916, staff gage and Cippoletti weir at different datum.

Average discharge.--43 years, 20.7 cfs (14,990 acre-ft per year).

Extremes.--Maximum discharge during year, 200 cfs July 23 (gage height, 2.49 ft); minimum daily, 3.0 cfs Sept. 29, 30.

1916, 1923-66: Maximum daily discharge, 630 cfs May 15, 1941; no flow July 28-31, Sept. 6-29, 1956.

Outstanding floods occurred in 1886 and in October 1911. The flood in 1886 probably exceeded that in October 1911 and the flood in October 1911 probably exceeded all subseautent floods, from information by local residents.

Remarks.--Records good except those for winter period, which are poor. A few diversions above station for irrigation.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	14	12				24	39	53	101	21	10
2	25	14	14				29	36	45	52	37	9.2
3	24	14	14				27	44	40	36	76	9.2
4	23	14	13				24	45	39	31	80	9.2
5	23	13	12				26	52	40	27	48	8.3
6	22	13	12				19	66	35	24	33	7.4
7	21	9.2	12				19	67	33	22	26	7.0
8	20	7.6	12				19	69	32	20	22	7.0
9	20	7.6	12				21	67	34	21	21	7.0
10	18	6.8	12				26	59	51	19	20	7.4
11	18	6.8	12			9.5	28	50	36	26	17	7.4
12	17	6.4	11				26	46	32	52	16	7.8
13	17	7.2	10				29	39	31	30	16	7.4
14	16	8.0	8.7				27	35	29	26	15	7.0
15	15	9.2	8.4				28	32	30	25	15	7.0
16	20	12		8.0	7.5		32	36	29	27	15	7.0
17	22	12					38	34	29	22	15	6.5
18	25	10					38	42	31	18	14	6.5
19	21	9.6					37	45	30	21	13	6.2
20	19	10					34	46	27	30	14	6.2
21	16	12				12	30	48	29	22	13	5.4
22	16	8.8				12	29	50	36	21	12	5.1
23	15	13				19	25	42	29	31	11	4.8
24	16	12				16	23	39	27	21	14	5.1
25	16	13				15	22	45	26	19	11	5.1
26	15	10				14	25	50	27	18	11	5.4
27	14	8.4				14	29	45	29	21	9.6	4.4
28	14	8.2				15	34	42	29	24	10	3.4
29	14	9.0				16	34	39	29	34	11	3.0
30	14	11				17	38	45	33	28	10	3.0
31	14					19		52		24	10	
Total	577	309.8	299.9	248.0	210.0	359.0	840	1,446	1,000	893	656.6	195.4
Mean	18.6	10.3	9.67	8.0	7.5	11.6	28.0	46.6	33.3	28.8	21.2	6.51
Ac-ft	1,140	614	595	492	417	712	1,670	2,870	1,980	1,770	1,300	388

Calendar year 1965: Max 152 Min - Mean 27.4 Ac-ft 19,830  
 Water year 1965-66: Max 101 Min 3.0 Mean 19.3 Ac-ft 13,950

Peak discharge (base, 100 cfs)

Note.--No gage-height record Dec. 17 to Mar. 21.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
7- 1	0300	2.12	142	8- 3	0300	1.97	106
7-23	1800	2.49	200				

8-2435. Trinchera Creek below Smith Reservoir, near Blanca, Colo.

Location.--Lat 37°23', long 105°33', in sec.4, T.31 S., R.73 W. (unsurveyed), on right bank 600 ft downstream from bridge, 1 mile downstream from Smith Reservoir, and 5 miles southwest of Blanca.

Drainage area.--396 sq mi.

Records available.--October 1928 to September 1966. No winter records prior to 1944 except water years 1931, 1934-36, 1938. Monthly discharge only for some periods, published in WSP 1312.

Gage.--Water-stage recorder. Altitude of gage is 7,700 ft (estimated from nearby U. S. Coast and Geodetic Survey level lines). Prior to Oct. 12, 1964, at site 200 ft downstream; prior to Apr. 19, 1943, at datum 1.00 ft higher; and at present datum thereafter.

Average discharge.--28 years (1930-31, 1933-36, 1937-38, 1943-66), 11.2 cfs (8,110 acre-ft per year).

Extremes.--Maximum discharge during year, 22 cfs May 8 (gage height, 2.18 ft); minimum daily, 1.4 cfs Nov. 4, 5.

1929-66: Maximum daily discharge, 1,340 cfs May 11, 1942; no flow Sept. 13, 14, 16, 17, 1957.

Outstanding floods occurred in 1886 and October 1911. The flood in 1886 probably exceeded that in October 1911 and the flood in October 1911 probably exceeded all subsequent floods, from information by local residents.

Remarks.--Records good except those for period of no gage-height record, which are poor. Diversions above station for irrigation. Flow regulated by Smith Reservoir (capacity, 5,335 acre-ft).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.1	4.2	4.8	3.5	4.0	4.0	4.8	18	13	5.7	6.0	5.1
2	5.1	2.8	4.8	3.5	4.0	4.2	6.0	19	13	5.7	5.7	5.1
3	5.1	1.8	4.8	3.5	4.0	4.2	6.0	19	13	5.4	5.7	5.1
4	5.1	1.4	4.8	3.5	4.0	4.2	7.2	20	13	5.4	5.7	4.8
5	4.8	1.4	4.8	3.5	4.0	4.2	8.8	20	13	5.4	5.7	4.8
6	4.8	1.6	4.8	3.5	3.8	4.2	8.8	20	13	5.4	5.7	4.5
7	4.8	1.6	4.8	3.5	3.8	4.2	8.8	20	13	5.4	5.7	4.5
8	4.8	1.6	4.8	3.5	3.8	4.2	8.8	21	13	5.7	5.7	4.5
9	4.5	1.6	4.8	3.5	3.8	4.2	8.8	21	13	5.7	5.7	4.5
10	4.5	1.6	4.8	3.5	3.8	4.2	8.8	20	13	5.7	5.7	4.2
11	4.2	1.6	4.5	3.5	3.8	4.2	8.8	20	14	5.7	5.7	4.2
12	3.6	1.6	4.5	3.5	3.8	4.2	8.8	20	14	5.4	5.7	4.2
13	3.6	1.6	4.5	3.5	3.8	4.2	8.8	20	14	5.4	5.7	4.2
14	3.3	1.6	4.5	3.5	3.8	4.2	8.8	20	14	5.4	5.7	4.2
15	3.3	1.6	4.2	3.5	3.8	4.2	8.8	20	12	5.4	5.7	3.9
16	3.3	1.6	4.2	3.6	3.8	4.2	9.6	20	12	5.4	5.7	3.9
17	3.3	3.9	4.2	3.6	3.8	4.2	10	19	12	5.4	5.4	4.2
18	4.2	4.8	4.2	3.8	3.8	4.2	10	19	12	5.4	5.4	4.2
19	4.2	4.8	4.2	3.8	3.8	4.2	10	18	12	5.7	5.4	4.2
20	4.2	4.8	4.0	3.8	3.8	4.2	10	18	12	5.7	5.4	3.9
21	4.2	4.8	3.8	4.0	3.8	4.2	10	15	12	5.4	5.4	3.0
22	4.2	4.8	3.8	4.0	3.8	4.2	10	13	12	5.7	5.4	3.0
23	4.2	4.8	3.6	4.0	3.8	4.2	10	13	12	5.7	5.4	3.0
24	4.2	4.8	3.6	4.0	3.8	4.2	10	12	12	5.4	5.4	3.0
25	4.2	4.8	3.6	4.0	3.8	4.2	10	12	11	5.4	5.4	3.0
26	4.2	4.8	3.4	4.2	3.8	4.2	10	12	11	5.4	5.4	3.0
27	4.2	4.8	3.4	4.2	3.8	4.2	10	12	11	6.0	5.4	3.0
28	4.2	4.8	3.4	4.2	3.8	4.2	10	12	8.4	6.0	5.1	2.8
29	4.2	4.8	3.4	4.2	-	4.2	10	11	5.7	6.0	5.1	2.8
30	4.2	4.8	3.4	4.2	-----	4.2	14	11	5.7	6.4	5.1	2.2
31	4.2	-----	3.4	4.2	-----	4.2	-----	12	-----	6.4	5.1	-----
Total	132.0	95.5	129.8	116.3	107.4	130.0	274.4	527	358.8	174.2	171.3	117.0
Mean	4.26	3.18	4.19	3.75	3.84	4.19	9.15	17.0	12.0	5.62	5.53	3.90
Ac-ft	262	189	257	231	213	258	544	1,050	712	346	340	232

Calendar year 1965: Max 25 Min - Mean 7.18 Ac-ft 5,200  
 Water year 1965-66: Max 20 Min 1.4 Mean 6.39 Ac-ft 4,630

Note.--No gage-height record Dec. 21 to Mar. 21.

## 8-2445. Platoro Reservoir at Platoro, Colo.

Location.--Lat 37°21'00", long 106°32'35", in NW¼SW¼ sec.22, T.36 N., R.4 E., on right bank in valvehouse, 400 ft downstream from Platoro Dam on Conejos River, half a mile west of Platoro, 3½ miles downstream from Adams Fork, and 7 miles southwest of Jasper.

Drainage area.--40 sq mi, approximately.

Records available.--November 1951 to September 1966.

Gage.--Mercury manometer. Datum of gage is 9,911.5 ft above mean sea level (Bureau of Reclamation bench mark). Gage readings have been reduced to elevations above mean sea level. Prior to June 9, 1955, mercury manometer at present site and datum. June 9, 1955, to Sept. 30, 1959, water-stage recorder in gate chamber at dam for elevations above 9,921.0 ft at same datum.

Extremes.--Maximum contents observed during year, 39,300 acre-ft Oct. 1 to Nov. 6 (elevation, 10,010.5 ft); minimum, 17,300 acre-ft Nov. 26 to sometime during period Apr. 1-30 (elevation, 9,977.9 ft).  
1951-66: Maximum contents, 61,420 acre-ft June 9, 11, 1958 (elevation, 10,035.5 ft); no contents for long periods in 1952-56.

Remarks.--Reservoir is formed by an earth- and rock-fill dam and dikes. Dam completed Dec. 9, 1951; storage began Nov. 7, 1951. Capacity of reservoir, 60,000 acre-ft between elevations 9,911.5 (sill of trashrack at outlet) and 10,034.0 ft (crest of spillway). No dead storage. Reservoir is used for irrigation and flood control. Figures given herein represent usable contents.

Cooperation.--Records furnished by Bureau of Reclamation.

Month-end elevation and contents, water year October 1965 to September 1966

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	10,010.5	39,300	-
Oct. 31.....	10,010.5	39,300	0
Nov. 30.....	-	a17,300	-22,000
Dec. 31.....	-	a17,300	0
Calendar year 1965.....	-	-	+14,500
Jan. 31.....	-	a17,300	0
Feb. 28.....	-	a17,300	0
Mar. 31.....	-	a17,300	0
Apr. 30.....	9,983.5	20,500	+3,200
May 31.....	9,983.5	20,500	0
June 30.....	9,983.5	20,500	0
July 31.....	9,983.5	20,500	0
Aug. 31.....	9,983.5	20,500	0
Sept. 30.....	9,983.5	20,500	0
Water year 1965-66.....	-	-	-18,800

† Elevation at 0800 on first day of following month.

a No elevation record; contents estimated.



## RIO GRANDE BASIN

8-2450. Conejos River below Platoro Reservoir, Colo.

Location.--Lat 37°21'20", long 106°32'35", in NW¼NW¼ sec.22, T.36 N., R.4 E., on left bank 1,500 ft downstream from valve house for Platoro Reservoir and half a mile northwest of Platoro.

Drainage area.--40 sq mi, approximately.

Records available.--May 1952 to September 1966.

Gage.--Water-stage recorder and concrete control. Datum of gage is 9,866.60 ft above mean sea level (levels by Bureau of Reclamation).

Average discharge.--14 years, 86.5 cfs (62,620 acre-ft per year).

Extremes.--Maximum discharge during year, 836 cfs May 23 (gage height, 3.91 ft); minimum daily, 6.2 cfs Sept. 14-24.  
1952-66: Maximum discharge, 1,160 cfs Nov. 1, 1957; maximum gage height, 4.29 ft June 15, 1958; no flow Oct. 16-20, 1955.  
Maximum stage known since at least 1854 occurred Oct. 5, 1911, from information by local residents.

Remarks.--Records good except those for period of no gage-height record, which are poor. No diversion above station. Flow completely regulated by Platoro Reservoir (see preceding page).

Cooperation.--Four discharge measurements furnished by Bureau of Reclamation.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	237	35						216	790	176	87	16
2	176	19						210	590	176	87	14
3	141	19						292	465	171	87	14
4	141	19						331	540	139	87	11
5	141	19						430	580	106	87	8.0
6	139	153						575	475	106	66	7.6
7	139	575						615	345	88	52	6.9
8	139	630						660	292	79	33	6.9
9	98	715						680	328	78	23	6.9
10	74	710						690	470	76	20	6.9
11	74	640						615	460	76	20	6.9
12	71	555						394	353	74	20	6.9
13	66	560					13	210	328	72	20	6.9
14	66	570						132	292	71	20	6.2
15	66	585						114	403	57	20	6.2
16	66	595	12	12	12	12		192	440	49	20	6.2
17	66	605						234	440	43	21	6.2
18	66	595						310	278	38	21	6.2
19	66	600						377	258	38	21	6.2
20	66	615						455	254	38	21	6.2
21	66	605						545	258	50	21	6.2
22	66	605						680	258	55	19	6.2
23	66	600						795	258	78	21	6.2
24	66	610						820	250	90	26	6.2
25	66	610						725	192	90	35	11
26	66	273						22	530	176	43	16
27	66	12						29	398	176	41	16
28	66	12						29	398	176	41	16
29	64	12						29	510	176	49	16
30	64	12						146	630	176	88	19
31	64							675		88	20	
Total	2,818	12,165	372	372	336	372	580	14,438	10,477	2,474	1,152	278.1
Mean	90.9	406	12	12	12	12	19.3	466	349	79.8	37.2	9.27
Ac-ft	5,590	24,130	738	738	666	738	1,150	28,640	20,780	4,910	2,280	552

Calendar year 1965: Max 896 Min 2.2 Mean 133 Ac-ft 96,240  
Water year 1965-66: Max 820 Min 6.2 Mean 126 Ac-ft 90,910

Note.--No gage-height record Nov. 26 to Apr. 29.

## 8-2465. Conejos River near Mogote, Colo.

Location.--Lat 37°03'20", long 106°11'10", in SE¼ sec.34, T.33 N., R.7 E., on right bank 25 ft upstream from bridge on State Highway 174, 0.3 mile downstream from Fox Creek, 5.3 miles west of Mogote, and 10 miles west of Antonito.

Drainage area.--282 sq mi.

Records available.--April 1903 to October 1905, October 1911 to September 1966. Monthly discharge only for some periods, published in WSP 1312. Records for March 1900 at site 5½ miles upstream and May 1905 to September 1911 (some missing periods most years) at site 3¼ miles upstream not equivalent to present site owing to inflow.

Gage.--Water-stage recorder. Datum of gage is 8,271.54 ft above mean sea level (State Highway Department bench mark). Apr. 17, 1903, to Oct. 31, 1905, staff gage 500 ft downstream at different datum. Oct. 5, 1911, to early 1915, chain gage at present site and datum.

Average discharge.--57 years, 339 cfs (245,400 acre-ft per year).

Extremes.--Maximum discharge during year, 2,060 cfs May 10 (gage height, 4.34 ft); minimum daily, 46 cfs Sept. 26.

1903-66: Maximum discharge, 9,000 cfs Oct. 5, 1911 (gage height, 8.50 ft, from floodmarks, present site and datum), from rating curve extended above 3,100 cfs; minimum daily determined, 10 cfs July 18, 1904.

Maximum stage known since at least 1854, that of Oct. 5, 1911, from information by local residents.

Remarks.--Records good except those for winter period, which are fair. Diversions for irrigation of about 500 acres of hay meadows above station. Some regulation by Platoro Reservoir (see elsewhere in this report).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	432	156	107	75	68	82	308	833	1,710	401	188	69
2	410	130	99	74	64	82	374	866	1,530	378	260	65
3	320	113	86	72	60	77	388	992	1,240	352	304	61
4	312	110	84	71	63	84	296	1,180	1,190	308	272	59
5	308	104	86	70	65	99	232	1,600	1,220	256	244	53
6	304	102	79	76	68	113	213	1,520	1,150	229	232	53
7	300	995	79	80	71	113	217	1,690	982	217	177	54
8	296	595	94	74	75	96	244	1,830	866	195	150	58
9	288	735	92	66	70	94	280	1,950	850	195	124	53
10	229	750	94	59	65	92	329	1,950	992	195	110	53
11	213	740	86	54	63	104	320	1,560	1,010	210	102	53
12	210	595	84	56	65	104	276	1,280	921	198	107	53
13	198	595	79	54	64	116	264	948	855	188	113	53
14	195	610	71	52	62	116	248	770	822	191	104	50
15	188	620	79	56	59	121	272	725	816	184	96	48
16	191	640	75	59	57	140	347	795	882	177	89	53
17	229	650	65	61	56	143	414	938	877	159	86	50
18	213	645	65	58	58	140	432	1,140	770	153	79	48
19	202	635	65	56	60	140	342	1,270	670	156	79	47
20	195	650	64	54	62	146	284	1,380	635	195	84	47
21	191	655	66	53	61	146	272	1,440	635	213	86	52
22	184	640	70	52	60	130	272	1,630	620	184	75	47
23	184	685	76	51	59	110	240	1,780	595	177	89	46
24	180	670	72	50	58	116	248	1,860	555	210	124	47
25	180	715	66	48	60	124	292	1,800	500	191	99	48
26	180	620	70	51	62	124	392	1,500	437	184	102	46
27	173	153	68	54	64	153	515	1,270	450	177	102	48
28	170	107	66	56	61	191	545	1,160	414	163	104	52
29	163	96	68	59	-	198	615	1,210	396	173	99	50
30	159	92	82	62	-----	198	715	1,420	432	206	86	48
31	156	-----	77	64	-----	244	-----	1,590	-----	221	71	-----
Total	7,153	14,003	2,414	1,877	1,760	3,936	10,186	41,877	25,022	6,636	4,037	1,564
Mean	231	467	77.9	60.5	62.9	127	340	1,351	834	214	130	52.1
Ac-ft	14,190	27,770	4,790	3,720	3,490	7,810	20,200	83,060	49,630	13,160	8,010	3,100

Calendar year 1965: Max 2,400 Min 40 Mean 463 Ac-ft 334,800  
 Water year 1965-66: Max 1,950 Min 46 Mean 330 Ac-ft 238,900

## 8-2475. San Antonio River at Ortiz, Colo.

Location.--Lat 37°00', long 106°02', in New Mexico, in NE¼ sec.25, T.32 N., R.8 E., on left bank a quarter of a mile south of New Mexico-Colorado State line, half a mile south of Ortiz, and half a mile upstream from Los Pinos River.

Drainage area.--110 sq mi, approximately.

Records available.--April 1919 to October 1920, October 1924 to September 1966 (no winter records prior to 1941). Monthly discharge only for some periods, published in WSP 1312.

Gage.--Water-stage recorder. Altitude of gage is 8,000 ft (from topographic map). Prior to Apr. 7, 1926, staff gage at various locations near present site at different datums. Apr. 7, 1926, to June 24, 1954, water-stage recorder at site 200 ft downstream at present datum.

Average discharge.--26 years (1940-66), 26.5 cfs (19,190 acre-ft per year).

Extremes.--Maximum discharge during year, 448 cfs Aug. 5 (gage height, 3.13 ft); maximum gage height, 4.65 ft Mar. 15 (backwater from ice); no flow for several days.  
1919-20, 1924-66: Maximum discharge, 1,750 cfs Apr. 15, 1937 (gage height, 5.38 ft), from rating curve extended above 1,100 cfs; no flow at times in most years.  
Maximum stage known since at least 1854 occurred Oct. 5, 1911, from information by local residents.

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

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.0	2.9					108	188	12	6.0	2.9	0.3
2	1.5	2.9					126	178	11	2.6	1.0	.1
3	1.2	3.1					122	168	8.4	.7	2.5	0
4	.9	3.1					77	158	6.7	.4	1.7	0
5	.9	2.9					59	138	6.0	.1	3.8	0
6	.9	2.9					47	126	5.0	0	1.9	0
7	.9	2.9				20	52	112	4.1	0	4.1	.5
8	.7	3.1					75	94	4.1	0	3.1	1.5
9	.6	2.9					89	94	3.4	0	1.5	1.5
10	.6	3.4					120	89	3.7	0	1.5	.7
11	.6	3.4					108	80	5.0	2.0	.6	.6
12	.7	2.9					89	68	4.4	6.7	.4	.6
13	.7	3.4					82	59	2.9	.4	.6	.5
14	.9	3.4				110	75	48	2.3	0	3.1	.4
15	1.2	3.7				120	103	45	1.5	0	3.7	.1
16	1.2	3.4	4	3	2	129	144	41	.9	0	1.8	0
17	6.4	4.1				124	164	39	.6	.1	.7	0
18	1.1	4.1				96	154	33	1.8	.7	.5	0
19	1.1	4.1				130	96	30	3.1	5.0	.6	0
20	5.7	3.4				180	96	27	1.8	9.7	.5	0
21	5.0	3.4				130	80	23	1.2	5.0	.2	0
22	4.7	2.9				62	74	22	1.8	8.8	.1	0
23	4.1	4.1				28	72	19	4.4	6.7	1.2	0
24	3.7	1.6				32	92	17	1.5	8.8	5.0	0
25	3.7	1.3				50	108	16	.5	3.7	3.1	2.3
26	3.4	1.0				74	158	16	.2	1.5	1.8	2.0
27	3.4	6.0				92	205	18	.2	.7	.6	1.8
28	3.1	4.0				92	178	16	6.0	.7	.4	1.8
29	3.1	6.0				80	198	13	9.7	2.3	.4	.9
30	2.9	5.0				77	210	10	1.5	9.3	.6	.9
31	3.1					92		9.7		5.0	.6	
Total	89.8	136.4	124	93	56	1,958	3,361	1,994.7	129.2	131.9	159.4	16.5
Mean	2.90	4.55	4	3	2	63.2	112	64.3	4.31	4.25	5.14	0.55
Ac-ft	178	271	246	184	111	3,880	6,670	3,960	256	262	316	33

Calendar year 1965: Max 482 Min 0 Mean 42.4 Ac-ft 30,670  
Water year 1965-66: Max 210 Min 0 Mean 22.6 Ac-ft 16,360

Note.--No gage-height record Dec. 18 to Mar. 13.

8-2480. Los Pinos River near Ortiz, Colo.

Location--Lat 36°59', long 106°05', in NE¼ sec.34, T.32 N., R.8 E., in New Mexico, on left bank 1 mile south of New Mexico-Colorado State line, 2 miles southwest of Ortiz, and 2½ miles upstream from mouth.

Drainage area--167 sq mi.

Records available--January 1915 to December 1920, October 1924 to September 1966. Monthly discharge only for some periods, published in WSP 1312.

Gage--Water-stage recorder. Altitude of gage is 8,100 ft (from topographic map). Prior to Apr. 15, 1955, at site 350 ft upstream at datum 2.52 ft higher.

Average discharge--47 years, 124 cfs (89,770 acre-ft per year).

Extremes--Maximum discharge during year, 1,010 cfs May 4 (gage height, 4.93 ft); minimum not determined.

1915-20, 1924-66: Maximum discharge, 3,160 cfs May 12, 1941 (gage height, 5.77 ft, site and datum then in use), from rating curve extended above 1,600 cfs; minimum observed, 4.0 cfs Dec. 17, 1945 (discharge measurement), but may have been less during periods of no gage-height record.

Maximum stage known since at least 1854 occurred Oct. 5, 1911, from information by local residents.

Remarks--Records good except those for winter period, which are poor. Diversions above station for irrigation.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	25					178	665	343	58	30	16
2	48	25					238	700	315	51	35	15
3	45	24					253	740	268	47	71	15
4	42	24					196	780	235	43	65	15
5	38	22					166	755	213	38	53	15
6	37	22					148	775	194	35	38	16
7	34	24				30	156	740	180	31	35	16
8	33	22					186	730	170	29	30	16
9	30	22					223	660	162	27	27	15
10	30	23					304	695	194	27	24	14
11	29	20					277	520	178	35	24	15
12	28	19					232	468	158	30	36	16
13	26	21					218	382	146	26	29	15
14	25	24					210	350	136	30	30	14
15	24	20					256	357	125	27	29	15
16	25	21	24	19	19	55	350	399	122	41	24	17
17	45	25					416	410	120	62	25	15
18	41	21					410	448	113	31	22	14
19	36	20					304	452	102	31	20	14
20	35	20				52	262	436	96	91	20	14
21	35	22				51	226	410	102	67	20	22
22	36	20				50	213	413	105	47	20	17
23	38	27				54	201	416	84	38	23	15
24	38	43				53	223	402	72	33	26	17
25	37	43				49	287	378	64	28	20	16
26	34	22				52	413	343	64	25	18	14
27	31	18				59	520	336	68	27	17	14
28	30	13				75	536	298	68	28	19	15
29	28	20				91	592	277	58	30	17	14
30	28	22				104	660	280	64	36	15	13
31	26					132		346		42	17	
Total	1,064	694	744	589	532	1,517	8,854	15,361	4,319	1,191	879	459
Mean	34.3	23.1	24	19	19	48.9	295	496	144	38.4	28.4	15.3
Ac-ft	2,110	1,380	1,480	1,170	1,060	3,010	17,560	30,470	8,570	2,360	1,740	910

Calendar year 1965: Max 1,670 Min - Mean 177 Ac-ft 127,800

Water year 1965-66: Max 780 Min - Mean 99.2 Ac-ft 71,810

Peak discharge (base, 900 cfs)--May 4 (2030) 1010 cfs (4.93 ft).

Note--No gage-height record Dec. 1 to Mar. 14.

8-2485. San Antonio River at mouth, near Manassa, Colo.

Location.--Lat 37°11', long 105°53', in sec.21, T.34 N., R.10 E., on right bank a quarter of a mile downstream from bridge on State Highway 142, 1 mile upstream from mouth, and 3½ miles east of Manassa.

Drainage area.--348 sq mi.

Records available.--April 1923 to September 1966. Monthly discharge only for some periods, published in WSP 1312.

Gage.--Water-stage recorder. Altitude of gage is 7,680 ft (estimated from nearby U. S. Coast and Geodetic Survey level line). Prior to Apr. 23, 1936, at former bridge site 200 ft upstream at same datum.

Average discharge.--43 years, 82.7 cfs (59,870 acre-ft per year).

Extremes.--Maximum discharge during year, 593 cfs May 4 (gage height, 4.28 ft); no flow Aug. 29 to Sept. 30.

1923-66: Maximum discharge, 2,620 cfs May 14, 1941, from rating curve extended above 2,200 cfs; maximum gage height, 6.42 ft May 6, 1952; no flow at times in most years.

Maximum stage known since at least 1854 occurred Oct. 5, 1911, from information by local residents.

Remarks.--Records good except those for period of no gage-height record, which are poor. Natural flow of stream affected by diversions to Cave Lake Reservoir (capacity, 9,700 acre-ft) and diversions for irrigation above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	20	11				87	489	168	27	1.6	
2	17	19	18				127	489	164	28	1.7	
3	14	20	24				160	504	141	25	3.0	
4	12	20	28				141	528	119	21	7.6	
5	12	21	27				106	515	97	18	3.0	
6	12	21	23			19	87	517	87	16	13	
7	11	20	22				80	502	79	12	11	
8	10	19	21				87	476	64	8.3	8.7	
9	9.6	18	20				105	407	57	7.5	6.6	
10	9.2	19	21				155	394	52	5.2	4.4	
11	8.7	19					30	174	64	5.0	3.3	
12	8.3	17					40	155	59	4.4	3.3	
13	8.3	16					60	139	52	3.8	3.6	
14	9.2	15					90	126	46	3.8	2.7	
15	9.6	13		14	15	140	136	161	34	3.0	2.3	
16	7.9	12				175	178	157	32	2.9	1.7	
17	16	11				168	248	161	28	2.6	1.6	
18	34	12				98	294	168	34	2.2	1.4	
19	34	11				80	266	171	47	2.3	1.1	
20	28	9.2				98	196	161	52	2.7	1.0	
21	28	9.2	18			97	175	161	60	2.3	.9	
22	28	9.6				73	161	158	59	3.3	.9	
23	28	13				51	139	164	49	4.1	.9	
24	29	18				37	139	162	39	3.8	1.0	
25	26	35				39	158	168	29	3.0	.7	
26	23	41				49	216	172	23	2.9	.5	
27	26	27				56	341	171	26	2.6	.3	
28	27	22				68	372	158	30	2.3	.1	
29	24	15				74	394	147	30	2.3	0	
30	21	11				71	463	139	29	2.3	0	
31	20	-----				66	-----	141	-----	1.9	0	-----
Total	572.8	533.0	593	434	420	1,850	5,605	8,593	1,850	231.5	114.9	0
Mean	18.5	17.8	19.1	14	15	59.7	187	277	61.7	7.47	3.71	0
Ac-ft	1,140	1,060	1,180	861	833	3,670	11,120	17,040	3,670	459	228	0

Calendar year 1965: Max 1,450 Min 0 Mean 135 Ac-ft 97,600  
 Water year 1965-66: Max 528 Min 0 Mean 57.0 Ac-ft 41,250

Peak discharge (base, 500 cfs).--May 4 (1300) 593 cfs (4.28 ft).

Note.--No gage-height record Dec. 9 to Mar. 16.

8-2490. Conejos River near La Sauces, Colo.

Location.--Lat 37°17', long 105°45', in secs.2 and 11 (two channels), T.35 N., R.11 E., on left bank of main channel 125 ft downstream from bridge on State Highway 158 and on left bank of secondary channel 230 ft upstream from bridge on State Highway 158 (prior to Oct. 14, 1965, at site 280 ft downstream), half a mile upstream from mouth, 1.8 miles north of La Sauces, and 13 miles southeast of Alamosa.

Drainage area.--887 sq mi.

Records available.--March 1921 to September 1966. Monthly discharge only for some periods, published in WSP 1312.

Gage.--Two water-stage recorders. Datum of gage on main (north) channel is 7,495.02 ft, and on secondary (south) channel is 7,496.89 ft, above mean sea level (levels by Bureau of Reclamation). Main channel: Prior to Oct. 23, 1934, at bridge 125 ft upstream at various datums; Oct. 23, 1934, to Apr. 10, 1937, at site 50 ft upstream, and Apr. 11 to Sept. 30, 1937, at present site, at datum 1.00 ft higher. South channel: Prior to Oct. 23, 1934, at bridge 230 ft downstream at datum 0.56 ft lower. Oct. 23, 1934, to May 3, 1936, at site 250 ft downstream, and May 4, 1936, to Oct. 13, 1965, at site 280 ft downstream, at datum 1.00 ft lower.

Average discharge.--45 years, 190 cfs (137,600 acre-ft per year).

Extremes.--Maximum discharge during year, 993 cfs May 11; no flow Sept. 3-30.

1921-66: Maximum discharge, 3,890 cfs May 15, 1941; no flow at times in 1934, 1948, 1950-51, 1953-64, 1966.

Maximum stage known since at least 1854 occurred Oct. 5, 1911, from information by local residents.

Remarks.--Records good except those for winter period, which are poor. Diversions for irrigation of about 75,000 acres above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	81	132	148	112	82	118	177	476	617	4.9	0.7	0.6
2	84	128	132	112	87	130	237	518	660	4.9	1.4	.3
3	74	105	132	90	84	130	308	488	602	4.9	1.1	0
4	53	94	134	83	84	137	304	511	415	4.9	24	0
5	51	89	132	87	79	137	242	601	311	4.7	149	0
6	45	80	131	98	77	121	196	632	248	4.1	153	0
7	45	76	122	92	79	120	174	763	185	3.5	111	0
8	45	327	119	95	82	127	163	840	134	3.7	70	0
9	46	486	128	98	84	137	198	930	96	2.9	42	0
10	45	630	133	101	90	150	244	968	63	2.5	25	0
11	46	655	140	98	84	172	305	868	57	2.4	19	0
12	44	614	134	95	90	189	290	504	76	2.4	8.7	0
13	34	513	124	95	82	215	254	344	52	2.2	3.3	0
14	24	523	118	95	87	246	241	240	32	2.2	98	0
15	24	523	119	95	84	262	226	181	26	2.1	15	0
16	24	518	125	84	87	282	248	165	12	2.0	12	0
17	38	544	122	83	90	326	304	157	5.8	2.0	20	0
18	91	549	104	82	92	258	379	151	4.5	2.0	20	0
19	115	544	92	80	92	222	401	155	4.8	1.7	20	0
20	138	543	102	79	95	226	335	145	4.9	1.6	21	0
21	132	559	102	76	90	241	302	166	5.1	1.7	21	0
22	128	564	104	74	95	215	255	188	5.1	1.6	7.1	0
23	132	584	104	71	98	172	220	235	5.4	1.5	5.1	0
24	118	653	104	70	104	151	203	312	5.1	1.5	7.1	0
25	121	658	110	69	104	148	191	411	4.8	1.5	8.7	0
26	132	713	113	71	106	148	202	466	4.8	1.0	8.5	0
27	135	477	119	72	115	156	263	415	4.5	.8	3.7	0
28	147	210	116	73	124	174	339	339	4.5	.8	3.5	0
29	147	172	119	74	-	180	366	302	4.7	.7	2.5	0
30	142	151	113	75	-----	174	402	315	5.1	.9	1.0	0
31	136	-----	113	77	-----	160	-----	347	-----	1.4	8	-----
Total	2,617	12,414	3,708	2,656	2,547	5,624	7,969	13,133	3,655.1	75.0	795.0	0.9
Mean	84.4	414	120	85.7	91.0	181	266	424	122	2.42	25.6	0.03
Ac-ft	5,190	24,620	7,350	5,270	5,050	11,160	15,810	26,050	7,250	149	1,580	1.8

Calendar year 1965: Max 1,810 Min 6.3 Mean 300 Ac-ft 217,500

Water year 1965-66: Max 968 Min 0 Mean 151 Ac-ft 109,500

Note.--No gage-height record on secondary channel Jan. 26 to Feb. 28.

## 8-2500. Culebra Creek at San Luis, Colo.

Location.--Lat 37°11', long 105°26', in Beaubien Grant, at bridge on left bank, 1 mile south of San Luis, Costilla County, and 1 mile upstream from Rito Seco.

Drainage area.--220 sq mi.

Records available.--April 1927 to September 1966. Monthly discharge only for some periods, published in WSP 1312. Records for January 1910 to December 1911, published as Culebra River at San Luis in WSP 288 and 308, have been found to be unreliable and should not be used.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 8,000 ft (from topographic map). Prior to May 23, 1931, water-stage recorder at present site at different datum.

Average discharge.--39 years, 49.7 cfs (35,980 acre-ft per year).

Extremes.--Maximum discharge during year, 554 cfs Aug. 2 (gage height, 4.65 ft); minimum daily, 16 cfs Dec. 21, 25-27, Jan. 3, 4. 1927-66: Maximum discharge, 654 cfs July 1, 1947 (gage height, 5.09 ft), from rating curve extended above 300 cfs; minimum daily, 4.6 cfs Oct. 31, 1950.

Remarks.--Records good. Diversions above station for irrigation. Flow regulated by Sanchez Reservoir on Ventero Creek (capacity, 103,000 acre-ft).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	33	22	17	20	22	21	27	90	57	65	75
2	23	28	22	17	21	20	21	31	93	53	119	75
3	22	28	22	16	22	18	21	50	85	50	156	61
4	22	25	21	16	22	19	22	61	81	49	186	42
5	22	22	21	17	23	19	21	73	81	53	106	32
6	23	20	21	19	22	20	21	77	81	77	50	34
7	23	20	22	20	23	23	25	68	77	77	45	34
8	22	20	22	20	24	25	23	55	90	82	57	32
9	21	20	20	20	22	33	22	69	165	100	38	33
10	21	20	22	20	23	29	21	65	155	106	52	31
11	20	20	20	21	20	26	22	63	86	112	64	29
12	20	20	20	21	21	25	22	64	65	100	88	27
13	20	20	20	21	23	26	21	63	64	74	98	20
14	19	21	20	20	21	26	21	63	74	79	86	20
15	25	21	19	20	22	26	21	61	74	77	59	20
16	35	21	19	19	21	25	21	57	78	100	38	20
17	51	21	18	18	20	23	20	53	78	116	40	23
18	43	21	18	19	20	22	22	65	74	114	29	20
19	31	21	17	20	20	22	38	88	72	118	29	19
20	29	20	18	20	20	22	38	79	71	117	61	18
21	26	20	16	19	20	21	29	79	69	120	60	19
22	25	21	18	17	19	21	22	81	72	118	73	28
23	25	24	20	18	20	20	21	84	69	122	82	34
24	24	23	19	19	19	20	20	106	72	104	59	34
25	24	26	16	19	20	20	20	99	71	93	50	33
26	24	23	16	18	21	20	24	93	71	87	53	33
27	24	22	16	19	22	20	27	92	79	79	61	35
28	26	20	18	19	21	22	29	88	83	67	62	39
29	33	20	18	19	-	22	38	88	85	69	54	40
30	34	21	22	20	-----	21	37	85	81	73	50	34
31	35	-----	19	21	-----	21	-----	89	-----	70	61	-----
Total	815	662	602	589	592	699	731	2,216	2,486	2,713	2,131	994
Mean	26.3	22.1	19.4	19.0	21.1	22.5	24.4	71.5	82.9	87.5	68.7	33.1
Ac-ft	1,620	1,310	1,190	1,170	1,170	1,390	1,450	4,400	4,930	5,380	4,230	1,970

Calendar year 1965: Max 142 Min 8.0 Mean 37.8 Ac-ft 27,400  
 Water year 1965-66: Max 186 Min 16 Mean 41.7 Ac-ft 30,210

## 8-2515. Rio Grande near Lobatos, Colo.

Location.--Lat 37°05', long 105°45', in sec.22, T.33 N., R.11 E., on right bank at highway bridge, 6 miles north of Colorado-New Mexico State line, 7 miles downstream from Culebra Creek, 10 miles east of Lobatos, and 14 miles east of Antonito.

Drainage area.--7,700 sq mi, approximately (includes 2,940 sq mi in closed basin in northern part of San Luis Valley, Colo.).

Records available.--June 1899 to September 1966. Monthly discharge only for some periods, published in WSP 1312. Published as "at Cenicero" 1899-1901, and as "near Cenicero" 1902-4.

Gage.--Water-stage recorder. Datum of gage is 7,427.63 ft above mean sea level, datum of 1929. Prior to Nov. 8, 1910, staff or chain gage at same site and datum.

Average discharge.--67 years, 613 cfs (443,800 acre-ft per year).

Extremes.--Maximum discharge during year, 1,330 cfs May 11 (gage height, 2.98 ft); minimum daily, 26 cfs Sept. 30.

1899-1966: Maximum discharge observed, 13,200 cfs June 8, 1905 (gage height, 9.1 ft), from rating curve extended above 8,000 cfs; no flow at times in 1950-51, 1956.

Maximum stage known, probably since at least 1828, occurred June 8, 1905.

Remarks.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas. Records of chemical analyses and water temperatures for the water year 1966 are published in Part 2 of this report as "above Culebra Creek, near Lobatos."

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	925	430	450	480	380	430	728	556	752	178	36	43
2	961	430	430	460	410	440	816	643	1,030	174	58	43
3	889	420	430	450	420	460	889	664	1,070	160	110	43
4	840	410	445	440	400	470	916	671	889	157	90	44
5	768	370	445	440	380	480	848	685	752	164	128	46
6	699	340	445	450	400	450	752	706	671	157	195	50
7	562	315	440	460	420	440	671	816	580	139	206	48
8	508	360	440	450	440	460	587	961	478	128	195	43
9	496	629	460	440	450	480	580	1,020	415	120	167	43
10	472	744	508	430	470	500	587	1,200	370	112	142	43
11	430	800	526	420	440	560	657	1,280	335	102	120	46
12	405	784	526	410	390	620	678	1,100	340	88	95	50
13	385	685	508	400	380	700	664	832	315	73	82	50
14	345	664	490	410	380	760	615	685	270	65	78	48
15	310	678	484	420	370	816	532	574	230	56	85	50
16	270	664	450	400	370	872	496	496	216	50	136	55
17	286	678	430	390	360	1,030	514	420	198	44	142	60
18	360	699	400	400	360	997	587	365	184	43	105	60
19	450	692	380	370	370	848	744	340	184	41	98	60
20	562	692	390	350	380	808	768	320	181	55	90	60
21	587	699	410	320	380	856	706	306	184	58	80	53
22	556	706	450	310	390	848	538	306	167	53	78	43
23	550	720	490	300	390	768	445	345	157	48	80	40
24	520	784	440	300	400	685	380	425	151	46	85	38
25	484	808	400	300	400	636	370	556	142	41	80	34
26	472	880	400	300	400	629	320	678	136	37	76	32
27	455	832	410	310	410	615	385	685	154	34	65	28
28	445	526	410	320	420	629	460	629	154	33	55	29
29	445	435	420	330	-	671	490	574	154	34	50	29
30	430	415	450	350	-----	713	490	568	178	37	44	26
31	420	-----	510	360	-----	720	-----	636	-----	37	41	-----
Total	16,287	18,289	13,867	11,970	11,160	20,391	18,213	20,042	11,037	2,564	3,092	1,337
Mean	525	610	447	386	399	658	607	647	368	82.7	99.7	44.6
Ac-ft	32,300	36,280	27,500	23,740	22,140	40,440	36,120	39,750	21,890	5,090	6,130	2,650

Calendar year 1965: Max 3,710 Min 90 Mean 689 Ac-ft 498,600

Water year 1965-66: Max 1,280 Min 26 Mean 406 Ac-ft 294,000



## RIO GRANDE BASIN

8-2520. Rio Grande at Colorado-New Mexico State line

Location.--Lat 37°00', long 105°43', in SE¼ sec.36, T.1 N., R.75 W., on left bank a quarter of a mile upstream from Colorado-New Mexico State line, 1½ miles upstream from Costilla Creek, and 5½ miles west of Jaroso.

Records available.--October 1953 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 7,390 ft (from topographic map).

Average discharge.--13 years, 277 cfs (200,500 acre-ft per year).

Extremes.--Maximum discharge during year, 1,310 cfs May 11 (gage height, 4.39 ft); minimum daily, 29 cfs Sept. 30.

1953-66: Maximum discharge, 4,150 cfs May 29, 1958 (gage height, 7.07 ft); no flow at times in 1956

Flood of June 8, 1905 (daily discharge, 13,100 cfs at station near Lobatos 5.8 miles upstream) was probably the greatest since at least 1828.

Remarks.--Records good except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	895	459	431	490	380	430	748	543	676	195	36	42
2	244	462	448	470	400	450	805	615	910	180	48	46
3	885	456	438	450	420	460	870	666	968	163	108	46
4	840	438	448	440	410	480	932	666	825	155	68	48
5	775	411	456	445	390	490	870	676	702	163	130	48
6	730	381	462	450	405	460	770	698	623	160	180	52
7	607	359	452	460	420	450	698	766	551	138	210	50
8	551	352	435	460	445	470	611	915	470	128	204	45
9	535	611	470	450	460	480	599	956	414	120	186	45
10	515	725	527	430	470	500	595	1,110	378	110	157	45
11	480	780	543	420	480	560	640	1,270	336	103	132	49
12	452	790	555	410	400	630	680	1,080	340	90	108	51
13	421	720	535	400	390	700	671	830	330	78	92	52
14	394	676	484	420	390	760	623	689	308	72	82	50
15	359	671	448	425	380	820	559	595	274	67	84	52
16	320	666	362	410	370	880	504	519	237	61	92	57
17	324	676	375	400	360	1,050	504	452	228	55	216	62
18	381	698	375	440	360	1,000	539	398	216	54	115	63
19	476	689	372	390	370	860	684	368	213	50	101	63
20	579	684	289	370	380	820	730	356	216	52	97	63
21	623	689	372	340	380	860	698	330	213	66	86	55
22	591	702	445	310	380	860	555	330	210	59	82	45
23	575	702	462	300	390	780	459	352	189	54	76	42
24	547	748	452	300	400	730	394	428	178	49	86	40
25	519	775	462	290	410	671	375	519	169	43	82	36
26	512	835	435	300	410	658	327	648	157	48	82	34
27	498	825	466	300	415	653	372	671	175	35	70	30
28	487	563	470	310	430	648	442	627	178	34	61	30
29	480	442	470	330	-	698	487	583	166	34	54	30
30	466	421	494	350	-----	734	498	567	183	36	47	29
31	456	-----	527	365	-----	748	-----	603	-----	35	46	-----
Total	17,217	18,406	13,960	12,125	11,295	20,790	18,239	19,826	11,033	2,687	3,218	1,400
Mean	555	614	450	391	403	671	608	640	368	86.7	104	46.7
Ac-ft	34,150	36,510	27,690	24,050	22,400	41,240	36,180	39,320	21,880	5,330	6,380	2,780

Calendar year 1965: Max 3,540 Min 103 Mean 670 Ac-ft 485,200

Water year 1965-66: Max 1,270 Min 29 Mean 411 Ac-ft 297,900

9-0105. Colorado River below Baker Gulch, near Grand Lake, Colo.

Location.--Lat 40°19'33", long 105°51'22", in sec.12, T.4 N., R.76 W., on left bank 500 ft downstream from Baker Gulch, 1 mile upstream from Bowen Gulch, and 5 miles northwest of town of Grand Lake.

Drainage area.--53.0 sq mi.

Records available.--May 1953 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 8,750 ft (from topographic map).

Average discharge.--12 years, 55.3 cfs (40,040 acre-ft per year).

Extremes.--Maximum discharge during year, 234 cfs May 31 (gage height, 4.95 ft); minimum daily, 7.2 cfs Mar. 12, 13.  
1953-66: Maximum discharge, 976 cfs June 30, 1957 (gage height, 7.19 ft); minimum daily, 3.0 cfs Jan. 13, 1963.

Remarks.--Records good except those for winter period, which are poor. Transmountain diversion above station by Grand River ditch (see elsewhere in this report).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	25	21	11	10	8.0	37	53	214	75	23	11
2	51	24	20	11	9.8	7.8	50	64	210	65	26	10
3	55	24	20	10	9.8	7.8	42	78	208	59	31	9.8
4	56	23	20	10	9.6	7.8	32	103	198	52	49	9.2
5	55	23	18	10	9.2	7.8	27	135	184	48	35	9.2
6	51	22	18	10	9.2	7.8	28	168	156	46	27	9.8
7	48	22	16	10	9.2	7.8	28	202	135	43	23	16
8	47	21	16	10	9.2	7.8	31	204	148	41	20	17
9	46	22	14	10	9.2	7.8	36	184	135	38	19	16
10	45	22	13	10	8.4	7.8	37	186	142	36	18	15
11	44	18	13	10	8.4	7.8	33	156	140	43	16	16
12	42	19	13	10	8.6	7.2	28	137	129	48	20	20
13	41	22	14	10	9.0	7.2	25	122	118	42	20	24
14	40	24	15	10	9.0	7.6	27	111	117	39	16	19
15	38	23	14	10	9.0	7.8	32	110	117	35	15	25
16	37	22	14	10	8.6	7.8	37	122	115	32	13	24
17	36	23	13	10	8.6	7.8	38	127	122	32	13	20
18	37	22	13	11	8.6	8.2	40	122	126	50	13	18
19	37	20	13	11	8.6	8.4	35	126	115	74	12	16
20	36	20	12	11	8.6	8.8	31	140	107	62	14	16
21	35	19	12	11	8.6	8.8	30	160	105	41	15	15
22	35	20	11	10	8.6	8.4	27	172	103	41	12	13
23	33	20	11	10	8.6	8.4	28	172	99	35	12	13
24	32	24	11	10	8.2	9.0	30	160	90	33	11	13
25	30	21	11	10	8.0	9.0	38	172	84	32	10	20
26	28	19	11	10	8.0	9.4	52	152	83	30	9.2	28
27	28	16	10	10	8.4	10	50	142	83	29	9.2	24
28	28	16	11	10	8.4	12	39	146	75	28	8.6	21
29	27	18	11	10	-	16	41	180	71	25	9.2	20
30	27	20	11	10	-----	18	45	210	76	23	9.2	18
31	25	-----	11	10	-----	23	-----	223	-----	22	11	-----
Total	1,218	634	431	316	247.4	288.8	1,054	4,539	3,805	1,299	539.4	506.0
Mean	39.3	21.1	13.9	10.2	8.84	9.32	35.1	146	127	41.9	17.4	16.9
Ac-ft	2,420	1,260	855	627	491	573	2,090	9,000	7,550	2,580	1,070	1,000

Calendar year 1965: Max 836 Min 4.8 Mean 86.9 Ac-ft 62,910  
Water year 1965-66: Max 223 Min 7.2 Mean 40.8 Ac-ft 29,510

## COLORADO RIVER MAIN STEM

9-0110. Colorado River near Grand Lake, Colo.

Location.--Lat 40°13'08", long 105°51'25", in NE¼SW¼ sec.13, T.3 N., R.76 W., on left bank 200 ft downstream from bridge on U. S. Highway 34, 400 ft upstream from high-water line of Shadow Mountain Lake at elevation 8,367 ft, and 3 miles southwest of town of Grand Lake.

Drainage area.--103 sq mi.

Records available.--July 1904 to September 1918, October 1933 to September 1966. Monthly discharge only for some periods, published in WSP 1313. Published as Grand River (North Fork) near Grand Lake 1904 and as North Fork of Grand River near Grand Lake 1905-18.

Gage.--Water-stage recorder. Altitude of gage is 8,380 ft (from topographic map). Prior to June 15, 1934, staff gage at same site and datum. June 15, 1934, to Sept. 26, 1944, water-stage recorder at site 1,100 ft downstream at different datum.

Average discharge.--47 years, 93.9 cfs (67,980 acre-ft per year).

Extremes.--Maximum discharge during year, 248 cfs May 8 (gage height, 4.81 ft); minimum daily, 2.4 cfs July 4, 5, 14-16.

1904-18, 1933-66: Maximum discharge observed, 1,840 cfs June 15, 16, 1918 (gage height, 7.0 ft), from rating curve extended above 1,100 cfs; minimum daily, 1.7 cfs July 18, 19, 1934.

Remarks.--Records good except those for winter period, which are fair. Diversions above station for irrigation of about 200 acres of hay meadows above station and about 2,000 acres below. Transmountain diversion above station by Grand River ditch through La Poudre Pass to Cache la Poudre River basin (see elsewhere in this report).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	76	42	36	24	22	17	49	80	149	3.3	16	14
2	78	41	35	23	22	16	65	94	147	2.9	35	14
3	83	40	35	22	21	16	64	110	143	2.6	39	13
4	83	39	34	22	21	16	51	135	123	2.4	71	12
5	83	39	32	22	20	16	45	165	110	2.4	56	12
6	76	38	30	22	20	16	46	191	90	2.6	40	12
7	73	38	28	22	20	16	47	228	75	2.6	32	14
8	69	34	26	22	20	16	50	239	87	10	30	20
9	68	37	25	22	20	16	64	222	83	10	28	19
10	66	37	24	22	19	16	68	230	90	2.8	27	18
11	65	31	25	22	19	16	62	195	96	2.9	25	18
12	63	33	25	22	20	15	51	171	84	2.8	26	23
13	62	35	26	22	20	15	44	151	119	2.6	31	28
14	62	34	27	22	20	16	41	140	88	2.4	25	24
15	59	41	26	22	20	16	56	130	44	2.4	22	28
16	58	38	26	22	19	16	68	142	43	2.4	20	30
17	57	40	25	22	19	16	71	155	44	2.8	20	27
18	58	40	25	23	19	17	70	149	52	2.8	20	22
19	60	38	25	24	19	17	66	151	45	2.8	20	21
20	58	37	24	24	19	18	48	167	38	2.9	20	19
21	55	33	24	23	19	18	46	185	33	2.9	21	18
22	55	31	23	23	19	17	50	205	32	2.9	18	18
23	54	34	23	22	19	17	48	203	30	2.9	18	18
24	52	39	23	22	18	18	50	173	25	2.9	17	17
25	49	38	23	22	17	18	56	159	22	2.9	16	20
26	47	33	23	22	17	19	83	145	20	2.9	16	28
27	44	31	22	22	18	20	91	118	16	2.9	14	29
28	47	30	23	22	18	22	65	94	4.4	3.1	13	24
29	44	31	23	22	-	25	71	125	3.3	2.9	12	22
30	44	34	23	22	-----	32	65	142	3.3	2.8	12	21
31	43	-----	23	22	-----	36	-----	165	-----	2.8	14	-----
Total	1,891	1,086	812	692	544	565	1,751	4,959	1,939.0	100.3	774	603
Mean	61.0	36.2	26.2	22.3	19.4	18.2	58.4	160	64.6	3.24	25.0	20.1
Ac-ft	3,750	2,150	1,610	1,370	1,080	1,120	3,470	9,840	3,850	199	1,540	1,200

Calendar year 1965: Max 1,010 Min 12 Mean 110 Ac-ft 79,660

Water year 1965-66: Max 239 Min 2.4 Mean 43.1 Ac-ft 31,170

9-0130. Alva B. Adams tunnel at east portal, near Estes Park, Colo.

Location.--Lat 40°19'40", long 105°34'39", in SW¼NW¼ sec.9, T.4 N., R.73 W., on right bank at upstream end of Aspen Creek siphon, 700 ft downstream from east portal and 4½ miles southwest of Estes Park.

Records available.--October 1946 to September 1966 (monthly discharge only for August and September 1947).

Gage.--Water-stage recorder and Parshall flume. Altitude of gage is 8,250 ft (from topographic map). Prior to Oct. 1, 1950, water-stage recorder and Parshall flume at different datum. Oct. 1, 1950, to Sept. 30, 1952, water-stage recorder and Cippoletti weir at different datum.

Average discharge.--20 years, 242 cfs (175,200 acre-ft per year).

Extremes.--Maximum discharge during year, 583 cfs Nov. 15 (gage height, 4.24 ft); no flow Apr. 9, 10, June 9.  
1946-66: Maximum discharge, 671 cfs Jan. 23, 1962 (gage height, 4.63 ft); no flow at times in most years.

Remarks.--Records excellent. This is a transmountain diversion from Grand Lake and Shadow Mountain Lake for power and irrigation development in the South Platte River basin as part of the Colorado-Big Thompson project. Diversion point is at west portal near town of Grand Lake, 13.35 miles west of east portal.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	155	383	406	170	473	234	173	319	276	469	501	402
2	141	365	360	224	414	322	85	486	281	421	542	339
3	74	370	349	374	419	368	1.4	451	338	229	485	264
4	219	343	295	323	383	373	117	512	280	335	447	207
5	153	258	217	304	365	316	86	459	108	408	406	198
6	156	249	315	348	290	263	134	309	381	519	392	284
7	159	156	334	364	358	331	99	327	465	485	249	294
8	157	303	345	448	353	289	61	38	6.0	485	372	323
9	156	328	341	210	352	267	0	354	0	494	463	352
10	153	360	319	378	393	360	0	361	170	471	206	313
11	252	280	273	390	399	362	95	317	476	494	263	250
12	256	382	262	403	352	336	74	233	218	506	277	406
13	254	348	409	390	281	208	53	330	395	504	309	367
14	253	201	494	381	439	291	45	229	398	512	244	398
15	271	363	481	327	443	332	51	104	375	516	402	383
16	253	348	449	312	431	289	278	311	390	521	504	386
17	155	364	465	440	412	327	153	313	283	519	500	399
18	252	322	368	525	360	330	260	361	231	512	506	407
19	252	314	280	491	239	322	298	317	242	349	461	459
20	256	204	483	483	177	191	278	390	334	377	353	486
21	271	202	429	431	327	346	236	353	288	508	259	485
22	251	330	410	402	353	332	249	259	228	283	363	485
23	251	218	412	376	350	307	222	256	175	358	361	485
24	155	389	320	504	344	312	96	277	258	301	366	413
25	303	199	338	508	331	350	257	316	326	386	381	417
26	249	274	384	508	277	306	293	258	267	519	388	492
27	221	226	423	506	183	216	314	370	394	516	385	443
28	276	250	390	512	314	297	379	324	456	506	299	475
29	256	339	341	491	-	257	382	187	316	503	342	394
30	207	362	293	415	-----	205	349	157	469	444	397	351
31	172	-----	228	489	-----	159	-----	225	-----	336	389	-----
Total	6,589	9,030	11,213	12,427	9,812	9,198	5,118.4	9,503	8,824	13,786	11,812	11,357
Mean	213	301	362	401	350	297	171	307	294	445	381	379
Ac-ft	13,070	17,910	22,240	24,650	19,460	18,240	10,150	18,850	17,500	27,340	23,430	22,530

Calendar year 1965: Max 515 Min 0 Mean 260 Ac-ft 188,400  
Water year 1965-66: Max 542 Min 0 Mean 325 Ac-ft 235,400

9-0145. Shadow Mountain Lake near Grand Lake, Colo.

Location.--Lat 40°12'30", long 105°50'20", in SW¼NW¼ sec.19, T.3 N., R.75 W., in gatehouse on left side of outlet gates near center of Shadow Mountain Dam on the Colorado River, 1 mile upstream from Pole Creek and 3¼ miles south of town of Grand Lake.

Drainage area.--190 sq mi.

Records available.--April 1947 to September 1966. Prior to October 1960, published as Shadow Mountain Reservoir near Grand Lake.

Gage.--Water-stage recorder for elevations above 8,364.0 ft and reference points along upstream face of dam for those below. Datum of gage is at mean sea level (Bureau of Reclamation bench mark). Supplementary water-stage recorder at Grand Lake outlet gates about 3 miles from dam.

Extremes.--Maximum contents during year, 17,680 acre-ft June 2 (elevation, 8,366.90 ft); minimum, 16,910 acre-ft July 30 (elevation, 8,366.48 ft).

1947-66: Maximum contents, 17,920 acre-ft May 22, 1955 (elevation, 8,367.03 ft); minimum since appreciable storage was first attained, 2,630 acre-ft May 14, 1948.

Remarks.--Figures given herein are combined figures of usable contents for Shadow Mountain Lake and Grand Lake. Shadow Mountain Lake is used for stabilization of water level in Grand Lake, from which it is separated by gates. Shadow Mountain Lake is formed by earth- and rock-fill dam and dikes. Storage began in April 1947. Capacity, 17,860 acre-ft (including usable capacity of Grand Lake above elevation, 8,365 ft) between elevations 8,347 (sill of outlet gate) and 8,367 ft (maximum water surface). Dead storage in Shadow Mountain Lake, 506 acre-ft. Dead storage in Grand Lake not determined. Capacity of Shadow Mountain Lake and Grand Lake usable for diversion through Alva B. Adams tunnel, 3,660 acre-ft between elevations 8,365 (crest of tunnel inlet) and 8,367 ft (maximum water surface). Transmountain diversion from Colorado River basin, including water pumped from Lake Granby, is effected through Grand Lake and Alva B. Adams tunnel, for power and irrigation in South Platte River basin.

Cooperation.--Records furnished by Bureau of Reclamation.

Month-end elevation and contents, water year October 1965 to September 1966

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	8,366.67	17,260	-
Oct. 31.....	8,366.57	17,070	-190
Nov. 30.....	8,366.63	17,180	+110
Dec. 31.....	8,366.61	17,140	-40
Calendar year 1965.....	-	-	-20
Jan. 31.....	8,366.68	17,270	+130
Feb. 28.....	8,366.62	17,160	-110
Mar. 31.....	8,366.62	17,160	0
Apr. 30.....	8,366.58	17,090	-70
May 31.....	8,366.79	17,480	+390
June 30.....	8,366.57	17,070	-410
July 31.....	8,366.54	17,020	-50
Aug. 31.....	8,366.52	16,980	-40
Sept. 30.....	8,366.59	17,110	+130
Water year 1965-66.....	-	-	-150

† Elevation at 2400.

9-0165. Arapaho Creek at Monarch Lake Outlet, Colo.

Location.--Lat 40°06'45", long 105°44'57", in SW¼SW¼ sec.24, T.2 N., R.75 W., on left bank a quarter of a mile downstream from Monarch Lake Outlet and 10 miles east of Granby.

Drainage area.--47.1 sq mi.

Records available.--October 1944 to September 1966.

Gage.--Digital water-stage recorder. Altitude of gage is 8,310 ft (from topographic map). Prior to Oct. 1, 1963, graphic water-stage recorder at same site and datum.

Average discharge.--22 years, 82.1 cfs (59,440 acre-ft per year).

Extremes.--Maximum discharge during year, 338 cfs May 30 (gage height, 2.92 ft); minimum daily, 6.4 cfs Mar. 6-17.  
1944-66: Maximum discharge, 1,300 cfs June 11, 1952 (gage height, 4.71 ft); minimum daily, 0.2 cfs Nov. 5, 1956 (spillway at Monarch Lake blocked for construction).

Remarks.--Records good. Natural flow regulated by Monarch Lake. No diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	16	15	11	7.8	6.8	9.4	70	303	135	53	20
2	23	16	15	11	7.7	6.8	11	73	278	128	54	21
3	64	16	15	11	7.3	6.6	13	69	233	110	56	22
4	82	15	14	11	7.3	6.6	15	66	225	114	71	23
5	74	15	14	10	7.3	6.8	16	78	206	115	108	23
6	71	16	14	10	7.3	6.4	17	125	191	114	103	22
7	67	16	13	10	7.2	6.4	17	236	172	105	67	22
8	61	15	13	9.9	7.0	6.4	18	266	171	81	51	22
9	46	16	13	10	6.9	6.4	18	227	168	88	48	21
10	11	15	12	10	6.9	6.4	18	210	166	87	44	21
11	13	15	13	10	6.9	6.4	19	176	182	85	41	20
12	15	15	12	10	6.9	6.4	19	145	192	87	41	20
13	17	15	12	10	6.9	6.4	19	124	191	87	46	20
14	19	16	12	9.9	6.9	6.4	19	107	187	86	45	20
15	20	17	12	10	6.9	6.4	19	99	198	84	42	19
16	21	17	12	9.7	6.8	6.4	19	101	201	81	38	20
17	21	17	12	9.6	6.8	6.4	21	148	209	80	36	21
18	35	17	12	9.6	6.8	7.5	22	163	228	85	34	21
19	36	17	12	9.6	6.8	6.9	24	159	207	96	32	21
20	28	17	12	9.4	6.8	6.8	24	166	210	95	35	21
21	27	17	12	9.1	6.8	6.6	23	188	167	91	32	21
22	27	17	11	9.1	6.8	6.9	22	232	160	89	20	21
23	27	16	11	9.1	6.8	6.9	22	246	173	85	21	20
24	26	16	11	8.9	6.6	6.9	21	230	176	79	23	20
25	25	16	11	8.7	6.6	6.9	21	239	174	73	23	20
26	19	16	11	8.7	6.6	6.9	24	254	165	52	23	21
27	14	16	11	8.7	6.6	7.1	68	231	158	47	23	23
28	14	16	11	8.7	6.8	7.3	179	216	141	52	22	79
29	15	16	11	8.2	-	7.5	113	245	136	55	22	16
30	15	16	11	7.8	-	8.0	78	315	136	55	21	16
31	16	-----	11	7.8	-----	8.5	-----	316	-----	53	20	-----
Total	966	481	381	296.5	194.8	211.1	928.4	5,520	5,704	2,674	1,295	747
Mean	31.2	16.0	12.3	9.57	6.96	6.81	30.9	178	190	86.3	41.8	24.9
Ac-ft	1,920	954	756	588	386	419	1,840	10,950	11,310	5,300	2,570	1,480

Calendar year 1965: Max 959 Min 5.0 Mean 106 Ac-ft 76,930

Water year 1965-66: Max 316 Min 6.4 Mean 53.1 Ac-ft 38,480

9-0185. Lake Granby near Granby, Colo.

Location.--Lat 40°11'00", long 105°52'10", in NW¼NE¼ sec.35, T.3 N., R.76 W., in Granby pumping plant at north shore of lake, 2½ miles north of Granby Dam on Colorado River and 7½ miles northeast of Granby.

Drainage area.--311 sq mi.

Records available.--October 1949 to September 1966. Prior to October 1955, published as Granby Reservoir near Granby.

Gage.--Water-stage recorder. Datum of gage is at mean sea level (Bureau of Reclamation bench mark). Prior to Apr. 9, 1951, staff gage at Granby Dam at same datum.

Extremes.--Maximum contents during year, 310,000 acre-ft Oct. 7, 8 (elevation, 8,256.87 ft); minimum, 215,900 acre-ft Apr. 2 (elevation, 8,240.54 ft).

1949-66: Maximum contents, 465,900 acre-ft July 13, 1962 (elevation, 8,280.05 ft); minimum since appreciable storage was first attained, 22,940 acre-ft Apr. 21, 1956 (elevation, 8,194.37 ft).

Remarks.--Lake is formed by earth-fill dam and dikes. Regulation began Sept. 13, 1949, and usable storage began June 14, 1950, while dam was under construction. Usable capacity, 465,600 acre-ft between elevations 8,186.00 (trashrack sills at outlet structures) and 8,280.00 ft (top of radial spillway gates). Dead storage, 74,190 acre-ft. Lake is used to store water for pumping to Shadow Mountain Lake and transmountain diversion through Alva B. Adams tunnel for power and irrigation in South Platte River basin. Figures given herein represent usable contents.

Cooperation.--Records furnished by Bureau of Reclamation.

Month-end elevation and contents, water year October 1965 to September 1966

Date	Elevation (feet) †	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	8,256.75	309,300	-
Oct. 31.....	8,255.69	302,800	-6,500
Nov. 30.....	8,253.72	290,900	-11,900
Dec. 31.....	8,250.60	272,400	-18,500
Calendar year 1965.....	-	-	+156,500
Jan. 31.....	8,246.70	250,000	-22,400
Feb. 28.....	8,243.55	232,300	-17,700
Mar. 31.....	8,240.57	216,100	-16,200
Apr. 30.....	8,241.21	219,600	+3,500
May 31.....	8,247.02	251,800	+32,200
June 30.....	8,250.83	273,800	+22,000
July 31.....	8,248.03	257,600	-16,200
Aug. 31.....	8,244.86	239,600	-18,000
Sept. 30.....	8,241.19	219,400	-20,200
Water year 1965-66.....	-	-	-89,900

† Elevation at 2400.

9-0190. Colorado River below Lake Granby, Colo.

Location.--Lat 40°08'39", long 105°52'00", in SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec.11, T.2 N., R.76 W., on right bank 0.3 mile downstream from Granby Dam, 1 mile upstream from Walden Hollow, and 5 miles northeast of Granby.

Drainage area.--311 sq mi.

Records available.--October 1950 to September 1966. Prior to October 1955, published as "below Granby Reservoir."

Gage.--Water-stage recorder and Parshall flume. Altitude of gage is 8,050 ft (from topographic map).

Extremes.--Maximum discharge during year, 86 cfs July 18 (gage height, 1.65 ft); minimum daily, 16 cfs Nov. 11.  
1950-66: Maximum daily discharge, 1,400 cfs (estimated) July 3, 4, 1962; minimum, 5.6 cfs Sept. 23-28, 1961.

Remarks.--Records excellent. Seepage from Lake Granby, which varies from 2-8 cfs depending on elevation of Lake Granby, is not included in record. Flow completely regulated by Lake Granby (see sta. 9-0185). Several diversions for irrigation of hay meadows above station. Transmountain diversions by Eureka and Grand River ditches and Alva B. Adams tunnel (see elsewhere in this report).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	23	17	18	20	19	17	17	75	80	33	33
2	20	20	17	18	20	19	17	20	74	80	25	25
3	20	17	17	18	20	19	17	52	78	80	25	23
4	21	17	17	18	20	18	17	53	79	80	25	23
5	22	17	17	18	20	18	17	51	79	80	25	23
6	22	17	17	18	20	18	17	49	79	80	25	23
7	22	17	17	18	20	18	17	47	79	80	25	23
8	22	17	17	18	20	18	17	47	80	83	25	22
9	22	17	17	18	20	18	17	44	81	84	26	22
10	22	17	17	18	20	18	17	41	81	84	26	22
11	22	16	17	18	20	18	17	47	81	84	26	22
12	22	17	17	18	20	18	17	47	81	84	27	22
13	23	17	17	18	20	18	17	46	81	84	27	22
14	24	17	17	18	20	18	17	46	79	79	27	22
15	24	17	17	18	20	18	17	46	81	75	27	28
16	24	17	17	18	20	18	17	60	79	75	26	33
17	24	17	17	18	19	18	17	68	75	75	25	32
18	24	17	17	18	19	18	17	68	75	81	25	32
19	24	17	17	18	19	18	17	68	75	84	26	30
20	24	17	17	18	19	18	17	68	79	83	27	29
21	23	17	17	18	19	18	17	68	80	84	27	28
22	23	17	17	18	19	18	17	68	80	85	27	30
23	23	17	17	18	19	18	17	68	80	85	27	31
24	23	17	17	18	19	18	17	68	79	85	27	31
25	23	17	17	18	19	18	17	75	79	80	26	31
26	23	17	17	18	19	18	17	79	79	64	25	31
27	23	17	17	19	19	18	17	74	79	50	25	25
28	23	17	17	20	19	18	17	71	79	50	25	25
29	23	17	18	20	-	17	17	71	79	50	36	27
30	23	17	18	20	-	17	17	71	80	50	43	28
31	23	-----	18	20	-----	17	-----	75	-----	50	43	-----
Total	702	518	530	567	548	558	510	1,773	2,365	2,348	854	798
Mean	22.6	17.3	17.1	18.3	19.6	18.0	17.0	57.2	78.8	75.7	27.5	26.6
Ac-ft	1,390	1,030	1,050	1,120	1,090	1,110	1,010	3,520	4,690	4,660	1,690	1,580

Calendar year 1965: Max 107 Min 16 Mean 38.8 Ac-ft 28,100  
Water year 1965-66: Max 85 Min 16 Mean 33.1 Ac-ft 23,940



## COLORADO RIVER MAIN STEM

9-0195. Colorado River near Granby, Colo.

Location.--Lat 40°07'15", long 105°54'00", in SW 1/4 sec. 22, T.2 N., R.76 W., on right bank 0.3 mile upstream from bridge on U. S. Highway 34, 1.3 miles upstream from Willow Creek, and 3.2 miles northeast of Granby.

Drainage area.--322 sq mi.

Records available.--October 1907 to September 1911 (published as Grand River near Granby), October 1933 to September 1953, May 1961 to September 1966 (seasonal records only). Monthly discharge only for some periods, published in WSP 1313.

Gage.--Water-stage recorder. Altitude of gage is 7,960 ft (from topographic map). June 10, 1908, to Sept. 30, 1911, staff gage and May 12 to June 10, 1934, chain gage, at site 300 ft upstream at different datums. June 11, 1934, to Sept. 30, 1953, water-stage recorder at same site and datum.

Extremes.--Maximum discharge during season, 80 cfs July 26 (gage height, 1.00 ft); minimum daily, 12 cfs Sept. 24-30. 1907-11, 1933-53, 1961-66: Maximum discharge observed, 4,100 cfs June 20, 1909 (gage height, 5.5 ft, site and datum then in use); minimum daily, 6.6 cfs Jan. 29, 1950; minimum observed prior to starting construction of Shadow Mountain Lake, 20 cfs Apr. 6, 1936 (discharge measurement).

Remarks.--Records good. Flow regulated by Lake Granby since Sept. 13, 1949 (see sta. 9-0185). Several diversions for irrigation of hay meadows above station. Transmountain diversions above station by Eureka and Grand River ditches and Alva B. Adams tunnel (see elsewhere in this report).

Discharge, in cubic feet per second, May to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								21	61	56	43	23
2								37	54	55	29	18
3								58	55	52	29	15
4								60	55	52	29	14
5								61	55	52	27	13
6								60	56	52	28	13
7								61	56	52	28	13
8								63	57	53	28	14
9								62	57	55	29	13
10								55	57	55	29	13
11								56	57	57	29	13
12								58	56	61	30	13
13								55	55	60	31	13
14								48	54	55	31	14
15								36	54	48	29	14
16								51	55	46	29	14
17								60	53	46	27	13
18								60	55	50	28	16
19								57	53	54	26	15
20								57	53	52	23	14
21								60	54	54	23	14
22								60	54	55	23	14
23								65	53	55	24	13
24								55	53	56	24	12
25								56	52	56	26	12
26								60	53	60	26	12
27								60	54	55	27	12
28								56	56	55	20	12
29								58	56	55	20	12
30								55	55	55	27	12
31								60	55	55	29	12
Total								1,721	1,648	1,674	851	413
Mean								55.5	54.9	54.0	27.5	13.8
Ac-ft								3,410	3,270	3,320	1,690	819

Calendar year : Max Min Mean Ac-ft  
 Water year : Max Min Mean Ac-ft

## 9-0207. Willow Creek Reservoir near Granby, Colo.

Location.--Lat 40°08'40", long 105°56'30", in SE¼ sec.7, T.2 N., R.76 W., in shaft house near right end of Willow Creek Dam on Willow Creek, 3¼ miles upstream from mouth, and 4 miles north of Granby.

Drainage area.--134 sq mi.

Records available.--May 1953 to September 1966.

Gage.--Water-stage recorder. Datum of gage is 8,077.00 ft above mean sea level, datum of 1929 (levels by Bureau of Reclamation); gage readings have been reduced to elevations above mean sea level.

Extremes.--Maximum contents during year, 8,340 acre-ft Apr. 7 (elevation, 8,127.54 ft); minimum 5,600 acre-ft Aug. 4 (elevation, 8,116.35 ft).  
1953-66: Maximum contents observed, 9,060 acre-ft Aug. 3, 1953 (elevation, 8,129.99 ft); minimum since first filling to spillway level, 2,380 acre-ft Apr. 2, 1962 (elevation, 8,097.15 ft).

Remarks.--Reservoir is formed by earth- and rock-fill dam. Storage began in March 1953 and dead storage pool filled May 3, 1953. Usable capacity, 9,060 acre-ft between elevations 8,077.00 (trashrack sill at Willow Creek Outlet) and 8,130.00 ft (crest of spillway). Dead storage, 1,490 acre-ft. Reservoir is used to store water for pumping to Lake Granby, Shadow Mountain Lake, and transmountain diversion through Alva B. Adams tunnel for power and irrigation in the South Platte River basin. It is part of the Colorado-Big Thompson project. Figures given herein represent usable contents.

Cooperation.--Records furnished by Bureau of Reclamation.

Month-end elevation and contents, water year October 1965 to September 1966

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	8,120.34	6,480	-
Oct. 31.....	8,126.39	8,020	+1,540
Nov. 30.....	8,120.45	6,510	-1,510
Dec. 31.....	8,118.31	6,020	-490
Calendar year 1965.....	-	-	-150
Jan. 31.....	8,120.67	6,560	+540
Feb. 28.....	8,122.31	6,960	+400
Mar. 31.....	8,125.41	7,760	+800
Apr. 30.....	8,118.61	6,090	-1,670
May 31.....	8,123.82	7,340	+1,250
June 30.....	8,125.00	7,650	+310
July 31.....	8,118.12	5,980	-1,670
Aug. 31.....	8,118.49	6,060	+80
Sept. 30.....	8,121.25	6,700	+640
Water year 1965-66.....	-	-	+220

† Elevation at 2400.

9-0210. Willow Creek below Willow Creek Reservoir, Colo.

Location.--Lat 40°08'45", long 105°56'22", in SE¼ sec.7, T.2 N., R.76 W., on left bank 1,000 ft downstream from Willow Creek Dam, three-quarters of a mile upstream from Bunte Highline Canal diversion, 3 miles upstream from mouth, and 4 miles north of Granby.

Drainage area.--134 sq mi.

Records available.--August 1953 to September 1966.

Gage.--Water-stage recorder and 10-ft Parshall flume with overflow weirs. Datum of gage is 8,023.64 ft above mean sea level (Bureau of Reclamation bench mark). Supplementary water-stage recorder and Parshall flume on McQueary ditch 500 ft downstream from point of diversion at Willow Creek Dam. Datum of gage is 8,031.68 ft above mean sea level (Bureau of Reclamation bench mark).

Average discharge (combined flow).--13 years, 26.6 cfs (19,260 acre-ft per year).

Extremes (combined flow).--Maximum discharge during year, 61 cfs May 20; minimum daily, 0.2 cfs May 3-16.

1953-66: Maximum discharge, 867 cfs June 7, 1957 (gage height, 4.84 ft); no flow Sept. 17-24, 1963, May 1, 1965.

Remarks.--Records good. Records show combined flow of creek and McQueary ditch. Flow completely regulated by Willow Creek Reservoir (see sta. 9-0207). Diversions above station for irrigation of hay meadows. McQueary ditch diverts at Willow Creek Dam for irrigation below station. Diversion above station from Willow Creek Reservoir by Willow Creek Pump Canal to Lake Granby as part of the Colorado-Big Thompson project. Prior to Oct. 1, 1962, records included priming and waste water from pump canal.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.0	7.0	6.8	6.8	7.0	6.8	7.0	7.0	5.0	4.3	14	0.4
2	7.0	7.0	6.8	6.8	7.0	6.8	7.0	2.0	5.0	4.3	13	.4
3	7.0	7.0	6.8	6.8	7.0	6.8	7.0	.2	2.7	4.2	16	.4
4	7.0	7.0	6.8	6.8	7.0	6.8	7.0	.2	2.1	4.2	15	.4
5	7.0	7.0	6.8	6.8	7.0	6.8	7.0	.2	3.7	4.2	15	.4
6	7.0	7.0	6.8	6.8	7.0	6.8	7.0	.2	3.8	3.7	15	.4
7	7.0	7.0	6.8	6.8	7.0	6.8	7.0	.2	7.8	3.5	15	.4
8	7.0	7.0	6.8	6.8	7.0	6.8	7.0	.2	3.1	3.1	15	.4
9	7.0	7.0	6.8	6.8	7.0	6.8	7.0	.2	4.2	3.0	15	.4
10	7.0	7.0	6.8	6.8	7.0	6.8	7.0	.2	4.3	3.0	15	.4
11	7.0	7.0	6.8	6.8	7.0	6.8	7.0	.2	4.3	3.0	15	.4
12	7.0	7.0	6.8	6.8	7.0	6.8	7.0	.2	4.2	3.0	15	.4
13	7.0	7.0	6.8	6.8	7.0	6.8	7.0	.2	4.2	3.0	15	.3
14	7.0	7.0	6.8	6.8	7.0	6.8	7.0	.2	4.2	3.0	15	.3
15	7.0	7.0	6.8	6.8	7.0	6.8	7.0	.2	4.2	3.0	15	.4
16	7.0	7.0	6.8	6.8	7.0	6.8	7.0	.2	4.3	3.0	7.2	.4
17	7.0	7.0	6.8	6.8	7.0	6.8	7.0	2.1	4.3	3.0	.4	.4
18	7.0	7.0	6.8	6.8	7.0	6.8	7.0	3.0	4.3	3.0	.4	.4
19	7.0	7.0	6.8	6.8	7.0	6.8	7.0	3.0	4.3	2.8	.4	.4
20	7.0	7.0	6.8	6.8	7.0	6.8	7.0	4.0	4.3	2.6	.4	.4
21	7.0	7.0	6.8	6.8	7.0	6.8	7.0	4.5	4.3	3.0	.4	.4
22	7.0	7.0	6.8	6.8	7.0	6.8	7.0	4.5	4.3	3.2	.4	.4
23	7.0	7.0	6.8	6.8	7.0	6.8	7.0	3.3	4.3	3.2	.4	.4
24	7.0	7.0	6.8	6.8	7.0	6.8	7.0	6.2	4.3	3.2	.4	.4
25	7.0	7.0	6.8	6.8	7.0	6.8	7.0	3.6	4.3	2.6	.4	.4
26	7.0	6.8	6.8	6.8	7.0	6.8	7.0	5.0	4.3	2.4	.4	.4
27	7.0	6.8	6.8	6.8	7.0	6.8	7.0	5.0	4.3	2.4	.4	.4
28	7.0	6.8	6.8	6.8	7.0	6.8	7.0	5.0	4.3	2.4	.4	.4
29	7.0	6.8	6.8	6.8	-	6.8	7.0	5.0	4.3	2.4	.4	.4
30	7.0	6.8	6.8	6.8	-----	6.8	7.0	4.9	4.3	2.4	.4	4.3
31	7.0	-----	6.8	6.8	-----	6.8	-----	5.0	-----	2.4	.4	-----
Total	214.0	209.0	210.8	210.8	196.0	210.8	210.0	597.0	1,202.8	965	236.2	15.7
Mean	6.90	6.97	6.80	6.80	7.00	6.80	7.00	19.3	40.1	31.1	7.62	0.52
Ac-ft	424	415	418	418	389	418	417	1,180	2,390	1,910	468	31
(†)	0	2,360	1,140	0	0	0	5,320	14,240	3,890	1,770	549	0

Calendar year 1965: Max 457 Min 0 Mean 18.1 Ac-ft 13,130

Water year 1965-66: Max 50 Min 0.2 Mean 12.3 Ac-ft 8,880

† Diversions, in acre-feet, by Willow Creek Pump Canal; furnished by Bureau of Reclamation.

Note.--No gage-height record Oct. 1 to May 16.

9-0240. Fraser River near Winter Park, Colo.

Location.--Lat 39°54'00", long 105°46'35", in NE¼ sec.4, T.2 S., R.75 W., on left bank 500 ft downstream from bridge on U. S. Highway 40, 1.1 miles northwest of Winter Park, 2 miles upstream from Vasquez Creek, 3½ miles downstream from point of diversion for Moffat water tunnel, and 4 miles southeast of Fraser.

Drainage area.--27.6 sq mi.

Records available.--September 1910 to September 1966. Monthly discharge only for some periods, published in WSP 1313. Published as "near Arrow" 1910-23 and as "near West Portal" 1924-39. Records since June 9, 1936, equivalent to earlier records if transmountain diversions are added to flow past station.

Gage.--Water-stage recorder. Datum of gage is 8,906.23 ft above mean sea level (State Highway Department bench mark). Sept. 23, 1910, to May 12, 1916, staff gage at trail bridge 1 mile upstream at different datum.

Average discharge.--56 years, 40.2 cfs (29,100 acre-ft per year) including diversions to Berthoud Pass ditch and Moffat water tunnel.

Extremes.--Maximum discharge during year, 85 cfs Nov. 3 (gage height, 0.97 ft); maximum gage height, 2.74 ft Feb. 3 (backwater from ice); minimum daily discharge, 2.3 cfs Sept. 9, 10, 19. 1910-66: Maximum discharge, 820 cfs June 13, 1918 (gage height, 2.9 ft); minimum daily determined, 2 cfs Mar. 30, Apr. 9, 1912, Jan. 23, 1915.

Remarks.--Records good. Transmountain diversions above station through Berthoud Pass ditch (see elsewhere in this report) and to Moffat water tunnel (see adjusted figures below).

Cooperation.--Record of flow diverted to Berthoud Pass ditch and Moffat water tunnel furnished by State engineer of Colorado.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	16	13	8.3	7.9	6.4	17	10	12	6.4	9.7	3.1
2	23	16	13	8.7	7.8	6.1	16	10	10	6.1	8.7	2.9
3	23	18	13	8.3	7.6	6.4	14	10	9.7	6.1	10	2.6
4	22	18	13	8.3	7.4	6.4	11	10	9.7	7.1	12	2.6
5	21	16	13	8.2	7.0	6.2	12	10	9.7	7.9	9.7	2.5
6	20	17	12	9.7	8.0	7.1	12	10	9.7	7.9	9.2	2.5
7	20	17	12	8.7	8.3	6.7	13	11	9.7	8.7	8.7	2.4
8	19	18	12	8.3	6.7	6.1	12	11	12	7.9	8.7	2.4
9	19	16	12	8.3	7.5	6.4	15	13	10	7.9	8.7	2.3
10	19	16	12	7.8	8.3	6.7	15	14	11	10	8.7	2.3
11	18	16	12	7.8	8.0	7.1	13	12	9.7	11	8.7	2.5
12	24	17	11	8.7	7.9	7.5	12	11	8.7	11	9.7	2.6
13	30	17	11	8.7	7.1	7.5	12	11	7.9	10	8.3	2.6
14	19	17	10	8.7	7.1	7.9	14	11	7.5	10	8.3	2.5
15	18	17	10	8.7	7.1	8.3	15	11	7.1	9.7	7.9	2.2
16	18	17	10	8.7	7.1	8.7	18	11	7.1	9.7	7.5	2.9
17	18	17	10	8.7	6.7	8.4	18	11	7.5	12	7.5	2.6
18	19	16	9.6	8.5	6.7	8.4	16	11	6.7	13	7.5	2.5
19	19	15	9.2	9.7	6.7	8.3	12	11	6.1	11	8.7	2.3
20	18	16	9.6	8.7	6.7	8.3	11	11	6.1	9.7	8.7	2.4
21	18	16	10	8.7	6.7	8.3	14	11	6.1	10	8.3	2.8
22	25	15	10	9.2	6.7	7.9	11	11	5.8	9.7	7.1	2.5
23	34	16	9.7	8.7	6.1	8.7	9.2	11	5.5	9.2	4.8	2.5
24	33	16	9.2	8.3	6.7	8.7	10	10	5.3	9.2	3.2	2.5
25	31	16	9.2	8.3	6.4	8.2	12	10	5.0	8.7	2.9	2.5
26	30	14	9.2	7.9	6.1	8.2	14	10	5.3	8.7	2.8	2.6
27	22	14	9.2	7.9	6.1	9.7	10	11	5.3	8.7	2.6	2.5
28	18	15	9.2	7.9	6.4	11	11	11	5.8	8.7	2.6	2.5
29	17	14	9.2	7.9	-	12	11	10	6.4	8.7	2.6	2.5
30	17	13	9.2	7.9	-	12	10	10	6.7	8.3	2.6	2.5
31	17	-----	8.7	7.9	-----	15	-----	12	-----	8.3	2.6	-----
Total	671	482	330.2	262.1	198.8	254.6	390.2	337	235.1	281.3	219.0	77.1
Mean	21.6	16.1	10.7	8.45	7.10	8.21	13.0	10.9	7.84	9.07	7.06	2.57
Ac-ft	1,330	956	655	520	394	505	774	668	466	558	434	153

Adjusted for diversions to Berthoud Pass ditch and Moffat water tunnel

Mean	21.6	16.1	10.7	8.45	7.10	8.21	14.9	60.2	91.8	47.6	25.6	17.5
Ac-ft	1,330	956	655	520	394	505	884	3,700	5,460	2,930	1,570	1,040

Observed

Adjusted

Calendar year 1965:	Max	225	Min	3.4	Mean	20.3	Ac-ft	14,720	Mean	48.6	Ac-ft	35,180
Water year 1965-66:	Max	34	Min	2.3	Mean	10.2	Ac-ft	7,420	Mean	27.5	Ac-ft	19,940

9-0250. Vasquez Creek near Winter Park, Colo.

Location.--Lat 39°55'13", long 105°47'05", in NE¼NW¼ sec.33, T.1 S., R.75 W., on right bank 40 ft downstream from bridge on U. S. Highway 40, a quarter of a mile upstream from mouth, 2½ miles northwest of Winter Park, 2½ miles southeast of Fraser, and 4½ miles downstream from Moffat water tunnel diversion.

Drainage area.--27.8 sq mi.

Records available.--June to August 1907, July to October 1909, October 1933 to September 1966. Monthly discharge only for some periods, published in WSP 1313. Records for June to October 1908, published in WSP 269, have been found to be unreliable and should not be used. Published as Vasquez River at lower station, near Fraser 1907, 1909 and as "near West Portal" 1934-39. Records for May 26, 1937, to September 1959 equivalent to earlier records if diversion to Moffat water tunnel is added to flow past station.

Gage.--Water-stage recorder and concrete control. Datum of gage is 8,768.48 ft above mean sea level, unadjusted. June 1, 1907, to Oct. 31, 1909, staff gage at site three-quarters of a mile upstream at different datum.

Extremes.--Maximum discharge during year, 46 cfs Nov. 3 (gage height, 2.15 ft); maximum gage height, 2.80 ft Feb. 9 (backwater from ice); no flow Aug. 7, 8, 11-14.  
1933-66: Maximum discharge, 470 cfs June 10, 1952 (gage height, 3.13 ft), from rating curve extended above 340 cfs; no flow at times in 1944, 1946, 1956, 1960, 1966.

Remarks.--Records good. Transmountain diversions above station to Moffat water tunnel not known since 1959.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.5	14	3.2	2.1	11	7.2	4.0	10	4.3	3.0	1.7	0.9
2	3.5	14	3.0	2.1	10	7.4	4.0	10	4.0	2.5	1.7	1.4
3	3.5	12	3.0	1.9	9.0	7.0	3.5	8.5	3.7	2.3	1.9	.8
4	3.5	3.5	3.0	1.9	8.8	7.0	3.2	10	3.5	2.1	2.7	.6
5	3.2	2.7	2.7	1.9	8.4	7.0	3.2	10	3.5	1.9	2.1	.5
6	3.2	3.5	2.7	1.9	8.8	8.0	3.0	10	3.2	1.9	1.0	.5
7	3.2	2.5	2.7	2.1	9.2	8.0	3.2	10	3.2	2.1	0	.6
8	3.2	3.2	3.5	2.3	8.0	7.0	3.5	9.7	4.0	2.1	0	.5
9	3.2	3.5	3.5	2.3	8.6	6.2	4.0	10	3.5	2.1	.1	.5
10	3.2	3.0	3.0	2.3	9.0	3.5	4.0	10	3.7	1.9	.1	.6
11	7.9	2.3	2.5	2.3	8.4	2.4	4.0	9.1	3.2	2.3	0	1.5
12	21	3.5	2.5	2.3	8.0	2.2	3.7	8.5	3.0	2.5	0	2.3
13	20	4.6	2.5	2.5	8.0	2.2	3.5	7.4	2.7	2.3	0	.8
14	20	3.5	2.5	2.5	8.0	2.2	3.5	6.9	2.7	2.1	0	.1
15	20	3.7	2.3	2.5	8.0	2.1	4.0	6.5	2.7	1.9	.6	.3
16	20	3.7	2.7	2.3	8.0	2.1	4.6	6.0	2.7	1.9	.7	.3
17	19	3.7	2.5	2.5	7.6	2.1	5.0	6.0	2.7	3.0	.5	.1
18	19	3.5	2.5	2.5	7.6	2.0	5.0	5.3	3.0	3.5	.5	.1
19	19	3.2	2.3	2.5	7.0	1.9	5.0	5.3	2.7	2.7	.7	.1
20	19	3.5	2.3	2.5	7.0	2.1	4.0	5.0	2.7	2.5	.9	.1
21	17	3.7	2.1	2.3	7.0	2.1	5.7	4.6	4.3	2.3	.7	.1
22	11	5.0	2.1	2.3	7.0	1.9	4.0	4.6	3.0	2.5	.6	.1
23	4.0	7.9	2.3	2.3	7.0	2.3	4.0	4.6	3.0	2.3	.6	.1
24	3.7	6.0	2.3	2.3	7.0	2.5	4.0	4.3	2.7	2.1	.6	.3
25	3.5	3.2	2.3	2.3	7.0	2.3	5.7	4.3	2.5	2.1	.5	.8
26	3.5	3.7	2.3	2.3	7.0	2.3	7.9	4.3	2.7	2.1	.5	.2
27	5.0	4.0	2.3	2.3	7.0	2.5	7.4	4.3	2.7	1.9	.3	.1
28	16	3.5	2.1	2.3	7.0	2.7	6.5	4.3	2.5	1.9	.4	.1
29	14	3.2	2.1	2.3	-	2.7	8.5	4.0	2.5	1.5	.3	.1
30	14	3.2	2.1	2.3	-----	3.0	9.7	3.7	2.7	1.5	.4	.1
31	14	-----	2.1	5.0	-----	3.2	-----	4.3	-----	1.5	.6	-----
Total	323.8	140.5	79.0	73.2	224.4	117.1	141.3	211.5	93.3	68.3	20.7	14.6
Mean	10.4	4.68	2.55	2.36	8.01	3.78	4.71	6.82	3.11	2.20	0.67	0.49
Ac-ft	642	279	157	145	445	232	280	420	185	135	41	29

Calendar year 1965: Max 192 Min 0.3 Mean 12.6 Ac-ft 9,110  
Water year 1965-66: Max 21 Min 0 Mean 4.13 Ac-ft 2,990

9-0265. St. Louis Creek near Fraser, Colo.

Location.--Lat 39°54'30", long 105°52'45", in sec.34, T.1 S., R.76 W., on left bank 300 ft downstream from West St. Louis Creek and 4 miles southwest of Fraser.

Drainage area.--32.8 sq mi.

Records available.--October 1933 to September 1966. Prior to August 1934 monthly discharge only, published in WSP 1313. Records for May 1956 to September 1959, equivalent to earlier records if diversion to Moffat water tunnel is added to flow past station.

Gage.--Water-stage recorder. Datum of gage is 8,980.17 ft above mean sea level, unadjusted.

Extremes.--Maximum discharge during year, 40 cfs May 31 (gage height, 1.32 ft); maximum gage height, 1.37 ft Mar. 30 (backwater from ice); minimum daily discharge, 3.2 cfs Jan. 2, 3.  
1933-66: Maximum discharge, 470 cfs June 15, 1952 (gage height, 2.89 ft); maximum gage height, 3.21 ft June 10, 1952 (backwater from log on control); minimum discharge not determined, probably occurred during January or February 1961.

Remarks.--Records good except those for period of no gage-height record, which are fair. Transmountain diversions above station to Moffat water tunnel not known since 1959.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	14	4.4	3.4	9.2	8.4	4.8	7.9	38	30	25	10
2	17	16	4.4	3.2	9.0	8.4	4.6	8.2	37	29	24	9.8
3	22	15	4.4	3.2	9.0	8.4	4.1	8.8	37	32	27	9.8
4	22	15	4.4	3.6	9.0	8.0	4.8	8.5	36	31	30	9.4
5	21	15	4.4	3.8	9.0	8.0	4.6	8.8	35	30	27	9.1
6	19	16	4.4	4.0	9.0	8.6	4.6	9.1	33	29	25	9.4
7	19	15	4.4	4.0	9.0	8.6	4.6	9.1	32	32	22	9.4
8	18	14	4.4	4.0	9.0	8.6	5.6	9.4	34	32	21	8.8
9	17	13	4.4	4.0	9.0	8.6	5.3	10	32	31	21	8.5
10	17	13	4.4	4.0	9.0	8.0	5.6	11	32	31	20	8.8
11	17	13	4.6	4.0	9.0	5.0	4.8	9.8	32	33	19	8.8
12	18	12	4.4	4.0	9.0	3.4	4.6	9.1	32	31	24	9.4
13	18	12	4.1	4.0	9.0	3.3	4.8	8.5	29	30	21	8.8
14	18	12	4.1	4.0	9.0	3.4	5.6	8.5	29	29	17	8.5
15	18	10	3.9	4.0	9.0	3.6	5.6	8.2	30	27	13	10
16	17	8.8	3.9	7.6	8.6	3.7	6.1	9.1	30	27	12	9.4
17	17	7.6	3.9	10	8.6	3.8	5.8	12	31	31	12	8.8
18	18	5.3	3.9	10	8.6	3.8	5.8	13	31	32	12	8.5
19	18	5.0	4.1	9.6	8.6	3.8	5.6	22	30	31	13	8.2
20	17	4.5	4.1	9.6	8.6	3.8	5.8	17	31	30	16	8.2
21	16	4.5	4.1	9.6	8.6	4.0	5.6	20	30	30	13	7.9
22	17	4.5	4.4	9.6	8.4	3.8	5.1	21	30	30	11	7.9
23	17	5.8	4.1	9.6	8.4	3.6	5.1	21	29	27	10	7.6
24	17	4.6	3.9	9.4	8.4	3.8	5.3	18	28	26	10	7.9
25	16	4.4	3.9	9.4	8.4	4.0	6.4	20	27	28	9.8	10
26	15	4.1	3.6	9.4	8.4	4.0	7.3	23	27	30	9.8	9.1
27	15	4.6	3.6	9.4	8.4	4.5	6.7	24	27	30	9.1	8.5
28	16	4.4	3.4	9.4	8.4	5.0	7.9	24	28	30	9.1	8.5
29	15	4.4	3.4	9.2	-	5.4	7.0	30	29	27	9.1	8.5
30	15	4.4	3.6	9.2	-----	5.6	7.3	35	30	26	9.1	8.5
31	15	-----	3.4	9.2	-----	5.8	-----	38	-----	25	9.4	-----
Total	537	281.9	126.4	207.4	245.6	170.7	166.8	482.0	936	917	510.4	266.0
Mean	17.3	9.40	4.08	6.69	8.77	5.51	5.56	15.5	31.2	29.6	16.5	8.87
Ac-ft	1,070	559	251	411	487	339	331	956	1,860	1,820	1,010	528

Calendar year 1965: Max 220 Min 2.4 Mean 21.4 Ac-ft 15,460

Water year 1965-66: Max 38 Min 3.2 Mean 13.3 Ac-ft 9,610

Note.--No gage-height record Jan. 2 to Mar. 29.

## FRASER RIVER BASIN

9-0320. Ranch Creek near Fraser, Colo.

Location.--Lat 39°57'00", long 105°45'54", in NW 1/4 sec. 22, T.1 S., R.75 W., on right bank 450 ft downstream from Middle Fork and 2.7 miles east of Fraser.

Drainage area.--19.9 sq mi.

Records available.--August 1934 to September 1966. Records since May 15, 1949, equivalent to earlier records if diversion to Moffat water tunnel is added to flow past station.

Gage.--Water-stage recorder. Altitude of gage is 8,685 ft (from topographic map).

Average discharge.--32 years, 20.7 cfs (14,990 acre-ft per year), including diversion to Moffat water tunnel.

Extremes.--Maximum discharge during year, 20 cfs Oct. 23 (gage height, 1.22 ft); maximum gage height, 1.49 ft Apr. 21 (backwater from ice); minimum daily discharge, 1.2 cfs Aug. 25-30.  
1934-66: Maximum discharge, 402 cfs June 28, 1957 (gage height, 3.72 ft); minimum daily, 0.4 cfs Sept. 21, Oct. 6, 1960.

Remarks.--Records good. Diversion above station for irrigation of hay meadows along Fraser River. Transmountain diversion above station to Moffat water tunnel was 6,110 acre-ft during water year 1966.

Cooperation.--Records of flow diverted to Moffat water tunnel furnished by State engineer.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	9.0	7.2	5.6	5.1	4.3	6.0	7.8	4.5	1.7	2.2	1.6
2	12	9.3	7.4	5.6	5.1	4.3	6.3	7.6	3.9	1.6	2.0	1.8
3	13	9.3	8.0	5.6	4.8	4.3	5.8	7.0	3.9	1.6	2.0	1.5
4	14	9.3	7.4	5.4	4.8	4.1	6.5	7.3	3.4	2.7	2.2	1.4
5	14	9.2	7.8	5.4	4.8	4.1	6.0	7.3	3.4	2.6	1.9	1.4
6	13	9.6	7.4	5.4	4.8	4.3	5.3	7.3	3.2	2.2	1.8	1.4
7	13	9.0	7.0	5.4	4.8	4.3	5.8	7.8	3.1	2.1	1.6	1.4
8	12	8.0	7.4	5.6	4.8	4.3	5.8	8.4	4.1	2.0	1.5	1.4
9	12	7.4	7.3	5.6	4.8	4.3	5.8	9.6	3.4	1.9	1.5	1.4
10	12	7.2	7.3	5.6	4.8	4.3	6.0	9.6	3.4	1.9	1.5	1.4
11	11	7.0	7.0	5.6	4.8	4.1	5.8	7.6	2.9	2.3	1.4	1.6
12	11	6.6	6.5	5.6	4.8	4.1	5.6	6.5	2.8	2.3	2.0	1.7
13	11	7.0	6.3	5.6	4.8	4.1	5.8	6.3	2.6	2.2	1.9	1.7
14	10	7.0	6.0	5.6	4.8	4.1	6.5	6.0	2.6	2.2	1.6	1.6
15	10	7.6	6.0	5.6	4.8	4.1	6.3	5.8	2.4	2.0	1.6	2.0
16	10	7.6	5.8	5.5	4.6	4.3	6.3	5.6	2.4	2.0	1.5	1.9
17	10	7.6	5.6	5.5	4.6	4.3	6.0	5.6	2.6	2.1	1.5	1.7
18	11	7.3	5.6	5.5	4.6	4.1	6.3	5.6	2.7	2.9	1.5	1.6
19	10	7.3	5.6	5.5	4.5	4.1	6.5	5.1	2.2	2.7	1.6	1.6
20	10	7.0	5.6	5.5	4.5	4.3	6.0	4.3	2.0	2.9	1.8	1.6
21	9.6	7.4	5.6	5.3	4.5	4.3	5.8	4.3	2.0	3.6	1.6	1.6
22	10	7.4	5.6	5.3	4.5	4.3	5.6	5.6	2.0	3.6	1.4	1.6
23	11	7.4	5.8	5.3	4.3	4.3	5.8	5.3	1.9	3.9	1.4	1.6
24	10	7.6	5.8	5.3	4.3	4.3	6.8	4.5	1.8	3.1	1.3	1.6
25	9.6	7.4	5.8	5.3	4.3	4.3	8.4	4.1	1.8	2.6	1.2	1.8
26	9.0	7.0	5.8	5.1	4.3	4.3	8.7	3.7	2.1	2.6	1.2	1.8
27	9.3	6.8	5.8	5.1	4.3	4.5	6.5	3.7	2.0	2.7	1.2	1.8
28	9.6	6.8	5.8	5.1	4.3	4.6	6.5	3.9	1.8	2.4	1.2	1.7
29	9.3	7.0	5.8	5.1	-	4.6	6.5	4.6	1.7	2.3	1.2	1.6
30	9.3	7.2	5.8	5.1	-----	4.8	7.6	4.5	1.8	2.1	1.2	1.6
31	9.3	-----	5.6	5.1	-----	5.3	-----	5.1	-----	1.5	1.4	-----
Total	336.0	231.3	197.4	167.8	130.2	133.8	188.6	187.4	80.4	74.3	48.9	48.4
Mean	10.8	7.71	6.37	5.41	4.65	4.32	6.29	6.05	2.68	2.40	1.58	1.61
Ac-ft	666	459	392	333	258	265	374	372	159	147	97	96

Calendar year 1965: Max 201

Min 0.9

Mean 13.1

Ac-ft 9,510

Water year 1965-66: Max 14

Min 1.2

Mean 5.00

Ac-ft 3,620

9-0345. Colorado River at Hot Sulphur Springs, Colo.

Location.--Lat 40°05'00", long 106°05'15", in NE¼NE¼ sec.2, T.1 N., R.78 W., on left bank about 1,000 ft north of U. S. Highway 40, 1 mile northeast of Hot Sulphur Springs, and 4½ miles upstream from Beaver Creek.

Drainage area.--825 sq mi.

Records available.--July 1904 to September 1966. Monthly discharge only for some periods, published in WSP 1313. Prior to 1907 and 1914-18, published as Grand River at Hot Sulphur Springs and as Grand River at Sulphur Springs 1907-13.

Gage.--Water-stage recorder. Altitude of gage is 7,670 ft (from railroad elevations). July 28, 1904, to Apr. 16, 1906, staff gage on bridge 1.7 miles downstream at different datum. Apr. 17, 1906, to Sept. 18, 1930, chain gage at bridge 1.4 miles downstream at datum 7,651.26 ft above mean sea level, unadjusted. Supplemental water-stage recorder (staff gage prior to Jan. 1, 1963) at different datum at site 1.7 miles downstream, used for winter records some years.

Extremes.--Maximum discharge during year, 424 cfs May 10 (gage height, 1.19 ft); minimum daily, 44 cfs Sept. 10.  
1904-66: Maximum discharge observed, 10,300 cfs June 15, 1921 (gage height, 8.7 ft, site and datum then in use); minimum daily, 33 cfs Sept. 27, 1936.

Remarks.--Records good. Flow affected by transmountain diversions, storage reservoirs, and diversions above station for irrigation of about 13,000 acres. Records of chemical analyses and water temperatures for the water year 1966 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	132	109	102	94	73	80	290	198	243	194	152	62
2	145	109	104	84	73	82	315	212	198	189	125	60
3	152	112	106	82	74	80	244	252	189	176	125	57
4	145	112	108	84	72	76	160	256	170	166	148	53
5	138	104	109	84	73	79	155	252	170	159	138	49
6	132	101	110	84	73	79	149	270	184	152	122	48
7	122	101	108	84	73	79	156	295	180	142	107	46
8	122	98	106	84	73	79	159	331	207	145	93	49
9	119	101	103	82	73	79	173	353	212	142	90	46
10	115	101	102	80	73	80	180	402	212	142	88	44
11	112	98	102	80	73	85	170	348	216	152	88	46
12	119	107	100	80	74	84	152	326	202	166	90	49
13	132	115	100	80	76	84	145	295	189	162	101	53
14	128	104	98	82	76	85	142	261	173	156	93	53
15	122	128	98	82	78	110	152	230	173	138	88	58
16	122	125	97	80	82	128	166	238	189	138	80	60
17	122	128	96	79	82	128	180	266	207	138	71	57
18	125	135	94	79	82	107	176	243	216	148	69	53
19	128	112	94	79	79	112	180	234	225	162	71	49
20	125	112	103	80	80	120	148	234	207	194	80	51
21	119	112	115	80	82	130	138	243	212	173	80	49
22	125	115	125	79	82	128	162	243	220	189	74	48
23	125	120	115	79	80	98	159	225	216	202	71	49
24	122	122	105	79	79	94	159	180	198	202	69	51
25	115	119	94	79	79	98	162	176	176	189	64	58
26	115	112	100	79	79	115	184	180	170	176	60	60
27	112	110	100	79	79	169	198	180	180	180	58	57
28	122	110	100	76	80	255	170	176	184	176	57	51
29	109	106	103	74	-	290	184	180	180	166	49	51
30	109	100	103	76	-----	285	184	184	184	156	57	51
31	109	-----	96	76	-----	285	-----	198	-----	148	62	-----
Total	3,839	3,338	3,196	2,499	2,152	3,783	5,292	7,661	5,882	5,118	2,720	1,568
Mean	124	111	103	80.6	76.9	122	176	247	196	165	87.7	52.3
Ac-ft	7,610	6,620	6,340	4,960	4,270	7,500	10,500	15,200	11,670	10,150	5,400	3,110

Calendar year 1965: Max 1,540 Min 55 Mean 267 Ac-ft 193,200  
Water year 1965-66: Max 402 Min 44 Mean 129 Ac-ft 93,320



9-0349. Bobtail Creek near Jones Pass, Colo.

Location.--Lat 39°46', long 105°54', in sec.28, T.3 S., R.76 W., on left bank, 320 ft upstream from diversion dam and 0.4 mile south of entrance to August P. Gumlick Tunnel.

Drainage area.--5.49 sq mi.

Records available.--October 1965 to September 1966.

Gage.--Digital water-stage recorder. Altitude of gage is 10,430 ft (from topographic map).

Extremes.--Maximum discharge during year, 52 cfs May 30 (gage height, 3.94 ft); minimum daily, 0.5 cfs Mar. 12.

Remarks.--Records good except those for winter period, which are poor. No diversion above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.2	4.0	1.3	0.80	0.70	0.60	0.80	2.6	32	27	9.0	4.9
2	5.8	4.0	1.3	.80	.70	.60	.80	4.0	33	23	9.4	4.8
3	7.0	3.8	1.2	.80	.70	.60	.80	6.0	34	21	11	4.5
4	6.2	3.6	1.2	.80	.70	.60	.80	8.0	32	20	17	4.1
5	6.2	3.4	1.2	.80	.70	.60	.70	11	30	19	13	3.6
6	5.8	3.2	1.2	.70	.70	.60	.70	15	26	18	11	3.6
7	5.2	3.0	1.2	.70	.70	.60	.70	20	25	16	11	3.5
8	4.6	3.2	1.2	.70	.70	.60	.70	17	25	15	10	3.4
9	4.5	3.4	1.1	.70	.70	.60	.80	17	25	14	9.3	3.3
10	4.2	2.6	1.1	.70	.70	.60	.90	15	28	14	8.5	3.5
11	4.4	2.0	1.1	.70	.80	.60	.90	14	27	16	7.9	4.2
12	4.2	2.2	1.1	.70	.80	.50	.90	13	27	15	11	4.0
13	4.1	2.2	1.0	.70	.80	.60	.80	12	25	16	8.1	4.0
14	3.8	2.2	1.0	.70	.80	.60	.80	12	27	14	7.2	3.6
15	3.7	2.2	1.0	.70	.80	.60	.80	14	28	12	6.5	4.4
16	3.0	2.0	1.0	.70	.80	.70	.90	17	28	12	6.0	4.0
17	3.0	2.0	1.0	.70	.80	.70	1.0	20	28	15	5.6	3.8
18	3.3	1.8	1.0	.70	.80	.70	1.1	22	31	20	5.1	3.6
19	3.2	1.6	1.0	.70	.80	.60	1.1	25	31	26	7.1	3.4
20	4.6	1.4	1.0	.70	.80	.60	1.4	30	29	22	7.4	3.4
21	7.2	1.4	.90	.70	.70	.70	.80	32	28	21	5.9	3.2
22	6.0	1.3	.90	.70	.70	.70	.80	36	28	19	5.1	3.2
23	4.9	1.3	.90	.70	.70	.60	.80	36	27	17	4.8	3.2
24	4.4	1.3	.90	.70	.70	.60	.80	39	27	15	4.6	3.4
25	4.6	1.3	.90	.80	.70	.60	1.0	42	25	14	4.4	5.0
26	4.6	1.3	.90	.80	.60	.60	1.3	44	23	14	4.2	4.0
27	5.1	1.3	.90	.80	.60	.60	1.2	43	23	12	4.1	3.6
28	3.0	1.3	.90	.80	.60	.60	1.4	44	21	11	3.9	3.6
29	4.6	1.3	.80	.80	-----	.70	1.6	45	20	10	3.8	3.4
30	4.4	1.3	.80	.80	-----	.80	1.8	45	26	9.2	2.7	3.4
31	4.0	-----	.80	.80	-----	.80	-----	32	-----	9.3	3.9	-----
TOTAL	144.8	66.9	31.80	22.90	20.30	19.50	28.90	732.6	819	506.5	229.5	113.6
MEAN	4.67	2.23	1.03	.74	.73	.63	.96	23.6	27.3	16.3	7.40	3.79
AC-FT	287	133	63	45	40	39	57	1,450	1,620	1,000	455	225

WATER YEAR 1965-66 MAX 45 MIN .50 MEAN 7.50 AC-FT 5,410

Peak discharge (base, 50 cfs).--May 30 (1500) 52 cfs (3.94 ft).

Note.--No gage-height record Dec. 13 to Apr. 20.

9-0355, Williams Fork below Steelman Creek, Colo.

Location--Lat 39°46'44", long 105°55'40", in sec.20, T.3 S., R.75 W., on right bank, 700 ft downstream from Steelman Creek, and 6.5 miles southeast of Leal.

Drainage area--16.3 sq mi.

Records available--July 1933 to September 1941, published as Williams River below Steelman Creek, October 1965 to September 1966. Monthly discharge only for some periods, published in WSP 1313.

Gage--Water-stage recorder. Altitude of gage is 9,800 ft (from topographic map). Prior to July 21, 1933, staff gage and July 21, 1933, to Sept. 30, 1941, water-stage recorder at site 600 ft upstream at different datum.

Average discharge--9 years, 24.5 cfs (17,740 acre-ft per year), including diversions to August P. Gumlick Tunnel.

Extremes--Maximum discharge during year, 103 cfs June 30 (gage height, 4.29 ft); maximum gage height, 4.38 ft Apr. 14 (backwater from ice); minimum daily discharge, 0.6 cfs Sept. 10, 21-24, 29, 30.

1933-41, 1965-66: Maximum discharge, 441 cfs June 21, 1938 (gage height, 2.48 ft, site and datum then in use), from rating curve extended above 260 cfs; minimum daily discharge, that of Sept. 10, 21-24, 29, 30, 1966.

Remarks--Records good except those for winter period, which are fair. Transmountain diversions above station through August P. Gumlick Tunnel (see sta. 9-0360) since May 10, 1940.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	8.2	5.6	3.9	3.1	2.6	0.7	9.2	8.2	3.7	1.8	0.8
2	14	7.9	5.6	3.8	3.2	2.5	.8	12	7.2	1.8	1.8	.9
3	15	9.6	5.4	3.8	3.1	2.4	1.1	13	6.6	1.5	1.3	.9
4	14	10	5.2	3.8	3.1	2.4	1.4	18	6.6	1.4	3.3	.8
5	12	9.2	5.2	3.8	3.1	2.5	1.2	22	6.3	3.2	2.1	.8
6	12	9.6	5.2	3.5	3.0	2.5	1.2	21	2.8	3.6	1.4	.7
7	11	8.5	5.0	3.7	2.8	2.6	.9	21	1.7	3.4	1.4	.7
8	10	8.4	4.8	3.7	2.8	2.6	.8	20	7.2	3.2	1.2	.7
9	9.6	8.5	4.6	3.6	2.8	2.6	.7	20	1.7	1.4	1.1	.7
10	9.2	8.2	4.2	3.5	2.9	2.5	.7	34	1.4	2.6	1.1	.6
11	9.2	7.6	4.4	3.4	3.0	2.6	.7	18	6.0	2.6	1.1	.7
12	8.8	8.2	4.2	3.4	3.0	2.6	.8	15	5.7	2.4	2.0	.8
13	8.5	7.6	4.2	3.4	2.9	2.6	2.0	14	2.5	2.3	1.6	.8
14	8.5	7.4	4.2	3.3	2.7	2.6	1.4	12	4.9	2.3	1.2	.8
15	8.2	7.2	4.0	3.3	2.6	2.7	1.0	12	2.7	2.1	1.1	1.2
16	8.2	7.0	3.8	3.3	2.6	2.6	.7	15	5.7	2.0	1.0	1.0
17	8.2	6.9	3.8	3.2	2.6	2.5	.8	17	2.0	2.6	1.0	.8
18	9.2	6.6	4.0	3.2	2.6	2.4	.7	17	5.7	2.6	.9	.8
19	8.8	6.4	4.0	3.3	2.6	2.5	.7	20	5.2	2.8	1.1	.7
20	9.2	6.4	4.0	3.2	2.6	2.6	.7	18	2.5	2.3	1.4	.7
21	10	6.2	4.0	3.1	2.6	2.6	.7	19	4.6	2.1	1.1	.6
22	9.6	5.4	4.0	3.1	2.6	2.0	.7	19	4.4	2.1	1.0	.6
23	9.2	6.2	4.0	3.1	2.5	1.1	1.2	18	4.2	2.0	.9	.6
24	9.2	6.4	4.0	3.2	2.5	1.2	1.4	17	1.2	2.0	.9	.6
25	8.5	6.6	4.0	3.1	2.6	1.2	2.0	26	3.7	1.7	.8	1.2
26	8.2	5.6	4.2	3.1	2.6	1.2	4.0	31	3.7	1.7	.8	.9
27	8.8	5.2	4.2	3.1	2.6	1.4	6.0	29	3.7	1.7	.8	.8
28	8.5	5.2	4.0	3.0	2.6	1.4	4.4	16	4.8	1.6	.7	.7
29	9.2	5.6	4.0	3.1	-	1.4	4.2	15	4.6	1.1	.7	.6
30	8.5	5.6	4.0	3.1	-	.8	5.7	16	5.5	1.9	.8	.6
31	8.5	-----	4.0	3.1	-----	.8	-----	31	-----	1.8	.8	-----
Total	304.8	217.4	135.8	104.2	77.7	66.0	49.3	585.2	466.9	321.5	82.3	23.1
Mean	9.83	7.25	4.38	3.36	2.78	2.13	1.64	18.9	15.6	10.4	2.65	0.77
Ac-ft	605	431	269	207	154	131	98	1,160	926	638	163	46

Calendar year 1965: Max - Min - Mean - Ac-ft -  
 Water year 1965-66: Max 48 Min 0.6 Mean 6.67 Ac-ft 4,830

Note--No gage-height record Dec. 31 to Apr. 13.

9-0357. Williams Fork above Darling Creek, near Leal, Colo.

Location.--Lat 39°47'50", long 106°01'30", in NW¼ sec. 16, T.3 S., R.77 W., on left bank, 0.4 mile upstream from Darling Creek and 1.4 miles southeast of Leal.

Drainage area.--35.2 sq mi.

Records available.--October 1965 to September 1966.

Gage.--Digital water-stage recorder. Altitude of gage is 8,940 ft (from topographic map).

Extremes.--Maximum discharge during year, 138 cfs May 31 (gage height, 4.07 ft); minimum daily, 6.3 cfs Sept. 9, 10, 22-24.

Remarks.--Records good except those for winter period, which are fair. Transmountain diversion above station through August P. Gumlick Tunnel (see sta. 9-0360).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	27	16	11	9.2	7.2	6.6	11	16	67	81	29	7.2
2	29	16	11	9.2	7.2	6.6	11	18	67	49	28	7.2
3	31	16	10	9.0	6.6	6.6	10	22	69	40	31	7.2
4	30	16	10	9.0	7.2	6.6	9.0	26	67	38	23	7.7
5	29	15	10	9.0	6.8	6.4	9.0	34	63	55	16	6.6
6	27	16	10	8.4	6.8	7.0	9.0	37	77	64	13	6.4
7	25	17	10	8.8	6.8	7.0	9.0	44	66	60	12	6.4
8	24	16	9.4	8.8	6.8	7.0	9.4	47	60	57	12	6.4
9	23	17	9.4	8.8	6.8	7.0	10	43	68	42	11	6.3
10	23	15	8.8	8.4	6.8	7.0	10	58	69	22	11	6.3
11	22	14	8.8	8.4	7.0	6.6	9.8	35	62	23	10	7.2
12	22	15	8.8	8.4	7.2	6.8	9.0	29	61	22	13	7.0
13	21	16	8.8	8.4	7.4	7.0	8.4	26	76	21	12	7.2
14	21	15	8.8	8.4	7.4	7.0	8.6	24	57	21	10	6.9
15	20	15	8.8	8.4	7.0	7.4	8.9	23	77	20	10	9.1
16	20	14	8.8	8.2	6.6	7.4	9.9	27	58	20	9.0	8.8
17	20	14	8.8	8.2	6.8	6.6	9.6	29	70	20	8.8	8.0
18	21	15	8.0	8.2	6.8	7.2	10	31	57	21	9.9	7.2
19	21	14	9.0	8.2	6.8	8.0	9.9	37	54	22	10	6.8
20	20	14	9.0	8.0	6.8	8.2	10	39	72	20	13	6.6
21	20	13	9.0	7.6	6.8	7.8	12	45	50	20	11	6.5
22	20	11	9.0	7.6	6.8	7.0	9.1	51	47	20	8.8	6.3
23	20	14	9.0	8.0	6.8	7.4	9.1	49	45	20	8.3	6.3
24	19	15	9.0	7.6	6.8	6.8	9.7	49	51	18	8.2	6.3
25	18	13	9.0	7.6	7.4	6.8	11	70	40	18	7.2	9.2
26	18	10	9.0	7.6	6.8	7.6	14	80	38	17	7.0	8.3
27	17	10	9.0	7.6	6.8	8.0	14	73	65	17	6.8	7.3
28	18	10	8.6	7.0	6.8	8.6	12	51	85	15	6.6	6.9
29	17	11	9.2	7.0	-----	8.2	13	54	81	19	6.4	6.6
30	17	11	9.2	7.0	-----	9.0	14	63	88	29	6.7	6.5
31	16	-----	9.2	7.0	-----	11	-----	90	-----	29	7.2	-----
TOTAL	676	424	286.4	253.0	193.8	228.2	309.4	1,320	1,907	940	375.9	212.8
MEAN	21.8	14.1	9.24	8.16	6.92	7.36	10.3	42.6	63.6	30.3	12.1	7.09
AC-FT	1,340	841	568	502	384	453	614	2,620	3,780	1,860	746	422

WATER YEAR 1965-66 MAX 90 MIN 6.3 MEAN 19.5 AC-FT 14,130

Note.--No gage-height record Jan. 16 to Apr. 14.

9-0358. Darling Creek near Leal, Colo.

Location--Lat 39°48'15", long 106°01'10", in NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec.9, T.3 S., R.77 W., on left bank, 0.6 mile upstream from mouth and 1.4 miles southeast of Leal.

Drainage area--8.18 sq mi.

Records available--October 1965 to September 1966.

Gage--Digital water-stage recorder. Altitude of gage is 9,090 ft (from topographic map).

Extremes--Maximum discharge during year, 34 cfs June 2, 3 (gage height, 2.98 ft); minimum daily, 2.0 cfs Mar. 12.

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

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	6.8	4.5	3.4	3.0	2.3	2.2	3.0	4.5	25	13	5.7	3.5
2	7.3	4.4	3.2	2.9	2.2	2.2	3.0	7.2	27	12	5.7	3.3
3	7.6	4.2	3.2	2.9	2.1	2.2	2.8	9.5	28	12	5.9	3.4
4	7.5	4.1	3.2	2.9	2.2	2.2	2.8	11	27	11	6.8	3.2
5	7.2	4.1	3.3	2.9	2.2	2.1	2.8	13	26	11	5.9	3.1
6	6.9	4.1	3.2	2.8	2.2	2.2	3.0	15	23	11	5.6	3.0
7	6.7	3.8	3.2	3.0	2.2	2.2	3.2	17	22	9.9	5.4	3.1
8	6.6	3.8	3.2	2.8	2.2	2.2	3.2	17	22	9.7	5.1	2.9
9	6.3	4.1	3.2	2.8	2.2	2.2	3.2	17	21	9.2	5.1	2.9
10	6.2	3.7	3.5	2.8	2.2	2.2	3.2	16	22	9.2	5.0	2.8
11	6.0	3.3	3.5	2.8	2.2	2.1	3.0	14	23	9.2	4.7	3.4
12	5.8	3.8	3.5	2.8	2.3	2.0	2.8	12	23	9.1	6.5	3.6
13	5.7	4.1	3.5	2.8	2.3	2.2	2.8	12	22	8.7	5.4	3.5
14	5.6	3.9	3.6	2.8	2.3	2.2	3.0	11	22	8.3	5.0	3.2
15	5.5	3.8	3.7	2.8	2.3	2.2	3.2	11	22	7.9	4.7	4.0
16	5.5	3.8	3.5	2.7	2.2	2.4	3.5	12	21	7.8	4.5	3.6
17	5.4	3.8	3.2	2.7	2.2	2.3	3.4	12	21	7.8	4.3	3.5
18	5.5	3.7	3.1	2.7	2.2	2.2	3.4	13	21	7.8	4.2	3.2
19	5.4	3.6	3.1	2.6	2.2	2.3	3.4	15	21	8.4	4.6	3.1
20	5.5	3.6	3.1	2.5	2.2	2.4	3.5	17	20	7.6	5.2	3.0
21	5.3	3.5	3.1	2.5	2.2	2.4	3.5	19	19	7.7	4.5	3.0
22	5.4	3.3	3.1	2.5	2.2	2.2	3.6	20	18	7.6	4.2	3.0
23	5.2	3.5	3.1	2.4	2.2	2.4	3.7	20	17	7.2	4.0	3.0
24	5.1	3.6	3.1	2.4	2.2	2.2	3.8	22	17	6.9	3.8	3.0
25	5.0	3.5	3.1	2.4	2.2	2.3	3.8	26	16	6.9	3.7	4.3
26	4.8	3.3	3.0	2.4	2.3	2.3	3.8	24	15	6.8	3.6	3.5
27	4.7	3.1	2.9	2.4	2.2	2.5	3.9	21	14	6.6	3.5	3.3
28	4.9	3.1	3.0	2.3	2.3	2.5	4.0	21	14	6.1	3.4	3.3
29	4.6	3.2	3.0	2.3	-----	2.6	4.1	22	13	5.9	3.3	3.2
30	4.6	3.4	3.0	2.3	-----	2.8	4.1	25	14	5.8	3.4	3.2
31	4.5	-----	3.0	2.3	-----	3.0	-----	26	-----	5.7	3.5	-----
TOTAL	179.1	111.7	99.8	82.2	62.2	71.4	100.5	502.2	616	463.8	146.2	98.1
MEAN	5.78	3.72	3.22	2.65	2.22	2.30	3.35	16.2	20.5	8.51	4.72	3.27
AC-FT	355	222	198	163	123	142	199	996	1,220	523	290	195

Water year 1965-66: Max 28 Min 2.0 Mean 6.39 Ac-ft 4,630

Peak discharge (base, 35 cfs).--No peak above base.

Note.--No gage-height record Nov. 23 to Apr. 13.

## WILLIAMS FORK BASIN

9-0359. South Fork of Williams Fork near Leal, Colo.

Location.--Lat 39°47'45", long 106°01'50", in NE¼ sec.17, T.3 S., R.77 W., on left bank, 800 ft upstream from highway bridge, 0.6 mile upstream from mouth, and 1.2 miles southeast of Leal.

Drainage area.--27.2 sq mi.

Records available.--October 1965 to September 1966.

Gage.--Digital water-stage recorder. Altitude of gage is 8,950 ft (from topographic map).

Extremes.--Maximum discharge during year, 153 cfs June 2 (gage height, 3.10 ft); minimum daily, 5.6 cfs Mar. 12.

Remarks.--Records good except those for winter period, which are poor. No diversions above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	24	9.8	9.8	9.2	7.2	7.0	10	20	98	44	9.3	6.7
2	26	9.6	10	8.8	7.0	6.6	10	25	107	39	13	9.5
3	27	9.8	10	8.8	6.8	6.6	8.6	30	112	40	21	13
4	26	9.8	10	8.8	7.4	6.6	8.0	40	107	43	30	13
5	24	9.5	10	8.8	7.0	6.6	8.0	49	102	37	21	11
6	22	9.4	9.6	8.4	6.8	6.6	8.2	59	91	30	18	12
7	21	9.4	9.4	8.4	6.8	6.8	8.6	68	89	28	16	12
8	19	9.4	9.4	8.4	6.8	6.8	9.0	63	93	27	15	11
9	19	10	9.6	8.2	6.8	6.8	10	54	86	25	16	11
10	18	10	10	8.2	6.8	6.6	10	53	95	25	15	11
11	18	10	10	8.0	7.0	6.4	8.8	42	94	28	13	12
12	17	10	10	7.8	7.2	5.6	8.4	35	92	27	19	13
13	16	11	10	7.8	7.2	6.6	7.5	31	86	25	17	13
14	14	11	10	7.8	7.2	6.8	8.2	28	84	23	13	12
15	14	11	9.8	7.2	7.2	6.8	8.6	29	82	20	7.9	14
16	14	11	9.4	7.8	7.0	7.2	10	33	83	19	7.6	14
17	14	11	9.2	8.0	6.8	6.6	10	37	81	25	7.6	12
18	16	11	9.0	8.0	6.8	6.2	9.7	39	80	28	7.8	10
19	16	10	9.2	8.0	6.8	6.8	8.9	46	79	32	8.4	9.0
20	15	10	9.2	7.8	6.8	7.4	9.9	54	76	26	16	8.0
21	14	10	9.2	7.4	6.8	7.4	12	63	77	23	14	7.0
22	15	9.0	9.2	7.6	6.8	6.2	8.6	67	74	22	7.7	6.8
23	15	10	9.2	7.6	6.8	6.6	8.8	63	72	15	7.3	6.6
24	14	10	9.2	7.6	6.8	6.2	8.9	73	72	15	7.1	9.0
25	14	10	9.2	7.6	7.0	6.4	11	90	67	13	6.8	9.0
26	13	9.0	9.0	7.6	7.2	6.4	13	85	66	13	6.6	8.4
27	13	9.0	9.0	7.6	6.8	7.0	13	74	61	12	6.4	7.2
28	13	9.2	8.6	7.2	7.4	7.4	14	71	58	11	6.3	7.0
29	12	9.4	8.8	7.2	-----	8.0	13	78	47	10	6.1	7.0
30	10	9.6	9.0	7.2	-----	8.0	17	100	45	9.5	6.3	7.0
31	10	-----	9.2	7.2	-----	9.0	-----	107	-----	9.1	6.7	-----
TOTAL	523	297.9	293.2	246.0	195.0	212.0	299.7	1,706	2,456	743.6	372.9	302.2
MEAN	16.9	9.93	9.46	7.94	6.96	6.84	9.99	55.0	81.9	24.0	12.0	10.1
AC-FT	1,040	591	582	488	387	420	594	3,380	4,870	1,470	740	599

WATER YEAR 1965-66 MAX 112 MIN 5.6 MEAN 21.0 AC-FT 15,160

Peak discharge (base, 150 cfs).--June 2 (2100) 153 cfs (3.10 ft).

Note.--No gage-height record Dec. 16 to Apr. 12.

9-0360. Williams Fork near Leal, Colo.

Location.--Lat 39°49'55", long 106°03'20", in sec.31, T.2 S., R.77 W., on right bank at downstream side of private bridge, 100 ft downstream from Kinney Creek and 1.7 miles northwest of Leal.

Drainage area.--89.5 sq mi.

Records available.--July 1933 to September 1966. Records since May 10, 1940, equivalent to earlier records if diversion to August P. Gumlick Tunnel is added to flow past station. Prior to October 1958, published as Williams River near Leal.

Gage.--Digital water-stage recorder since Oct. 1, 1963. Altitude of gage is 8,790 ft (from topographic map). Prior to Oct. 1, 1963, graphic water-stage recorder at same datum; at site 15 ft downstream prior to Aug. 16, 1953, and at present site thereafter.

Average discharge.--33 years, 101 cfs (73,120 acre-ft per year), including diversions to August P. Gumlick Tunnel.

Extremes.--Maximum discharge during year, 370 cfs May 31 (gage height, 1.84 ft); minimum daily, 18 cfs Mar. 12, 18, 22, 24.  
1933-66: Maximum discharge, 1,720 cfs June 10, 1952 (gage height, 4.23 ft); minimum daily, 13 cfs Dec. 28, 29, 1939, Dec. 7, 1963, Jan. 13, 14, 1964.

Remarks.--Records good. Transmountain diversion above station through August P. Gumlick Tunnel. Diversions above station for irrigation of about 200 acres of hay meadows above station and about 40 acres below.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	63	36	30	27	21	20	31	56	248	187	55	26
2	70	35	30	26	21	19	31	65	254	133	56	28
3	74	34	29	26	20	19	26	78	267	119	71	30
4	73	34	29	26	21	19	24	93	260	112	73	32
5	70	34	30	26	20	19	23	113	246	121	60	29
6	64	34	29	25	20	19	24	131	244	125	48	28
7	61	36	29	26	20	20	24	152	221	118	44	29
8	59	33	29	25	20	20	26	157	218	112	42	28
9	57	37	29	25	20	20	29	141	213	99	39	27
10	56	35	30	25	20	20	29	161	225	74	38	27
11	54	30	30	25	20	19	28	122	218	76	35	30
12	52	33	30	25	21	18	26	105	215	76	46	33
13	49	36	30	25	21	20	26	91	222	71	45	32
14	48	35	30	25	21	20	27	84	198	69	37	31
15	47	34	29	25	21	20	30	82	220	63	32	37
16	47	34	29	24	20	21	35	90	201	60	29	37
17	47	34	27	24	20	20	35	101	215	60	28	33
18	48	34	26	24	20	18	35	103	201	68	29	31
19	48	31	27	24	20	21	34	120	195	71	31	29
20	47	31	27	23	20	22	30	135	214	68	46	27
21	45	30	27	22	20	22	30	151	184	63	41	27
22	47	23	27	23	20	18	31	172	177	65	31	26
23	46	33	27	22	20	20	30	165	165	56	29	26
24	45	34	27	22	20	18	32	172	168	58	29	25
25	42	32	27	22	20	19	38	223	151	54	27	35
26	41	26	27	22	21	19	45	234	141	53	27	33
27	40	26	27	22	20	21	45	210	161	53	26	29
28	42	28	26	21	21	22	39	176	186	48	25	28
29	39	28	27	21	-----	24	43	182	172	47	24	27
30	37	29	27	21	-----	24	50	223	174	57	24	27
31	36	-----	27	21	-----	27	-----	284	-----	55	26	-----
TOTAL	1,594	969	875	740	569	628	956	4,372	6,174	2,491	1,193	887
MEAN	51.4	32.3	28.2	23.9	20.3	20.3	31.9	141	206	80.4	38.5	29.6
AC-FT	3,160	1,920	1,740	1,470	1,130	1,250	1,900	8,670	12,250	4,940	2,370	1,760
(†)	0	0	0	0	0	33	255	2,110	3,140	1,290	624	416

CALENDAR YEAR 1965 MAX 1,040 MIN 15 MEAN 116 AC-FT 84,310  
WATER YEAR 1965-66 MAX 284 MIN 18 MEAN 58.8 AC-FT 42,560

† Diversions, in acre-feet, through August P. Gumlick Tunnel; furnished by State engineer of Colorado.

9-0375. Williams Fork near Parshall, Colo.

Location.--Lat 40°00'01", long 106°10'45", in SW¼SW¼ sec.31, T.1 N., R.78 W., on right bank 150 ft downstream from bridge on State Highway 286, 3.7 miles downstream from Skylark Creek, 3.9 miles south of Parshall, and 4.2 miles upstream from Williams Fork Reservoir Dam.

Drainage area.--186 sq mi.

Records available.--July 1904 to September 1924, June 1933 to September 1966. Records since May 10, 1940, equivalent to earlier records if diversion to August P. Gumlick Tunnel is added to flow past station. Published as "near (Hot) Sulphur Springs" 1904-12, and as Williams River near Parshall June 1933 to September 1958.

Gage.--Water-stage recorder. Datum of gage is 7,808.95 ft above mean sea level (datum of Denver Board of Water Commissioners). Prior to Oct. 18, 1919, staff gage and Oct. 18, 1919, to Sept. 30, 1924, water-stage recorder, at site 1½ miles downstream at different datum. June 19, 1933, to Aug. 8, 1938, water-stage recorder at bridge 150 ft upstream at datum 1.00 ft higher.

Average discharge.--53 years, 143 cfs (103,500 acre-ft per year), including diversion to August P. Gumlick Tunnel.

Extremes.--Maximum discharge during year, 301 cfs June 6 (gage height, 3.02 ft); minimum daily, 10 cfs Sept. 20, 22-24.

1904-24, 1933-66: Maximum discharge observed, 2,620 cfs June 14, 1918 (gage height, 6.05 ft, site and datum then in use), from rating curve extended above 1,400 cfs; minimum daily, 10 cfs Sept. 15-17, 1934, Sept. 22, 23, 1959, Sept. 20, 22-24, 1966.

Remarks.--Records good except those for winter period, which are fair. Transmountain diversion above station through August P. Gumlick Tunnel (see sta. 9-0360). Diversions above station for irrigation of about 1,300 acres above station and about 2,500 acres below. About 150 acres above station irrigated by diversions into the drainage area.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	90	55	45	48	36	38	69	69	173	31	19	12
2	100	54	48	45	36	36	73	97	157	20	19	12
3	106	51	50	45	38	35	58	86	166	18	20	12
4	102	51	52	46	36	35	48	81	153	18	21	12
5	97	52	52	46	36	34	46	106	134	22	47	11
6	91	52	50	46	36	34	48	118	164	22	60	11
7	86	54	50	48	36	35	47	144	209	22	57	11
8	81	51	52	48	36	36	50	173	99	22	55	12
9	80	56	54	48	36	36	61	171	93	22	43	11
10	76	55	56	46	36	36	66	188	95	21	18	11
11	75	49	56	45	35	36	60	166	84	21	18	11
12	72	55	54	45	35	38	55	110	83	20	30	12
13	69	58	54	44	35	38	50	66	75	20	40	11
14	66	56	52	42	35	36	48	48	52	20	37	11
15	65	58	52	40	36	36	57	45	57	21	36	12
16	65	57	50	38	38	38	69	49	65	22	41	12
17	65	58	48	38	38	42	76	56	64	22	40	11
18	66	56	46	38	38	44	72	54	61	23	25	11
19	67	51	45	38	36	44	72	62	56	22	26	11
20	67	52	45	36	38	43	58	72	53	22	32	10
21	64	53	46	36	36	39	54	78	38	22	36	11
22	67	37	48	36	36	34	61	173	31	22	35	10
23	66	56	48	36	36	42	60	180	25	22	33	10
24	65	61	48	36	36	41	65	75	22	22	33	10
25	64	57	50	36	38	39	76	116	22	22	32	11
26	61	48	50	38	38	40	81	208	20	22	32	11
27	58	43	50	38	38	44	57	215	19	22	31	11
28	64	39	50	38	38	50	60	81	20	22	30	11
29	57	40	52	38	-	54	70	61	20	21	30	11
30	57	42	52	38	-----	57	67	97	19	20	26	11
31	55	-----	50	38	-----	61	-----	164	-----	18	14	-----
Total	2,264	1,557	1,555	1,278	1,022	1,251	1,834	3,409	2,329	666	1,016	334
Mean	73.0	51.9	50.2	41.2	36.5	40.4	61.1	110	77.6	21.5	32.8	11.1
Ac-ft	4,490	3,090	3,080	2,530	2,030	2,480	3,640	6,760	4,620	1,320	2,020	662

Calendar year 1965: Max 1,030 Min 16 Mean 132 Ac-ft 95,770

Water year 1965-66: Max 215 Min 10 Mean 50.7 Ac-ft 36,720

9-0380. Williams Fork Reservoir near Parshall, Colo.

Location.--Lat 40°02'06", long 106°12'17", in SE¼ sec.23, T.1 N., R.79 W., at dam on Williams Fork, 2.1 miles upstream from mouth and 2.2 miles southwest of Parshall.

Drainage area.--234 sq mi.

Records available.--April 1939 to September 1966. Prior to October 1948, published in WSP 1313.

Gage.--Mercury manometer gage read once daily. Datum of gage is at mean sea level (levels by city engineer of Denver). Prior to Sept. 2, 1959, tape-weight gage at same site and datum.

Extremes.--Maximum contents observed during year, 78,850 acre-ft Oct. 1 (elevation, 7,798.94 ft); no contents Sept. 21-30. 1939-66: Maximum contents observed, 97,130 acre-ft July 9, 1962 (elevation, 7,811.19 ft); no contents Oct. 14 to Dec. 2, 1958, caused by construction operations at dam, and Sept. 21-30, 1966, reservoir drained for repairs.

Remarks.--Reservoir is formed by concrete-arch dam. Dam completed in October 1938; storage began in April 1939; dam was enlarged Dec. 5, 1956, to Apr. 22, 1959. Enlarged capacity of reservoir, 96,820 acre-ft between elevations 7,634 (invert of outlet pipes) and 7,811 ft (top of radial gates on spillway). No dead storage. Figures given herein represent usable contents. Reservoir is used for power development and storage for replacement of water diverted through August P. Gumlick Tunnel (see sta. 9-0360) during periods when flow of Colorado River is insufficient to supply decreed prior water rights below Williams Fork.

Cooperation.--Records furnished by Denver Board of Water Commissioners.

Month-end elevation and contents, water year October 1965 to September 1966

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	7,798.98	78,910	-
Oct. 31.....	7,796.68	75,800	-3,110
Nov. 30.....	7,788.08	64,890	-10,910
Dec. 31.....	7,776.98	52,600	-12,290
Calendar year 1965.....	-	-	+35,710
Jan. 31.....	7,763.90	40,180	-12,420
Feb. 28.....	7,745.87	26,320	-13,860
Mar. 31.....	7,722.90	13,640	-12,680
Apr. 30.....	7,731.77	17,900	+4,260
May 31.....	7,733.48	18,810	+910
June 30.....	7,743.88	25,000	+6,190
July 31.....	7,720.07	12,430	-12,570
Aug. 31.....	7,695.58	4,660	-7,770
Sept. 30.....	7,634.49	0	-4,660
Water year 1965-66.....	-	-	-78,910

† Elevation at 0800.



## 9-0385. Williams Fork below Williams Fork Reservoir, Colo.

Location.--Lat 40°02'07", long 106°12'17", in SE¼ sec.23, T.1 N., R.79 W., on left bank 400 ft downstream from Williams Fork Reservoir, 2.1 miles upstream from mouth, and 2.1 miles southwest of Parshall.

Drainage area.--234 sq mi.

Records available.--October 1948 to September 1954, August 1958 to September 1966. Monthly discharge only for some periods, published in WSP 1313. Prior to October 1958, published as Williams River below Williams Fork Reservoir.

Gage.--Digital water-stage recorder since Oct. 1, 1963, and concrete control. Datum of gage is 7,615.0 ft above mean sea level (datum of Denver Board of Water Commissioners). Oct. 1, 1948, to Sept. 30, 1954, graphic water-stage recorder at site a quarter of a mile downstream at different datum. Aug. 1, 1958, to Oct. 20, 1959, graphic water-stage recorder at site half a mile downstream at different datum. Oct. 21, 1959, to Sept. 30, 1963, graphic water-stage recorder at same site and datum.

Average discharge.--14 years, 123 cfs (89,050 acre-ft per year), adjusted for storage in Williams Fork Reservoir.

Extremes.--Maximum discharge during year, 292 cfs Feb. 5, 6 (gage height, 2.51 ft); minimum daily, 13 cfs May 14, 15. 1948-54, 1958-66: Maximum discharge, 2,640 cfs June 20, 1953 (gage height, 8.50 ft, site and datum then in use), from rating curve extended above 1,500 cfs; minimum daily, 0.3 cfs May 14, 1963.

Remarks.--Records excellent. Flow regulated by Williams Fork Reservoir (see sta. 9-0380). Transmountain diversion above station through August P. Gumlick Tunnel (see sta. 9-0360). Diversions above station for irrigation of about 3,200 acres above station and about 100 acres below. About 450 acres above station irrigated by diversion into the drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	135	155	246	259	165	277	14	14	14	259	136	159
2	135	232	246	260	243	276	14	14	14	268	178	157
3	135	236	246	261	280	276	14	14	14	268	178	156
4	136	237	246	261	287	276	14	14	15	267	189	161
5	136	218	246	261	291	274	15	14	15	266	197	162
6	108	235	247	262	290	274	15	14	15	265	198	160
7	136	236	247	263	290	274	15	14	15	264	197	162
8	136	236	247	264	289	273	15	14	14	264	196	162
9	137	237	247	264	290	272	15	14	14	264	195	160
10	137	237	247	265	289	272	15	14	15	263	194	156
11	136	238	248	267	288	271	16	14	15	262	194	159
12	136	240	249	267	288	270	16	14	15	262	193	162
13	135	240	250	269	288	269	15	14	15	262	196	163
14	135	238	250	268	286	268	15	13	15	261	196	161
15	135	238	250	269	286	267	15	13	15	260	182	161
16	135	240	250	270	286	266	15	14	15	260	170	147
17	135	240	250	269	285	265	15	14	15	259	170	137
18	135	241	250	270	284	264	15	14	15	258	168	133
19	135	241	251	273	284	262	15	18	15	257	168	85
20	135	242	252	273	283	261	15	151	15	254	167	27
21	135	243	253	274	282	260	15	259	15	254	166	25
22	135	243	254	277	282	259	15	260	15	252	165	24
23	135	243	254	278	281	257	15	260	15	251	164	24
24	135	242	255	280	280	256	14	259	15	250	162	23
25	136	243	256	280	280	255	14	259	15	249	163	25
26	136	242	256	226	279	254	14	258	15	248	162	25
27	135	243	256	122	278	253	14	258	61	246	160	24
28	135	244	257	125	278	252	14	257	98	246	159	23
29	135	244	258	126	-----	251	14	256	42	244	160	23
30	135	245	258	125	-----	250	14	255	15	243	161	23
31	135	-----	258	125	-----	248	-----	252	-----	239	160	-----
TOTAL	4,170	7,089	7,780	7,553	7,812	8,202	441	3,252	601	7,965	5,444	3,169
MEAN	135	236	251	244	279	265	14.7	105	20.0	257	176	106
AC-FT	8,270	14,060	15,430	14,980	15,490	16,270	875	6,450	1,190	15,800	10,800	6,290

CALENDAR YEAR 1965	MAX	258	MIN	14	MEAN	103	AC-FT	74,750
WATER YEAR 1965-66	MAX	291	MIN	13	MEAN	174	AC-FT	125,900

9-0390. Troublesome Creek near Pearmont, Colo.

Location.--Lat 40°13'03", long 106°18'45", in SE¼ sec.14, T.3 N., R.80 W., on left bank 45 ft downstream from small tributary, 3 miles north of Pearmont, 4 miles downstream from Rabbit Ear Creek, 5½ miles upstream from East Fork, and 12 miles northeast of Kremmling.

Drainage area.--44.6 sq mi.

Records available.--October 1953 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 8,049 ft (from topographic map).

Average discharge.--13 years, 28.0 cfs (20,270 acre-ft per year).

Extremes.--Maximum discharge during year, 112 cfs May 31 (gage height, 1.55 ft); minimum daily, 4.8 cfs Sept. 17.

1953-66: Maximum discharge, 503 cfs June 7, 1957 (gage height, 3.48 ft); maximum gage height, 3.93 ft Mar. 31, 1965 (backwater from ice); minimum daily discharge, that of Sept. 17, 1966.

Remarks.--Records good. One diversion above station for irrigation of about 250 acres below. Flow partly regulated during irrigation season by one reservoir (capacity, 1,070 acre-ft) above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	15	14	12	10	12	16	36	69	35	17	13
2	17	15	14	10	10	11	16	43	67	30	18	12
3	18	15	14	13	9.6	12	16	51	66	30	19	12
4	18	15	14	13	9.6	11	16	59	62	30	24	12
5	17	15	14	13	10	12	15	65	60	29	18	12
6	16	15	13	14	10	12	16	69	56	30	16	12
7	16	15	13	14	10	12	16	77	54	29	16	13
8	17	15	13	14	11	11	17	88	51	29	16	12
9	17	16	13	14	11	11	17	86	46	28	16	12
10	17	15	13	14	11	11	18	86	47	28	15	12
11	17	15	13	14	11	10	18	80	45	28	15	12
12	17	15	13	13	11	12	18	71	42	30	17	14
13	17	15	13	13	11	13	16	61	33	27	16	11
14	17	15	13	12	11	11	16	55	30	21	15	8.2
15	17	15	13	12	11	12	17	51	28	20	14	9.5
16	18	15	13	12	10	12	19	51	29	19	14	6.3
17	18	15	13	12	11	11	20	59	32	19	13	4.8
18	18	15	13	12	11	11	20	67	33	19	14	5.1
19	18	15	13	12	11	11	19	71	31	20	14	5.7
20	18	15	13	12	12	11	17	75	37	19	15	9.1
21	17	15	13	12	12	11	16	79	47	18	14	11
22	17	15	13	12	12	11	16	83	44	18	14	11
23	17	15	13	12	12	12	15	82	43	18	14	10
24	16	15	13	12	13	13	16	79	42	18	13	11
25	16	15	13	12	12	14	20	77	40	18	13	14
26	16	14	13	11	11	14	24	73	42	17	13	12
27	16	14	13	11	12	14	25	69	34	17	12	12
28	16	14	13	11	12	15	22	68	30	18	12	12
29	16	14	13	11	-	15	27	67	30	17	12	12
30	16	14	13	11	-----	16	31	69	35	16	12	12
31	15	-----	12	11	-----	16	-----	72	-----	16	14	-----
Total	522	446	407	381	308.2	380	555	2,119	1,305	711	465	324.7
Mean	16.8	14.9	13.1	12.3	11.0	12.3	18.5	68.4	43.5	22.9	15.0	10.8
Ac-ft	1,040	885	807	756	611	754	1,100	4,200	2,590	1,410	922	644

Calendar year 1965: Max 218 Min 5.4 Mean 33.7 Ac-ft 24,420  
 Water year 1965-66: Max 88 Min 4.8 Mean 21.7 Ac-ft 15,720

Note.--No gage-height record Nov. 11 to Dec. 14.

9-0400. East Fork Troublesome Creek near Troublesome, Colo.

Location.--Lat 40°09'27", long 106°16'58", in NW¼ sec.7, T.2 N., R.79 W., on right bank 400 ft upstream from mouth and 6½ miles north of Troublesome. Prior to July 22, 1966, at site 100 ft downstream.

Drainage area.--76.0 sq mi.

Records available.--April 1937 to September 1943, October 1953 to September 1966. Monthly discharge only for some periods, published in WSP 1313.

Gage.--Water-stage recorder. Altitude of gage is 7,670 ft (from topographic map). Apr. 18, 1937, to May 13, 1941, staff gage at present site, May 13 to Aug. 8, 1941, staff gage, Aug. 8, 1941, to Sept. 30, 1943, chain gage, and Oct. 1, 1953, to July 21, 1966, water-stage recorder, at site 100 ft downstream. Prior to Oct. 1, 1953, at different datum and at present datum thereafter.

Average discharge.--19 years, 26.8 cfs (19,400 acre-ft per year).

Extremes.--Maximum discharge during year, 103 cfs May 8 (gage height, 3.35 ft); minimum daily, 1.5 cfs Aug. 29, 30.

1937-43, 1953-66: Maximum discharge, 720 cfs May 9, 1962; maximum gage height, 5.19 ft June 6, 1957; minimum daily discharge, 0.2 cfs Oct. 3, 1941, Sept. 2, 3, 26, 27, 1942.

Remarks.--Records fair except those for winter period, which are poor. Diversions above station for irrigation.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	7.6	8.0	6.0	5.3	5.8	16	48	48	11	3.8	2.0
2	12	7.6	8.0	6.0	4.9	5.8	15	57	43	9.2	6.1	2.2
3	12	7.2	8.0	6.0	4.9	5.8	15	58	40	8.0	6.6	2.3
4	12	7.2	8.0	6.0	5.3	5.6	14	65	36	6.8	9.5	2.3
5	12	7.2	7.6	6.2	5.1	5.4	15	73	33	6.8	9.5	2.2
6	12	7.2	7.6	6.4	5.3	5.4	16	73	31	6.8	6.4	2.2
7	13	7.2	7.6	6.4	5.3	5.6	17	76	29	6.8	4.9	2.6
8	14	7.6	7.6	6.4	5.4	5.8	18	85	32	6.8	3.8	3.1
9	13	7.6	7.6	6.4	5.8	6.0	18	87	28	6.4	3.3	3.0
10	12	7.6	7.6	6.4	5.4	6.0	21	82	29	6.4	3.1	2.6
11	12	7.2	7.6	6.2	5.0	6.0	19	76	30	6.8	2.6	2.5
12	12	7.2	7.6	6.0	5.0	6.0	17	71	24	7.6	3.3	2.6
13	10	7.6	7.6	6.0	5.0	6.0	16	61	21	7.2	4.5	2.8
14	10	6.8	7.6	5.8	5.0	6.2	15	61	18	7.2	3.6	3.0
15	10	8.8	7.0	5.6	5.0	6.4	18	59	16	6.0	3.1	4.7
16	10	8.0	6.6	5.6	4.8	6.8	25	60	16	5.6	2.6	4.5
17	10	8.0	6.2	5.6	5.0	7.2	32	63	17	5.6	2.2	3.8
18	10	8.0	6.0	5.8	5.0	7.2	29	64	16	5.8	2.2	3.4
19	10	6.4	6.4	5.6	5.0	7.2	29	63	15	8.4	2.3	3.1
20	10	7.2	6.8	5.3	5.4	8.4	29	62	14	7.6	2.8	3.0
21	8.8	6.8	6.8	5.1	5.4	7.2	20	63	14	5.6	3.1	3.0
22	9.2	6.8	6.8	5.3	5.4	7.2	21	62	14	5.1	3.0	2.8
23	9.2	7.2	6.8	5.6	5.4	7.2	18	58	12	5.1	2.3	2.8
24	8.8	8.0	6.8	5.8	5.4	7.0	19	52	12	5.1	2.2	3.0
25	8.0	8.4	6.8	6.0	5.4	7.0	26	51	12	4.9	2.2	4.0
26	8.0	8.0	6.8	6.4	5.4	7.2	40	56	11	4.7	2.0	5.1
27	7.6	8.0	6.8	6.0	5.8	8.0	49	56	12	4.5	1.8	4.7
28	9.6	8.0	6.8	5.8	5.8	9.6	37	54	11	6.1	1.6	4.0
29	7.6	8.0	6.6	5.8	-	12	38	50	11	5.1	1.5	3.8
30	8.0	8.0	6.3	5.6	-----	14	41	49	10	4.3	1.5	3.6
31	7.6	-----	6.0	5.6	-----	15	-----	50	-----	3.6	1.8	-----
Total	320.4	226.4	220.3	182.7	146.9	226.0	703	1,945	655	196.9	109.2	94.7
Mean	10.3	7.55	7.11	5.89	5.25	7.29	23.4	62.7	21.8	6.35	3.52	3.16
Ac-ft	636	449	437	362	291	448	1,390	3,860	1,300	391	217	188

Calendar year 1965: Max 414 Min 2.6 Mean 39.0 Ac-ft 28,240  
 Water year 1965-66: Max 87 Min 1.5 Mean 13.8 Ac-ft 9,970

Peak discharge (base, 170 cfs).--No peak above base.

Note.--No gage-height record Dec. 1 to Jan. 17, Feb. 11 to Mar. 17.

9-0410. Muddy Creek near Kremmling, Colo.

Location.--Lat 40°17'37", long 106°28'59", in SE¼ sec.20, T.4 N., R.81 W., on left bank a quarter of a mile upstream from Lindsey Creek, half a mile upstream from bridge on U. S. Highway 40, 3 miles downstream from Albert Creek, and 17 miles northwest of Kremmling.

Drainage area.--87.4 sq mi.

Records available.--September 1937 to September 1943, October 1955 to September 1966. Monthly discharge only for some periods, published in WSP 1313.

Gage.--Water-stage recorder. Altitude of gage is 7,856 ft (from topographic map). September 1937 to Sept. 30, 1943, staff gage at site 3 miles upstream at different datum.

Average discharge.--17 years, 51.6 cfs (37,360 acre-ft per year).

Extremes.--Maximum discharge during year, 375 cfs May 8 (gage height, 4.46 ft); minimum daily, 0.5 cfs Aug. 28-30.

1937-43, 1955-66: Maximum discharge, 992 cfs May 9, 1957 (gage height, 6.46 ft); maximum gage height, 6.72 ft Apr. 17, 1962 (backwater from ice); minimum daily discharge, 0.1 cfs Aug. 19, 24, 1940.

Remarks.--Records good except those for winter period, which are poor. Some regulation by Barber Reservoir (capacity, 4,290 acre-ft). Diversions for irrigation of about 900 acres above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	9.8	8.0	7.6	7.2	7.0	4.0	115	84	20	1.8	1.1
2	22	9.8	8.0	7.4	7.0	6.8	4.0	132	69	20	1.6	1.8
3	21	9.6	8.0	7.4	7.0	6.8	3.9	165	62	16	3.4	1.8
4	17	9.4	8.0	7.4	7.0	6.4	3.8	205	50	13	1.2	1.6
5	15	9.2	8.2	7.4	7.4	7.0	3.7	220	47	12	1.0	1.5
6	12	9.4	8.2	7.4	7.4	7.6	3.8	247	48	11	5.9	1.4
7	11	9.6	8.2	8.0	7.4	8.0	3.5	291	45	11	3.7	1.5
8	10	10	8.2	8.2	7.2	8.0	4.1	316	42	12	2.8	1.8
9	9.8	9.8	8.2	8.0	6.8	8.0	4.6	267	41	9.5	2.3	2.0
10	9.4	9.6	8.2	7.8	6.6	8.0	5.3	285	36	8.0	2.3	2.0
11	9.0	9.6	8.4	7.8	6.4	8.0	5.4	207	35	9.5	2.0	2.7
12	8.6	9.4	8.2	7.8	6.4	8.0	4.5	167	31	13	1.8	3.6
13	8.6	9.0	8.0	7.6	6.4	8.0	4.2	140	25	12	3.2	3.7
14	8.2	9.0	8.0	7.6	6.4	8.0	3.7	132	25	11	3.6	4.8
15	8.2	9.0	7.8	7.6	6.4	8.4	4.5	140	23	10	2.7	4.3
16	8.2	9.2	7.6	7.6	6.8	8.6	6.0	187	24	9.5	2.0	3.9
17	9.0	9.6	7.4	7.6	7.2	10	7.4	213	25	9.5	2.0	4.3
18	9.8	10	7.4	7.6	7.2	13	7.3	210	26	10	1.2	4.3
19	14	9.8	7.4	7.4	7.2	15	6.9	184	22	10	1.2	3.0
20	14	9.4	7.4	7.2	7.2	17	5.6	179	20	12	1.3	2.5
21	12	9.0	7.4	7.2	7.2	19	5.0	187	18	8.7	1.8	2.5
22	11	9.0	7.4	7.4	7.2	18	5.3	174	21	6.6	1.5	2.1
23	11	11	7.6	7.6	7.2	16	5.2	172	19	6.9	1.5	1.6
24	10	11	8.0	7.6	7.0	17	5.9	130	17	7.3	1.3	1.6
25	10	9.6	8.0	7.6	6.8	18	7.6	127	16	6.9	.8	2.0
26	10	9.0	8.0	7.4	7.0	20	10.3	125	15	6.6	.8	3.2
27	10	8.6	8.0	7.4	7.2	23	11.4	112	16	6.6	.6	4.3
28	10	7.8	8.2	7.4	7.0	27	9.5	106	14	6.6	.5	2.7
29	10	7.2	8.2	7.8	-	30	9.3	101	13	4.3	.5	2.5
30	10	8.0	8.0	8.0	-----	34	9.9	98	15	3.0	.5	2.3
31	10	-----	8.0	8.0	-----	37	-----	95	-----	2.1	.6	-----
Total	357.8	280.4	245.6	235.8	195.2	436.6	1.756	5,429	944	304.6	77.2	78.4
Mean	11.5	9.35	7.92	7.61	6.97	14.1	58.5	175	31.5	9.83	2.49	2.61
Ac-ft	710	556	487	468	387	866	3,480	10,770	1,870	604	153	156

Calendar year 1965: Max 534 Min 3.0 Mean 62.2 Ac-ft 45,030  
 Water year 1965-66: Max 316 Min 0.5 Mean 28.3 Ac-ft 20,510

Peak discharge (base, 300 cfs).--May 8 (0300) 375 cfs (4.46 ft).

Note.--No gage-height record Dec. 17 to Mar. 18.

9-0411. Antelope Creek near Kremmling, Colo.

Location.--Lat 40°14'26", long 106°22'23", in N½ sec.8, T.3 N., R.80 W., on right bank 5.8 miles upstream from mouth and 12½ miles north of Kremmling.

Drainage area.--11.5 sq mi.

Records available.--October 1955 to September 1966.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 7,933 ft (from topographic map).

Average discharge.--11 years, 2.03 cfs (1,470 acre-ft per year).

Extremes.--Maximum discharge during year, 8.5 cfs Apr. 26 (gage height, 1.27 ft); no flow for several days.

1955-66: Maximum discharge, 148 cfs Mar. 27, 1960 (gage height, 2.70 ft, from floodmarks), by slope-area measurement of peak flow; maximum gage height, 3.32 ft Apr. 10, 1962 (backwater from plugged culvert); no flow at times in 1963 and 1966.

Remarks.--Records good except those for winter period, which are poor. No diversion or regulation above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.5	0.8	0.8	0.7	0.6	0.8	2.2	5.1	1.5	0.4	0.1	0
2	1.5	.8	.8	.6	.6	.7	2.2	5.4	1.3	.3	.2	.1
3	1.7	.8	.9	.6	.6	.7	2.0	6.0	1.3	.3	.5	.1
4	1.3	.8	.9	.6	.7	.7	1.8	5.7	1.1	.3	.8	.1
5	1.1	.8	.9	.7	.7	.8	1.8	5.4	1.0	.2	.5	.1
6	1.0	.9	.9	.8	.7	.9	2.4	5.1	1.0	.2	.2	.1
7	.9	.9	.9	.8	.7	1.0	2.4	5.7	1.0	.2	.1	.1
8	.8	.9	.9	.8	.6	1.1	2.4	5.4	1.1	.2	.1	.2
9	.8	.9	.8	.7	.6	1.1	2.7	5.1	1.1	.1	.1	.1
10	.8	.9	.8	.7	.5	1.1	2.7	6.3	1.8	.2	.1	.1
11	.6	.9	.8	.7	.5	1.1	2.4	4.9	2.2	.2	0	.1
12	.6	.9	.8	.7	.5	1.2	2.2	4.9	1.1	.4	.1	.2
13	.6	1.0	.7	.6	.5	1.2	2.0	4.6	.9	.2	.2	.3
14	.6	1.0	.7	.6	.5	1.3	2.0	4.3	.8	.2	.1	.2
15	.6	1.1	.7	.6	.5	1.3	2.4	4.1	.6	.1	.1	.3
16	.5	1.1	.7	.6	.5	1.3	3.2	3.6	.8	.1	0	.3
17	.5	1.1	.6	.6	.5	1.3	4.3	3.6	.6	.1	0	.3
18	.6	1.1	.6	.5	.6	1.4	4.3	3.2	.6	.1	0	.3
19	.7	1.0	.6	.5	.6	1.4	4.1	3.1	.6	.2	0	.2
20	.8	1.0	.6	.5	.6	1.4	2.4	2.9	.5	.2	.1	.2
21	.9	.8	.7	.5	.6	1.4	2.4	2.4	.6	.1	.1	.2
22	1.0	1.1	.7	.5	.6	1.3	2.9	2.7	.5	.1	.1	.2
23	.9	1.0	.7	.6	.7	1.3	3.1	2.7	.6	.1	.1	.3
24	.8	1.0	.7	.6	.7	1.4	3.8	2.4	.4	.1	0	.3
25	.7	1.0	.7	.6	.7	1.5	4.9	2.2	.3	.1	0	.6
26	.7	1.0	.8	.6	.8	1.7	4.6	2.2	.3	.1	0	.6
27	.7	1.0	.8	.6	.8	1.7	6.0	2.2	.6	.1	0	.5
28	.7	1.0	.8	.6	.8	1.8	4.1	1.8	.5	.2	0	.5
29	.7	.9	.8	.6	-	1.8	4.6	1.7	.4	.1	0	.5
30	.7	.8	.8	.6	-----	2.1	4.9	1.5	.5	.1	0	.5
31	.7	-----	.7	.6	-----	2.2	-----	1.7	-----	0	0	-----
Total	26.0	28.3	23.6	19.3	17.3	40.0	93.2	117.9	25.6	5.3	3.6	7.6
Mean	0.84	0.94	0.76	0.62	0.62	1.29	3.11	3.80	0.85	0.17	0.12	0.25
Ac-ft	52	56	47	38	34	79	185	234	51	11	7.1	15

Calendar year 1965: Max 17 Min 0.2 Mean 2.56 Ac-ft 1,860

Water year 1965-66: Max 6.3 Min 0 Mean 1.12 Ac-ft 809

Peak discharge (base, 15 cfs).--No peak above base.

Note.--No gage-height record Nov. 29 to Apr. 6.

9-0412. Red Dirt Creek near Kremmling, Colo.

Location.--Lat 40°09'41", long 106°33'32", in NE¼NE¼ sec.10, T.2 N., R.82 W., on left bank three-quarters of a mile upstream from Snow Shoe Ranch, 2 miles downstream from McMahon (Red Dirt) Reservoir, 9½ miles upstream from mouth, and 11½ miles northwest of Kremmling.

Drainage area.--19.0 sq mi (includes 1.4 sq mi in Yampa River basin).

Records available.--October 1955 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 8,961 ft (from topographic map).

Average discharge.--11 years, 19.3 cfs (13,970 acre-ft per year).

Extremes.--Maximum discharge during year, 53 cfs June 3 (gage height, 1.57 ft); minimum daily, 1.2 cfs Aug. 3, Sept. 2, 3.  
1955-66: Maximum discharge, 343 cfs June 13, 1957 (gage height, 3.01 ft); minimum not determined.

Remarks.--Records fair except those for winter period, which are poor. No diversion above station. Flow regulated by McMahon (Red Dirt) Reservoir (capacity, about 4,500 acre-ft).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	11	8.6	5.0	3.0	2.8	4.7	12	51	40	4.8	1.4
2	14	11	8.8	4.7	2.8	2.7	4.6	14	50	38	6.1	1.2
3	14	11	8.8	4.7	2.8	2.7	4.6	16	51	37	9.1	1.2
4	14	11	9.0	4.8	2.8	2.6	4.5	16	52	35	9.1	1.5
5	14	11	9.0	5.0	2.9	2.5	4.5	18	52	33	6.7	1.5
6	13	10	9.0	5.0	2.9	2.7	4.8	21	51	30	5.6	1.5
7	13	10	8.8	5.0	2.9	2.8	5.2	23	50	7.7	4.7	1.5
8	13	9.7	8.6	5.2	2.8	3.0	5.5	25	49	3.4	4.4	1.5
9	13	10	8.4	5.0	2.8	3.0	6.0	27	50	3.2	4.1	1.6
10	13	10	8.4	4.8	2.7	3.1	6.2	27	49	3.2	3.6	1.7
11	13	10	8.4	4.7	2.7	3.1	6.0	23	49	5.0	3.2	1.9
12	13	10	8.2	4.7	2.7	3.1	5.6	22	48	6.1	2.8	2.2
13	12	10	8.2	4.6	2.7	3.0	5.8	21	47	4.5	3.8	2.2
14	12	10	8.1	4.4	2.7	3.1	6.2	20	46	4.2	2.6	2.1
15	12	10	7.9	4.2	2.7	3.2	6.5	20	45	3.3	2.2	2.3
16	12	10	7.4	4.1	2.7	3.3	6.8	20	45	3.1	1.9	2.6
17	12	10	7.0	4.0	2.8	3.2	7.2	20	44	3.2	2.0	2.2
18	13	9.7	6.0	3.7	2.9	3.1	7.2	20	44	4.0	2.1	2.0
19	12	9.7	6.2	3.5	2.8	3.1	6.4	19	44	4.8	2.3	1.9
20	12	9.7	6.2	3.3	2.8	3.1	6.2	31	43	4.4	2.5	1.8
21	12	9.4	6.4	3.2	2.8	3.1	7.0	37	42	3.2	2.7	1.7
22	12	9.2	6.4	3.2	2.8	3.1	7.0	37	41	2.5	2.2	1.7
23	12	9.7	6.4	3.2	2.7	3.0	7.0	36	42	2.8	2.0	1.5
24	12	9.7	6.4	3.3	2.6	3.2	8.0	41	42	3.0	2.0	1.6
25	11	9.7	6.4	3.3	2.7	3.5	9.7	51	42	3.5	2.0	2.7
26	11	9.6	6.5	3.3	2.7	3.7	11	47	41	4.0	2.0	3.0
27	11	9.4	6.6	3.4	2.7	4.2	9.7	43	41	4.4	1.5	2.4
28	11	9.1	6.6	3.3	2.8	4.4	9.7	44	40	4.4	1.7	2.2
29	11	8.9	6.6	3.2	-	4.5	9.4	47	41	4.6	1.7	1.9
30	11	8.7	6.6	3.2	-----	4.6	11	47	41	4.4	1.2	1.8
31	11	-----	6.0	3.1	-----	4.7	-----	50	-----	4.8	1.6	-----
Total	383	297.2	231.9	126.1	77.7	101.2	204.0	895	1,373	314.7	104.2	56.3
Mean	12.4	9.91	7.48	4.07	2.78	3.26	6.80	28.9	45.8	10.2	3.36	1.88
Ac-ft	760	589	460	250	154	201	405	1,780	2,720	624	207	112

Calendar year 1965: Max 160 Min 2.6 Mean 23.0 Ac-ft 16,640  
Water year 1965-66: Max 52 Min 1.2 Mean 11.4 Ac-ft 8,260

Note.--No gage-height record Dec. 2 to Mar. 31.

9-0413. Pass Creek near Kremmling, Colo.

Location.--Lat 40°08'00", long 106°29'20", in NW¼NE¼ sec.20, T.2 N., R.81 W., on left bank half a mile downstream from Burke Spring Creek, 6 miles upstream from mouth, and 7½ miles northwest of Kremmling.

Drainage area.--17.8 sq mi.

Records available.--October 1957 to September 1966.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 7,840 ft (from topographic map).

Average discharge.--9 years, 8.61 cfs (6,230 acre-ft per year).

Extremes.--Maximum discharge during year, 32 cfs May 9 (gage height, 2.94 ft); minimum daily, 0.4 cfs Aug. 16, 17.

1957-66: Maximum discharge, 204 cfs May 11, 1962 (gage height, 3.63 ft), from rating curve extended above 75 cfs; maximum gage height, 4.18 ft Apr. 2, 1964 (ice jam); minimum daily discharge, that of Aug. 16, 17, 1966.

Remarks.--Records good except those for winter period, which are poor. Some regulation by small reservoir on Spring Creek above station. Several small diversions above station for irrigation.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.5	3.9	2.9	2.9	2.8	2.7	7.6	13	6.4	1.8	0.5	0.8
2	5.2	3.9	3.0	2.8	2.6	2.6	7.3	14	5.2	1.6	.6	.7
3	4.9	4.1	3.1	2.8	2.6	2.5	6.7	15	4.9	1.3	1.0	.7
4	4.6	3.9	3.2	2.9	2.7	2.5	5.5	16	5.5	1.1	1.0	.8
5	4.6	3.9	3.2	3.0	2.7	2.6	5.4	17	5.5	1.0	.9	.8
6	4.4	3.9	3.2	3.1	2.8	2.8	5.5	18	5.2	.9	.8	.8
7	4.4	3.9	3.2	3.2	2.8	3.0	6.4	18	4.6	.8	.7	1.0
8	4.1	3.9	3.2	3.3	2.7	3.4	7.0	19	4.1	.8	.6	1.2
9	4.1	4.1	3.2	3.3	2.6	4.0	8.0	21	3.6	.7	.5	1.1
10	4.1	4.1	3.2	3.2	2.5	3.6	8.7	24	3.4	.8	.5	1.1
11	4.1	4.0	3.2	3.2	2.4	3.2	8.0	21	2.4	1.0	.5	1.4
12	4.1	4.1	3.3	3.1	2.4	3.0	7.0	19	2.0	1.0	.6	1.8
13	4.1	4.1	3.2	3.1	2.4	3.0	6.7	18	1.8	1.0	.8	1.2
14	4.1	4.6	3.1	3.1	2.4	3.0	6.7	17	1.8	1.0	.6	1.1
15	4.1	4.6	3.1	3.1	2.4	3.1	7.7	15	2.1	.9	.5	1.7
16	4.1	4.6	3.0	3.0	2.5	3.7	9.0	15	3.9	.8	.4	1.4
17	4.1	4.9	2.9	3.0	2.6	4.6	9.9	14	3.6	.7	.4	1.2
18	4.6	4.9	2.9	3.0	2.7	5.2	9.4	13	3.4	.9	.5	1.1
19	5.2	4.6	2.8	3.0	2.7	5.5	8.7	12	3.0	1.2	.6	1.2
20	4.9	4.4	2.9	2.9	2.7	5.9	8.0	12	3.2	1.2	.7	1.2
21	4.4	4.1	2.9	2.8	2.7	6.2	8.4	10	3.2	.9	.8	1.2
22	4.4	4.0	3.0	2.9	2.7	5.8	8.0	10	3.2	.9	.8	1.1
23	4.4	4.1	3.0	3.0	2.7	5.2	7.8	10	3.0	.8	.7	1.1
24	4.4	4.1	3.0	3.0	2.6	5.4	8.4	9.6	2.6	.8	.7	1.2
25	4.1	4.1	3.1	2.9	2.5	5.7	10	9.4	2.2	.8	.7	1.8
26	3.6	3.7	3.1	2.8	2.6	6.0	11	9.4	2.1	.7	.7	2.4
27	3.9	3.4	3.1	2.7	2.7	6.3	10	10	2.2	.7	.6	1.8
28	4.1	3.2	3.1	2.7	2.7	6.6	10	9.4	1.8	.7	.7	2.1
29	3.9	3.0	3.1	2.8	-	6.9	10	9.4	1.6	.6	.7	1.4
30	3.9	2.9	3.0	2.9	-----	7.3	11	8.0	1.8	.6	.6	1.4
31	3.6	-----	3.0	3.0	-----	7.6	-----	6.7	-----	.6	.9	-----
Total	134.0	121.0	95.2	92.5	73.2	138.9	243.8	432.9	99.3	28.6	20.6	37.8
Mean	4.32	4.03	3.07	2.98	2.61	4.48	8.13	14.0	3.31	0.92	0.66	1.26
Ac-ft	266	240	189	183	145	276	484	859	197	57	41	75

Calendar year 1965: Max 118 Min 1.3 Mean 11.7 Ac-ft 8,460  
 Water year 1965-66: Max 24 Min 0.4 Mean 4.16 Ac-ft 3,010

Note.--No gage-height record Dec. 20 to Apr. 1.

9-0419. Monte Cristo diversion near Hoosier Pass, Colo.

Location.--Lat 39°22'50", long 106°04'10", in NE¼SE¼ sec.2, T.8 S., R.78 W., on left bank at entrance to Hoosier Pass tunnel, 2,000 ft downstream from diversion point, 1½ miles northwest of Hoosier Pass, and 7 miles southwest of Breckenridge.

Records available.--October 1957 to September 1966.

Gage.--Water-stage recorder and Parshall flume. Altitude of gage is 10,986 ft (from State engineer).

Extremes.--1957-66: Maximum daily discharge, 70 cfs June 20, 1965; no flow for most of each year.

Remarks.--Records good. This is a transmountain diversion from Monte Cristo Creek in Blue River basin through Hoosier Pass tunnel to South Platte River basin whence it is again diverted to South Catamount Creek in the Arkansas River basin. Water is for municipal use by city of Colorado Springs. Diversion point is in SW¼NE¼ sec.2, T.8 S., R.78 W. The entire flow is regulated by diversion gates.

Cooperation.--Gage-height record furnished by city of Colorado Springs.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0	17	25	8.7	
2								0	15	22	10	
3								0	15	16	15	
4								0	15	15	20	
5								0	14	15	17	
6								0	11	15	13	
7								0	11	13	10	
8								.3	8.1	12	7.5	
9								8	6.7	11	6.3	
10								1.0	9.3	12	5.5	
11								.4	9.1	11	5.2	
12								8.0	9.3	12	6.5	
13								18	8.7	13	7.9	
14								15	11	14	6.5	
15								8.3	14	13	6.1	
16								4.8	14	12	3.7	
17								6.1	15	11	0	
18								6.5	9.2	12	0	
19								7.3	0	14	0	
20								8.1	0	14	0	
21								9.3	0	14	0	
22								11	8.2	15	0	
23								12	21	14	0	
24								10	16	13	0	
25								12	17	12	0	
26								14	17	12	0	
27								14	16	10	0	
28								9.3	15	8.9	0	
29								9.5	15	8.3	0	
30								16	15	7.7	0	
31								19		7.7	0	
Total	0	0	0	0	0	0	0	220.7	352.6	404.6	148.9	0
Mean	0	0	0	0	0	0	0	7.12	11.8	13.1	4.80	0
Ac-ft	0	0	0	0	0	0	0	438	699	803	295	0

Calendar year 1965: Max 70 Min 0 Mean 3.87 Ac-ft 2,800

Water year 1965-66: Max 25 Min 0 Mean 3.09 Ac-ft 2,230



## BLUE RIVER BASIN

9-0443. Bemrose-Hoosier diversion near Hoosier Pass, Colo.

Location.--Lat 39°22'50", long 106°04'10", in NE¼SE¼ sec.2, T.8 S., R.78 W., on right bank at entrance to Hoosier Pass tunnel, 1½ miles northwest of Hoosier Pass, about 2 miles downstream from diversion point on Bemrose Creek, and 7 miles southwest of Breckenridge.

Records available.--October 1957 to September 1966.

Gage.--Water-stage recorder and Parshall flume. Altitude of gage is 10,986 ft (from State engineer).

Extremes.--1957-66: Maximum daily discharge 44 cfs June 21, 1965; no flow for most of each year.

Remarks.--Records good. This is a transmountain diversion from Bemrose and Hoosier Creeks in Blue River basin through Hoosier Pass tunnel to South Platte River basin whence it is again diverted to South Catamount Creek in the Arkansas River basin. Water is for municipal use by city of Colorado Springs. Diversion points are in SW¼SW¼ sec.6, T.8 S., R.77 W., and in sec.12, T.8 S., R.78 W. The entire flow is regulated by diversion gates.

Cooperation.--Gage-height record furnished by city of Colorado Springs.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	2.0					0	3.4	8.0	5.4	2.6	
2	2.5	.2					0	2.0	7.8	4.8	2.6	
3	2.5	0					0	3.0	7.4	4.7	3.3	
4	2.2	0					0	3.3	7.0	4.5	2.9	
5	2.1	0					0	3.6	6.5	4.3	2.6	
6	2.1	0					0	5.0	5.9	4.1	2.3	
7	1.9	0					0	5.7	5.7	4.0	2.3	
8	1.9	0					0	4.7	5.7	3.8	2.2	
9	1.9	0					0	4.7	5.9	3.7	2.1	
10	1.9	0					0	4.5	6.1	3.7	2.1	
11	1.9	0					0	3.2	5.9	3.8	2.1	
12	1.7	0					0	2.6	5.7	3.7	2.3	
13	1.7	0					0	2.3	5.4	3.5	2.1	
14	1.7	0					0	3.2	5.4	3.5	2.0	
15	1.7	0					0	3.8	5.4	3.0	2.0	
16	1.7	0					0	4.3	5.7	2.9	1.3	
17	2.0	0					0	5.0	5.9	2.7	.6	
18	2.2	0					0	5.0	6.3	2.9	0	
19	2.3	0					0	4.8	6.1	3.5	0	
20	2.2	0					0	5.4	6.3	3.0	0	
21	2.1	0					0	6.3	6.3	2.9	0	
22	2.2	0					0	7.0	5.7	3.0	0	
23	2.2	0					0	5.7	5.6	3.0	0	
24	2.2	0					0	5.4	5.2	2.9	0	
25	2.1	0					0	6.1	5.0	2.7	0	
26	2.1	0					0	5.7	4.8	2.6	0	
27	2.0	0					0	5.6	4.7	2.6	0	
28	2.0	0					0	5.7	4.7	2.5	0	
29	2.0	0					0	6.5	4.5	2.5	0	
30	2.0	0					2.6	7.6	4.8	2.5	0	
31	2.0	-----			-----		-----	7.6	-----	2.5	0	-----
Total	63.6	2.2	0	0	0	0	2.6	148.7	175.4	105.2	37.4	0
Mean	2.05	0.07	0	0	0	0	0.09	4.80	5.85	3.39	1.21	0
Ac-ft	126	4.4	0	0	0	0	5.2	295	348	209	74	0

Calendar year 1965: Max 44 Min 0 Mean 3.00 Ac-ft 2,170

Water year 1965-66: Max 8.0 Min 0 Mean 1.47 Ac-ft 1,060

9-0448. McCullough-Spruce-Crystal diversion near Hoosier Pass, Colo.

Location.--Lat 39°22'50", long 106°04'10", in NE¼SE¼ sec.2, T.8 S., R.78 W., on left bank at entrance to Hoosier Pass tunnel, 1½ miles northwest of Hoosier Pass, about 2 miles downstream from diversion point on McCullough Gulch, and 7 miles southwest of Breckenridge.

Records available.--October 1957 to September 1966. Prior to October 1961, published as McCullough diversion near Hoosier Pass.

Gage.--Water-stage recorder and Parshall flume. Altitude of gage is 10,986 ft (from State engineer).

Extremes.--1957-66: Maximum daily discharge, 102 cfs June 21, 1965; no flow for most of each year.

Remarks.--Records good. This is a transmountain diversion from McCullough Gulch, Spruce and Crystal Creeks in Blue River basin through Hoosier Pass tunnel to South Platte River basin whence it is again diverted to South Catamount Creek in the Arkansas River basin. Water is for municipal use by City of Colorado Springs. Diversion points are in secs.14, 23, 26, T.7 S., R.78 W. The entire flow is regulated by diversion gates.

Cooperation.--Gage-height record furnished by city of Colorado Springs.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.0	2.3						0	28	56	16	
2	5.0	2.2						0	31	43	20	
3	5.0	2.0						0	31	33	50	
4	5.0	2.0						0	29	30	50	
5	5.0	2.0						0	26	30	33	
6	4.4	2.0						0	20	29	23	
7	3.9	2.0						0	18	26	19	
8	3.8	1.9						0	21	25	16	
9	3.8	1.3						2.2	19	24	14	
10	3.8	.4						3.0	22	25	12	
11	3.8	0						0	19	26	11	
12	3.8	0						0	18	30	13	
13	3.3	0						0	19	30	14	
14	3.3	0						1.8	23	30	11	
15	2.9	0						5.0	30	25	10	
16	3.0	0						7.4	29	22	4.7	
17	3.0	0						9.5	28	23	.5	
18	3.3	0						9.8	30	33	0	
19	3.2	0						10	31	28	0	
20	3.2	0						12	39	27	0	
21	3.3	0						18	40	26	0	
22	3.3	0						21	42	29	0	
23	3.3	0						17	40	24	0	
24	3.3	0						19	37	30	0	
25	2.7	0						23	35	25	0	
26	2.7	0						23	37	21	0	
27	2.6	0						21	33	18	0	
28	2.6	0						17	33	17	0	
29	2.4	0						21	33	16	0	
30	2.4	0						31	32	15	0	
31	2.4	-----			-----		-----	32	-----	15	0	-----
Total	108.5	18.1	0	0	0	0	0	303.7	873	831	317.2	0
Mean	3.50	0.60	0	0	0	0	0	9.80	29.1	26.8	10.2	0
Ac-ft	215	36	0	0	0	0	0	602	1,730	1,650	629	0

Calendar year 1965: Max 102 Min 0 Mean 4.98 Ac-ft 3,610

Water year 1965-66: Max 56 Min 0 Mean 6.72 Ac-ft 4,860

## BLUE RIVER BASIN

9-0466. Blue River near Dillon, Colo.

Location.--Lat 39°32'58", long 106°02'22", in NW¼NE¼ sec.7, T.6 S., R.77 W., on right bank 0.3 mile downstream from Swan River and 4½ miles south of Dillon.

Drainage area.--120 sq mi, approximately.

Records available.--October 1957 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 9,120 ft (from topographic map).

Average discharge.--9 years, 93.8 cfs (67,910 acre-ft per year), including diversion to Hoosier Pass tunnel.

Extremes.--Maximum discharge during year, 182 cfs June 21 (gage height, 3.31 ft); minimum daily, 21 cfs Mar. 4.

1957-66: Maximum discharge, 1,250 cfs June 17, 1965 (gage height, 5.38 ft), from rating curve extended above 610 cfs; minimum daily, 17 cfs Mar. 21, 1961.

Remarks.--Records good. Transmountain diversion above station by Boreas Pass ditch and Hoosier Pass tunnel (see elsewhere in this report).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	76	48	37	30	26	25	28	52	140	92	58	49
2	74	47	37	30	26	24	30	55	140	96	58	51
3	74	47	35	30	25	22	30	58	140	94	58	55
4	73	46	35	30	25	21	30	64	138	90	61	55
5	71	46	35	30	26	22	29	72	135	85	66	55
6	70	46	38	30	26	23	28	82	131	82	64	54
7	70	44	37	30	26	24	30	90	122	80	61	51
8	68	44	35	30	27	24	32	114	118	77	58	51
9	67	41	35	30	27	24	33	136	122	77	55	51
10	65	41	35	30	27	23	35	127	122	75	54	49
11	64	41	37	29	26	23	37	127	122	72	51	49
12	64	41	37	29	27	24	36	140	118	72	51	48
13	64	41	35	29	28	24	35	129	112	72	51	48
14	60	41	35	28	27	24	33	103	109	71	52	47
15	59	41	35	28	26	24	33	89	107	69	52	48
16	60	41	34	28	26	24	35	87	107	67	49	48
17	64	43	34	28	27	25	38	85	109	66	48	52
18	64	43	34	28	27	23	39	85	111	64	48	52
19	64	43	33	28	26	24	41	89	111	66	49	49
20	62	43	33	29	27	24	40	89	136	69	52	48
21	60	41	32	29	26	24	38	98	171	72	58	47
22	59	40	32	28	25	24	37	107	171	69	66	47
23	58	40	32	28	25	23	37	112	162	71	66	45
24	58	40	32	27	25	23	38	114	143	72	61	45
25	56	41	32	26	26	24	38	116	131	74	57	43
26	54	41	32	26	26	24	41	116	109	71	54	43
27	53	40	31	25	25	24	45	120	89	67	51	43
28	52	38	31	26	25	24	48	120	94	66	51	43
29	52	37	30	25	-	25	49	122	92	64	52	43
30	50	37	30	25	-----	25	49	120	92	63	49	43
31	50	-----	30	25	-----	26	-----	129	-----	60	49	-----
Total	1,935	1,263	1,050	874	731	737	1,092	3,147	3,704	2,285	1,710	1,452
Mean	62.4	42.1	33.9	28.2	26.1	23.8	36.4	102	123	73.7	55.2	48.4
Ac-ft	3,840	2,510	2,080	1,730	1,450	1,460	2,170	6,240	7,350	4,530	3,390	2,880

Calendar year 1965: Max 1,140 Min 19 Mean 148 Ac-ft 107,100  
 Water year 1965-66: Max 171 Min 21 Mean 54.7 Ac-ft 39,630

Peak discharge (base, 500 cfs).--No peak above base.

9-0475. Snake River near Montezuma, Colo.

Location.--Lat 39°36'20", long 105°56'33", in NW¼ sec.19, T.5 S., R.76 W. (projected), on right bank 200 ft downstream from North Fork and 4½ miles northwest of Montezuma.

Drainage area.--58.9 sq mi.

Records available.--July 1942 to September 1946, October 1951 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 9,320 ft (from topographic map). Prior to Oct. 14, 1943, staff gage at same site and datum.

Average discharge.--19 years, 60.0 cfs (43,440 acre-ft per year).

Extremes.--Maximum discharge during year, 165 cfs May 30 (gage height, 2.12 ft); minimum daily, 8.0 cfs Mar. 5.  
1942-46, 1951-66: Maximum discharge, 1,250 cfs June 10, 1952 (gage height, 3.51 ft); minimum not determined.

Remarks.--Records good except those for winter period, which are poor. Small diversions above station for irrigation and domestic use.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	28	21	18	13	9.0	15	31	126	82	47	40
2	41	29	21	16	13	8.6	16	38	128	76	47	35
3	39	30	22	15	12	8.4	16	46	126	70	58	34
4	38	30	24	13	12	8.2	16	56	120	67	69	34
5	37	30	25	13	13	8.0	16	72	111	69	58	32
6	36	31	25	12	13	9.0	17	86	98	66	50	31
7	34	32	24	12	11	10	18	104	93	62	45	30
8	34	36	23	12	12	11	18	102	106	60	42	28
9	34	34	22	13	13	12	17	81	97	58	40	27
10	34	30	22	13	13	11	18	79	109	58	40	27
11	33	32	23	14	12	11	16	60	104	62	38	27
12	32	24	22	14	12	12	16	51	98	58	47	28
13	31	27	22	14	13	11	16	46	93	58	41	27
14	31	26	21	14	12	11	19	45	95	56	38	26
15	31	27	23	13	11	10	20	47	102	50	37	34
16	32	28	23	13	11	11	20	54	106	48	34	30
17	33	24	21	13	12	11	18	61	104	51	34	26
18	34	25	20	13	12	11	18	62	102	64	34	25
19	33	24	20	13	12	11	18	70	102	72	40	25
20	32	25	21	13	12	13	20	84	109	64	48	25
21	32	26	22	13	10	13	21	102	109	61	38	25
22	32	22	24	12	10	12	16	102	104	61	36	23
23	31	22	25	11	10	11	17	100	98	60	34	23
24	30	24	27	11	10	12	17	111	93	61	34	21
25	30	24	28	11	11	13	20	116	89	54	33	27
26	30	23	26	11	11	13	24	107	88	51	31	26
27	30	22	25	12	10	13	22	98	81	58	31	23
28	29	21	23	14	10	13	20	89	77	58	30	23
29	30	20	22	12	-	13	22	98	77	48	29	22
30	30	21	22	12	-----	14	27	130	79	46	29	23
31	29	-----	20	12	-----	14	-----	134	-----	45	30	-----
Total	1,023	797	709	402	326	348.2	554	2,462	3,024	1,854	1,242	827
Mean	33.0	26.6	22.9	13.0	11.6	11.2	18.5	79.4	101	59.8	40.1	27.6
Ac-ft	2,030	1,580	1,410	797	647	691	1,100	4,880	6,000	3,680	2,460	1,640

Calendar year 1965: Max 755 Min 7 Mean 93.7 Ac-ft 67,820  
Water year 1965-66: Max 134 Min 8.0 Mean 37.2 Ac-ft 26,910

Peak discharge (base, 500 cfs)--No peak above base.

Note.--No gage-height record Jan. 1 to Apr. 4.

9-0477. Keystone Gulch near Dillon, Colo.

Location.--Lat 39°35'40", long 105°58'19", in NE¼NE¼ sec.26, T.5 S., R.77 W., on right bank 0.7 mile upstream from mouth and 4.7 miles southeast of Dillon.

Drainage area.--8.80 sq mi.

Records available.--October 1957 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 9,350 ft (from topographic map).

Average discharge.--9 years, 5.28 cfs (3,820 acre-ft per year).

Extremes.--Maximum discharge during year, 16 cfs Apr. 24 (gage height, 1.80 ft); maximum gage height, 2.62 ft Apr.14 (backwater from ice); minimum daily discharge, 1.6 cfs Mar. 5.

1957-66: Maximum discharge, 90 cfs June 5, 1958 (gage height, 2.75 ft), from rating curve extended above 28 cfs; minimum not determined.

Remarks.--Records good except those for winter period, which are poor. No known diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.7	4.5	4.0	2.8	2.0	2.0	2.3	4.2	9.0	4.8	2.9	2.6
2	5.7	4.5	4.0	2.4	2.0	1.8	2.3	4.8	8.0	4.8	2.7	2.5
3	5.4	4.5	4.0	2.4	2.0	1.8	2.4	5.1	7.5	4.5	2.9	2.4
4	5.4	4.5	4.2	2.6	2.2	1.8	2.4	5.4	7.5	4.5	2.6	2.4
5	5.7	4.5	4.5	2.6	2.2	1.6	2.4	5.7	7.5	4.5	2.9	2.2
6	5.7	4.6	4.0	2.6	2.2	1.8	2.4	6.0	7.0	4.8	2.6	2.2
7	5.7	4.7	4.0	2.8	2.0	2.0	2.5	7.0	7.0	4.5	2.6	2.4
8	5.7	4.8	4.0	3.0	2.0	2.1	2.5	6.5	8.5	3.9	2.6	2.3
9	5.4	4.8	4.0	3.0	2.0	2.1	2.5	6.0	7.5	3.9	2.5	2.2
10	5.4	4.5	3.9	2.7	2.0	2.1	2.5	6.0	8.0	3.9	2.5	2.2
11	5.1	4.5	3.8	2.7	2.0	2.1	2.4	5.7	7.0	3.9	2.5	2.2
12	5.1	4.5	3.8	2.7	2.0	2.1	2.2	5.1	6.0	3.9	2.7	2.4
13	4.8	4.5	3.8	2.4	2.0	2.1	2.2	5.1	6.0	3.9	2.6	2.4
14	4.8	4.5	3.6	2.4	2.0	2.1	2.2	5.7	6.0	3.9	2.5	2.4
15	4.8	4.0	3.6	2.4	2.2	2.1	2.5	6.0	6.0	3.9	2.4	3.0
16	4.8	4.0	3.4	2.4	2.2	2.1	3.0	7.0	6.5	3.9	2.4	2.7
17	4.8	4.0	3.0	2.4	2.2	2.1	3.0	7.0	6.5	3.6	2.4	2.5
18	4.8	4.0	3.0	2.4	2.2	2.1	3.0	7.0	6.5	4.2	2.4	2.4
19	4.8	4.0	3.2	2.2	2.0	2.3	2.9	7.5	6.5	4.2	2.6	2.4
20	4.8	4.0	3.2	2.2	2.0	2.3	3.0	8.0	7.0	3.9	3.0	2.4
21	4.8	3.8	3.4	2.2	2.0	1.9	3.2	8.0	6.5	3.9	2.6	2.4
22	4.8	3.8	3.4	2.0	2.0	1.9	2.7	8.0	5.7	3.9	2.5	2.2
23	4.8	3.8	3.6	2.0	2.0	1.9	2.7	8.0	5.4	3.9	2.5	2.2
24	4.8	3.8	3.6	2.0	2.0	2.1	3.3	8.5	5.4	3.9	2.5	2.2
25	4.8	3.6	3.4	2.2	2.0	2.2	3.0	8.0	5.1	3.0	2.2	2.6
26	4.5	3.6	3.6	2.2	2.0	2.2	3.6	7.5	5.1	2.9	2.2	2.5
27	4.5	3.6	3.6	2.4	2.0	2.2	3.6	7.0	4.8	2.9	2.2	2.5
28	4.2	3.6	3.6	2.4	2.0	2.2	5.4	7.5	4.8	2.9	2.2	2.5
29	4.5	3.8	3.8	2.4	-	2.3	3.9	7.5	4.8	2.7	2.2	2.4
30	4.5	4.0	3.8	2.2	-----	2.3	3.9	7.5	4.8	2.7	2.2	2.4
31	4.5	-----	3.4	2.0	-----	2.3	-----	9.0	-----	2.7	2.2	-----
Total	155.1	125.3	114.2	75.1	57.4	64.0	85.9	207.3	193.9	118.8	78.8	72.1
Mean	5.00	4.18	3.68	2.42	2.05	2.06	2.86	6.69	6.46	3.83	2.54	2.40
Ac-ft	308	249	227	149	114	127	170	411	385	236	156	143

Calendar year 1965: Max 65 Min 1.6 Mean 9.47 Ac-ft 6,860  
 Water year 1965-66: Max 9.0 Min 1.6 Mean 3.69 Ac-ft 2,670

Peak discharge (base, 35 cfs).--No peak above base.

Note.--No gage-height record Nov. 6 to Apr. 8.

9-0501. Tennile Creek below North Fork, at Frisco, Colo.

Location.--Lat 39°34'35", long 106°06'30", in SW¼NE¼ sec.34, T.5 S., R.78 W., on left bank 500 ft downstream from North Fork, 800 ft downstream from bridge on U. S. Highway 6, and 0.6 mile west of Frisco.

Drainage area.--93.3 sq mi.

Records available.--October 1957 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 9,090 ft (from topographic map).

Average discharge.--9 years, 86.8 cfs (62,840 acre-ft per year).

Extremes.--Maximum discharge during year, 443 cfs May 24 (gage height, 4.43 ft); minimum daily, 12 cfs Mar. 2-7.

1957-66: Maximum discharge, 1,910 cfs June 16, 1965 (gage height, 6.15 ft), from rating curve extended above 750 cfs; minimum daily, 7 cfs Mar. 8, 14, 1960.

Remarks.--Records good except those for winter period, which are poor. Natural flow of stream affected by a few small diversions above station for irrigation and municipal use and transbasin diversion from Robinson Reservoir (capacity, 2,520 acre-ft) in Eagle River basin.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	27	24	19	16	13	18	63	308	156	37	24
2	47	26	24	18	16	12	19	78	250	131	40	22
3	48	25	24	19	16	12	19	100	214	116	73	24
4	44	28	25	20	15	12	18	133	194	107	77	25
5	47	26	27	20	15	12	16	158	184	98	57	22
6	43	24	26	20	16	12	18	183	176	92	49	22
7	40	24	25	21	15	12	20	217	168	87	44	23
8	37	23	24	22	15	13	25	251	173	82	40	23
9	37	24	24	22	16	16	24	234	178	77	37	22
10	36	26	25	19	16	15	24	224	186	74	34	21
11	35	24	25	19	15	14	25	171	180	74	33	22
12	34	25	24	19	17	14	24	148	173	76	40	23
13	33	26	23	19	16	14	22	126	167	62	38	24
14	33	26	23	19	15	14	22	114	165	59	34	23
15	33	27	23	19	15	14	24	111	169	53	33	30
16	33	26	22	19	16	15	30	131	169	50	30	28
17	32	27	21	19	16	13	34	158	173	50	27	24
18	34	27	20	20	16	14	34	165	180	74	27	23
19	34	24	21	20	15	14	32	189	169	69	28	22
20	34	24	22	20	14	14	28	241	176	68	42	21
21	33	26	23	19	14	14	27	284	192	58	34	20
22	33	24	22	19	14	13	28	308	173	59	28	20
23	33	23	22	19	15	14	27	304	156	56	26	19
24	31	24	22	18	15	14	28	312	143	69	24	19
25	30	25	22	17	14	14	33	345	133	55	23	21
26	29	25	22	17	14	14	45	296	129	46	22	22
27	29	24	22	16	14	14	47	244	122	40	22	20
28	29	22	21	18	14	14	38	207	114	37	21	20
29	27	22	21	16	-	15	42	241	116	34	20	19
30	28	24	20	16	-----	16	54	292	122	34	21	18
31	27	-----	20	16	-----	17	-----	300	-----	35	23	-----
Total	1,086	748	709	584	425	428	845	6,328	5,152	2,178	1,084	666
Mean	35.0	24.9	22.9	18.8	15.2	13.8	28.2	204	172	70.3	35.0	22.2
Ac-ft	2,150	1,480	1,410	1,160	843	849	1,680	12,550	10,220	4,320	2,150	1,320

Calendar year 1965: Max 1,480 Min 11 Mean 137 Ac-ft 99,080  
 Water year 1965-66: Max 345 Min 12 Mean 55.4 Ac-ft 40,130

Peak discharge (base, 700 cfs).--No peak above base.

Note.--No gage-height record Dec. 2 to Apr. 6.

## BLUE RIVER BASIN

9-0506. Dillon Reservoir at Dillon, Colo.

Location.--Lat 39°37'15", long 106°03'55", in NE¼ sec.13, T.5 S., R.78 W., in gatehouse at dam on Blue River, 0.8 mile upstream from Straight Creek, about 1 mile southwest of Dillon, and 3.5 miles northeast of Frisco.

Drainage area.--335 sq mi.

Records available.--September 1963 to September 1966.

Gage.--Electric tape gage read once daily. Datum of gage is at mean sea level (levels by Denver Board of Water Commissioners).

Extremes.--Maximum contents observed during year, 255,500 acre-ft Oct. 1 (elevation, 9,017.45 ft); minimum observed, 235,200 acre-ft Sept. 30 (elevation, 9,010.96 ft).

1963-66: Maximum contents observed, 257,500 acre-ft Aug. 6, 7, 1965 (elevation, 9,018.05 ft); minimum observed since appreciable storage was attained in July 1964, 45,310 acre-ft Apr. 20, 1965 (elevation, 8,904.16 ft).

Remarks.--Reservoir is formed by earth- and rock-fill dam. Dam completed and storage began Sept. 3, 1963, dead storage pool filled Sept. 12, 1963. Capacity, 254,000 acre-ft between elevations 8,829.00 (invert of valves in outlet to Blue River) and 9,017.00 ft (crest of spillway). Dead storage, 3,270 acre-ft. Reservoir is used to store water for transmountain diversion to South Platte River basin through Harold D. Roberts tunnel (see elsewhere in this report) for municipal use by City of Denver. Figures given herein represent usable contents.

Cooperation.--Records furnished by Denver Board of Water Commissioners.

Month-end elevation and contents, water year October 1965 to September 1966

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	9,017.45	255,500	-
Oct. 31.....	9,017.30	255,000	-500
Nov. 30.....	9,017.28	255,000	0
Dec. 31.....	9,016.13	251,200	-3,800
Calendar year 1965.....	-	-	+201,100
Jan. 31.....	9,014.46	245,900	-5,300
Feb. 28.....	9,013.96	244,400	-1,500
Mar. 31.....	9,014.07	244,700	+300
Apr. 30.....	9,014.08	244,700	0
May 31.....	9,014.03	244,600	-100
June 30.....	9,014.44	245,900	+1,300
July 31.....	9,014.96	247,500	+1,600
Aug. 31.....	9,013.36	242,500	-5,000
Sept. 30.....	9,010.96	235,200	-7,300
Water year 1965-66.....	-	-	-20,300

† Elevation at 0800 on first day of following month.

## 9-0507. Blue River below Dillon, Colo.

Location.--Lat 39°37'30", long 106°04'05", in SE¼ sec.12, T.5 S., R.78 W., on right bank 0.3 mile downstream from Dillon dam, 0.5 mile upstream from Straight Creek, and 1.1 miles west of Dillon.

Drainage area.--335 sq mi.

Records available.--January 1960 to September 1966.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 8,760 ft (from topographic map). Supplementary water-stage recorder and Parshall flume on Valear ditch about 600 ft downstream from point of diversion.

Extremes.--Maximum discharge during year, 847 cfs May 31; minimum daily, 48 cfs Sept. 14-18.

1960-66: Maximum discharge, 1,720 cfs June 17, 1960; maximum gage height, 3.60 ft June 14, 1962; no flow Sept. 4 to Nov. 19, 1963.

Remarks.--Records good. Records show combined flow of river and Valear ditch. Flow completely regulated by Dillon Reservoir (see sta. 9-0506). Natural flow of stream affected by transmountain diversions, transbasin diversions, and diversions above station for irrigation of about 400 acres of hay meadows. Valear ditch diverts water just below Dillon dam for irrigation below station. Part of natural flow of Snake River above station diverted through old power canal Sept. 1 to Nov. 20, 1963, and returned to river below this station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	184	117	134	161	172	60	81	154	650	76	66	65
2	180	117	162	157	172	63	95	154	566	76	66	65
3	180	117	161	154	172	63	116	213	616	76	66	65
4	176	113	161	154	168	65	126	269	610	76	66	65
5	180	113	161	157	168	65	126	384	521	76	66	65
6	176	110	161	157	168	65	126	509	443	71	66	65
7	173	110	161	154	168	63	101	577	408	69	66	65
8	166	107	157	154	111	60	85	540	408	68	67	63
9	158	107	157	157	76	58	82	535	398	67	68	65
10	158	107	157	157	76	60	82	618	551	67	70	65
11	162	104	157	147	76	58	94	498	597	67	70	64
12	162	113	157	140	76	58	118	345	453	67	70	64
13	158	120	157	140	76	58	121	363	380	65	65	54
14	148	113	157	140	76	56	121	349	348	65	65	48
15	144	117	157	140	76	56	118	306	338	65	67	48
16	148	113	157	140	76	55	114	198	357	64	67	48
17	148	117	154	154	74	55	114	217	408	64	67	48
18	151	110	157	165	74	55	111	415	460	64	67	48
19	151	107	157	165	70	56	111	486	418	64	67	56
20	148	107	157	165	70	55	108	411	388	64	67	114
21	144	110	154	165	67	60	109	386	474	64	67	124
22	144	104	154	165	67	72	111	540	472	64	67	124
23	141	107	154	165	65	76	111	631	490	66	67	114
24	137	113	157	168	63	76	109	594	204	67	67	106
25	134	124	157	168	63	76	109	558	73	66	67	106
26	130	134	157	168	60	76	109	588	74	66	67	107
27	127	120	154	168	63	76	112	558	74	66	65	107
28	127	110	154	168	63	76	122	456	74	66	65	112
29	124	102	154	168	-	76	144	417	74	66	65	122
30	124	99	161	168	-----	76	154	497	76	66	65	122
31	120	-----	161	172	-----	76	-----	673	-----	66	65	-----
Total	4,703	3,362	4,856	4,901	2,706	2,000	3,340	13,439	11,403	2,094	2,066	2,384
Mean	152	112	157	158	96.6	64.5	111	434	380	67.5	66.6	79.5
Ac-ft	9,330	6,670	9,630	9,720	5,370	3,970	6,620	26,660	22,620	4,150	4,100	4,730

Calendar year 1965: Max 649 Min 23 Mean 120 Ac-ft 86,540  
 Water year 1965-66: Max 673 Min 48 Mean 157 Ac-ft 113,600



9-0535. Blue River above Green Mountain Reservoir, Colo.

Location.--Lat 39°49'55", long 106°13'20", in S½ sec.34, T.2 S., R.79 W., on left bank 300 ft north of old State Highway 9, just upstream from high-water line of Green Mountain Reservoir at elevation 7,950 ft, 1.3 miles downstream from Brush Creek, and 18 miles southeast of Kremmling.

Drainage area.--514 sq mi.

Records available.--October 1943 to September 1966.

Gage.--Water-stage recorder. Datum of gage is 7,946.56 ft above mean sea level, unadjusted.

Extremes.--Maximum discharge during year, 1,030 cfs May 31 (gage height, 2.38 ft); maximum gage height recorded, 5.32 ft Jan. 18 (backwater from ice); minimum daily discharge, 90 cfs Mar. 15.

1943-66: Maximum discharge, 5,020 cfs June 11, 1952 (gage height, 4.93 ft); maximum gage height recorded, 6.93 ft Nov. 5, 1961 (backwater from ice); minimum daily discharge, 33 cfs Oct. 20, 1963.

Remarks.--Records good except those for winter period, which are fair. Flow regulated by Dillon Reservoir since Sept. 3, 1963 (see sta. 9-0506). Natural flow of stream affected by transmountain and transbasin diversions and many small diversions for irrigation of about 4,000 acres of hay meadows above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	308	174	180	202	218	96	178	308	882	314	209	150
2	302	171	210	208	220	96	193	324	762	297	213	144
3	297	168	210	208	220	96	189	396	794	275	250	144
4	292	168	210	202	200	96	189	496	810	255	302	150
5	280	168	210	200	200	94	182	601	746	240	302	141
6	270	164	210	200	200	94	182	746	650	230	250	135
7	260	160	210	200	200	92	182	891	594	221	221	135
8	250	160	200	198	184	94	157	882	622	217	201	135
9	240	160	200	200	120	94	168	828	594	217	201	126
10	235	160	190	210	110	94	174	846	690	213	201	126
11	225	157	197	194	110	94	174	794	778	221	185	129
12	217	168	201	184	110	94	185	574	674	240	197	132
13	217	178	209	201	110	94	197	567	594	230	230	135
14	213	174	213	225	110	94	189	548	548	221	201	129
15	209	182	221	189	110	90	197	508	574	209	185	147
16	209	182	221	213	106	100	217	408	608	209	185	141
17	209	185	225	212	106	100	225	354	658	217	178	135
18	209	178	214	210	106	115	230	534	714	221	174	123
19	209	178	212	210	106	106	235	636	690	314	174	120
20	205	168	216	210	104	115	193	601	615	260	213	154
21	201	171	218	210	102	120	185	508	658	255	201	171
22	201	171	220	210	102	120	193	643	682	255	178	182
23	197	178	210	210	102	132	193	746	722	250	171	182
24	197	189	200	210	102	132	201	714	522	270	168	164
25	193	221	202	210	102	123	205	682	319	250	157	182
26	193	189	196	208	102	126	235	722	308	250	147	182
27	193	193	194	208	102	135	250	714	292	255	144	174
28	193	201	194	208	100	150	240	636	292	240	141	171
29	185	185	194	210	-	157	255	567	270	213	141	178
30	182	160	201	212	-----	160	292	674	260	205	144	171
31	174	-----	197	218	-----	171	-----	810	-----	205	150	-----
Total	6,965	5,261	6,385	6,390	3,764	3,474	6,085	19,258	17,922	7,469	6,014	4,488
Mean	225	175	206	206	134	112	203	621	597	241	194	150
Ac-ft	13,810	10,440	12,660	12,670	7,470	6,890	12,070	38,200	35,550	14,810	11,930	8,900

Calendar year 1965: Max 920 Min 66 Mean 297 Ac-ft 215,100  
 Water year 1965-66: Max 891 Min 90 Mean 256 Ac-ft 185,400

Note.--No gage-height record Jan. 18 to Mar. 17.

9-0570. Green Mountain Reservoir near Kremmling, Colo.

Location.--Lat 39°52'45", long 106°19'45", in NE¼ sec.15, T.2 S., R.80 W., in hoist house at right end of Green Mountain Dam on Blue River, 0.6 mile upstream from Elliott Creek and 13 miles southeast of Kremmling.

Drainage area.--599 sq mi (includes 15.4 sq mi of Elliott Creek above diversion for Elliott Creek feeder canal).

Records available.--November 1942 to September 1966.

Gage.--Water-stage recorder. Datum of gage is 7,800 ft above mean sea level (Bureau of Reclamation bench mark). Gage heights have been reduced to elevations above mean sea level. Prior to Sept. 25, 1951, mercury gage in powerhouse at same datum. Sept. 25, 1951, to Oct. 1, 1953, electric-tape gage at present site and datum.

Extremes.--Maximum contents during year, 146,400 acre-ft July 2 (elevation, 7,949.78 ft); minimum, 57,340 acre-ft Apr. 14 (elevation, 7,894.31 ft).

1942-66: Maximum contents observed, 148,900 acre-ft July 10, 1947 (elevation, 7,950.95 ft); minimum since appreciable storage was attained, 388 acre-ft Jan. 12, 1963 (elevation, 7,801.70 ft).

Remarks.--Reservoir is formed by an earth- and rock-fill dam. Dam completed and storage began in November 1942. Capacity of reservoir, 146,900 acre-ft between elevations 7,800 (sill of outlet gate) and 7,950 ft (top of radial spillway gates). Dead storage, 7,760 acre-ft. Reservoir is used for power development and storage for replacement of water diverted to South Platte River basin during late irrigation season. Figures given herein represent usable contents.

Cooperation.--Records furnished by Bureau of Reclamation.

Month-end elevation and contents, water year October 1965 to September 1966

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	7,947.14	140,900	-
Oct. 31.....	7,944.14	134,800	-6,100
Nov. 30.....	7,938.65	124,000	-10,800
Dec. 31.....	7,929.83	107,800	-16,200
Calendar year 1965.....	-	-	+23,880
Jan. 31.....	7,922.31	95,240	-12,560
Feb. 28.....	7,912.66	80,720	-14,520
Mar. 31.....	7,899.51	63,420	-17,300
Apr. 30.....	7,899.46	63,360	-60
May 31.....	7,929.25	106,800	+43,440
June 30.....	7,949.67	146,200	+39,400
July 31.....	7,949.43	145,700	-500
Aug. 31.....	7,941.41	129,300	-16,400
Sept. 30.....	7,926.28	101,700	-27,600
Water year 1965-66.....	-	-	-39,200

† Elevation at 2400.

Location.--Lat 39°52'50", long 106°20'00", in NE¼ sec.15, T.2 S., R.80 W., on left bank 0.3 mile upstream from Elliott Creek, 0.3 mile downstream from Green Mountain Dam, and 13 miles southeast of Kremmling.

Records available.--October 1937 to September 1966. Published as Blue River below Green Mountain Reservoir, near Kremmling, 1938-43.

Gage.--Digital water-stage recorder. Datum of gage is 7,682.66 ft above mean sea level (Bureau of Reclamation bench mark). Prior to Oct. 1, 1951, graphic water-stage recorder at site 3.7 miles downstream at different datum. Oct. 1, 1951, to Sept. 30, 1963, graphic water-stage recorder at present site and datum.

Extremes.--Maximum discharge during year, 1,740 cfs Apr. 5 (gage height, 7.25 ft); minimum daily, 48 cfs Apr. 27. 1937-66: Maximum discharge, 4,000 cfs June 4, 1938 (gage height, 5.93 ft, site and datum then in use), from rating curve extended above 3,000 cfs; minimum daily (prior to construction of Green Mountain Reservoir), 80 cfs Feb. 18-24, 1938, Feb. 18, 1940; no flow at times in 1943.

Remarks.--Records good. Flow regulated by Green Mountain Reservoir (see sta. 9-0570). Diversions for irrigation of about 5,000 acres above station. Transmountain diversions above station (see elsewhere in this report).

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	373	373	416	486	351	435	451	52	60	367	343	667
2	372	368	466	471	401	437	441	54	58	389	372	663
3	373	369	472	490	424	438	465	53	58	413	373	662
4	371	370	468	478	428	435	815	50	58	414	376	661
5	376	372	466	442	429	435	712	51	58	409	374	663
6	363	367	466	439	429	435	561	59	58	356	374	664
7	377	371	466	439	430	436	274	57	58	322	374	664
8	371	369	473	439	433	431	310	59	58	298	427	666
9	370	372	470	442	434	434	479	58	58	295	464	665
10	372	373	472	442	431	437	240	59	58	296	462	665
11	372	371	469	442	430	436	631	59	58	291	469	663
12	371	373	474	439	432	435	417	59	60	295	475	628
13	368	375	470	443	435	436	317	59	59	296	475	608
14	369	371	474	443	438	435	334	59	59	292	474	612
15	374	373	475	444	433	437	223	59	59	299	474	613
16	369	376	470	444	434	434	60	59	59	304	474	584
17	372	372	474	447	436	437	60	59	59	304	480	561
18	375	374	475	446	434	441	60	59	59	304	478	561
19	370	373	505	447	434	436	59	59	59	324	479	559
20	371	373	509	448	432	438	59	59	59	354	477	592
21	372	373	509	449	436	438	59	59	60	366	477	641
22	370	374	510	450	436	436	60	59	60	398	511	660
23	371	381	507	448	437	439	59	59	60	399	555	664
24	373	376	510	448	431	440	59	59	60	396	580	662
25	371	372	509	448	434	440	59	59	60	376	657	664
26	372	372	514	399	434	439	62	59	60	323	656	665
27	373	374	512	314	433	440	48	59	60	303	659	688
28	372	375	514	320	432	441	53	59	60	305	662	711
29	371	352	504	314	-----	439	52	59	266	304	664	679
30	371	374	487	315	-----	439	53	59	362	304	666	663
31	372	-----	490	314	-----	440	-----	59	-----	307	665	-----
TOTAL	11,517	11,158	14,996	13,230	12,001	13,549	7,532	1,791	2,280	10,403	15,446	19,318
MEAN	372	372	484	427	429	437	251	57.8	76.0	336	498	644
AC-FT	22,840	22,130	29,740	26,240	23,800	26,870	14,940	3,550	4,520	20,630	30,640	38,320
CALENDAR YEAR 1965	1965	MAX	1,410	MIN	61	MEAN	379	AC-FT	274,600			
WATER YEAR 1965-66	1965-66	MAX	815	MIN	48	MEAN	365	AC-FT	264,200			

9-0580. Colorado River near Kremmling, Colo.

Location.--Lat 40°02'12", long 106°26'22", in NE¼SW¼ sec.23, T.1 N., R.81 W., on right bank at upstream end of Gore Canyon, 3 miles southwest of Kremmling and 3.8 miles downstream from Blue River.

Drainage area.--2,360 sq mi, approximately.

Records available.--July 1904 to September 1918 (published as Grand River near Kremmling), October 1961 to September 1966.

Gage.--Digital water-stage recorder. Altitude of gage is 7,320 ft (from topographic map). Prior to July 28, 1910, wire-weight, chain, and staff gages and July 28, 1910, to Sept. 30, 1918, graphic water-stage recorder supplemented in winter by staff gage, all within a few hundred feet, at datum of 7,301.32 ft above mean sea level (Denver Northwestern and Pacific Railway bench mark) except prior to Oct. 18, 1906, at datum 0.80 ft lower. Oct. 1, 1961, to Sept. 30, 1963, graphic water-stage recorder at present site and datum.

Extremes.--Maximum discharge during year, 1,700 cfs Apr. 4 (gage height, 6.56 ft); minimum daily, 296 cfs June 16.

1904-18, 1961-66: Maximum discharge observed, 21,500 cfs June 7, 1912 (gage height, 21.8 ft, datum then in use), from rating curve extended above 14,000 cfs; minimum observed, 166 cfs Dec. 19, 1907.

Remarks.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, diversions for irrigation of about 40,000 acres above station, and return flow from irrigated areas.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	787	746	880	922	590	858	1,100	464	623	709	702	894
2	784	828	880	910	722	858	1,010	500	453	872	739	886
3	797	845	880	922	835	852	986	557	392	876	736	894
4	801	845	860	934	869	902	994	623	357	862	770	894
5	790	838	860	894	872	894	980	666	321	862	801	898
6	777	821	860	886	880	866	950	719	321	818	756	890
7	767	828	880	866	872	852	686	787	345	767	739	876
8	767	828	880	858	880	852	551	866	352	719	729	894
9	760	831	860	866	880	876	746	930	383	726	780	922
10	753	845	860	872	824	922	699	970	412	739	780	873
11	753	814	883	866	845	954	824	950	405	746	770	879
12	743	831	880	866	910	942	869	866	420	804	780	867
13	753	855	880	872	880	930	666	790	373	784	797	842
14	760	848	886	876	818	942	650	699	336	784	797	854
15	756	848	869	880	910	994	569	633	300	763	780	883
16	750	880	866	890	886	1,040	400	630	296	736	753	865
17	746	890	845	880	898	1,090	426	683	334	736	746	817
18	753	890	855	890	886	966	459	702	380	736	729	801
19	767	880	1,010	906	876	942	462	630	385	763	736	785
20	770	869	1,130	880	866	986	415	617	390	848	753	740
21	763	852	930	858	869	1,060	376	818	380	838	763	757
22	756	821	962	934	866	974	364	807	368	862	760	786
23	760	841	918	910	866	902	380	814	364	880	807	793
24	760	872	906	872	862	890	364	773	334	880	797	799
25	753	890	918	918	862	902	371	702	304	894	883	806
26	746	828	902	926	858	914	408	709	317	831	880	811
27	746	706	906	650	855	966	479	696	306	777	872	819
28	753	733	918	630	858	1,050	467	679	378	794	869	850
29	760	845	930	608	-----	1,140	426	676	453	760	848	831
30	746	860	982	594	-----	1,140	428	683	602	750	858	794
31	750	-----	942	608	-----	1,180	-----	683	-----	729	883	-----
TOTAL	23,627	25,108	28,018	26,234	23,895	29,636	18,505	22,322	11,384	24,645	24,393	25,300
MEAN	762	837	904	846	853	956	617	720	379	795	787	843
AC-FT	46,860	49,800	55,570	52,030	47,400	58,780	36,700	44,280	22,580	48,880	48,380	50,180
CALENDAR YEAR 1965	MAX	2,980	MIN	364	MEAN	1,004	AC-FT	726,600				
WATER YEAR 1965-66	MAX	1,180	MIN	296	MEAN	776	AC-FT	561,400				

9-0585. Piney River below Piney Lake, near Minturn, Colo.

Location.--Lat 39°42'25", long 106°25'40", in sec.14, T.4 S., R.81 W., on left bank 1½ miles upstream from Dickson Creek, 2 miles downstream from Piney Lake, and 8½ miles north of Minturn.

Drainage area.--13.0 sq mi.

Records available.--October 1947 to September 1954, October 1963 to September 1966.

Gage.--Water-stage recorder. Datum of gage is 9,145.25 ft above mean sea level (levels by Bureau of Reclamation). Prior to October 1963, water-stage recorder at site 15 ft upstream at same datum.

Average discharge.--10 years, 24.4 cfs (17,660 acre-ft per year).

Extremes.--Maximum discharge during year, 144 cfs May 8 (gage height, 4.54 ft); minimum not determined.

1947-54, 1963-66: Maximum discharge, 396 cfs June 11, 1952 (gage height, 5.47 ft); minimum not determined.

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

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	4.9					18	31	77	58	6.8	3.7
2	30	4.6					22	44	74	44	7.3	3.4
3	35	4.3					21	60	84	35	10	3.7
4	35	4.6					20	81	81	30	18	4.9
5	31	4.3					20	100	70	28	27	4.3
6	25	4.3					16	105	52	26	17	3.7
7	22	4.6					15	105	44	23	12	3.4
8	20	5.5				2	14	123	57	20	9.1	3.1
9	18	4.3					15	96	46	18	7.8	3.1
10	16	4.6					17	90	53	17	7.3	2.8
11	14	5.2					16	59	53	16	6.4	2.8
12	13	4.6					16	43	53	24	9.1	3.7
13	12	4.9					14	34	56	20	16	4.9
14	11	4.9					14	29	60	18	11	6.0
15	10	4.6					15	28	69	14	8.6	7.8
16	9.6	4.3	3.5	2.5	2.2		18	28	64	13	7.3	8.2
17	9.1	4.6					18	34	60	12	6.4	6.8
18	9.1	4.3					18	38	60	19	5.2	5.5
19	8.6	4.0					17	45	59	44	5.5	4.6
20	8.6	4.0					15	57	54	24	10	4.3
21	8.2	3.8					15	68	49	16	9.6	4.0
22	7.8	3.4					13	73	53	14	7.8	3.7
23	7.8	3.6				5	13	54	57	12	6.4	3.1
24	7.8	3.8					14	61	52	12	6.0	3.1
25	6.8	3.8					16	84	49	12	4.9	4.3
26	6.4	3.8					22	94	46	12	4.6	6.0
27	6.0	3.6					24	72	36	11	3.7	4.9
28	6.0	3.4					19	68	34	9.6	3.7	4.3
29	5.5	3.2					19	68	34	8.6	3.1	4.0
30	5.2	3.2					24	87	35	7.3	3.1	3.4
31	4.9							92		6.8	3.4	
Total	432.4	127.0	108.5	77.5	61.6	11.0	518	2,051	1,671	624.3	264.1	131.5
Mean	13.9	4.23	3.5	2.5	2.2	3.5	17.3	66.2	55.7	20.1	8.52	4.38
Ac-ft	858	252	215	154	122	218	1,030	4,070	3,310	1,240	524	261

Calendar year 1965: Max 258 Min - Mean 34.9 Ac-ft 25,290  
 Water year 1965-66: Max 123 Min - Mean 16.9 Ac-ft 12,250

Peak discharge (base, 150 cfs).--No peak above base.

Note.--No gage-height record Nov. 27 to Apr. 1.

9-0586. Dickson Creek near Minturn, Colo.

Location.--Lat 39°42'15", long 106°27'20", on right bank 0.5 mile upstream from Freeman Creek, 1.0 mile upstream from mouth, and 8 miles north of Minturn, Eagle County.

Drainage area.--3.41 sq mi.

Records available.--October 1964 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 9,250 ft (from topographic map).

Extremes.--Maximum discharge during year, 16 cfs May 9 (gage height, 2.63 ft); minimum not determined.  
1964-66: Maximum discharge, 41 cfs June 13, 1965 (gage height, 3.13 ft); minimum not determined.

Remarks.--Records good except those for winter periods, which are poor. No regulation or diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.1	1.6					2.4	6.4	9.9	3.5	1.9	1.4
2	3.5	1.5					2.4	6.4	7.4	2.8	1.8	1.5
3	3.5	1.5					1.8	6.8	7.1	2.6	2.1	1.8
4	2.9	1.5					1.4	6.8	6.8	2.5	2.5	1.6
5	2.6	1.5					1.4	7.4	6.4	2.5	1.9	1.4
6	2.4	1.8					1.4	8.2	5.7	2.3	1.8	1.4
7	2.2	1.5					1.5	8.5	5.7	2.3	1.6	1.5
8	2.0	1.5				1.2	1.8	10	6.4	2.3	1.5	1.5
9	2.0	1.6					2.4	12	5.4	2.3	1.6	1.4
10	1.8	1.6					2.8	14	5.7	2.2	1.8	1.4
11	1.8	1.5					2.6	13	4.8	2.5	1.4	1.5
12	1.6	1.8					2.2	11	4.4	2.3	2.6	1.9
13	1.6	1.6					2.1	9.3	4.2	2.1	1.8	1.9
14	1.6	1.6					2.1	8.9	4.2	2.1	1.5	1.6
15	1.6	1.6	1.4	1.2	1.2		2.3	8.2	4.0	1.9	1.5	2.3
16	1.6	1.6					2.9	7.8	4.6	1.9	1.4	1.5
17	1.6	1.6					3.3	8.5	4.6	2.1	1.4	1.4
18	1.6	1.6					3.1	9.7	4.4	2.1	1.4	1.3
19	1.6	1.6					2.8	11	4.0	2.1	1.8	1.3
20	1.8	1.6					2.5	11	4.0	2.1	2.2	1.3
21	1.6	1.5					2.5	12	4.2	2.3	1.8	1.3
22	1.6	1.2					2.5	12	4.0	2.2	1.5	1.3
23	1.6	1.4				1.8	2.6	12	3.5	2.1	1.8	1.3
24	1.6	1.6					2.9	11	3.3	1.9	1.4	1.3
25	1.6	1.4					3.7	10	3.1	1.9	1.4	1.9
26	1.6	1.2					4.6	10	3.3	1.8	1.4	1.4
27	1.6	1.2					4.4	10	3.1	1.9	1.4	1.3
28	1.6	1.2					4.4	9.3	2.9	1.9	1.4	1.3
29	1.6	1.0			-		5.0	8.9	2.9	1.8	1.4	1.3
30	1.6	1.2					5.7	8.5	2.9	1.6	1.5	1.3
31	1.6							10		1.6	1.8	
Total	60.0	44.6	43.4	37.2	33.6	46.8	83.5	298.6	141.9	67.5	52.3	44.6
Mean	1.94	1.49	1.4	1.2	1.2	1.5	2.78	9.63	4.73	2.18	1.69	1.49
Ac-ft	119	88	86	74	67	93	166	592	281	134	104	88

Calendar year 1965: Max 37 Min - Mean 4.68 Ac-ft 3,390  
Water year 1965-66: Max 14 Min - Mean 2.61 Ac-ft 1,890

Peak discharge (base, 25 cfs).--No peak above base.

Note.--No gage-height record Nov. 28 to Mar. 31.

9-0587. Freeman Creek near Minturn, Colo.

Location.--Lat 39°41'50", long 106°26'40", on right bank 0.9 mile upstream from mouth and 7½ miles north of Minturn, Eagle County.Drainage area.--2.94 sq mi.Records available.--October 1964 to September 1966.Gage.--Water-stage recorder. Altitude of gage is 9,360 ft (from topographic map).Extremes.--Maximum discharge during year, 14 cfs May 9 (gage height, 2.28 ft); no flow for many days.

1964-66: Maximum discharge 29 cfs June 13, 1965; no flow for many days each year.

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

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.0	0.3					0.8	6.8	3.0	1.1	0.2	0.1
2	1.2	.3					.8	7.5	2.5	.7	.2	.1
3	1.2	.3					.4	7.7	2.1	.5	.2	.1
4	1.2	.3					.4	7.8	2.0	.4	.4	.1
5	1.0	.3					.4	7.8	2.0	.4	.2	.1
6	.8	.3					.4	7.5	1.8	.4	.2	.1
7	.8	.3					.2	7.7	1.7	.4	.2	.1
8	.7	.3		0.2	0.1		.4	7.8	2.1	.4	.2	.1
9	.6	.4					.8	9.3	1.8	.3	.2	.1
10	.6	.4					1.0	9.6	2.0	.3	.2	.1
11	.6	.3					.8	8.5	1.6	.3	.2	.2
12	.5	.3					.6	6.9	1.3	.4	.3	.2
13	.5	.4					.4	6.2	1.2	.4	.2	.2
14	.5	.4					.4	6.1	1.1	.4	.2	.2
15	.5	.4	0.2				.6	5.4	1.1	.3	.2	.4
16	.6	.3					1.0	5.4	1.2	.2	.2	.2
17	.6	.4					1.4	5.6	1.4	.3	.1	.2
18	.6	.4					1.2	5.4	1.3	.3	.1	.2
19	.6	.4					1.0	5.2	1.1	.3	.2	.2
20	.6	.4					.8	4.9	1.0	.3	.3	.2
21	.6	.4					.8	4.7	1.0	.2	.2	.2
22	.4	.3					.8	4.9	1.0	.3	.1	.2
23	.4	.4		.1	0		1.0	4.3	.9	.3	.1	.2
24	.4	.4					1.6	3.7	.7	.3	.1	.2
25	.4	.4					2.3	3.3	.7	.3	.1	.3
26	.4	.3					3.2	3.1	.6	.2	.1	.2
27	.3	.2					3.1	3.0	.7	.2	.1	.2
28	.3	.2					3.4	3.0	.6	.2	.1	.2
29	.3	.1					4.7	2.8	.5	.2	.1	.2
30	.3	.1					5.9	2.5	.6	.2	.1	.2
31	.3							3.7		.2	.2	
Total	18.8	9.7	6.2	4.6	1.5	5.4	40.6	178.1	40.6	10.7	5.5	5.3
Mean	0.61	0.32	0.2	0.15	0.05	0.2	1.35	5.75	1.35	0.35	0.18	0.18
Ac-ft	37	19	12	9.1	3.0	11	81	353	81	21	11	11

Calendar year 1965: Max 22 Min 0 Mean 2.28 Ac-ft 1,650

Water year 1965-66: Max 9.6 Min 0 Mean 0.90 Ac-ft 649

Peak discharge (base 25 cfs)--No peak above base.

Note.--No gage-height record Nov. 22 to Apr. 24.

9-0588. East Meadow Creek near Minturn, Colo.

Location.--Lat 39°43'50", long 106°25'40", on left bank 1½ miles upstream from mouth and 10 miles north of Minturn, Eagle County.

Drainage area.--3.61 sq mi.

Records available.--October 1964 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 9,420 ft (from topographic map).

Extremes.--Maximum discharge during year, 26 cfs May 6 (gage height, 1.46 ft); minimum not determined.  
 1964-66: Maximum discharge, 58 cfs June 17 or 18, 1965 (gage height, 1.85 ft); minimum not determined.

Remarks.--Records good except those for period of no gage-height record, which are poor. No regulation or diversion above stations.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.8						1.6	8.0	19	6.4	1.4	0.9
2	4.4						2.0	9.0	17	4.5	1.3	.9
3	5						1.8	12	16	3.6	1.3	1.0
4	5						1.4	14	14	3.4	2.5	.9
5	4.6						1.2	16	14	3.0	1.8	.9
6	4.2						1.0	19	12	2.6	1.4	.9
7	3.8						1.0	19	10	2.6	1.3	.9
8	3.6					0.6	1.2	19	13	2.5	1.3	.9
9	3.4						1.4	21	11	2.4	1.2	.9
10	3.2						1.6	14	12	2.2	1.4	.8
11	3.0						1.6	12	10	2.4	1.2	.9
12	2.8						1.5	9.5	9.0	2.4	2.6	1.0
13	2.6						1.4	8.5	8.0	2.4	1.6	1.0
14	2.5						1.2	9.0	8.0	2.1	1.4	.9
15	2.4						1.6	11	8.5	2.0	1.2	1.2
16	2.4	2	1.5	1	0.8		1.9	12	9.0	2.0	1.2	1.1
17	2.2						1.9	13	9.0	2.0	1.2	.9
18	2.4						1.8	15	8.5	2.0	1.0	.9
19	2.2						1.9	16	7.7	2.1	1.4	.8
20	2.2						2.1	17	7.0	1.9	2.2	.8
21	2.2						1.6	19	7.3	2.0	1.8	.8
22	2.1						1.9	19	6.7	2.1	1.4	.8
23	2.0					1.6	2.2	19	6.4	1.9	1.6	.8
24	1.9						2.8	19	5.7	1.9	1.4	.8
25	1.8						6.0	21	5.4	2.1	1.2	1.3
26	1.8						9.0	19	5.0	1.9	1.2	1.0
27	1.8						3.2	19	4.7	1.8	1.0	.9
28	1.8						4.1	19	4.5	1.5	1.0	.9
29	1.8						5.7	19	4.3	1.4	1.0	.9
30	1.6						6.4	19	4.3	1.3	.9	.8
31	1.6							21		1.3	.9	
Total	86.1	60	46.5	31	22.4	34.6	74.0	487.0	277.0	73.7	43.3	27.5
Mean	2.78	2	1.5	1	0.8	1.1	2.47	15.7	9.23	2.38	1.40	0.92
Ac-ft	171	119	92	61	44	69	147	966	549	146	86	55

 Calendar year 1965: Max - Min - Mean 6.31 Ac-ft 4,570  
 Water year 1965-66: Max 21 Min - Mean 3.46 Ac-ft 2,500

Peak discharge (base, 40 cfs).--No peak above base.

Note.--No gage-height record Nov. 1 to Apr. 14.



## PINEY RIVER BASIN

9-0595. Piney River near State Bridge, Colo.

Location.--Lat 39°48', long 106°35', in sec.16, T.3 S., R.82 W., on left bank at downstream side of private bridge at Perry Olsen Ranch just downstream from Rock Creek, 6 miles southeast of State Bridge.

Drainage area.--82.6 sq mi.

Records available.--May 1944 to September 1966.

Gage.--Water-stage recorder. Datum of gage is 7,272.35 ft above mean sea level, unadjusted. Prior to July 29, 1944, staff gage and July 29, 1944, to Oct. 24, 1947, water-stage recorder, at datum 2.38 ft higher.

Average discharge.--22 years, 73.3 cfs (53,070 acre-ft per year).

Extremes.--Maximum discharge during year, 377 cfs May 10 (gage height, 4.26 ft); minimum daily, 8.5 cfs Sept. 9, 10, 24, 30. 1944-66: Maximum discharge, 1,110 cfs June 8, 1952 (gage height, 5.61 ft); minimum daily, 1.9 cfs Sept. 1, 18, 19, 1954.

Remarks.--Records good except those for period of no gage-height record, which are poor. Diversions above station for irrigation of about 400 acres of hay meadows above and below station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	61	30					50	163	248	90	24	10
2	72	30					60	185	227	76	22	9.9
3	84	29					58	224	230	63	25	9.3
4	82	29					46	254	215	56	33	10
5	78	29					43	292	200	52	40	9.6
6	70	28					38	318	166	48	32	9.6
7	64	28					38	330	146	46	26	9.6
8	60	27					40	338	161	43	22	9.0
9	55	29					48	322	143	40	21	8.5
10	53	29					55	334	148	39	19	8.5
11	50	26					55	269	140	38	18	8.8
12	48	28					48	227	133	44	22	10
13	47	29					43	191	126	42	28	10
14	45	28					41	177	124	40	23	11
15	43	30					45	172	133	35	19	15
16	42	29	22	20	18		55	180	131	33	17	15
17	42	30					66	191	129	32	15	13
18	42	28					66	206	122	35	14	11
19	41	28					60	221	115	61	13	11
20	41	28					51	245	105	47	20	9.6
21	40	28					48	266	98	38	18	9.6
22	39	19					48	286	102	37	14	9.0
23	37	20					48	254	98	33	13	9.0
24	36	24					51	254	90	32	12	8.5
25	35	24					68	275	86	32	12	12
26	34	24					103	282	81	32	12	12
27	33	22					120	254	70	29	10	10
28	33	22					98	239	66	28	9.9	9.6
29	32	20					107	236	64	26	9.3	8.8
30	31	20					136	248	67	24	9.0	8.5
31	31							266		23	11	
Total	1,501	795	682	620	504	560	1,833	7,699	3,964	1,294	583.2	305.4
Mean	48.4	26.5	22	20	18	18	61.1	248	132	41.7	18.8	10.2
Ac-ft	2,980	1,580	1,350	1,230	1,000	1,110	3,640	15,270	7,860	2,570	1,160	606

Calendar year 1965: Max 760 Min - Mean 108 Ac-ft 78,440

Water year 1965-66: Max 338 Min 8.5 Mean 55.7 Ac-ft 40,360

Peak discharge (base, 520 cfs).--No peak above base.

Note.--No gage-height record Nov. 28 to Mar. 23.

9-0605. Rock Creek near Toponas, Colo.

Location.--Lat 40°02'28", long 106°39'19", in NW¼ sec.24, T.1 N., R.83 W., on right bank 0.1 mile upstream from Horse Creek, three-quarters of a mile downstream from Shoe and Stocking Creek, and 8 miles east of Toponas.

Drainage area.--48 sq mi, approximately.

Records available.--October 1952 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 8,544 ft (from topographic map).

Average discharge.--14 years, 30.7 cfs (22,230 acre-ft per year).

Extremes.--Maximum discharge during year, 151 cfs May 9 (gage height, 3.10 ft); maximum gage height, 3.71 ft Mar. 29, backwater from ice; minimum discharge not determined.

1952-66: Maximum discharge, 482 cfs May 12, 1962 (gage height, 4.80 ft), from rating curve extended above 300 cfs; maximum gage height, 5.49 ft Apr. 18, 1962 (backwater from ice); minimum daily discharge, 2.2 cfs Aug. 30, 31, Sept. 2, 1954.

Remarks.--Records good except those for period of backwater from beaver dam, which are fair, and those for winter periods, which are poor.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21					6	22	54	35	8.6	8.2	5.0
2	25					5.5	24	59	28	7.8	9.4	4.5
3	21					5	22	67	24	6.5	14	4.8
4	16					5	19	73	24	6.2	13	5.2
5	15					5.5	17	77	24	5.8	9.4	6.5
6	15					6	16	84	23	5.8	6.8	6.5
7	13					6	16	92	23	5.5	6.2	7.0
8	13					6	18	92	23	6.8	5.8	8.2
9	13					6	20	95	23	6.8	6.0	7.8
10	12					6	22	108	24	6.0	5.5	8.6
11	12					6	22	78	20	6.8	5.5	9.0
12	12					6.5	20	76	15	10	5.5	9.0
13	12					7	18	66	13	7.8	7.4	9.8
14	12					8	17	58	12	7.8	6.0	9.4
15	12					9	20	66	10	7.0	6.0	11
16	12	8	8	7.5	7	9	24	69	11	6.8	5.8	10
17	12					8.5	26	68	12	7.0	6.0	9.0
18	15					8	26	62	12	8.6	6.0	8.6
19	21					8	22	62	11	9.8	6.0	8.6
20	16					8.5	20	60	11	8.6	6.0	9.0
21	15					8.5	20	59	11	8.6	6.2	9.0
22	13					8	20	58	11	8.6	5.5	9.4
23	12					7.5	22	55	8.6	8.2	4.8	9.8
24	11					8	36	47	7.0	9.8	5.0	9.8
25	11					8.5	44	45	7.0	9.4	5.0	13
26	11					9	55	44	7.4	7.8	4.8	14
27	11					10	52	44	7.4	8.2	5.0	11
28	10					12	42	43	7.4	9.0	4.8	11
29	10					14	39	42	7.4	9.4	4.8	10
30	2					16	44	39	7.4	8.2	4.8	11
31	9					19		38		7.4	5.2	
Total	422	240	248	232.5	196	256.0	785	1,980	459.6	240.6	200.4	265.5
Mean	13.6	8	8	7.5	7	8.26	26.2	63.9	15.3	7.76	6.46	8.85
Ac-ft	837	476	492	461	389	508	1,560	3,930	912	477	397	527

Calendar year 1965: Max 324 Min - Mean 38.3 Ac-ft 27,710  
 Water year 1965-66: Max 108 Min - Mean 15.1 Ac-ft 10,970

Peak discharge (base, 200 cfs).--No peak above base.

Note.--No gage-height record Nov. 2 to Mar. 11. Backwater from beaver dam June 12 to Sept. 30.

9-0607. Egeria Creek near Toponas, Colo.

Location.--Lat 40°03'00", long 106°51'50", in SE¼ sec.13, T.1 N., R.85 W., on right bank 15 ft upstream from county bridge, 5 miles upstream from King Creek, and 3 miles west of Toponas.

Drainage area.--29.4 sq mi.

Records available.--October 1965 to September 1966.

Gage.--Water-stage recorder.

Extremes.--Maximum discharge during water year, 60 cfs (estimated) Apr. 2; minimum daily, 0.3 cfs June 15, July 4-7.

Remarks.--Records good except those for winter periods, which are poor. Diversions above station for irrigation above and below. Water imported above station from Yampa River basin by Stillwater and Dome Creek ditches.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	7.8					40	19	4.3	1.3	0.4	1.9
2	10	7.5					45	20	2.6	.8	.7	1.6
3	9.4	7					35	19	2.6	.4	1.2	1.6
4	9.0	7					28	16	2.4	.3	3.9	1.9
5	8.6	7					22	16	2.4	.3	3.5	2.1
6	8.6	7.5					20	16	2.4	.3	3.0	2.4
7	8.2	7.5					20	12	2.8	.3	2.1	2.1
8	8.2	7.5				4	20	13	3.9	.4	1.7	2.1
9	8.2	7					22	15	4.6	1.4	1.7	1.9
10	7.8	6.5					25	21	3.7	2.1	1.6	1.9
11	7.8	6					22	19	3.0	2.8	1.4	2.6
12	7.8	6.5					20	21	2.8	2.8	1.6	3.7
13	7.8	7.0					18	20	1.9	3.2	1.6	3.0
14	7.8	7.8					16	17	.5	3.9	2.1	3.0
15	7.8	7.8					14	14	.3	1.9	1.9	3.2
16	7.8	8.2	5	3	2.2		19	13	.4	1.0	1.6	3.2
17	7.8	8.6					21	12	.8	1.3	1.6	3.2
18	9.8	8.2					18	9.6	.8	1.7	1.7	3.2
19	9.8	8.2					15	8.6	1.3	1.7	2.1	3.0
20	9.0	7.5					14	6.9	1.4	1.2	3.5	3.0
21	8.2	7					14	4.6	1.3	1.6	2.8	3.2
22	8.2	6.5					14	4.6	1.9	1.7	1.9	3.0
23	8.2	7				15	12	2.8	1.3	2.6	1.9	3.0
24	7.8	7.5					13	1.3	1.0	3.0	1.7	3.2
25	9.0	7.5					16	1.2	.4	3.0	1.4	4.6
26	9.8	7					20	1.3	.4	3.0	1.3	3.7
27	9.8	6.5					20	1.3	.4	2.8	1.3	3.2
28	9.8	7					14	1.2	.7	1.6	1.3	3.2
29	10	7					15	1.3	.7	.5	1.3	3.2
30	10	7					16	1.3	.8	.4	1.4	3.2
31	10							1.3		.4	2.4	
Total	274.0	218.1	155	93	61.6	240	608	330.3	53.8	49.7	57.6	84.1
Mean	8.84	7.27	5	3	2.2	7.7	20.3	10.7	1.79	1.60	1.86	2.80
Ac-ft	543	433	307	184	122	476	1,210	655	107	99	114	167

Calendar year 1965: Max - Min - Mean - Ac-ft -  
 Water year 1965-66: Max 45 Min 0.3 Mean 6.10 Ac-ft 4,420

Note.--No gage-height record Nov. 22 to Apr. 15.

9-0630. Eagle River at Red Cliff, Colo.

Location.--Lat 39°30'35", long 106°22'00", in SE¼ sec.19, T.6 S., R.80 W., on left bank at Red Cliff, 0.3 mile upstream from Turkey Creek.

Drainage area.--72.2 sq mi.

Records available.--October 1910 to September 1925, May 1944 to September 1966. Monthly discharge only for some periods, published in WSP 1313.

Gage.--Water-stage recorder. Datum of gage is 8,648.48 ft above mean sea level, datum of 1929. Jan. 8, 1911, to Sept. 30, 1925, chain gage at bridge a quarter of a mile downstream at different datum. May 25, 1944, to Oct. 12, 1952, water-stage recorder at site 200 ft upstream at datum 3.54 ft higher.

Average discharge.--37 years, 52.4 cfs (37,940 acre-ft per year).

Extremes.--Maximum discharge during year, 125 cfs May 7 (gage height, 3.36 ft); minimum not determined.

1910-25, 1944-66: Maximum discharge observed, 1,010 cfs June 5, 1912 (gage height, 4.0 ft, site and datum then in use), from rating curve extended above 500 cfs; minimum daily, 1 cfs Oct. 15, 1917.

Remarks.--Records good except those for winter periods, which are poor. Transmountain diversions above station by Columbine, Ewing, and Wurtz ditches (see elsewhere in this report). Transbasin diversion above station from Robinson Reservoir (capacity, 2,520 acre-ft) to Tenmile Creek for mining development. Small diversions for irrigation of about 400 acres above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	16					14	56	100	49	15	12
2	37	15					15	60	92	40	14	12
3	37	15					13	69	86	30	20	11
4	35	15					13	75	81	29	23	11
5	30	15					15	90	76	27	22	11
6	27	15				9	13	104	75	25	18	11
7	25	15					13	106	74	28	16	12
8	22	15					14	99	81	25	16	12
9	21	14					16	102	75	23	15	12
10	22	14					19	111	81	22	15	12
11	22	15					20	110	69	23	15	12
12	22	15					18	98	64	25	18	13
13	21	15					18	86	58	22	20	13
14	20	15					18	81	57	22	16	13
15	19	14					20	80	53	20	16	16
16	19	14	12	12	11		26	88	53	20	15	16
17	20	15					32	90	53	20	14	14
18	22	15					36	93	51	25	14	13
19	22	14					31	100	49	23	15	12
20	22	13					27	106	48	22	18	12
21	20	13				12	25	108	48	20	16	12
22	20	12					26	111	44	19	14	12
23	20	12					25	105	40	20	13	12
24	18	13					27	104	38	20	13	13
25	18	13					33	104	35	20	12	13
26	18	12					48	102	36	18	12	13
27	18	11					50	96	37	16	12	13
28	18	10					38	94	33	17	12	12
29	17	10					45	94	33	16	12	12
30	16	10				12	51	92	35	14	12	12
31	16					13		102		14	12	
Total	698	410	372	372	308	343	759	2,916	1,755	714	475	374
Mean	22.5	13.7	12	12	11	11.1	25.3	94.1	58.5	23.0	15.3	12.5
Ac-ft	1,380	813	738	738	611	680	1,510	5,780	3,480	1,420	942	742

Calendar year 1965: Max 302 Min - Mean 49.8 Ac-ft 36,080  
 Water year 1965-66: Max 111 Min - Mean 26.0 Ac-ft 18,830

Peak discharge (base, 280 cfs).--No peak above base.

Note.--No gage-height record Nov. 28 to Mar. 29.

9-0632. Wearyman Creek near Red Cliff, Colo.

Location.--Lat 39°31'15", long 106°19'05", in SE¼ sec.15, T.6 S., R.80 W., on left bank 10 ft upstream from bridge, half a mile upstream from mouth, and 3 miles east of Red Cliff.

Drainage area.--8.78 sq mi.

Records available.--October 1964 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 9,250 ft (from topographic map).

Extremes.--Maximum discharge during year, 27 cfs June 5 (gage height, 2.50 ft); minimum not determined.  
1964-66: Maximum discharge, about 140 cfs June 18, 1965 (gage height, 3.23 ft); minimum not determined.

Remarks.--Records good except those for period of no gage-height record, which are poor. No regulation or diversions above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.6	2.0					1.6	3.6	24	15	5.1	3.1
2	4.6	2.0					1.6	4.2	25	15	4.9	3.0
3	4.6	1.9					1.5	5.1	26	13	6.4	2.9
4	4.6	1.9					1.5	6.1	26	12	6.1	2.9
5	4.2	1.9					1.5	8.0	27	11	5.3	2.8
6	4.2	1.7					1.5	9.7	26	11	4.9	2.8
7	4.0	1.7					1.5	11	25	11	4.7	2.9
8	4.0	1.8					1.5	12	24	9.1	4.7	2.8
9	3.8	2.0					1.6	12	23	8.6	4.7	2.6
10	3.8	2.2					1.6	12	23	8.3	4.4	2.5
11	3.3	2.3					1.5	12	21	8.6	4.4	2.5
12	3.3	2.4					1.5	11	21	8.6	5.3	2.5
13	3.1	2.4					1.5	10	21	8.3	4.7	2.6
14	3.1	2.4					1.6	9.7	21	8.0	4.2	2.6
15	3.1	2.4					1.7	9.7	21	7.7	4.0	3.0
16	3.1	2.3	2.0	1.8	1.6	1.4	1.9	10	21	7.4	4.0	2.6
17	3.1	2.3					1.9	11	21	7.4	3.8	2.4
18	3.1	2.4					1.9	11	19	7.4	3.8	2.2
19	3.1	2.4					1.9	12	19	7.0	4.4	2.2
20	2.9	2.3					1.8	13	18	6.4	4.9	2.1
21	2.9	2.2					1.8	15	18	6.4	4.0	2.1
22	2.9	2.1					1.9	15	17	6.4	3.6	2.1
23	2.9	2.2					1.9	16	15	6.4	3.6	2.0
24	2.4	2.3					1.9	18	15	6.1	3.4	1.9
25	2.4	2.3					2.1	19	14	5.8	3.4	2.1
26	2.2	2.2					2.5	19	16	5.5	3.3	2.0
27	2.2	2.1					2.8	21	16	5.5	3.3	1.9
28	2.2	2.0					3.0	21	16	5.3	3.1	1.9
29	2.2	1.9					3.0	21	16	5.3	3.1	1.9
30	2.0	1.8				1.5	3.1	22	16	5.1	3.1	1.9
31	2.0					1.5		24		5.1	3.1	
Total	99.9	63.8	62	55.8	44.8	43.6	56.6	404.1	611	253.7	131.7	72.8
Mean	3.22	2.13	2.0	1.8	1.6	1.41	1.89	13.0	20.4	8.18	4.25	2.43
Ac-ft	198	127	123	111	89	86	112	802	1,210	503	261	144

Calendar year 1965: Max 100 Min - Mean 10.2 Ac-ft 7,400  
Water year 1965-66: Max 27 Min - Mean 5.20 Ac-ft 3,770

Peak discharge (base, 70 cfs).--No peak above base.

Note.--No gage-height record Nov. 7 to Mar. 29.

9-0634. Turkey Creek near Red Cliff, Colo.

Location.--Lat 39°31'20", long 106°20'15", in NW¼SW¼ sec.16, T.6 S., R.80 W., on right bank 400 ft downstream from Lime Creek, 1.9 miles northeast of Red Cliff, and 2.0 miles upstream from mouth.

Drainage area.--23.9 sq mi.

Records available.--October 1963 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 8,885 ft (from topographic map).

Extremes.--Maximum discharge during year, 80 cfs May 25 (gage height, 1.91 ft); minimum not determined.

1963-66: Maximum discharge, 515 cfs June 17, 1965 (gage height, 3.03 ft), from rating curve extended above 230 cfs; minimum not determined.

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

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.4						5.0	15	66	29	9.1	6.5
2	9.7						5.0	18	67	25	9.7	6.2
3	9.4						5.0	22	67	24	15	6.5
4	9.1						5	27	66	25	13	6.5
5	8.8						5	33	64	24	10	5.8
6	8.5						5	35	61	24	9.7	5.8
7	8.5						5	36	56	22	9.1	6.0
8	8.2					3.5	4.8	38	56	22	8.5	6.0
9	7.9						5.0	38	55	22	8.8	5.8
10	7.9						5.5	36	55	22	8.5	5.5
11	7.6						5.5	33	51	21	8.5	5.8
12	7.6						5.5	26	50	20	11	5.8
13	7.6						5.5	22	48	16	9.4	5.8
14	7.3						6	17	48	16	8.5	5.5
15	7.3						6.2	17	47	15	8.5	6.8
16	7.3	6	5	4	3.5		6.8	20	46	14	8.2	5.8
17	7.3						7	22	46	14	8.2	5.2
18	7.6						7	26	46	14	7.6	5.0
19	7.6						7	35	42	14	8.8	4.8
20	7.3						7	40	42	12	9.4	4.8
21	7.0						7.5	44	40	12	7.9	4.5
22	7.0						7.9	44	38	11	7.6	4.5
23	7.0						7.9	51	36	13	7.3	4.5
24	6.5						7.9	61	34	12	7.3	4.5
25	6.5						8.8	62	31	11	7.3	5.2
26	6						9.7	67	33	11	7.0	4.8
27	6						10	62	31	10	7.0	4.5
28	6						10	55	29	9.4	6.5	4.5
29	6						11	58	27	9.1	6.5	4.2
30	5.5					4.0	14	59	29	9.1	6.5	4.2
31	5.5					4.6		64		9.1	6.8	
Total	230.9	180	155	124	98.0	117.1	208.5	1,183	1,407	511.7	267.2	161.3
Mean	7.45	6	5	4	3.5	3.78	6.95	38.2	46.9	16.5	8.62	5.38
Ac-ft	458	357	307	246	194	232	414	2,350	2,790	1,010	530	320

Calendar year 1965: Max 415 Min - Mean 30.3 Ac-ft 21,950

Water year 1965-66: Max 67 Min - Mean 12.7 Ac-ft 9,210

Peak discharge (base, 160 cfs).--No peak above base.

Note.--No gage-height record Oct. 24 to Mar. 29.

9-0645. Homestake Creek near Red Cliff, Colo.

Location.--Lat 39°28'25", long 106°22'00", in sec.6, T.7 S., R.80 W., on right bank at downstream side of Forest Service Highway bridge, 3 miles upstream from mouth, and 3 miles south of Red Cliff.

Drainage area.--58.9 sq mi.

Records available.--October 1910 to September 1918, May 1944 to September 1966. Published as "at Redcliff" October 1910 to September 1916.

Gage.--Water-stage recorder. Datum of gage is 8,783 ft above mean sea level (river-profile survey). Jan. 8, 1911, to Sept. 30, 1918, staff gage at three sites 2½ to 2.8 miles downstream at different datums. May 25, 1944, to May 8, 1961, water-stage recorder at site 15 ft downstream at same datum.

Average discharge.--30 years, 86.6 cfs (62,700 acre-ft per year).

Extremes.--Maximum discharge during year, 405 cfs May 7 (gage height, 3.11 ft); minimum not determined.

1910-18, 1944-66: Maximum discharge observed, 1,300 cfs June 24, 1918 (gage height, 6.2 ft, site and datum then in use); minimum observed, 0.6 cfs Jan. 25, 1915 (discharge measurement).

Remarks.--Records good except those for period of no gage-height record, which are poor. No diversion above station. Flow regulated by Homestake Reservoir (capacity, 44,360 acre-ft) since June 7, 1966.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	24					30	120	275	114	58	13
2	75	24					30	145	265	83	60	12
3	80						26	185	260	68	75	11
4	80						26	240	221	58	104	11
5	75						30	280	203	51	83	12
6	68						28	320	165	49	35	12
7	60						26	340	161	47	26	12
8	55						28	345	142	43	22	11
9	51						32	310	117	39	19	9.4
10	47						34	275	138	39	18	9.4
11	45						32	198	128	41	16	8.8
12	41						32	153	128	53	29	10
13	39						32	117	117	45	35	10
14	37						36	101	117	37	24	10
15	35						44	104	124	34	20	14
16	34						53	117	124	32	19	13
17	35						60	138	124	35	34	12
18	39						65	153	120	41	37	9.4
19	41						60	177	110	43	39	9.4
20	37						49	198	114	45	72	8.8
21	35						47	226	114	35	128	8.2
22	35						43	235	110	34	104	8.2
23	34						43	216	107	32	26	7.6
24	34						45	230	98	41	20	7.6
25	32						55	265	86	34	18	7.6
26	30						78	275	83	26	14	8.2
27	29						89	245	72	26	13	7.6
28	28						72	198	75	24	12	7.6
29	28						78	235	72	22	13	7.0
30	26						92	255	78	51	12	7.6
31	26							285		55	13	
Total	1,381	468	372	310	224	345	1,395	6,681	4,048	1,377	1,198	295.4
Mean	44.5	15.6	12	10	8	11	46.5	216	135	44.4	38.6	9.85
Ac-ft	2,740	928	738	615	444	684	2,770	13,250	8,030	2,730	2,380	586

Calendar year 1965: Max 796 Min - Mean 118 Ac-ft 85,470

Water year 1965-66: Max 345 Min - Mean 49.6 Ac-ft 35,900

Peak discharge (base, 710 cfs).--No peak above base.

Note.--No gage-height record Nov. 3 to Apr. 15.

9-0655. Gore Creek at upper station, near Minturn, Colo.

Location.--Lat 39°37'40", long 106°16'30", on left bank 140 ft downstream from bridge on U. S. Highway 6, half a mile upstream from Black Gore Creek, and 8.8 miles northeast of Minturn, Eagle County.

Drainage area.--14.4 sq mi.

Records available.--October 1947 to September 1956, October 1963 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 8,620 ft (from topographic map). Prior to Aug. 26, 1952, at site 40 ft upstream at same datum; Aug. 27, 1952, to Sept. 30, 1956, at site 20 ft upstream at same datum.

Average discharge.--12 years, 27.5 cfs (19,910 acre-ft per year).

Extremes.--Maximum discharge during year, 169 cfs May 25 (gage height, 3.34 ft), from rating curve extended above 70 cfs; minimum daily, 1.4 cfs Feb. 27, Mar. 3-9.

1947-56, 1963-66: Maximum discharge, 588 cfs June 10, 1952, from rating curve extended above 260 cfs; maximum gage height, 6.65 ft June 18, 1951, site then in use; minimum daily discharge, 1.4 cfs Feb. 27, Mar. 3-9, 1966.

Remarks.--Records good except those for the winter periods, which are poor. No diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	6.9	4.0	2.8	1.7	1.5	13	27	102	48	10	5.2
2	19	6.5	4.0	2.6	1.7	1.5	14	36	110	40	10	5.0
3	20	6.0	4.2	2.6	1.7	1.4	11	52	110	35	12	5.8
4	20	5.8	4.4	2.8	1.7	1.4	10	68	102	31	15	6.2
5	19	5.6	4.2	2.8	1.7	1.4	9.2	86	98	31	14	5.4
6	18	5.4	4.2	2.8	1.6	1.4	7.9	105	74	28	12	5.3
7	16	5.2	4.2	2.7	1.6	1.4	7.3	120	66	26	11	5.4
8	15	5.0	4.2	2.6	1.6	1.4	7.3	112	71	24	10	5.6
9	14	4.6	4.4	2.6	1.6	1.4	8.1	86	62	23	9.8	5.2
10	13	5.0	4.6	2.5	1.6	1.5	9.0	76	71	21	9.5	5.0
11	13	4.6	4.4	2.4	1.6	1.5	9.0	53	74	21	9.0	4.8
12	12	5.0	4.0	2.4	1.6	1.5	8.3	42	76	23	13	4.8
13	12	5.2	3.8	2.4	1.6	1.5	7.9	35	70	20	13	5.0
14	11	5.2	3.6	2.4	1.6	1.5	7.7	30	70	18	10	5.2
15	10	5.3	3.6	2.4	1.6	1.8	8.5	30	72	17	9.2	8.3
16	10	5.3	3.8	2.3	1.6	1.6	10	37	72	17	8.1	7.7
17	10	5.3	3.2	2.2	1.6	1.6	12	51	72	16	7.7	6.9
18	10	5.3	3.0	2.2	1.6	1.6	11	62	65	16	7.5	6.4
19	10	5.3	2.8	2.1	1.5	1.9	11	70	65	15	7.9	5.8
20	10	5.2	2.8	2.1	1.5	2.0	11	80	65	14	11	5.6
21	10	5.0	3.0	2.0	1.5	1.8	10	92	60	14	8.8	5.4
22	10	4.4	3.2	2.0	1.5	1.8	9.0	96	60	15	7.9	5.3
23	9.8	4.8	3.4	2.0	1.5	1.6	8.5	90	57	14	7.1	5.0
24	9.2	5.0	3.0	2.0	1.5	2.0	9.0	100	53	14	6.5	4.8
25	9.0	4.8	2.8	1.9	1.5	2.2	11	122	50	13	5.9	6.2
26	8.3	4.4	3.0	1.9	1.5	2.7	15	108	48	13	5.6	7.5
27	8.1	4.0	3.0	1.8	1.4	4.7	16	86	39	13	5.2	6.7
28	8.1	3.8	3.0	1.8	1.5	6.7	15	77	38	12	5.0	6.4
29	7.5	3.6	3.0	1.8	-	7.7	15	92	36	11	4.8	6.0
30	7.3	3.8	3.4	1.8	-----	8.1	1.9	112	35	11	4.6	6.0
31	6.9	-----	3.0	1.8	-----	10	-----	110	-----	10	5.2	-----
Total	372.2	151.3	111.2	70.5	44.2	90.1	320.7	2,343	2,033	624	276.3	173.9
Mean	12.0	5.04	3.59	2.27	1.58	2.58	10.7	75.6	67.8	20.1	8.91	5.80
Ac-ft	738	300	221	140	88	159	636	4,650	4,030	1,240	548	345

Calendar year 1965: Max 292 Min 2.0 Mean 36.7 Ac-ft 26,560  
 Water year 1965-66: Max 122 Min 1.4 Mean 18.1 Ac-ft 13,100

Peak discharge (base, 200 cfs).--No peak above base.

Note.--No gage-height record Nov. 26 to Jan. 4.



9-0660. Black Gore Creek near Minturn, Colo.

Location.--Lat 39°35'50", long 106°15'55", on right bank 300 ft from U. S. Highway 6, 0.3 mile upstream from Timber Creek, 2½ miles upstream from mouth, and 9 miles east of Minturn, Eagle County.

Drainage area.--11.8 sq mi.

Records available.--October 1947 to September 1956, October 1963 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 9,180 ft (from topographic map). Prior to October 1963 water-stage recorder at site 15 ft upstream at same datum.

Average discharge.--12 years, 16.3 cfs (11,800 acre-ft per year).

Extremes.--Maximum discharge during year, 153 cfs May 22 (gage height, 4.19 ft), from rating curve extended above 70 cfs; minimum daily, 2.0 cfs Mar. 5.

1947-56, 1963-66: Maximum discharge, 365 cfs June 7, 1952 (gage height, 5.42 ft); maximum gage height, 5.70 ft Mar. 31, 1956 (ice jam); minimum discharge, 0.9 cfs Jan. 11, 1950 (gage height, 2.79 ft).

Remarks.--Records good except those for the winter periods, which are poor. No diversion above station. Natural regulation by two small recreation lakes above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.0	3.6	3.2	3.1	2.3	2.4	6	16	56	13	4.4	2.8
2	6.2	3.6	3.4	3.0	2.3	2.4	6.5	22	54	11	4.4	2.4
3	6.0	3.4	3.6	2.8	2.2	2.3	5.5	30	52	10	6.3	3.0
4	5.8	3.4	3.6	3.0	2.1	2.2	5.0	36	48	9.0	6.6	2.8
5	5.6	3.2	3.4	3.0	2.1	2.0	4.6	49	44	8.7	5.2	2.6
6	5.2	3.0	3.4	2.8	2.2	2.2	4.4	55	40	8.4	4.6	2.5
7	5.0	3.0	3.4	2.8	2.2	2.2	4.2	66	37	8.1	4.2	2.5
8	4.6	3.2	3.4	2.8	2.2	2.3	4.0	69	40	7.8	3.7	2.4
9	4.4	3.4	3.6	2.8	2.2	2.4	4.4	62	35	7.2	3.7	2.3
10	4.4	3.6	3.6	2.6	2.2	2.4	5.0	61	36	7.2	3.7	2.3
11	4.2	3.4	3.6	2.6	2.3	2.4	5.0	49	32	7.2	3.6	2.3
12	4.4	3.6	3.4	2.8	2.4	2.4	4.6	41	28	7.8	5.8	2.5
13	4.2	4.2	3.2	2.8	2.4	2.4	4.4	35	26	7.5	4.4	2.8
14	4.4	4.0	3.0	2.8	2.2	2.5	4.6	32	24	6.6	3.8	2.8
15	4.4	4.4	3.0	2.8	2.2	2.6	5	31	24	6.0	3.6	4.0
16	4.2	4.6	3.0	2.6	2.2	2.5	6	33	24	6.0	3.4	3.0
17	4.0	4.4	3.0	2.6	2.2	2.4	7	39	23	6.3	3.2	2.8
18	4.4	4.2	3.1	2.6	2.4	2.4	8	45	24	6.3	3.1	2.5
19	4.2	4.0	3.1	2.6	2.4	2.5	7	52	21	5.8	3.7	2.4
20	4.4	4.0	3.1	2.6	2.2	2.7	7	61	20	5.4	4.6	2.3
21	4.2	4.0	3.0	2.6	2.2	2.6	6.5	67	19	5.4	3.7	2.3
22	4.0	3.8	3.1	2.5	2.2	2.5	6.6	70	18	5.4	3.4	2.2
23	4.2	4.8	3.0	2.5	2.2	2.3	6.6	70	16	5.6	3.1	2.2
24	4.0	4.2	3.0	2.5	2.4	2.4	6.9	70	15	5.6	3.0	2.2
25	4.0	4.0	3.0	2.5	2.6	2.6	7.8	74	14	5.4	2.8	2.8
26	3.8	3.6	3.0	2.5	2.6	2.8	11	67	14	5.2	2.8	2.5
27	3.8	3.4	3.0	2.4	2.6	3.2	12	62	14	5.0	2.6	2.3
28	4.0	3.2	3.0	2.4	2.4	3.4	13	58	13	4.6	2.4	2.3
29	4.0	3.2	3.0	2.3	-	3.6	11	60	12	4.6	2.4	2.3
30	3.8	3.2	3.0	2.3	-	4.0	14	61	12	4.4	2.5	2.2
31	3.8	-----	3.4	2.3	-----	4.6	-----	61	-----	4.2	3.0	-----
Total	139.6	111.6	99.6	82.3	64.1	81.6	203.6	1,604	835	210.7	117.7	76.3
Mean	4.50	3.72	3.21	2.65	2.29	2.63	6.79	51.7	27.8	6.80	3.80	2.54
Ac-ft	277	221	198	163	127	162	404	3,180	1,660	418	233	151

Calendar year 1965: Max 253 Min - Mean 21.6 Ac-ft 15,650

Water year 1965-66: Max 74 Min 2.0 Mean 9.93 Ac-ft 7,190

Peak discharge (base, 150 cfs).--May 22 (0145) 153 cfs (4.19 ft).

Note.--No gage-height record Feb. 6 to Mar. 30.

9-0661. Bighorn Creek near Minturn, Colo.

Location.--Lat 39°38'20", long 106°17'35", on left bank 0.3 miles upstream from U. S. Highway 6, 0.4 mile upstream from mouth, and 8.2 miles northeast of Minturn, Eagle County.

Drainage area.--4.37 sq mi.

Records available.--October 1963 to September 1966.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 8,600 ft (from topographic map).

Extremes.--Maximum discharge during year, 34 cfs May 25 (gage height, 3.25 ft); minimum not determined.

1963-66: Maximum discharge, 71 cfs June 16, 1965; maximum gage height, 3.43 ft June 7, 1964; minimum discharge not determined.

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

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.5	1.8					4.0	11	23	15	4.8	2.1
2	7.6	1.8					4.6	14	25	14	4.8	2.0
3	10	1.7					4.0	18	25	12	5.2	2.4
4	10	1.7					3.6	22	24	11	8.2	2.1
5	8.6	1.7					3.2	24	20	11	6.8	1.7
6	7.6	1.6					2.8	25	17	10	5.2	1.7
7	6.5	1.5					2.6	27	16	8.6	4.2	1.8
8	5.8	1.5				0.3	2.5	26	17	8.2	3.8	1.7
9	5.0	1.6					2.8	22	14	8.2	3.4	1.6
10	4.5	1.6					3.1	19	17	7.9	3.1	1.6
11	4.5	1.5					3.1	14	19	7.6	3.0	1.6
12	4.0	1.6					2.8	12	19	10	5.2	1.8
13	3.7	1.7					2.6	9.3	18	8.6	4.0	1.8
14	3.4	1.6					2.5	7.9	19	6.8	3.4	1.7
15	3.2	1.6					2.8	8.2	19	7.2	3.0	2.2
16	3.2	1.4	0.9	0.7	0.5		4.0	10	18	6.2	2.8	2.1
17	3.0	1.4					5.0	14	18	6.0	2.8	1.8
18	3.1	1.4					5.0	17	17	6.0	2.6	1.7
19	2.8	1.4					4.5	19	17	6.0	3.0	1.6
20	2.6	1.4					4.0	20	17	5.2	5.2	1.6
21	2.5	1.4					3.8	22	16	5.0	3.6	1.6
22	2.6	1.4					3.4	23	17	4.8	3.1	1.5
23	2.4	1.7				1.0	3.1	20	19	4.2	2.8	1.4
24	2.3	1.5					3.2	22	17	3.8	2.6	1.4
25	2.3	1.3					3.8	27	17	4.0	2.4	2.0
26	2.2	1.0					5.8	26	17	4.2	2.2	2.0
27	2.0	.8					6.0	21	14	4.0	2.2	1.7
28	2.0	.6					5.0	21	13	3.8	2.1	1.6
29	2.0	.6					5.5	22	12	3.7	2.0	1.5
30	1.9	.6					7.6	24	12	3.4	2.0	1.4
31	1.9							24		3.6	2.1	
Total	128.7	42.4	27.9	21.7	14	20.5	116.7	591.4	532	220.0	111.6	52.7
Mean	4.15	1.41	0.9	0.7	0.5	0.7	3.89	19.1	17.7	7.10	3.60	1.76
Ac-ft	255	84	55	43	28	41	231	1,170	1,060	436	221	105

Calendar year 1965: Max 68 Min - Mean 11.1 Ac-ft 8,020

Water year 1965-66: Max 27 Min - Mean 5.15 Ac-ft 3,730

Peak discharge (base, 50 cfs).--No peak above base.

Note.--No gage-height record Nov. 26 to Mar. 29.

9-0662. Booth Creek near Minturn, Colo.

Location.--Lat 39°39'05", long 106°19'15", on left bank 0.2 mile upstream from U. S. Highway 6, 0.4 mile upstream from mouth, and 7 miles northeast of Minturn, Eagle County.

Drainage area.--6.03 sq mi.

Records available.--October 1964 to September 1966.

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

Extremes.--Maximum discharge during year, 72 cfs May 7 (gage height, 3.45 ft); minimum daily, 0.3 cfs Mar. 5.

1964-66: Maximum discharge about 150 cfs June 16, 1965; maximum gage height, 3.83 ft June 17, 1965; minimum daily, 0.3 cfs Mar. 5, 1966.

Remarks.--Records good except those for the winter periods, which are poor. No diversion or regulation above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.2	1.3	1.2			0.6	7.5	21	38	15	2.3	1.1
2	9.8	1.3	1.3			.6	8	26	41	12	2.1	.9
3	12	1.8	1.3			.5	6.8	33	40	9.5	2.7	1.5
4	12	1.7	1.3			.4	5.4	36	37	8.5	5.2	1.5
5	12	1.6	1.3			.3	4.7	38	33	7.8	4.0	1.3
6	10	1.6	1.3			.4	4.2	34	27	6.6	3.0	1.1
7	8.8	1.5	1.3			.6	4.0	50	26	6.0	2.4	1.0
8	7.8	1.4	1.3			.6	4.0	44	26	5.4	2.1	1.0
9	7.0	1.5	1.3			.6	4.8	40	22	4.8	2.0	.9
10	6.4	1.7	1.3			.7	5.8	35	26	4.4	1.8	.8
11	5.8	1.2	1.3			.7	6.0	26	26	5.6	1.7	.7
12	5.2	1.4	1.3			.8	5.8	21	28	6.8	4.0	1.4
13	4.7	1.6	1.3			.9	5.4	18	26	5.2	3.3	1.6
14	4.2	1.8	1.3			.9	5.0	17	27	4.7	2.5	1.4
15	3.8	2.0	1.3			1.1	5.4	17	26	4.0	2.2	2.2
16	3.4	1.9	1.1	0.8	0.6	1.2	6.8	18	24	3.6	2.0	1.7
17	3.2	1.8	1.0			1.3	7.5	20	24	4.6	1.9	1.4
18	3.2	1.7	.8			1.2	7.2	25	24	5.0	1.7	1.2
19	3.0	1.6	.6			1.2	6.8	32	21	6.0	2.0	1.0
20	2.8	1.5	.6			1.2	5.8	36	18	4.2	3.8	1.0
21	2.5	1.4	.8			1.3	5.4	41	17	3.5	2.5	.9
22	2.4	1.2	.8			1.3	5.0	38	18	3.3	2.2	.7
23	2.1	1.6	.9			1.4	4.7	35	17	3.1	2.0	.7
24	2.0	1.9	.9			1.3	4.2	38	16	2.8	1.8	.6
25	1.8	1.8	.9			1.3	5.0	46	15	3.0	1.6	1.5
26	1.7	1.6	.9			1.8	8.0	43	14	2.8	1.4	1.3
27	1.8	1.4	.9			2.4	9.5	38	12	2.8	1.3	.9
28	1.8	1.2	.9			3.3	8.8	36	12	2.6	1.3	.8
29	1.6	1.0	.9			3.6	10	37	12	2.3	1.3	.7
30	1.6	1.0	.8			4.0	16	40	12	2.2	1.2	.6
31	1.4		.8			5.8		40		2.1	1.3	
Total	153.0	46.0	33.0	24.8	16.8	43.3	193.5	1,019	705	160.2	70.6	33.4
Mean	4.94	1.53	1.06	0.8	0.6	1.40	6.45	32.9	23.5	5.17	2.28	1.11
Ac-ft	303	91	65	49	33	86	384	2,020	1,400	318	140	66

Calendar year 1965: Max 130 Min 0.5 Mean 14.1 Ac-ft 10,200

Water year 1965-66: Max 50 Min - Mean 6.85 Ac-ft 4,960

Peak discharge (base, 80 cfs).--No peak above base.

Note.--No gage-height record Jan. 5 to Mar. 1.

9-0663. Middle Creek near Minturn, Colo.

Location.--Lat 39°38'50", long 106°22'50", on right bank a quarter of a mile upstream from U. S. Highway 6, 0.4 mile upstream from mouth, and 5 miles northeast of Minturn, Eagle County.

Drainage area.--5.97 sq mi.

Records available.--October 1964 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 8,300 ft (from topographic map).

Extremes.--Maximum discharge during year, 28 cfs June 2 (gage height, 1.69 ft); minimum not determined.

1964-66: Maximum discharge, 105 cfs June 19, 1965 (gage height, 2.60 ft), from rating curve extended above 56 cfs; no flow for many days in 1965.

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

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.0	2.0					0.8	5.4	22	7.8	1.2	0.6
2	3.3	2.0					1.0	6.3	24	6.3	1.2	.5
3	3.8	2.0					1.1	7.8	24	5.6	1.3	.6
4	3.8	1.8					1.0	9.0	23	4.8	2.5	.7
5	3.8	1.8					1.0	12	21	4.4	1.8	.6
6	3.5	1.8					1.0	13	18	4.0	1.3	.6
7	3.5	1.7					1.1	14	17	3.6	1.2	.5
8	3.3	1.7				0.3	1.0	15	18	3.3	1.0	.5
9	3.2	1.7					1.2	15	16	2.9	.9	.4
10	2.9	1.7					1.4	15	17	2.7	.8	.4
11	2.9	1.8					1.5	13	16	2.6	.8	.4
12	2.6	1.6					1.5	12	16	2.7	2.4	.8
13	2.5	1.4					1.4	10	15	2.5	1.8	.9
14	2.5	1.6					1.5	9.4	15	2.2	1.2	.6
15	2.5	1.4					1.5	10	15	2.0	1.0	1.1
16	2.5	1.2	0.8	0.6	0.4		1.7	10	15	1.8	.9	.8
17	2.5	1.2					2.0	11	14	2.2	.8	.6
18	2.4	1.2					2.1	12	13	2.4	.8	.6
19	2.4	1.1					2.2	13	13	2.2	.9	.4
20	2.4	1.1					2.1	15	11	1.8	2.1	.4
21	2.4	1.0					2.4	16	11	1.7	1.2	.4
22	2.4	1.0					2.0	17	11	1.6	.9	.4
23	2.2	1.4				.6	1.8	16	10	1.6	.8	.3
24	2.2	1.3					1.8	18	9.4	1.5	.7	.3
25	2.2	1.1					2.0	20	8.5	1.5	.6	.8
26	2.1	1.0					2.7	21	8.2	1.4	.6	.6
27	2.1	.8					3.2	20	7.5	1.4	.5	.4
28	2.1	.8					3.2	18	6.8	1.3	.4	.4
29	2.1	.6					3.6	18	6.8	1.2	.4	.3
30	2.1	.6					4.6	20	6.8	1.1	.4	.3
31	2.0							22		1.1	.6	
Total	93.2	41.4	24.8	18.6	11.2	14.1	55.4	433.9	429.0	93.2	33.0	16.2
Mean	2.68	1.38	0.8	0.6	0.4	0.45	1.85	14.0	14.3	2.68	1.06	0.54
Ac-ft	165	82	49	37	22	28	110	861	851	165	65	32

Calendar year 1965: Max 83 Min 0 Mean 7.79 Ac-ft 5,630  
 Water year 1965-66: Max 24 Min - Mean 3.41 Ac-ft 2,470

Peak discharge (base, 60 cfs).--No peak above base.

Note.--No gage-height record Nov. 27 to Mar. 29.

## EAGLE RIVER BASIN

9-0664. Red Sandstone Creek near Minturn, Colo.

Location.--Lat 39°40'55", long 106°24'05", in sec.25, T.4 S., R.81 W. (projected), on left bank 150 ft upstream from road culvert, 1,200 ft upstream from Indian Creek, and 6.8 miles north of Minturn.

Drainage area.--7.27 sq mi.

Records available.--October 1963 to September 1966.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 9,150 ft (from topographic map).

Extremes.--Maximum discharge during year, 49 cfs May 7 (gage height, 3.56 ft); minimum not determined.

1963-66: Maximum discharge, 139 cfs June 17, 1965 (gage height, 4.22 ft), from rating curve extended above 80 cfs; minimum not determined.

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

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.3	2.9					3.8	15	29	10	1.8	1.2
2	6.7	2.7					3.6	18	27	7.6	2.2	1.1
3	7.6	2.4					3.4	22	27	6.7	2.4	1.3
4	7.6	2.3					3.4	25	24	6.0	3.5	1.4
5	7.3	2.3					3.2	32	22	5.5	2.7	1.2
6	6.7	2.4					3.0	33	20	5.1	2.1	1.2
7	6.2	2.2					3.0	37	19	4.4	2.0	1.2
8	6.2	2.3				1	3.5	40	20	4.0	1.7	1.2
9	6.0	2.6					4.4	39	19	3.8	1.7	1.2
10	5.5	2.4					5.1	39	20	3.7	1.6	1.1
11	5.3	2.4					4.9	31	19	4.0	1.5	1.2
12	5.1	2.6					4.2	26	18	4.2	3.0	1.5
13	4.7	2.7					3.7	23	17	4.0	2.4	1.6
14	4.7	2.7					3.0	22	17	3.8	1.8	1.4
15	4.4	2.6					4.4	23	16	3.4	1.7	1.8
16	4.4	2.6	2	1.4	1.2		5.5	24	16	2.2	1.5	1.5
17	4.2	2.6					6.5	27	16	3.2	1.4	1.3
18	4.4	2.6					6.0	29	16	3.0	1.4	1.2
19	4.4	2.6					5.5	32	14	3.5	1.6	1.1
20	4.4	2.6					3.5	35	13	2.9	2.6	1.0
21	4.2	2.4					4.0	37	13	2.6	2.0	1.0
22	4.0	2.4					4.7	37	12	2.6	1.5	1.0
23	3.8	2.6				2	4.7	34	12	2.3	1.4	1.0
24	3.5	2.6					5.3	36	11	2.3	1.3	1.0
25	3.5	2.4					7.0	37	10	2.4	1.2	1.6
26	3.4	2.2					9.2	36	9.2	2.3	1.2	1.2
27	3.2	2.0					9.2	34	8.6	2.2	1.2	1.1
28	3.2	1.8					7.6	31	8.1	2.0	1.1	1.0
29	3.0	1.6					9.8	30	8.1	1.7	1.0	1.0
30	3.0	1.6					1.2	29	8.1	1.6	1.1	1.0
31	2.9							31		1.6	1.2	
Total	148.8	72.1	62	43.4	33.6	47	157.1	944	489.1	115.6	54.8	36.5
Mean	4.80	2.40	2	1.4	1.2	1.5	5.24	30.5	16.3	3.73	1.77	1.22
Ac-ft	295	143	123	86	67	93	312	1,870	970	229	109	72

Calendar year 1965: Max 114 Min - Mean 12.1 Ac-ft 8,750  
 Water year 1965-66: Max 40 Min - Mean 6.04 Ac-ft 4,370

Peak discharge (base, 70 cfs).--No peak above base.

Note.--No gage-height record Nov. 23 to Mar. 30.

9-0677. East Brush Creek at Yeoman Park, near Eagle, Colo.

Location.--Lat 39°30'15", long 106°40'39", in NE¼ sec.27, T.6 S., R.83 W., on downstream right bank wingwall of Forest Service bridge 1 mile upstream from Hat Creek and 13 miles southeast of Eagle.

Drainage area.--9.84 sq mi.

Records available.--October 1965 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 9,050 ft (from topographic map).

Extremes.--Maximum discharge during year, 100 cfs June 2 (gage height, 1.84 ft), from rating curve extended above 65 cfs; minimum not determined.

Remarks.--Records good except those for the winter periods, which are poor. No regulation or diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	6.0					4.9	12	62	38	7.9	5.7
2	22	6.0					5.6	20	72	31	7.6	5.6
3	23	5.8					5.0	28	69	25	10	5.4
4	23	5.6					4.0	35	62	21	22	5.6
5	22	5.6					4.0	44	51	20	28	5.4
6	19	5.6					4.2	51	38	17	20	5.4
7	18	5.4					4.4	55	35	16	16	5.4
8	16	5.4				2.8	4.6	53	41	14	13	5.6
9	15	5.2					4.8	45	35	13	11	5.2
10	15	5.2					4.8	43	40	12	10	5.1
11	14	5.2					4.4	28	38	14	9.4	5.1
12	13	5.0					4.2	21	39	14	14	5.4
13	12	5.0					4.5	17	38	14	14	5.7
14	12	5.0					4.8	15	39	12	11	5.9
15	11	5.0					5.0	17	43	11	9.4	7.3
16	10	5.0	4.0	3.5	3.0		5.6	19	41	10	8.8	7.3
17	9.7	5.2					5.4	22	39	12	7.9	6.6
18	10	5.2					5.2	22	38	11	7.3	6.3
19	9.7	5.0					5.0	29	36	13	7.3	5.9
20	9.1	5.0					4.6	38	36	15	9.7	5.7
21	8.8	4.8					4.4	48	40	13	8.5	5.6
22	8.5	4.4					4.8	48	46	12	7.3	5.4
23	8.2	4.6				3.5	4.9	43	38	12	6.8	5.4
24	7.9	4.8					5.0	56	34	15	6.5	5.2
25	7.6	4.6					5.6	62	30	12	6.1	5.2
26	7.3	4.2					6.8	50	28	11	5.9	5.2
27	6.8	4.0					7.6	40	25	9.7	5.7	5.1
28	6.8	3.8					7.5	45	24	9.7	5.6	5.1
29	6.8	3.6					7.9	58	25	8.8	5.4	5.0
30	6.6	3.8					9.1	65	28	8.2	5.4	5.0
31	6.4							66		7.9	6.3	
Total	384.2	149.0	124.0	108.5	84.0	98.0	158.6	1,195	1,210	452.3	313.8	167.8
Mean	12.4	4.97	4.0	3.5	3.0	3.2	5.29	38.5	40.3	14.6	10.1	5.59
Ac-ft	762	296	246	215	167	194	315	2,370	2,400	897	622	333

Calendar year 1965: Max - Min - Mean - Ac-ft -  
 Water year 1965-66: Max 72 Min - Mean 12.2 Ac-ft 8,820

Peak discharge (base, 110 cfs).--No peak above base.

Note.--No gage-height record Nov. 27 to Mar. 28.

## 9-0680. Brush Creek near Eagle, Colo.

Location.--Lat 39°33'40", long 106°46'20", in SE¼ sec.1, T.6 S., R.84 W., on left bank 150 ft downstream from Beecher Creek, 1½ miles downstream from confluence of East and West Brush Creeks, and 7½ miles southeast of Eagle.

Drainage area.--71 sq mi, approximately.

Records available.--October 1950 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 7,450 ft (estimated from nearby level line).

Average discharge.--16 years, 43.4 cfs (31,420 acre-ft per year).

Extremes.--Maximum discharge during year, 170 cfs June 3 (gage height, 3.45 ft); minimum daily, 16 cfs Mar. 5, Sept. 29, 30.  
1950-66: Maximum discharge, 775 cfs June 7, 1952 (gage height, 5.10 ft), from rating curve extended above 400 cfs; minimum daily, 11 cfs Feb. 28, Mar. 14, 1962.

Remarks.--Records good except those for winter periods, which are poor. Small diversions for irrigation of hay meadows above and below station. One small diversion to Gypsum Creek above station. Slight regulation by Zurcher's Lake (capacity, 450 acre-ft) on West Brush Creek for irrigation of hay meadows above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55	30	24	24	20	21	32	46	135	71	32	25
2	59	30	26	22	20	21	34	58	135	62	32	24
3	60	31	26	20	18	19	30	71	135	53	40	24
4	60	30	28	20	18	17	26	83	125	49	58	24
5	60	30	26	22	20	16	25	110	112	45	55	23
6	56	29	26	24	20	18	25	128	92	41	43	23
7	53	28	24	24	20	18	26	135	74	38	36	23
8	50	29	26	24	20	19	28	140	92	36	31	23
9	49	30	26	24	20	19	30	132	76	36	28	23
10	48	30	26	23	20	19	32	135	87	35	27	23
11	45	28	27	23	18	19	29	98	80	36	26	23
12	45	29	27	23	18	20	28	81	83	36	32	23
13	42	29	27	23	20	19	27	69	80	35	36	23
14	41	27	26	23	18	19	28	63	76	33	32	23
15	39	30	26	23	19	20	30	60	90	30	35	27
16	39	31	25	22	18	21	32	59	83	30	36	27
17	38	30	24	20	18	19	35	66	83	31	33	26
18	38	29	22	20	19	18	30	66	83	31	32	25
19	38	28	22	20	19	19	28	71	78	34	31	24
20	36	27	20	23	19	20	26	81	80	36	36	22
21	36	27	20	18	19	20	26	101	85	35	34	20
22	36	25	22	18	19	19	27	105	101	35	31	20
23	35	27	24	19	18	18	28	103	90	31	30	19
24	34	27	24	20	18	20	29	120	80	33	28	19
25	34	29	24	20	20	20	31	140	69	33	27	19
26	32	27	24	19	20	21	32	128	66	35	26	19
27	31	27	24	18	20	21	34	112	63	36	26	19
28	31	23	24	19	20	24	32	115	60	36	23	17
29	30	22	26	20	-	26	36	140	62	35	23	16
30	31	22	28	21	-	28	43	142	62	32	23	16
31	30	-	24	21	-	30	-	152	-	31	26	-
Total	1,311	841	768	660	536	628	899	3,110	2,617	1,170	1,008	662
Mean	42.3	28.0	24.8	21.3	19.1	20.3	30.0	87.2	87.2	37.7	32.5	22.1
Ac-ft	2,600	1,670	1,520	1,310	1,060	1,250	1,780	6,170	5,190	2,320	2,000	1,310

Calendar year 1965: Max 289 Min 14 Mean 53.7 Ac-ft 38,840

Water year 1965-66: Max 152 Min 16 Mean 38.9 Ac-ft 28,180

Peak discharge (base, 160 cfs).--May 8 (0100) 162 cfs (3.42 ft); June 3 (0100) 170 cfs (3.45 ft).

Note.--No gage-height record Mar. 28 to Apr. 29.

9-0695. Gypsum Creek near Gypsum, Colo.

Location.--Lat 39°32'44", long 106°56'03", in sec.9, T.6 S., R.85 W., on left bank 10 ft upstream from private footbridge, 1 mile upstream from Sundell Creek and 7 miles south of Gypsum.

Drainage area.--63 sq mi, approximately.

Records available.--October 1950 to September 1955. October 1965 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 7,600 ft (from topographic map). Oct. 13, 1950, to Sept. 30, 1955, water-stage recorder at same site at datum 0.12 ft lower.

Average discharge.--6 years (1950-55, 1965-66), 31.7 cfs (22,950 acre-ft per year).

Extremes.--Maximum discharge during year, 84 cfs May 31 (gage height, 3.57 ft); minimum daily, 17 cfs Mar. 6.

1950-55, 1965-66: Maximum discharge, 395 cfs June 11, 1952 (gage height, 4.77 ft, present datum); minimum daily, 9.4 cfs Dec. 9, 1954.

Remarks.--Records good except those for winter period and those for periods of no gage-height record, which are poor. Diversion from tributary about 1 mile upstream for municipal supply of Gypsum. Small diversions for irrigation of hay meadows above station. Slight regulation by L.E.D.E. Reservoir above station (capacity about 400 acre-ft). One small diversion imports water from West Brush Creek above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	30	22	24	22	22	26	18	79	46	31	23
2	32	30	22	22	22	24	26	18	75	46	31	23
3	34	30	24	20	20	24	25	19	75	44	34	23
4	34	30	26	20	20	20	23	19	75	42	38	23
5	34	30	28	20	22	18	18	18	70	40	34	23
6	32	28	28	22	24	17	21	18	70	38	32	23
7	32	28	28	24	26	19	21	19	65	38	31	23
8	30	28	28	26	26	20	21	20	65	36	31	23
9	30	28	26	26	24	22	21	23	61	34	30	22
10	30	28	26	26	22	22	21	32	64	32	29	22
11	30	26	26	26	20	22	22	37	63	32	29	22
12	30	28	26	24	20	22	21	31	60	34	31	23
13	30	27	26	24	20	22	21	24	58	33	31	23
14	30	28	24	26	20	20	21	23	56	31	29	21
15	30	28	24	24	20	19	21	23	54	31	28	23
16	30	27	24	24	20	19	21	24	54	30	27	21
17	30	28	24	24	22	20	21	26	53	30	26	21
18	30	27	24	24	22	19	21	27	52	32	24	20
19	30	27	22	24	22	19	20	27	51	34	26	20
20	30	27	22	24	22	19	20	31	50	36	28	20
21	30	26	24	19	24	20	19	36	50	34	27	19
22	30	24	24	20	24	18	20	45	47	32	26	19
23	30	26	24	22	22	18	20	50	46	32	24	19
24	30	24	24	22	22	18	19	51	44	30	24	18
25	30	26	24	20	24	19	19	57	44	32	24	19
26	30	26	24	22	24	19	19	61	42	30	24	18
27	30	26	26	24	22	19	18	61	42	30	24	18
28	30	24	28	24	20	20	18	60	42	28	24	18
29	30	22	28	22	-	23	18	61	40	26	22	18
30	30	22	28	22	-----	24	18	68	40	26	23	18
31	30	-----	26	22	-----	26	-----	78	-----	28	24	-----
Total	948	809	780	713	618	633	620	1,105	1,687	1,047	866	626
Mean	30.6	27.0	25.2	23.0	22.1	20.4	20.7	35.6	56.2	33.8	27.9	20.9
Ac-ft	1,880	1,600	1,550	1,410	1,230	1,260	1,230	2,190	3,350	2,080	1,720	1,240

Calendar year 1965: Max - Min - Mean - Ac-ft -  
 Water year 1965-66: Max 79 Min 17 Mean 28.6 Ac-ft 20,730

Peak discharge (base, 100 cfs)--No peak above base.

Note.--No gage-height record Oct. 1 to Nov. 12, Nov. 26 to Mar. 3, June 23 to Aug. 1.



9-077. Eagle River below Gypsum, Colo.

Location.--Lat 39°39'00", long 106°57'10", in NW¼ sec.5, T.5 S., R.85 W., on right bank 30 ft downstream from bridge on U. S. Highways 6 and 24 at Gypsum and 150 ft downstream from Gypsum Creek.

Drainage area.--957 sq mi.

Records available.--October 1946 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 6,270 ft.

Average discharge.--20 years, 572 cfs (414,100 acre-ft per year).

Extremes.--Maximum discharge during year, 2,010 cfs May 8 (gage height, 5.64 ft); minimum daily, 132 cfs Mar. 4.

1946-66: Maximum discharge, 6,580 cfs June 11, 1952; maximum gage height, 9.17 ft June 29, 1957; minimum daily discharge, 110 cfs Feb. 21, 1955, Feb. 3, 1956, Dec. 26, 27, 1962.

Remarks.--Records good. Transmountain diversions above station (see elsewhere in this report). Transbasin diversions above station from Robinson Reservoir (capacity, 2,520 acre-ft) to Tenmile Creek for mining development. Many small diversions for irrigation of hay meadows above station. Records of chemical analyses and water temperatures for the water year 1966 are published in Part 2 of this report as "at Gypsum."

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	472	275	200	215	187	162	300	609	1540	771	242	187
2	496	270	210	172	178	160	346	672	1480	753	246	187
3	520	260	200	150	187	155	340	852	1540	618	270	184
4	544	260	200	140	178	132	295	1090	1430	568	405	180
5	528	256	220	160	180	152	256	1250	1290	536	488	178
6	496	251	233	200	172	175	246	1530	1090	504	346	175
7	464	242	215	210	175	180	246	1680	980	480	270	178
8	440	238	224	215	172	187	256	1830	1000	440	242	180
9	426	256	233	208	170	210	275	1660	924	412	224	175
10	412	265	246	198	172	240	305	1660	942	405	215	172
11	412	251	242	194	178	250	328	1330	942	391	208	168
12	398	256	224	194	165	238	322	1160	933	419	212	172
13	391	260	215	190	172	215	300	933	906	419	295	172
14	370	260	208	190	168	256	275	843	879	391	251	172
15	352	270	190	190	175	270	275	789	933	346	224	184
16	334	290	180	190	168	270	295	762	915	322	212	187
17	346	290	170	154	172	228	340	825	942	316	208	184
18	334	275	150	149	172	204	352	852	915	340	212	178
19	340	260	140	162	168	208	364	924	870	370	208	175
20	334	251	150	180	168	215	322	1080	861	419	238	172
21	322	251	168	160	168	208	290	1230	852	358	295	170
22	310	233	198	160	162	201	310	1370	870	334	295	168
23	310	238	228	180	170	187	295	1310	843	316	256	165
24	305	260	215	184	172	180	290	1320	771	322	204	162
25	305	290	184	180	172	187	310	1490	708	322	201	168
26	290	265	208	172	170	190	384	1600	663	295	194	168
27	285	250	198	172	170	201	488	1410	618	285	187	172
28	280	212	198	168	168	215	456	1210	609	270	184	170
29	285	180	220	180	-	238	472	1290	584	256	178	165
30	280	180	384	184	-----	246	520	1440	609	246	175	162
31	275	-----	242	180	-----	265	-----	1600	-----	246	184	-----
Total	11,656	7,595	6,493	5,581	4,829	6,425	9,853	37,601	28,439	12,470	7,569	5,230
Mean	376	253	209	180	172	207	328	1,213	948	402	244	174
Ac-ft	23,120	15,060	12,880	11,070	9,580	12,740	19,540	74,580	56,410	24,730	15,010	10,370

Calendar year 1965: Max 4,810 Min 114 Mean 749 Ac-ft 542,300

Water year 1965-66: Max 1,830 Min 132 Mean 394 Ac-ft 285,100

Peak discharge (base, 3,500 cfs).--No peak above base.

9-0705. Colorado River near Dotsero, Colo.

Location.--Lat 39°38'40", long 107°04'40", in sec.6, T.5 S., R.86 W., on left bank about 500 ft south of U. S. Highways 6 and 24, 1½ miles west of Dotsero, and 1½ miles downstream from Eagle River.

Drainage area.--4,390 sq mi, approximately.

Gage.--Water-stage recorder. Altitude of gage is 6,130 ft (from topographic map).

Records available.--October 1940 to September 1966.

Average discharge.--26 years, 2,106 cfs (1,525,000 acre-ft per year).

Extremes.--Maximum discharge during year, 4,070 cfs May 8 (gage height, 4.87 ft); maximum gage-height, 7.88 ft Jan. 26 (backwater from ice); minimum daily discharge, 900 cfs Jan. 29.

1940-66: Maximum discharge, 19,100 cfs June 8, 1952 (gage height, 11.56 ft); minimum daily, 350 cfs Jan. 5, 1944.

Remarks.--Records good except those for winter periods, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, diversions for irrigation of 68,000 acres above station, and return flow from irrigated areas.

Cooperation.--Gage-height record collected in cooperation with The Public Service Co. of Colorado.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1790	1320	1250	1550	1000	1250	1910	1570	3000	1570	1200	1230
2	1770	1320	1250	1250	1050	1250	1880	1790	2780	1800	1160	1220
3	1790	1390	1300	1050	1000	1200	1850	2070	2640	1770	1240	1210
4	1840	1390	1400	1200	1100	1050	1670	2450	2440	1660	1370	1210
5	1790	1370	1450	1200	1250	1050	1730	2780	2240	1600	1580	1210
6	1740	1360	1450	1250	1300	1250	1570	3160	1980	1550	1460	1210
7	1640	1350	1400	1350	1350	1350	1470	3510	1780	1450	1310	1200
8	1600	1340	1400	1450	1350	1350	1250	3800	1790	1370	1220	1200
9	1570	1370	1400	1450	1300	1400	1220	3680	1740	1300	1190	1200
10	1540	1390	1500	1400	1250	1600	1490	3790	1740	1290	1220	1180
11	1530	1380	1450	1350	1150	1700	1410	3410	1760	1290	1200	1150
12	1520	1370	1500	1350	1150	1480	1640	3040	1720	1350	1210	1170
13	1480	1420	1500	1350	1300	1400	1470	2680	1680	1420	1300	1160
14	1470	1430	1450	1350	1250	1420	1260	2390	1570	1390	1290	1130
15	1460	1420	1400	1350	1150	1530	1240	2160	1580	1330	1250	1170
16	1420	1470	1350	1300	1150	1670	1220	2050	1520	1270	1190	1190
17	1440	1530	1250	1200	1150	1720	1160	2150	1560	1250	1150	1180
18	1460	1520	1150	1100	1250	1400	1220	2240	1540	1260	1140	1110
19	1460	1510	1050	1150	1300	1390	1260	2330	1540	1310	1120	1090
20	1480	1480	1100	1250	1300	1440	1170	2470	1530	1420	1160	1060
21	1440	1490	1200	1150	1300	1540	1080	2700	1520	1440	1240	1020
22	1430	1410	1250	1000	1250	1470	1050	3120	1530	1400	1250	1020
23	1420	1420	1500	1200	1250	1290	1000	3040	1460	1400	1220	1050
24	1410	1490	1500	1250	1250	1300	1000	2990	1390	1420	1200	1050
25	1400	1600	1350	1200	1250	1310	1020	3080	1290	1460	1180	1090
26	1390	1570	1400	1150	1300	1320	1160	3100	1200	1420	1260	1110
27	1360	1420	1350	1200	1300	1400	1390	2900	1170	1320	1240	1100
28	1370	1360	1350	1000	1250	1550	1410	2660	1110	1300	1210	1110
29	1350	1100	1500	900	-	1750	1360	2660	1140	1280	1200	1130
30	1340	1150	1850	1000	-----	1820	1390	2790	1240	1220	1180	1100
31	1340	-----	1800	950	-----	1820	-----	2990	-----	1200	1220	-----
Total	47,040	42,140	43,050	37,900	34,250	44,470	40,950	85,550	51,180	43,510	38,360	34,260
Mean	1,517	1,405	1,389	1,223	1,223	1,435	1,365	2,760	1,706	1,404	1,237	1,142
Ac-ft	93,300	83,580	85,390	75,170	67,930	88,200	81,220	169,700	101,500	86,300	76,090	67,950

Calendar year 1965: Max 10,900 Min 560 Mean 2,330 Ac-ft 1,687,000  
 Water year 1965-66: Max 3,800 Min 900 Mean 1,487 Ac-ft 1,076,000

9-0725. Colorado River at Glenwood Springs, Colo.

Location.--Lat 39°33'00", long 107°19'20", in sec.9, T.6 S., R.89 W., on right bank at powerplant at Glenwood Springs, 10 ft from U. S. Highways 6 and 24 and half a mile upstream from Roaring Fork River.

Drainage area.--4,560 sq mi, approximately.

Records available.--May 1899 to September 1966 (discontinued). Prior to October 1918, published as Grand River at Glenwood Springs.

Gage.--Digital water-stage recorder since October 3, 1963. Datum of gage is 5,720.71 ft above mean sea level, adjustment of 1912. Prior to Jan. 1, 1900, wire-weight gage at railroad bridge 2,500 ft downstream at different datum. Jan. 1, 1900, to May 16, 1910, staff or float gage at present site and datum. May 17, 1910, to Oct. 2, 1963, graphic water-stage recorder at present site and datum.

Average discharge.--67 years, 2,699 cfs (1,954,000 acre-ft per year).

Extremes.--Maximum discharge during year, 4,840 cfs May 8 (gage height, 6.01 ft); minimum daily, 947 cfs Jan. 29. 1899-1966: Maximum discharge, 30,100 cfs June 14, 1918 (gage height, 12.55 ft); minimum daily, 286 cfs Jan. 22, 1935.

Remarks.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, diversions for irrigation of about 70,000 acres, and return flow from irrigated areas. Low flow regulated by Shoshone powerplant 6 miles above station. Records of chemical analyses and water temperatures for the water year 1966 are published in Part 2 of this report as "near Glenwood Springs."

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.790	1.380	1.270	1.570	1.010	1.280	1.890	1.630	3.240	1.370	1.200	1.210
2	1.760	1.370	1.270	1.300	1.080	1.320	1.900	1.840	3.020	1.760	1.170	1.250
3	1.790	1.370	1.320	1.080	1.030	1.220	1.850	2.120	2.820	1.790	1.210	1.200
4	1.820	1.440	1.440	1.220	1.160	1.110	1.700	2.520	2.650	1.700	1.300	1.230
5	1.810	1.420	1.490	1.230	1.300	1.100	1.710	2.910	2.400	1.650	1.510	1.240
6	1.740	1.420	1.470	1.290	1.320	1.280	1.610	3.400	2.150	1.610	1.500	1.190
7	1.680	1.410	1.430	1.450	1.400	1.440	1.540	3.900	1.930	1.550	1.390	1.230
8	1.610	1.410	1.430	1.510	1.370	1.370	1.400	4.320	1.910	1.470	1.300	1.220
9	1.600	1.410	1.440	1.490	1.350	1.420	1.290	4.280	1.910	1.410	1.180	1.180
10	1.570	1.430	1.530	1.450	1.280	1.640	1.390	4.380	1.840	1.370	1.190	1.180
11	1.550	1.440	1.500	1.410	1.190	1.770	1.530	3.920	1.920	1.290	1.190	1.180
12	1.540	1.430	1.550	1.400	1.190	1.590	1.610	3.430	1.840	1.380	1.220	1.170
13	1.510	1.450	1.560	1.390	1.350	1.500	1.570	3.020	1.820	1.430	1.300	1.240
14	1.510	1.490	1.460	1.410	1.260	1.490	1.410	2.680	1.730	1.430	1.340	1.150
15	1.490	1.490	1.450	1.410	1.190	1.590	1.300	2.370	1.690	1.410	1.310	1.150
16	1.480	1.510	1.400	1.330	1.200	1.700	1.290	2.240	1.670	1.370	1.220	1.170
17	1.480	1.550	1.320	1.210	1.190	1.730	1.270	2.300	1.670	1.320	1.160	1.250
18	1.490	1.550	1.170	1.130	1.370	1.540	1.330	2.420	1.670	1.260	1.160	1.130
19	1.500	1.520	1.070	1.150	1.360	1.440	1.230	2.530	1.680	1.330	1.150	1.100
20	1.510	1.500	1.130	1.280	1.330	1.490	1.250	2.680	1.610	1.370	1.160	1.090
21	1.490	1.490	1.240	1.170	1.320	1.580	1.190	2.940	1.630	1.420	1.190	1.010
22	1.490	1.470	1.320	1.050	1.300	1.550	1.080	3.410	1.620	1.450	1.310	1.010
23	1.480	1.420	1.530	1.260	1.270	1.380	1.070	3.370	1.580	1.430	1.240	1.040
24	1.460	1.460	1.550	1.300	1.280	1.330	1.050	3.230	1.500	1.430	1.190	1.050
25	1.450	1.590	1.390	1.250	1.290	1.330	1.050	3.300	1.430	1.490	1.180	1.040
26	1.430	1.580	1.440	1.190	1.320	1.330	1.100	3.380	1.350	1.490	1.250	1.110
27	1.420	1.450	1.410	1.260	1.320	1.380	1.280	3.170	1.290	1.420	1.270	1.100
28	1.410	1.340	1.400	1.020	1.320	1.600	1.490	2.900	1.190	1.370	1.190	1.110
29	1.400	1.130	1.540	947	-	1.740	1.460	2.840	1.170	1.330	1.180	1.130
30	1.400	1.170	1.910	1.060	-----	1.760	1.460	2.970	1.260	1.290	1.190	1.120
31	1.390	-----	1.830	1.050	-----	1.810	-----	3.200	-----	1.240	1.250	-----
Total	48,050	43,090	44,260	39,267	35,350	45,810	42,300	93,600	55,190	44,630	38,600	34,480
Mean	1,550	1,436	1,428	1,267	1,263	1,478	1,410	3,019	1,840	1,440	1,245	1,149
Ac-ft	95,310	85,470	87,790	77,880	70,120	90,860	83,900	185,700	109,500	88,520	76,560	68,390

Calendar year 1965: Max 11,200 Min 614 Mean 2,437 Ac-ft 1,764,000  
 Water year 1965-66: Max 4,380 Min 947 Mean 1,547 Ac-ft 1,120,000

Location.--Lat 39°10'48", long 106°48'04", on right bank 200 ft upstream from Salvation ditch headgate, 1 mile southeast of Aspen, and 2 miles upstream from Hunter Creek, Pitkin County.

1964-66: Maximum discharge, 1,310 cfs July 1, 1965 (gage height, 5.20 ft), from rating curve extended above 770 cfs; minimum daily, 16 cfs Mar. 3, 4, 1965.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	84	63	36	28	28	22	50	101	254	106	45	47
2	83	61	38	26	28	22	46	118	263	91	47	45
3	83	57	38	26	28	22	42	154	254	84	62	45
4	83	55	38	26	26	20	40	198	232	79	74	46
5	83	58	38	28	26	22	38	251	210	77	65	45
6	82	56	40	30	27	22	40	302	172	73	51	45
7	82	54	38	28	29	22	44	320	163	70	47	45
8	82	52	36	28	28	23	46	323	175	66	45	45
9	86	50	36	28	27	24	50	302	152	64	41	43
10	93	45	34	28	25	24	50	260	163	64	40	41
11	91	43	34	28	24	25	46	183	161	63	37	41
12	88	54	34	28	24	24	44	154	166	84	51	43
13	85	48	34	28	24	24	42	132	157	69	80	40
14	85	46	32	30	22	25	42	124	155	66	75	38
15	82	48	32	30	24	25	42	126	161	60	72	40
16	80	46	30	28	24	27	45	141	148	56	70	44
17	81	45	28	26	22	27	51	163	148	57	63	40
18	86	45	28	26	24	25	53	165	144	61	58	37
19	83	39	26	28	24	29	48	185	134	116	56	35
20	81	45	28	28	24	29	44	212	132	83	79	35
21	76	47	30	26	24	29	41	238	132	72	71	33
22	79	41	30	26	24	25	45	218	135	73	61	32
23	78	49	32	28	24	26	45	198	126	68	58	30
24	77	49	30	28	22	27	44	212	115	72	54	30
25	75	48	30	28	24	27	41	242	110	72	51	30
26	72	40	32	28	24	30	65	245	102	64	49	30
27	71	40	30	28	22	32	73	202	99	58	47	30
28	71	38	30	26	22	34	65	199	96	45	46	30
29	67	37	32	28	-	36	74	222	93	50	45	30
30	66	37	32	28	-----	40	97	248	98	49	44	30
31	64	-----	30	28	-----	44	-----	260	-----	46	47	-----
Total	2,479	1,436	1,016	858	694	833	1,483	6,397	4,650	2,158	1,729	1,145
Mean	80.0	47.9	32.8	27.7	24.8	26.9	49.4	206	155	69.6	55.8	38.2
Ac-ft	4,920	2,850	2,020	1,700	1,380	1,650	2,940	12,690	9,220	4,280	3,430	2,270

Calendar year 1965:	Max	1,020	Min	16	Mean	138	Ac-ft	99,900
Water year 1965-66:	Max	323	Min	20	Mean	68.2	Ac-ft	49,340

## ROARING FORK RIVER BASIN

9-0737. Hunter Creek above Midway Creek, near Aspen, Colo.

Location--Lat 39°12'50", long 106°39'20", on right bank 2.8 miles upstream from Midway Creek and 9 miles east of Aspen, Pitkin County.Drainage area--6.18 sq mi.Records available--October 1964 to September 1966.Gage--Water-stage recorder. Altitude of gage is 10,500 ft (from topographic map).Extremes--Maximum discharge during year, 168 cfs sometime during period May 31 to June 1 (gage height, 2.06 ft); minimum not determined.  
1964-66: Maximum discharge, 320 cfs sometime during period June 18-20 (gage height, 2.6 ft, from floodmarks), from rating curve extended above 70 cfs; maximum gage height recorded, 3.02 ft May 2 (backwater from ice); minimum discharge not determined.Remarks--Records good except those for winter periods or no gage-height record, which are poor. No regulation or diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12						2.2	8	80	60	6.2	3.0
2	12						2.0	12	75	40	7.6	2.8
3	13						1.8	20	70	30	11	4.0
4	13						1.4	30	65	28	16	4.0
5	12						1.6	45	50	26	9.2	3.8
6	11						1.6	57	45	24	7.2	3.4
7	10						1.8	62	40	20	6.2	3.3
8	9.8						2.0	67	40	18	5.4	3.0
9	9.4						2.2	55	35	16	5.0	2.9
10	9.2						2.0	40	45	18	4.8	2.8
11	9.0						1.8	17	45	20	4.5	3.0
12	8.4						1.6	13	45	22	9.2	3.4
13	8.0						1.6	10	45	18	6.8	3.0
14	7.8						1.6	10	45	16	5.4	2.8
15	7.6						2.0	9.8	50	15	5.1	4.0
16	7.6	5	4	3	2	1.5	2.2	13	45	14	4.6	3.2
17	7.6						2.4	17	44	15	4.4	2.7
18	7.7						2.2	24	45	16	4.0	2.5
19	7.6						2.0	35	40	17	5.1	2.4
20	7.5						1.6	48	42	15	6.0	2.3
21	7						1.8	48	44	14	5.2	2.3
22	7.5						2.2	35	46	13	4.4	2.2
23	7						2.4	37	35	12	3.9	2.2
24	6.5						2.6	55	34	11	3.6	2.2
25	6.5						3.0	65	34	10	3.3	2.2
26	6						3.6	57	34	9	3.0	2.2
27	6.5						4.2	48	32	8	2.9	2.1
28	6						3.8	52	32	7	2.7	2.1
29	6						4.4	66	34	6.2	2.7	2.0
30	6						7.2	72	40	6.2	2.7	2.0
31	6						6	90		6.2	3.3	
Total	261.2	150	124	93	56	46.5	71.6	1,207.8	1,356	550.6	171.4	83.8
Mean	8.43	5	4	3	2	1.5	2.39	39.0	45.2	17.8	5.53	2.79
Ac-ft	518	298	246	184	111	92	142	2,400	2,690	1,090	340	166

Calendar year 1965: Max 160 Min - Mean 20.0 Ac-ft 14,480

Water year 1965-66: Max 80 Min - Mean 11.4 Ac-ft 8,280

Peak discharge (base, 80 cfs)--May 7 (2000) 106 cfs (1.78 ft), May 31 or June 1 168 cfs (2.06 ft), July 1 about 100 cfs.

Note--No gage-height record Nov. 10 to Apr. 25, May 31 to June 16, June 24 to July 28.

9-0772. Fryingpan River near Ivanhoe Lake, Colo.

Location.--Lat 39°14'45", long 106°31'50", on left bank 200 ft downstream from Martin Creek, 2 miles southwest of Ivanhoe Lake, and 9 miles southeast of Norrie, Pitkin County.

Drainage area.--18.7 sq mi.

Records available.--October 1963 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 9,940 ft (from topographic map).

Extremes.--Maximum discharge during year, 386 cfs July 1 (gage height, 2.97 ft), from rating curve extended above 230 cfs; minimum not determined.

1963-66: Maximum discharge, 391 cfs June 22, 1965 (gage height, 3.02 ft), from rating curve extended above 230 cfs; maximum gage height, 3.06 ft July 2, 1965 (backwater from log); minimum discharge not determined.

Remarks.--Records good except those for winter periods, which are poor. No diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	15					5.5	18	118	188	30	17
2	32	15					6	25	122	95	31	16
3	32	15					6	30	125	80	38	17
4	30	14					6	40	115	72	50	17
5	29	14					5.5	70	97	67	39	16
6	28	14					5	100	78	60	33	17
7	27	14					5	128	74	54	30	17
8	27	14				4.5	5	130	90	51	28	15
9	26	14					5.5	118	69	49	27	15
10	25	14					5.5	81	80	48	25	15
11	24	14					5	53	72	52	24	15
12	23	14					5	41	76	67	31	15
13	22	13					6	35	91	49	27	15
14	22	14					6.5	31	91	45	25	14
15	21	13					7	31	97	40	24	18
16	21	12	6	5.5	5		7	35	91	39	22	16
17	22	12					7	42	85	40	21	15
18	23	11					6.5	49	85	49	20	14
19	21	11					6	60	83	51	21	13
20	21	11					5.5	76	87	47	27	13
21	21	10					5.5	89	87	43	23	13
22	21	9					5.5	85	85	41	20	13
23	20	10				5	5.5	80	85	40	19	13
24	20	10					6.5	91	81	42	18	12
25	19	9					8	112	76	42	18	12
26	18	8.5					10	101	74	37	17	12
27	17	8					11	81	69	39	16	12
28	17	7.5					12	90	67	37	16	12
29	17	8					13	95	69	33	15	11
30	17	8.5					15	112	81	31	15	11
31	16							120		31	18	
Total	709	356.5	186	170.5	140	147.5	208.5	2,239	2,580	1,659	768	431
Mean	22.9	11.9	6	5.5	5	4.8	6.95	72.2	86.0	53.5	24.8	14.4
Ac-ft	1,410	707	369	338	278	293	414	4,440	5,120	3,290	1,520	855

Calendar year 1965: Max 355 Min - Mean 47.4 Ac-ft 34,280  
 Water year 1965-66: Max 188 Min - Mean 26.3 Ac-ft 19,030

Peak discharge (base, 250 cfs)--July 1 (0100) 386 cfs (2.97 ft).

Note.--No gage-height record Nov. 24 to Apr. 14.

9-0774. Fryingpan River near Norrie, Colo.

Location.--Lat 39°17'45", long 106°36'10", in sec.1, T.9 S., R.83 W. (projected), on right bank just upstream from bridge at Horseshoe Bend Ranch, 0.1 mile upstream from Ivanhoe Creek, and 4 miles southeast of Norrie.

Drainage area.--32.2 sq mi.

Records available.--October 1963 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 8,760 ft (from topographic map).

Extremes.--Maximum discharge during year, 298 cfs July 1 (gage height, 3.02 ft); minimum not determined.  
1963-66: Maximum discharge, 530 cfs June 19, 1965 (gage height, 3.82 ft); minimum not determined.

Remarks.--Records good except those for winter periods, which are poor. No regulation or diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	21				8	14	48	168	175	41	20
2	50	20				8	14	59	168	103	41	18
3	50	20				7.5	14	77	162	87	50	18
4	47	20				6.5	14	109	152	78	67	18
5	45	20				6.5	13	139	134	75	55	18
6	42	19				7	12	170	116	69	45	16
7	40	18				7.5	12	192	110	62	39	18
8	39	19				7.5	13	198	121	58	36	16
9	38	19				7	14	185	107	56	34	16
10	37	19				7	14	154	118	53	33	16
11	36	20				7.5	14	112	110	61	31	16
12	34	18				7.5	13	89	107	74	44	16
13	33	18				7	13	76	110	60	39	16
14	32	19				6.5	13	68	113	58	32	15
15	31	18				6.5	15	67	117	51	31	18
16	31	18	10	9	8	6.5	18	76	113	48	28	16
17	31	17				7	19	89	107	49	26	15
18	34	15				7	19	99	107	62	25	14
19	32	15				6.8	18	114	100	63	26	14
20	31	15				6.8	17	134	105	65	37	14
21	28	14				6.8	16	147	102	56	31	14
22	28	14				6.5	16	149	102	53	25	13
23	28	16				6.5	16	142	96	52	24	13
24	28	15				6.5	18	158	91	55	23	13
25	26	15				7	24	173	86	57	21	13
26	25	14				8	33	164	86	48	20	13
27	23	13				9	32	141	81	51	20	13
28	23	12				11	28	134	79	49	19	13
29	23	13			-	12	34	149	80	43	18	12
30	23	14				12	42	172	89	41	18	12
31	22					13		178		39	20	
Total	1,036	508	310	279	224	239.9	552	3,962	3,337	1,951	999	457
Mean	33.4	16.9	10	9	8	7.74	18.4	128	111	62.9	32.2	15.2
Ac-ft	2,050	1,010	615	553	444	476	1,090	7,860	6,620	3,870	1,980	906

Calendar year 1965: Max 449 Min - Mean 70.4 Ac-ft 51,000

Water year 1965-66: Max 198 Min - Mean 38.0 Ac-ft 27,470

Peak discharge (base, 350 cfs).--No peak above base.

Note.--No gage-height record Nov. 27 to Mar. 15.

9-0776. Ivanhoe Creek near Norrie, Colo.

Location.--Lat 39°17'20", long 106°33'10", on right bank near Public Service powerline cabin, 1½ miles downstream from Lyle Creek, 3 miles upstream from mouth, and 6½ miles southeast of Norrie, Pitkin County.

Drainage area.--9.12 sq mi.

Records available.--October 1963 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 10,350 ft (from topographic map).

Extremes.--Maximum discharge during year, about 80 cfs May 7; minimum daily, 0.4 cfs Sept. 22-30.

1963-66: Maximum discharge, 180 cfs June 17, 1965 (gage height, 5.87 ft), from rating curve extended above 90 cfs; maximum gage height, 6.50 ft May 17, 1964 (backwater from ice); minimum daily discharge, that of Sept. 22-30, 1966.

Remarks.--Records good except those for period of no gage-height record, which are poor. Transmountain diversions above station through Busk-Ivanhoe tunnel to Arkansas River basin (see elsewhere in this report).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.5	3.3						12	21	6.0	1.2	0.9
2	7.2	3.3						18	18	4.4	1.2	.7
3	8.5	3.2						24	15	3.9	2.0	.8
4	8.0	3.2						32	13	3.5	3.6	.9
5	6.7	3.0						40	12	3.4	2.4	.6
6	5.9	2.9					3.5	50	10	3.1	1.6	.6
7	5.3	2.8						60	9.5	3.0	1.3	.7
8	4.8	2.8						55	11	2.8	1.2	.6
9	4.5	2.7						55	10	2.7	1.0	.6
10	4.5							50	12	2.6	1.0	.6
11	5.1							31	9.5	2.7	.9	.6
12	5.6							23	8.6	3.5	2.7	.8
13	6.3							19	7.8	2.6	2.0	.6
14	7.2							17	7.4	2.6	1.4	.6
15	6.7		2.6	2.4	2.2	2.5	4.5	17	7.4	2.1	1.3	1.2
16	6.5							23	7.4	2.1	1.0	.9
17	7.2							28	7.6	2.3	.9	.6
18	8.0							31	7.6	2.0	.9	.6
19	8.0							36	7.0	2.9	1.0	.6
20	7.6							34	6.8	3.2	1.9	.5
21	7.2	2.8						34	6.8	2.1	1.6	.5
22	6.9							32	6.4	2.1	1.1	.4
23	5.6							34	5.8	1.9	.9	.4
24	5.3							40	5.3	2.6	.9	.4
25	4.7						7	44	5.1	2.6	.8	.4
26	4.5							37	5.0	1.9	.6	.4
27	4.2							22	4.9	1.7	.6	.4
28	4.1							23	4.6	1.6	.6	.4
29	3.8							25	4.5	1.4	.6	.4
30	3.7							21	4.7	1.3	.6	.4
31	3.6							23		1.2	.9	
Total	182.7	86.0	80.6	74.4	61.6	77.5	150.0	990	261.7	81.8	39.7	18.1
Mean	5.89	2.87	2.6	2.4	2.2	2.5	5.0	31.9	8.72	2.64	1.28	0.60
Ac-ft	362	171	160	148	122	154	298	1,960	519	162	79	36

Calendar year 1965: Max 124 Min - Mean 14.3 Ac-ft 10,350  
 Water year 1965-66: Max 60 Min 0.4 Mean 5.76 Ac-ft 4,170

Note.--No gage-height record Nov. 10 to May 10.



## ROARING FORK RIVER BASIN

9-0778. South Fork Fryingpan River at upper station, near Norrie, Colo.

Location--Lat 39°14'30", long 106°35'35", on left bank 5 miles upstream from mouth and 7 miles southeast of Norrie, Pitkin County.Drainage area--11.5 sq mi.Records available--October 1963 to September 1966.Gage--Water-stage recorder. Altitude of gage is 9,960 ft (from topographic map).Extremes--Maximum discharge during year, 163 cfs June 1 (gage height, 2.87 ft); minimum not determined.

1963-66: Maximum discharge, 266 cfs June 19, 1965 (gage height, 3.25 ft), from rating curve extended above 150 cfs; minimum not determined.

Remarks--Records good except those for winter periods, which are poor. No diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20						3.6	11	99	82	14	7.2
2	21						3.8	19	97	48	14	6.8
3	22						4.0	27	91	42	20	7.2
4	21						3.8	42	86	38	31	7.2
5	20						3.4	59	74	37	19	7.2
6	19						3.2	74	58	33	15	6.8
7	18						3.2	86	58	29	14	6.8
8	17					3	3.2	88	60	27	12	6.5
9	17						4.0	80	53	25	11	6.2
10	16						4.0	56	67	27	10	6.2
11	15						4.0	30	62	30	9.6	6.5
12	14						4.0	22	65	31	17	6.5
13	14						3.8	18	64	26	14	6.5
14	14						3.4	16	71	23	11	6.0
15	13						3.4	17	73	20	10	7.6
16	12	6	5.5	4.5	4		3.8	23	71	19	9.6	6.8
17	12						4.5	29	69	19	9.0	6.2
18	12						4.5	37	69	22	9.0	6.0
19	12						4.2	49	62	26	9.6	6.0
20	12						3.8	59	60	23	13	5.8
21	11						3.6	65	65	20	10	5.8
22	11						4.0	59	65	20	9.0	5.5
23	11					4	4.0	58	59	20	8.2	5.5
24	11						4.2	74	53	20	7.9	5.5
25	10						5.2	88	48	19	7.6	5.5
26	10						6.2	80	48	17	7.2	5.5
27	10						6	71	47	16	7.2	5.2
28	10						5.5	71	44	15	6.8	5.2
29	9.5						7.2	86	44	14	7.2	5.5
30	9						8.2	102	50	13	7.2	5.2
31	9							102		12	7.6	
Total	432.5	180	170.5	139.5	112	109	129.7	1698	1932	813	357.7	186.4
Mean	14.0	6	5.5	4.5	4	3.5	4.32	54.8	64.4	26.2	11.5	6.21
Ac-ft	858	357	338	277	222	216	257	3,370	3,830	1,610	709	370

Calendar year 1965: Max 196 Min .- Mean 29.6 Ac-ft 21,430

Water year 1965-66: Max 102 Min - Mean 17.2 Ac-ft 12,410

Peak discharge (base, 200 cfs)--No peak above base.

Note--No gage-height record Nov. 10 to Mar. 30.

9-0779. South Fork Fryingpan River near Norrie, Colo.

Location.--Lat 39°18'05", long 106°37'05", in sec.1, T.9 S., R.83 W. (projected), on right bank 100 ft downstream from trail crossing, half a mile upstream from mouth, and 3 miles southeast of Norrie.

Drainage area.--17.3 sq mi.

Records available.--October 1963 to September 1966.

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

Extremes.--Maximum discharge during year, 182 cfs June 1 (gage height, 2.84 ft), from rating curve extended above 80 cfs; minimum not determined.  
1963-66: Maximum discharge, 429 cfs June 19, 1965 (gage height, 3.51 ft), from rating curve extended above 170 cfs; minimum not determined.

Remarks.--Records good except those for winter periods, which are poor. One small diversion above station to Nast Lake.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	14					8.5	21	116	78	17	10
2	28	14					8.5	30	112	49	18	9.8
3	29						8.5	42	104	42	23	10
4	28						8	59	94	39	31	11
5	27						7	83	83	39	24	11
6	25						6.5	102	68	36	19	10
7	23						6.5	110	67	33	17	10
8	23					3.5	7	121	72	32	17	9.5
9	23						8	110	61	30	16	9.2
10	21						8.5	87	75	30	15	9.2
11	21						8.5	53	72	34	14	11
12	20						8.5	42	72	38	20	11
13	20						8	35	70	32	19	10
14	20						7	32	72	30	16	9.8
15	19						7.5	33	76	26	15	11
16	18	8	6	5	4.5		8	36	72	25	14	11
17	18						9	44	68	25	14	9.5
18	19						9	50	70	27	14	9.5
19	18						8.5	62	65	30	14	9.2
20	18						8	80	62	27	18	9.0
21	17						8	91	65	24	16	9.0
22	17						8	83	65	23	14	9.0
23	17					5	9	78	59	22	13	8.8
24	18						10	94	53	22	12	8.8
25	16						11	110	49	22	11	8.8
26	16						15	100	49	19	11	8.8
27	15						13	89	47	19	11	8.8
28	15						14	91	46	18	10	8.8
29	15						15	104	47	17	10	8.8
30	14						18	123	48	16	10	8.8
31	14							121		16	11	
Total	618	252	186	155	126.0	132.5	280.0	2316	2079	920	484	289.1
Mean	19.9	8.40	6	5	4.5	4.3	9.33	74.7	69.3	29.7	15.6	9.64
Ac-ft	1,230	500	369	307	250	263	555	4,590	4,120	1,820	960	573

Calendar year 1965: Max 330 Min - Mean 41.0 Ac-ft 29,700

Water year 1965-66: Max 123 Min - Mean 21.5 Ac-ft 15,540

Peak discharge (base, 220 cfs)--No peak above base.

Note.--No gage-height record Nov. 11 to Apr. 14.

## 9-0780. Fryingpan River at Norrie, Colo.

Location.--Lat 39°19'50", long 106°39'30", in NE¼ sec.28, T.8 S., R.83 W., on right bank 300 ft south of State Highway 104 at Norrie, 1 mile upstream from North Fork, and 2 miles downstream from Chapman Gulch.

Drainage area.--89.5 sq mi.

Records available.--October 1910 to March 1917, October 1947 to September 1966. Prior to October 1962, published as Fryingpan Creek at Norrie.

Gage.--Water-stage recorder. Altitude of gage is 8,410 ft (from river-profile map). February 1911 to March 1917 staff gages at site 200 ft upstream at different datums.

Average discharge.--25 years (1910-16, 1947-66), 124 cfs (89,770 acre-ft per year).

Extremes.--Maximum discharge during year, 545 cfs May 7 (gage height, 3.61 ft); minimum daily, 12 cfs Feb. 16, 17.

1910-17, 1947-66: Maximum discharge, 1,780 cfs June 30, 1957; maximum gage height, 5.55 ft June 28, 1957; minimum daily discharge, 8 cfs Dec. 26, 1962, but may have been less during periods of no gage-height record.

Remarks.--Records good except those for winter periods, which are poor. Transmountain diversions above station through Busk-Ivanhoe tunnel to Arkansas River basin since June 1925 (see elsewhere in this report).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	103	45	34	19	14	15	50	147	408	314	62	41
2	113	44	32	15	13	16	50	176	404	204	66	37
3	122	44	32	15	13	16	44	228	390	162	92	38
4	113	42	32	16	13	14	38	290	359	147	127	38
5	106	40	32	19	13	13	36	354	318	141	108	37
6	96	39	32	20	14	15	34	418	266	130	79	35
7	90	37	32	22	15	16	36	440	256	119	70	36
8	93	37	34	22	15	16	38	472	278	111	65	33
9	81	38	34	22	14	17	42	449	246	106	62	32
10	79	38	34	20	13	20	46	413	292	103	62	30
11	77	38	32	19	13	20	46	298	263	111	58	34
12	74	40	30	18	13	19	44	242	260	144	81	38
13	72	40	30	17	13	19	44	204	260	111	96	36
14	72	42	30	18	14	20	42	182	260	106	70	33
15	70	41	28	18	13	22	50	176	270	90	66	41
16	68	39	30	16	12	22	63	196	260	85	56	38
17	68	40	28	15	12	20	72	232	249	85	53	33
18	76	38	26	15	13	19	74	249	252	108	51	31
19	74	31	24	15	14	19	65	294	232	124	50	30
20	70	37	24	15	14	20	55	334	238	124	74	29
21	65	37	26	13	13	20	51	368	242	99	66	29
22	65	34	28	14	13	18	52	364	238	101	53	27
23	63	34	28	15	13	17	51	346	221	94	50	27
24	62	38	26	15	13	18	53	382	204	99	45	26
25	58	38	24	15	14	20	70	431	190	106	42	27
26	55	34	24	14	15	22	99	408	190	85	41	26
27	51	30	26	15	15	24	111	350	172	83	40	26
28	52	28	26	15	14	28	93	330	168	77	37	26
29	48	28	26	16	-	32	108	368	168	70	37	25
30	47	32	28	17	-----	36	130	400	179	63	36	25
31	46	-----	24	15	-----	40	-----	431	-----	60	42	-----
Total	2,319	1,123	896	520	378	633	1,777	9,972	7,723	3,562	1,937	964
Mean	74.8	37.4	28.9	16.8	13.5	20.4	59.2	322	257	115	62.5	32.1
Ac-ft	4,600	2,230	1,780	1,030	750	1,260	3,520	19,780	15,320	7,070	3,840	1,910

Calendar year 1965: Max 902 Min 13 Mean 166 Ac-ft 120,000

Water year 1965-66: Max 472 Min 12 Mean 87.1 Ac-ft 63,090

Peak discharge (base, 760 cfs).--No peak above base.

Note.--No gage-height record Jan. 4 to Mar. 16.

9-0781. North Fork Fryingpan River above Cunningham Creek, near Norrie, Colo.

Location.--Lat 39°21'25", long 106°34'30", on left bank 1.2 miles upstream from Cunningham Creek and 5½ miles east of Norrie, Pitkin County.Drainage area.--12.0 sq mi.Records available.--October 1963 to September 1966.Gage.--Water-stage recorder. Altitude of gage is 9,410 ft (from topographic map).Extremes.--Maximum discharge during year, 106 cfs May 8 (gage height, 2.80 ft); minimum daily, 2.3 cfs Sept. 30.

1963-66: Maximum discharge, 313 cfs June 17, 1965 (gage height, 4.07 ft); maximum gage height recorded, 4.24 ft Apr. 22, 1965 (backwater from ice); minimum daily discharge, that of Sept. 30, 1966.

Remarks.--Records good except those for winter periods, which are poor. No diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22							22	82	44	4.7	3.3
2	30							32	78	32	4.6	3.1
3	35							44	81	25	4.8	3.1
4	33							58	73	22	1.0	3.1
5	30							71	64	22	9.8	2.9
6	25							80	51	20	7.1	2.8
7	23							85	46	18	5.3	2.9
8	21					3	6	91	53	16	4.7	3.1
9	20							86	45	16	4.4	2.8
10	18							70	53	15	4.1	2.7
11	18							47	52	15	3.6	2.7
12	17							34	56	18	8.4	2.8
13	16							26	53	16	8.7	3.0
14	15							24	54	14	6.2	2.8
15	14							29	57	12	5.3	3.6
16	13	4.5	3	2.5	3			33	51	12	4.6	3.5
17	13							40	50	12	4.2	3.2
18	14							46	50	12	3.8	2.9
19	14							52	47	12	4.0	2.8
20	13							60	49	12	6.8	2.7
21	12							66	50	9.8	5.9	2.7
22	12							65	49	9.8	4.7	2.6
23	12					4	9	62	46	9.0	4.0	2.5
24	11							69	41	11	3.6	2.4
25	10							82	37	10	3.3	2.4
26	9.8							82	35	8.7	3.2	2.4
27	9.4							73	29	8.0	3.0	2.4
28	9							70	29	7.1	2.9	2.4
29	8.5							77	28	5.9	2.7	2.4
30	8							77	28	5.0	2.7	2.3
31	7.5							86		4.8	3.2	
Total	513.2	135.0	93	77.5	84	109	225	1,839	1,517	454.1	154.3	84.3
Mean	16.6	4.5	3	2.5	3	3.5	7.5	59.3	50.6	14.6	4.98	2.81
Ac-ft	1,020	268	184	154	167	216	446	3,650	3,010	901	306	167

Calendar year 1965: Max 235 Min - Mean 29.5 Ac-ft 21,370  
 Water year 1965-66: Max 91 Min 2.3 Mean 14.5 Ac-ft 10,490

Peak discharge (base, 150 cfs).--No peak above base.

Note.--No gage-height record Nov. 16 to Apr. 29.

9-0782. Cunningham Creek near Norrie, Colo.

Location.--Lat 39°20'05", long 106°34'30", on left bank half a mile upstream from unnamed tributary, 1½ miles upstream from mouth, and 4½ miles east of Norrie, Pitkin County.

Drainage area.--7.12 sq mi.

Records available.--October 1963 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 9,600 ft (from topographic map).

Extremes.--Maximum discharge during year, 65 cfs June 1 (gage height, 1.97 ft), from rating curve extended above 40 cfs; maximum gage height, 2.33 ft Apr. 14 (backwater from ice); minimum daily discharge, 0.6 cfs Sept. 28-30.

1963-66: Maximum discharge, 218 cfs June 17, 1965 (gage height, 2.57 ft), from rating curve extended above 120 cfs; maximum gage height, 3.45 ft Apr. 30, 1965 (backwater from ice); minimum daily discharge, that of Sept. 28-30, 1966.

Remarks.--Records good except those for winter periods, which are poor. No diversion or regulation above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.4						2.6	13	53	12	2.0	1.3
2	11						2.6	16	51	8.7	1.8	1.2
3	12						2.6	21	48	7.1	2.0	1.2
4	11						2.4	26	44	5.5	4.6	1.2
5	10						2.6	36	40	5.0	3.5	1.0
6	8.7						2.8	41	32	4.3	2.3	.9
7	7.5						2.8	43	32	3.8	2.0	.9
8	6.8						2.8	50	34	3.5	1.9	.9
9	6.4						3.0	47	28	3.2	1.9	.8
10	5.8						3.0	40	36	3.1	1.8	.8
11	5.3						2.8	26	33	3.3	1.8	.8
12	5.0						2.8	19	30	4.8	4.8	1.1
13	4.6						3.0	16	27	3.3	3.3	1.2
14	4.3						3.0	15	27	3.0	2.3	1.0
15	4.1						3.4	15	26	2.7	2.2	1.8
16	4.1	3	2.5	2	2	2.5	3.0	18	26	2.7	2.1	1.5
17	4.1						2.8	22	26	2.7	2.0	1.2
18	4.6						2.6	26	24	3.0	1.9	1.0
19	4.6						2.4	28	22	3.2	2.0	.9
20	4.3						2.6	35	20	3.0	2.8	.8
21	4.2						2.6	40	20	2.4	2.2	.8
22	4.4						2.8	40	19	2.4	1.8	.7
23	4.4						2.8	43	16	2.7	1.8	.7
24	4.0						2.6	47	14	4.3	1.8	.7
25	4.0						3.0	50	12	4.6	1.7	.7
26	4.0						4.0	51	12	2.8	1.7	.7
27	4.0						6	47	11	2.4	1.6	.7
28	3.2						7	46	9.4	2.3	1.4	.6
29	3.4						7.5	51	9.8	2.2	1.2	.6
30	3.4						11	51	9.4	2.2	1.2	.6
31	3.4							53		2.0	1.3	
Total	176.0	90	77.5	62	56	77.5	104.9	1,072	791.6	118.2	66.7	28.3
Mean	5.68	3	2.5	2	2	2.5	3.50	34.6	26.4	3.81	2.15	0.94
Ac-ft	349	179	154	123	111	154	208	2,130	1,570	234	132	56

Calendar year 1965: Max 155 Min - Mean 15.9 Ac-ft 11,510

Water year 1965-66: Max 53 Min 0.6 Mean 7.45 Ac-ft 5,400

Peak discharge (base, 100 cfs).--No peak above base.

Note.--No gage-height record Nov. 11 to Apr. 13.

9-0783. North Fork Fryingspan River below Cunningham Creek, near Norrie, Colo.

Location.--Lat 39°20'35", long 106°36'40", in sec.24, T.8 S., R.83 W., on right bank 200 ft upstream from campground, 1.2 miles downstream from Cunningham Creek, and 2½ miles east of Norrie.

Drainage area.--24.2 sq mi.

Records available.--October 1963 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 8,770 ft (from topographic map).

Extremes.--Maximum discharge during year, 161 cfs May 25 (gage height, 1.82 ft); minimum daily, 3.0 cfs Sept. 28-30.  
1963-66: Maximum discharge, 561 cfs June 17, 1965 (gage height, 2.96 ft), from rating curve extended above 360 cfs; minimum daily, that of Sept. 28-30, 1966.

Remarks.--Records good except those for winter periods, which are poor. No diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966												
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28					6	15	46	133	53	7.2	6.8
2	37						16	57	127	41	7.6	6.0
3	43						16	75	125	34	9.4	6.0
4	40						15	87	117	32	21	6.0
5	37						13	109	103	30	21	5.6
6	33						12	123	89	26	13	4.8
7	30						13	125	83	24	11	4.8
8	26						14	129	93	21	8.7	5.2
9	24						15	129	75	19	7.6	4.8
10	22						15	113	87	19	7.2	4.4
11	21	8	6	5	5.5	8	14	79	81	20	6.8	4.4
12	19						13	63	85	25	19	5.2
13	18						12	50	81	20	20	5.6
14	17						13	45	81	17	13	5.2
15	16						17	50	81	15	11	7.2
16	15						18	55	75	14	8.7	7.6
17	15						18	69	73	15	7.6	5.6
18	16						18	77	73	19	7.6	4.4
19	16						17	85	65	20	8.0	4.4
20	15						16	97	67	17	14	3.8
21	14					8	16	109	67	14	13	3.8
22	14						16	107	65	14	9.4	3.6
23	14						16	109	57	14	8.7	3.6
24	14						16	117	50	18	7.6	3.4
25	13						20	133	46	18	7.2	3.4
26	12						32	133	43	13	6.4	3.4
27	11						33	123	38	12	6.4	3.2
28	11						34	117	37	10	5.6	3.0
29	10						29	133	35	8.7	5.6	3.0
30	10						40	129	37	8.0	5.6	3.0
31	10						137		7.6	6.8		
Total	621	240	186	155	154.0	218	552	3,010	2,269	618.3	311.7	141.2
Mean	20.0	8	6	5	5.5	7	18.4	97.1	75.6	19.9	10.1	4.71
Ac-ft	1,230	476	369	307	305	432	1,090	5,970	4,500	1,230	618	280

Calendar year 1965: Max 428 Min - Mean 50.9 Ac-ft 36,850  
Water year 1965-66: Max 137 Min 3.0 Mean 23.2 Ac-ft 16,810

Peak discharge (base, 250 cfs).--No peak above base.

Note.--No gage-height record Nov. 21 to Apr. 14.

9-0785. North Fork Fryingpan River near Norrie, Colo.

Location.--Lat 39°20'40", long 106°39'50", in N½ sec.21, T.8 S., R.83 W., on left bank 1,000 ft upstream from bridge on State Highway 104, a quarter of a mile upstream from mouth, half a mile downstream from Last Chance Creek, and 1 mile northwest of Norrie.

Drainage area.--41.2 sq mi.

Records available.--October 1910 to March 1917, October 1947 to September 1966. Prior to October 1962, published as North Fork Fryingpan Creek near Norrie.

Gage.--Water-stage recorder. Altitude of gage is 8,400 ft (from topographic map). Feb. 18, 1911, to Mar. 31, 1917, staff gage at site 10 ft downstream at different datum. Oct. 1, 1947, to Sept. 30, 1949, water-stage recorder at present site at datum 2.00 ft higher.

Average discharge.--25 years (1910-16, 1947-66), 52.1 cfs (37,720 acre-ft per year).

Extremes.--Maximum discharge during year, 241 cfs May 7 (gage height, 3.77 ft); minimum daily, 4.9 cfs Sept. 24, 38, 30.

1910-17, 1947-66: Maximum discharge, 1,320 cfs June 6, 1958, from rating curve extended above 700 cfs; maximum gage height, 5.80 ft May 21, 1948 (present datum); minimum daily discharge, 0.5 cfs Nov. 1, 1950.

Remarks.--Records good except those for winter periods, which are poor. One small diversion bypasses station for domestic use and irrigation of pasture.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40						34	75	184	81	13	6.8
2	56						38	100	174	54	13	6.5
3	62						38	122	170	42	15	6.2
4	61						36	140	156	36	27	7.0
5	52						32	164	135	34	27	5.8
6	46						28	180	115	33	19	5.5
7	41						28	191	105	29	15	5.5
8	36					7	32	198	122	28	13	6.2
9	34						34	194	105	27	12	5.5
10	31						34	174	122	25	11	5.1
11	30						32	127	115	27	10	5.5
12	28						30	108	115	31	20	6.2
13	27						30	84	108	28	22	7.0
14	26						34	76	105	24	15	6.5
15	25						38	83	108	22	14	9.2
16	24	10	7	6	6		42	93	101	21	12	10
17	24						44	108	96	22	11	7.8
18	25						44	117	94	25	9.8	6.2
19	25						42	131	84	27	9.5	6.2
20	24						40	145	88	24	16	5.8
21	22						34	162	89	20	14	5.8
22	23						26	156	89	20	12	5.3
23	22					13	26	153	78	21	9.8	5.1
24	22						25	164	66	25	8.9	4.9
25	20						31	184	60	25	8.3	5.3
26	18						42	184	57	20	7.2	5.3
27	17						46	167	47	19	6.2	5.1
28	17						41	159	46	17	5.8	4.9
29	16						47	184	44	16	5.1	5.1
30	15						62	177	48	14	5.3	4.9
31	14							188		14	6.8	
Total	923	300	217	186	168	313	1,090	4,488	3,026	851	393.7	182.2
Mean	29.8	10	7	6	6	10	36.3	145	101	27.5	12.7	6.07
Ac-ft	1,830	595	430	369	333	621	2,160	8,900	6,000	1,690	781	361

Calendar year 1965: Max 550 Min - Mean 70.2 Ac-ft 50,820

Water year 1965-66: Max 198 Min 4.9 Mean 33.3 Ac-ft 24,070

Peak discharge (base, 420 cfs)--No peak above base.

Note.--No gage-height record Nov. 10 to Apr. 20.

9-0789. Lime Creek near Troutville, Colo.

Location.--Lat 39°26'00", long 106°35'45", in sec.19, T.7 S., R.82 W. (projected), on left bank 600 ft upstream from Eagle Lake and 2 miles northeast of Troutville.

Drainage area.--4.56 sq mi.

Records available.--October 1963 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 10,080 ft (from topographic map).

Extremes.--Maximum discharge during year, 84 cfs May 7 (gage height, 2.67 ft); minimum not determined.

1963-66: Maximum discharge, 128 cfs June 17, 1965 (gage height, 3.07 ft), from rating curve extended above 80 cfs; minimum not determined.

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

Revisions.--Revised figures of monthly and yearly discharge for water year 1965, superseding those previously published, are given herewith:

Month	Cfs-days	Mean	Runoff in acre-feet
April.....	51.0	1.7	101
Water year 1964-65.....	-	13.7	9,900

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12							10	36	31	6.7	4.0
2	16							17	37	24	6.7	3.5
3	20							25	42	20	7.8	2.9
4	20							38	37	17	18	2.9
5	20							52	31	16	21	2.6
6	16							51	21	16	16	2.2
7	13							52	18	14	11	1.8
8	11							54	22	11	8.4	1.7
9	9.5							42	20	11	6.7	1.6
10	8.4							34	22	10	5.8	1.5
11	7.8							20	22	11	5.0	1.4
12	6.7							14	25	13	8.4	1.5
13	5.8							9.2	26	11	1.2	1.7
14	5.0							7.4	25	9.5	8.8	1.7
15	4.5							7.4	27	8.8	7.0	3.0
16	4.0	1.6	1.4	1.2	1.0	0.8		8.8	24	9.5	5.5	3.2
17	3.5							12	22	11	4.8	2.6
18	3.5							14	24	14	4.0	2.2
19	3.8							20	22	16	3.5	1.9
20	3.4							26	24	17	7.8	1.7
21	3.0							32	28	13	9.5	1.5
22	2.9							33	35	11	7.0	1.3
23	2.6							26	28	11	5.2	1.1
24	2.4							33	24	14	4.0	1.8
25	2.3							42	22	13	3.5	1.9
26	2.0							36	20	11	2.9	1.9
27	1.9							30	16	10	2.6	1.8
28	1.8							28	18	9.5	2.3	1.6
29	1.7							38	18	8.1	1.9	1.6
30	1.5							38	20	7.4	1.9	1.4
31	1.5							41		6.7	3.8	
Total	217.5	48.0	43.4	37.2	28.0	24.8	60	890.8	756	405.5	219.5	61.5
Mean	7.02	1.6	1.4	1.2	1.0	0.8	2	28.7	25.2	13.1	7.08	2.05
Ac-ft	431	95	86	74	56	49	119	1,770	1,500	804	435	122

Calendar year 1965: Max 96 Min - Mean 14.1 Ac-ft 10,210  
 Water year 1965-66: Max 54 Min - Mean 7.65 Ac-ft 5,540

Peak discharge (base, 80 cfs).--May 7 (2300) 84 cfs (2.67 ft).

Note.--No gage-height record Oct. 30 to Apr. 29.



9-0804. Fryngpan River near Ruedi, Colo.

Location.--Lat 39°22'10", long 106°51'12", in SW¼ sec.11, T.8 S., R.85 W., on left bank 20 ft upstream from private bridge, 0.7 mile downstream from Snyder Gulch, and 3 miles west of Ruedi.

Drainage area.--238 sq mi.

Records available.--October 1964 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 7,300 ft (from topographic map).

Extremes.--Maximum discharge during year, 1,080 cfs May 8 (gage height, 2.88 ft); minimum daily, 28 cfs Mar. 4.  
1964-66: Maximum discharge, 2,690 cfs June 18, 1965 (gage height, 5.16 ft); minimum daily, 28 cfs Mar. 4, 1966.

Remarks.--Records good except those for winter periods, which are poor. Diversions for irrigation of several hundred acres and small transmountain diversions above station to Arkansas River basin.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	173	96	55	50	40	32	127	288	873	490	120	80
2	214	91	60	48	38	34	153	369	852	382	120	76
3	225	93	65	44	36	34	140	441	817	320	153	74
4	225	95	65	44	34	28	110	540	782	272	218	74
5	210	90	65	46	34	32	95	677	691	252	233	74
6	193	85	70	48	36	36	90	803	586	233	180	73
7	177	87	70	55	38	38	91	859	525	210	150	72
8	162	82	70	55	38	43	96	1,010	580	183	131	70
9	150	88	65	50	36	41	110	915	510	170	118	67
10	142	72	60	48	34	39	118	859	568	167	114	66
11	140	79	55	46	34	39	124	664	525	173	101	65
12	133	85	55	44	34	40	110	545	520	236	124	69
13	129	79	55	44	36	39	107	460	510	196	186	72
14	133	78	60	42	36	42	96	410	495	186	133	66
15	124	84	60	40	34	46	103	387	505	164	124	74
16	120	84	55	36	32	49	127	405	490	153	112	85
17	120	84	55	36	34	48	145	470	460	153	105	76
18	127	80	55	40	34	45	150	500	465	170	98	69
19	135	72	55	40	34	49	140	568	432	225	95	66
20	122	78	50	38	34	50	118	658	428	240	120	64
21	114	85	50	36	32	46	105	733	441	196	127	62
22	120	58	50	40	30	44	112	747	450	193	110	61
23	120	79	55	40	30	44	107	733	423	180	99	58
24	116	80	60	38	32	46	105	803	382	193	101	57
25	110	84	60	38	34	49	124	894	356	203	91	56
26	105	74	60	38	34	55	173	880	336	180	87	56
27	101	70	55	38	32	64	214	789	316	162	79	55
28	107	65	55	40	30	72	173	719	304	156	78	54
29	96	55	55	42	-	85	196	810	292	140	69	54
30	98	50	60	44	-----	91	240	859	316	131	69	54
31	96	-----	55	42	-----	105	-----	887	-----	124	74	-----
Total	4,337	2,382	1,815	1,330	960	1,505	3,899	20,682	15,230	6,433	3,719	1,999
Mean	140	79.4	58.5	42.9	34.3	48.5	130	667	508	208	120	66.6
Ac-ft	8,600	4,720	3,600	2,640	1,900	2,990	7,730	41,020	30,210	12,760	7,380	3,960

Calendar year 1965: Max 2,370 Min 30 Mean 348 Ac-ft 251,900  
Water year 1965-66: Max 1,010 Min 28 Mean 176 Ac-ft 127,500

Peak discharge (base, 1,600 cfs).--No peak above base.

Note.--No gage-height record Feb. 2 to Mar. 7.

9-0808. West Sopris Creek near Basalt, Colo.

Location.--Lat 39°20'10", long 107°05'40", in S½ sec.22, T.8 S., R.87 W., on right bank 30 ft downstream from private bridge, 2½ miles upstream from East Sopris Creek, and 4 miles southwest of Basalt.

Drainage area.--14.4 sq mi.

Records available.--October 1963 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 7,210 ft (from topographic map).

Extremes.--Maximum discharge during year, 11 cfs May 11 (gage height, 1.88 ft); minimum daily, 0.8 cfs Mar. 5.  
1963-66: Maximum discharge, 52 cfs May 22, 1965 (gage height, 2.79 ft), from rating curve extended above 35 cfs; minimum daily, that of Mar. 5, 1966.

Remarks.--Records good except those for period of no gage-height record, which are poor. Small diversions above station for irrigation of hay meadows. Water exported from Dinkle Lake above station to Prince Creek drainage.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.1					1.2	2.0	7.8	3.6	4.3	2.8	3.2
2	3.0					1.3	2.0	8.0	3.6	4.2	2.8	3.2
3	2.9					1.3	2.0	8.6	3.7	3.4	3.0	3.2
4	2.9					1.0	2.0	9.4	4.0	3.2	3.3	3.2
5	2.8					.8	2.0	9.2	4.2	3.2	3.0	3.2
6	2.8					.9	2.1	8.3	4.2	3.2	2.9	3.2
7	2.8					.9	2.1	8.3	3.9	3.0	2.8	3.2
8	2.8					.9	2.2	8.0	3.9	2.9	2.8	3.2
9	2.7					1.0	2.2	8.6	4.0	2.8	2.9	3.2
10	2.7					1.0	2.3	7.5	4.3	2.6	2.7	3.2
11	2.7					1.2	2.5	8.3	4.6	2.6	2.6	3.2
12	2.7					1.2	2.6	8.0	4.4	2.6	2.9	3.2
13	2.7					1.2	2.6	6.8	4.0	2.6	2.7	3.2
14	2.7					1.4	2.6	6.5	4.3	2.9	2.6	3.3
15	2.7					1.6	2.6	6.1	4.0	3.0	2.6	3.3
16	2.7	2.5	2.2	2.0	1.6	2.0	2.6	5.9	3.9	3.0	2.6	3.1
17	2.7					2.0	2.6	5.7	4.2	3.1	2.6	3.1
18	2.8					1.6	2.8	5.7	4.0	3.2	2.6	3.1
19	2.8					1.6	3.2	5.4	4.2	3.1	2.6	3.0
20	2.8					1.8	3.2	4.9	4.2	3.1	2.6	3.0
21	2.7					1.8	3.3	4.9	3.5	3.2	2.6	3.0
22	2.7					1.4	3.6	4.3	3.5	3.1	2.5	3.0
23	2.7					1.0	3.6	3.5	3.4	3.1	2.4	3.0
24	2.8					1.2	3.5	3.5	3.6	3.1	2.5	2.8
25	2.8					1.2	3.7	3.4	3.9	3.0	2.9	2.7
26	2.8					1.4	4.2	3.6	4.0	2.9	3.0	2.7
27	2.7					1.6	4.9	4.0	3.9	2.9	3.1	2.7
28	2.7					1.6	5.0	4.2	3.9	2.8	3.1	2.8
29	2.7					1.8	6.1	4.3	3.9	2.8	3.1	2.7
30	2.7					1.8	7.2	3.7	4.4	2.8	3.2	2.7
31	2.7					1.9		4.3		2.7	3.2	
Total	85.8	75.0	68.2	62	44.8	42.6	93.3	190.7	119.2	94.4	87.0	91.6
Mean	2.77	2.5	2.2	2.0	1.6	1.37	3.11	6.15	3.97	3.05	2.81	3.05
Ac-ft	170	149	135	123	89	84	185	378	236	187	173	182

Calendar year 1965: Max 48 Min - Mean 6.24 Ac-ft 4,520  
Water year 1965-66: Max 9.4 Min 0.8 Mean 2.89 Ac-ft 2,090

Peak discharge (base, 40 cfs).--No peak above base.

Note.--No gage-height record Oct. 19 to Mar. 1.

9-0815.5. Crystal River at Placita, Colo.

Location.--Lat 39°08'30", long 107°15'20", in SE¼ sec.31, T.10 S., R.88 W., on right bank 0.1 mile downstream from highway bridge, 0.4 mile upstream from Bears Gulch, 0.7 mile north of Placita, and 3 miles upstream from Coal Creek.

Drainage area.--107 sq mi.

Records available.--October 1959 to September 1966.

Gage.--Water-stage recorder. Datum of gage is 7,371.89 ft above mean sea level (levels by U. S. Bureau of Reclamation).

Average discharge.--7 years, 206 cfs (149,100 acre-ft per year).

Extremes.--Maximum discharge during year, 940 cfs June 2 (gage height, 4.91 ft); minimum daily, 32 cfs Dec. 18.  
1959-66: Maximum discharge, 1,710 cfs June 20, 1965 (gage height, 5.65 ft); minimum daily, 12 cfs Mar. 3, 1965.

Remarks.--Records good except those for winter periods, which are fair. A few small diversions above station for irrigation of hay meadows.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	164	79	65	44	46	36	150	295	736	444	130	71
2	168	78	65	42	44	36	170	356	764	400	130	69
3	170	76	65	40	42	34	170	432	813	356	178	71
4	164	74	65	40	42	34	140	535	778	334	195	66
5	166	72	65	44	44	36	130	668	708	334	157	64
6	157	71	60	46	46	38	120	736	614	320	135	62
7	150	68	60	48	46	38	120	785	550	292	120	60
8	142	68	55	48	46	38	130	799	520	277	112	56
9	139	68	55	46	44	38	140	743	444	268	104	54
10	135	66	55	44	40	36	160	694	485	265	96	54
11	132	62	55	42	38	36	160	520	480	259	93	55
12	126	63	50	42	40	36	150	424	550	247	102	56
13	122	64	50	42	42	36	140	345	602	229	99	56
14	117	63	50	44	40	38	130	307	656	212	92	53
15	114	66	48	44	38	43	140	295	680	203	89	68
16	112	66	46	42	40	50	150	310	632	198	81	63
17	117	67	38	38	42	49	160	331	602	190	78	58
18	125	66	32	36	40	43	160	348	602	190	75	56
19	117	63	36	36	42	47	160	380	614	187	75	55
20	109	62	40	38	42	49	150	448	638	173	89	54
21	106	62	46	38	40	49	140	530	550	166	88	53
22	104	56	48	36	40	46	130	578	602	157	78	53
23	101	60	48	36	40	43	130	520	572	150	71	53
24	98	64	48	38	40	46	140	584	535	144	68	53
25	95	78	46	38	42	47	150	662	485	144	67	53
26	92	68	44	36	42	51	160	729	448	142	64	53
27	90	65	44	36	40	58	170	644	400	139	67	52
28	88	60	42	38	38	71	175	644	416	137	67	51
29	85	50	40	42	-	86	187	668	408	132	64	50
30	83	60	42	46	-	92	241	813	388	126	64	49
31	81	-----	44	48	-----	109	-----	806	-----	130	76	-----
Total	3,769	1,985	1,547	1,278	1,166	1,489	4,553	16,929	17,272	6,945	3,004	1,721
Mean	122	66.2	49.9	41.2	41.6	48.0	152	546	576	224	96.9	57.4
Ac-ft	7,480	3,940	3,070	2,530	2,310	2,950	9,030	33,580	34,260	13,780	5,960	3,410

Calendar year 1965: Max 1,550 Min 12 Mean 294 Ac-ft 213,000  
Water year 1965-66: Max 813 Min 32 Mean 169 Ac-ft 122,300

Peak discharge (base, 1,200 cfs).--No peak above base.

Note.--No gage-height record Jan. 2 to Mar. 14.

9-0816. Crystal River above Avalanche Creek, near Redstone, Colo.

Location.--Lat 39°13'55", long 107°13'35", in SW¼ sec.33, T.9 S., R.88 W., on right bank 1½ miles upstream from Avalanche Creek and 3½ miles north of Redstone.

Drainage area.--167 sq mi.

Records available.--October 1955 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 6,905 ft (from river-profile map).

Average discharge.--11 years, 287 cfs (207,800 acre-ft per year).

Extremes.--Maximum discharge during year, 1,250 cfs June 2 (gage height, 4.12 ft); minimum daily, 40 cfs Dec. 18.

1955-66: Maximum discharge, 3,980 cfs July 1, 1957 (gage height, 5.65 ft); minimum daily, 22 cfs Dec. 5, 1955, Feb. 15, 1964.

Remarks.--Records good except those for period of no gage-height record, which are fair. A few small diversions for irrigation above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	190	94	81	55	54	54	216	440	1,000	566	145	89
2	190	92	78	45	53	51	246	518	1,050	485	145	89
3	200	90	75	50	48	47	236	634	1,080	430	195	89
4	190	89	78	55	51	44	192	781	1,030	405	222	87
5	201	87	78	60	56	48	160	924	940	400	177	81
6	195	85	75	60	56	54	148	1,040	816	380	145	81
7	186	81	76	60	55	55	148	1,090	746	350	132	80
8	177	78	76	60	54	54	160	1,100	739	325	120	72
9	171	83	75	55	54	55	186	1,060	634	305	115	75
10	162	80	72	55	52	59	198	1,000	697	300	109	73
11	158	76	70	55	49	59	198	781	704	288	104	75
12	152	78	68	50	51	62	183	627	767	280	125	78
13	148	78	65	50	55	66	168	500	823	264	118	78
14	140	76	62	55	53	70	158	445	872	239	107	75
15	135	78	60	55	52	76	160	420	893	232	102	96
16	132	80	61	50	47	87	177	450	830	222	96	83
17	140	81	51	46	55	81	192	480	795	216	90	80
18	160	80	40	44	51	73	201	512	809	219	89	76
19	142	78	44	44	54	76	198	566	823	219	89	73
20	132	78	50	46	56	80	180	683	816	210	115	73
21	128	78	55	46	53	80	165	781	809	198	111	73
22	125	70	60	44	53	73	165	844	809	189	98	73
23	120	87	65	44	53	68	158	795	732	180	89	72
24	118	87	60	46	53	70	158	844	676	183	85	72
25	109	113	55	44	59	75	180	940	627	174	81	72
26	109	94	55	44	60	83	236	996	578	168	80	73
27	107	95	55	46	58	104	280	886	500	158	80	72
28	102	78	55	48	56	128	276	879	518	158	81	72
29	98	72	55	50	-	150	292	924	506	150	80	72
30	96	68	65	55	-----	162	360	1,070	490	142	80	70
31	96	-----	60	56	-----	195	-----	1,080	-----	142	92	-----
Total	4,509	2,474	1,975	1,573	1,501	2,439	5,975	24,090	23,109	8,177	3,497	2,324
Mean	145	82.5	63.7	50.7	53.6	78.7	199	777	770	264	113	77.5
Ac-ft	8,940	4,910	3,920	3,120	2,980	4,840	11,850	47,780	45,840	16,220	6,940	4,610

Calendar year 1965: Max 2,420 Min 30 Mean 400 Ac-ft 289,600

Water year 1965-66: Max 1,100 Min 40 Mean 224 Ac-ft 161,900

Peak discharge (base, 2,000 cfs).--No peak above base.

Note.--No gage-height record Dec. 19 to Jan. 30.

9-0828. North Thompson Creek near Carbondale, Colo.

Location.--Lat 39°19'47", long 107°19'58", in sec.28, T.8 S., R.89 W., on right bank 0.4 mile downstream from Yank Creek and 8½ miles southwest of Carbondale.

Drainage area.--26.8 sq mi.

Records available.--October 1963 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 8,120 ft (from topographic map).

Extremes.--Maximum discharge during year, 113 cfs May 9 (gage height, 2.97 ft); minimum daily, 0.4 cfs Sept. 26-30.  
1963-66: Maximum discharge, 322 cfs May 17, 1964 (gage height, 4.05 ft), from rating curve extended above 190 cfs; minimum daily, 0.3 cfs Sept. 9, 1964.

Remarks.--Records fair except those for winter periods, which are poor. Transbasin diversion above station by Thompson Creek feeder ditch for irrigation in West Divide Creek basin.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	3.8				1.6	22	83	47	8.5	2.5	1.3
2	10	3.6				1.5	27	85	39	7.6	2.5	.9
3	8.0	3.4				1.4	24	85	32	6.0	6.4	.9
4	6.8	3.4				1.3	22	86	29	5.6	10	1.0
5	6.4	3.4				1.4	21	98	27	4.0	7.2	.8
6	5.6	3.2				1.6	20	83	24	4.4	5.2	.7
7	5.2	3.2				1.7	20	83	23	3.7	4.4	.7
8	5.2	3.0				1.7	22	88	25	3.4	3.7	.7
9	4.8	3.2				1.6	28	93	22	2.8	3.7	.7
10	4.4	3.0				1.7	31	90	21	2.8	3.7	.6
11	4.0	2.8				1.8	29	78	19	3.4	3.7	.6
12	3.7	2.8				2.2	26	71	18	4.0	5.2	.8
13	3.4	2.5				2.4	23	63	16	4.0	3.7	1.2
14	3.7	2.8				2.8	23	55	12	2.8	3.1	1.0
15	3.7	2.6				3.2	24	52	12	2.2	3.7	1.6
16	3.7	2.4	2.0	1.8	1.6	3.2	29	56	12	1.6	2.5	1.0
17	4.4	2.4				3.0	33	60	12	1.6	3.7	.9
18	7.6	2.6				2.6	34	61	10	1.9	3.1	.9
19	7.2	2.6				2.6	32	60	9.5	2.5	3.4	.8
20	7.2	2.4				2.9	30	56	9.0	2.2	5.6	.8
21	6.8	2.2				2.9	31	58	9.5	1.3	4.8	.8
22	6.4	2.2				2.7	26	60	9.0	2.2	4.4	.7
23	6.0	2.2				2.5	25	58	7.2	2.5	3.7	.7
24	4.8	2.4				2.4	27	52	6.8	2.2	3.4	.6
25	4.2	2.6				3.0	34	50	6.0	2.2	2.5	.5
26	4.0	2.4				6	52	49	6.0	.8	2.5	.4
27	4.0	2.2				10	66	47	6.8	.8	1.9	.4
28	3.8	2.0				15	61	47	9.5	1.0	1.8	.4
29	3.8	2.0				20	63	47	8.5	.6	1.8	.4
30	3.8	2.0				19	74	47	9.5	.5	1.8	.4
31	3.8	-----				20	-----	55	-----	.9	2.5	-----
Total	166.4	81.3	62.0	55.8	44.8	145.7	979	2,046	497.3	90.0	118.1	23.2
Mean	5.37	2.71	2.0	1.8	1.6	4.70	32.6	66.0	16.6	2.90	3.81	0.77
Ac-ft	330	161	123	111	89	289	1,940	4,060	986	179	234	46
(+)	0	0	0	0	0	0	0	0	372	0	0	0

Calendar year 1965: Max 250 Min - Mean 25.0 Ac-ft 18,100  
Water year 1965-66: Max 93 Min 0.4 Mean 11.8 Ac-ft 8,550

Peak discharge (base, 160 cfs).--No peak above base.

+ Diversions, in acre-feet, by Thompson Creek feeder ditch; furnished by State engineer of Colorado.

Note.--No gage-height record Nov. 26 to Mar. 19.

9-0830. Thompson Creek near Carbondale, Colo.

Location.--Lat 39°19'50", long 107°13'25", in sec.28, T.8 S., R.88 W., on right bank 800 ft upstream from Camp Foster Creek, 1 mile upstream from mouth, and 5 miles south of Carbondale.

Drainage area.--75.7 sq mi.

Records available.--October 1950 to September 1960, October 1964 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 6,450 ft (from topographic map).

Average discharge.--12 years, 37.9 cfs (27,440 acre-ft per year).

Extremes.--Maximum discharge during year, 217 cfs May 7 (gage height, 2.96 ft); minimum daily, 3.9 Aug. 25, 28-30, Sept. 25-30. 1950-60, 1964-66: Maximum discharge, about 800 cfs between June 4 and 8, 1957; maximum gage height, 4.4 ft Aug. 27, 1955, from floodmarks; minimum daily discharge, 1.5 cfs Aug. 30 to Sept. 1, 1954.

Remarks.--Records fair except those for period of no gage-height record, which are poor. Small diversions for irrigation of hay meadows above station. Transbasin diversion above station through Thompson Creek feeder ditch to West Divide Creek.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24						54	149	169	26	9	5.3
2	23						60	156	147	22	9	5.3
3	20						55	165	126	19	11	5.6
4	18						46	167	116	17	18	5.3
5	17						40	173	108	15	10	5.0
6	16						34	180	98	14	8	4.6
7	15						30	185	92	13	7	4.6
8	14					6	30	192	103	11	6	4.6
9	13						38	202	94	11	5	4.6
10	12						50	198	92	10	4.6	4.1
11	11						50	165	84	11	4.1	4.1
12	10						46	145	77	10	5.6	4.6
13	9						40	124	69	14	6.5	6.2
14	10						34	113	60	13	4.6	5.3
15	10						34	114	56	13	4.6	6.8
16	10	9	9	8	7		40	126	54	12	4.3	5.3
17	13						46	140	52	13	4.1	4.6
18	18						55	154	46	11	4.3	4.6
19	17						60	151	42	12	4.3	4.3
20	17						55	154	38	11	6.5	4.3
21	16					15	55	149	38	11	5.6	4.3
22	15						50	151	36	10	4.8	4.1
23	14						48	156	32	11	4.6	4.1
24	13						48	151	28	10	4.6	4.1
25	12						60	145	26	10	3.9	3.9
26	11						80	134	26	10	4.1	3.9
27	11						110	126	26	10	4.1	3.9
28	10						114	126	24	11	3.9	3.9
29	10						116	130	24	9	3.9	3.9
30	10						34	145	25	8	3.9	3.9
31	10						41	178		8	5.3	
Total	429	270	279	248	196	390	1,702	4,744	2,008	386	185.2	139.1
Mean	13.8	9	9	8	7	12.6	56.7	153	66.9	12.5	5.97	4.64
Ac-ft	851	536	553	492	389	774	3,380	9,410	3,980	766	367	276

Calendar year 1965: Max 482 Min 1.6 Mean 59.3 Ac-ft 42,950  
 Water year 1965-66: Max 202 Min 3.9 Mean 30.1 Ac-ft 21,770

Peak discharge (base, 200 cfs).--May 7 (2000) 217 cfs (2.96 ft).

Note.--No gage-height record Oct. 10 to Mar. 28.

## ROARING FORK RIVER BASIN

9-0837. Prince Creek near Carbondale, Colo.

Location.--Lat 39°19'25", long 107°08'20", in SW¼SW¼, sec.29, T.8 S., R.87 W., on right bank 100 ft from county road, a quarter of a mile downstream from unnamed tributary, and 7 miles southeast of Carbondale.

Drainage area.--3.04 sq mi.

Records available.--October 1963 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 7,880 ft (from topographic map).

Extremes.--Maximum discharge during year, 15 cfs July 1 (gage height, 2.28 ft); minimum daily, 1.7 cfs Sept. 16-20.  
1963-66: Maximum discharge, 22 cfs July 17, 1965 (gage height, 2.35 ft); no flow Oct. 13, 1963.

Remarks.--Records good except those for period of no gage-height record, which are poor. Water imported above station from Dinkle Lake in West Sopris Creek drainage.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.8	4.8					4.1	3.8	11	12	6.0	3.6
2	4.8	4.8					4.1	4.1	10	11	6.0	3.6
3	4.8	4.8					3.6	4.4	10	10	7.0	3.4
4	4.8	4.1					3.2	4.8	9.4	9.8	9.0	3.0
5	4.4	4.1					3.0	5.1	8.6	9.0	9.4	2.8
6	4.4	4.1					3.0	5.4	8.2	9.4	9.8	2.5
7	4.4	4.1					3.0	5.7	8.6	9.0	8.6	2.3
8	4.8					3.2	3.2	6.7	9.8	8.6	7.4	2.1
9	4.8						3.2	7.8	9.0	8.6	7.0	1.9
10	4.8						3.2	7.8	11	8.6	6.7	2.1
11	4.8						3.2	7.8	10	8.2	6.7	2.1
12	4.8						3.2	7.4	9.0	8.6	7.8	2.1
13	4.8						3.2	7.0	9.0	8.2	7.0	1.9
14	4.8						3.4	6.0	9.4	7.4	6.7	2.1
15	4.8						3.4	5.7	9.8	7.8	6.0	1.9
16	4.8		3.5	3	3		3.4	5.4	10	7.4	6.0	1.7
17	4.8						3.4	6.0	9.8	7.4	5.7	1.7
18	4.8						3.4	7.8	9.4	7.4	5.7	1.7
19	4.8	4					3.6	8.6	7.8	8.2	6.0	1.7
20	4.8						3.8	9.0	9.8	8.2	6.4	1.7
21	4.8						4.1	8.6	11	8.2	6.0	1.9
22	4.8					3.8	5.1	8.6	11	7.8	5.7	1.9
23	4.8						5.4	8.2	12	7.8	5.4	1.9
24	4.8						4.8	8.2	12	7.4	4.4	1.9
25	4.8						4.8	9.0	12	7.8	3.8	2.3
26	4.4						4.8	9.4	13	8.2	3.8	2.3
27	4.4						4.4	8.2	13	7.8	3.8	2.5
28	4.4						4.1	7.8	12	7.0	3.8	2.5
29	4.4					3.8	4.1	8.2	13	6.7	3.8	2.5
30	4.4					3.8	3.8		11	6.7	3.8	2.5
31	4.4					3.8		11		6.4	3.8	
Total	145.2	122.8	108.5	93	94	108.8	113.0	224.5	309.6	256.6	189.0	68.1
Mean	4.68	4.09	3.5	3	3	3.51	3.77	7.24	10.3	8.28	6.10	2.27
Ac-ft	288	244	215	184	167	216	224	445	614	509	375	135

Calendar year 1965: Max 16 Min - Mean 6.31 Ac-ft 4,570  
Water year 1965-66: Max 13 Min 1.7 Mean 4.99 Ac-ft 3,620

Note.--No gage-height record Nov. 8 to Mar. 28.

9-0840. Cattle Creek near Carbondale, Colo.

Location.--Lat 39°28'00", long 107°03'05", in NE 1/4 sec. 12, T. 7 S., R. 87 W., on left bank at ford just downstream from Taylor Creek, half a mile upstream from diversion to Missouri Heights Reservoir and 10 miles northeast of Carbondale.

Drainage area.--31.1 sq mi.

Records available.--October 1950 to September 1955, October 1962 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 7,640 ft (from topographic map).

Average discharge.--9 years, 14.5 cfs (10,500 acre-ft per year).

Extremes.--Maximum discharge during year, 76 cfs May 10 (gage height, 3.23 ft); minimum not determined.

1950-55, 1962-66: Maximum discharge, 280 cfs about June 4, 1952 (gage height, 4.75 ft, from recorded range in stage); minimum daily determined, 1.7 cfs Oct. 3-5, 1963.

Remarks.--Records good except those for period of no gage-height record, which are poor. Small diversions for irrigation of hay meadows above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.1	5.6					11	35	38	9.6	4.6	3.8
2	7.3	5.4					13	38	39	7.9	4.2	3.8
3	7.1	5.4					12	43	38	7.5	5.4	4.0
4	6.9	5.3					11	46	37	6.9	6.0	4.0
5	6.5	5.3					10	49	34	6.9	4.7	3.8
6	6.5	5.4					9.6	53	32	6.7	4.4	3.8
7	6.5	5.3					9.2	62	32	6.5	4.1	3.6
8	6.7	5.6				4	9.9	71	30	6.4	4.0	3.6
9	6.4	5.6					12	72	26	6.4	4.0	3.4
10	6.4	5.6					13	72	25	6.2	4.0	3.4
11	6.2	5.6					14	70	22	6.4	4.0	3.4
12	6.0	5.8					14	56	20	6.2	4.6	3.6
13	6.0	5.6					14	47	18	6.0	4.1	3.8
14	6.0	5.9					14	44	16	6.0	4.1	3.6
15	5.8	5.9					14	43	14	5.4	4.0	4.4
16	5.8	5.8	4.5	4.2	4		15	47	14	5.3	4.0	3.8
17	5.9	5.6					16	49	14	5.3	3.8	3.6
18	6.2	5.4					18	50	13	5.8	3.8	3.6
19	6.5	5.6					19	50	12	5.9	4.0	3.8
20	6.2	5.6					20	50	12	5.4	4.2	3.8
21	5.9	5.4					20	52	12	5.4	4.0	3.6
22	5.9	5.2					21	53	11	5.3	3.8	3.6
23	6.4	5.2				6	21	53	11	5.4	3.6	3.5
24	5.9	5.4					20	51	9.9	5.2	3.6	3.5
25	5.8	5.4					20	51	9.9	5.0	3.5	3.6
26	5.8	5.2					22	49	9.6	4.8	3.4	3.6
27	5.6	5.0					27	45	9.2	4.7	3.4	3.5
28	5.6	4.8					32	42	8.3	4.2	3.4	3.5
29	5.6	4.6					33	40	8.5	4.6	3.4	3.5
30	5.4	4.4					34	38	9.2	4.6	3.5	3.5
31	5.6							40		4.4	3.8	
Total	191.5	161.9	139.5	130.2	112	156	518.7	1,561	584.6	182.3	125.4	110.0
Mean	6.18	5.40	4.5	4.2	4	5	17.3	50.4	19.5	5.88	4.05	3.67
Ac-ft	380	321	277	258	222	309	1,030	3,100	1,160	362	249	218

Calendar year 1965: Max 220 Min - Mean 22.7 Ac-ft 16,470  
 Water year 1965-66: Max 72 Min - Mean 10.9 Ac-ft 7,880

Peak discharge (base, 100 cfs).--No peak above base.

Note.--No gage-height record Nov. 18 to Mar. 24.



## 9-0850. Roaring Fork River at Glenwood Springs, Colo.

Location (revised).--Lat 39°32'37", long 107°19'44", in SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec.9, T.6 S., R.89 W., on left bank at Glenwood Springs, 2,100 ft upstream from mouth.

Drainage area.--1,460 sq mi, approximately.

Records available.--October 1905 to September 1909, September 1910 to September 1966. Monthly discharge only for some periods, published in WSP 1313. Prior to October 1964, published as Roaring Fork at Glenwood Springs.

Gage.--Water-stage recorder. Datum of gage is 5,720.73 ft above mean sea level, adjustment of 1912. Prior to Nov. 20, 1915, chain gage on highway bridge 800 ft downstream at different datum. Nov. 20, 1915, to Oct. 26, 1917, staff gage at present site and datum.

Average discharge.--60 years, 1,380 cfs (999,100 acre-ft per year).

Extremes.--Maximum discharge during year, 3,890 cfs May 8 (gage height, 3.87 ft); minimum daily, 275 cfs Mar. 4. 1905-9, 1910-66: Maximum discharge, 19,000 cfs July 1, 1957; maximum gage height, 8.7 ft June 14, 1921, from floodmarks; minimum discharge, 145 cfs Jan. 21, 1935 (gage height, 0.65 ft); minimum daily, 179 cfs Jan. 21, 1935.

Remarks.--Records good. Diversions above station for irrigation of about 35,000 acres. Transmountain diversions to Arkansas River basin through Busk-Ivanhoe tunnel since 1925 and through Twin Lakes tunnel since 1935 (see elsewhere in this report). Records of chemical analyses and water temperatures for the water year 1966 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1290	779	616	502	430	346	698	1300	3200	2180	632	460
2	1300	761	600	412	412	352	824	1550	3260	2060	656	460
3	1330	743	586	358	394	325	851	1830	3350	1790	698	460
4	1320	734	586	388	394	275	734	2200	3200	1640	970	460
5	1280	707	586	442	418	310	640	2590	2960	1550	1010	454
6	1260	698	580	523	412	358	600	3010	2590	1450	833	454
7	1220	698	580	544	424	382	579	3200	2310	1350	716	454
8	1170	680	572	488	412	370	608	3510	2460	1270	648	460
9	1120	689	565	488	412	400	698	3450	2170	1220	608	460
10	1090	689	579	460	382	460	779	3200	2280	1170	572	448
11	1040	656	579	460	376	474	833	2520	2250	1180	544	454
12	1030	680	565	448	388	442	779	2180	2320	1190	565	474
13	1010	689	544	430	430	418	734	1800	2390	1120	716	474
14	980	664	530	448	388	442	680	1570	2420	1040	632	448
15	970	689	495	442	406	474	672	1410	2570	960	616	460
16	950	689	544	400	346	509	725	1450	2460	941	586	474
17	970	664	474	370	340	481	797	1600	2390	923	537	467
18	1020	664	424	376	364	370	851	1690	2380	923	509	454
19	1010	640	406	360	370	412	869	1840	2360	1030	495	442
20	970	624	467	400	382	412	797	2100	2480	1050	530	430
21	941	648	481	380	364	412	725	2380	2340	914	600	424
22	941	593	593	360	352	370	734	2570	2500	932	558	412
23	923	579	586	380	335	320	698	2410	2390	869	530	394
24	905	680	516	400	340	346	672	2480	2240	896	495	358
25	878	770	481	380	370	352	698	2710	2080	896	488	346
26	842	734	516	400	370	370	824	2980	2010	851	488	346
27	824	616	474	400	358	406	1000	2670	1790	806	467	340
28	824	593	481	420	346	454	1010	2560	1820	779	454	335
29	806	530	495	420	-	509	990	2670	1780	743	454	325
30	797	551	698	440	-----	551	1060	3200	1860	680	442	330
31	788	-----	523	430	-----	616	-----	3340	-----	648	460	-----
Total	31,799	20,131	16,722	13,149	10,715	12,718	23,159	73,970	72,610	35,051	18,509	12,757
Mean	1,026	671	539	424	383	410	772	2,386	2,420	1,131	597	425
Ac-ft	63,070	39,930	33,170	26,080	21,250	25,230	45,940	146,700	144,000	69,520	36,710	25,300

Calendar year 1965: Max 8,590 Min 270 Mean 1,691 Ac-ft 1,224,000  
 Water year 1965-66: Max 3,510 Min 275 Mean 935 Ac-ft 676,900

Peak discharge (base, 6,300 cfs).--No peak above base.

9-0890. West Divide Creek below Willow Creek, near Raven, Colo.

Location.--Lat 39°16'32", long 107°31'10", in sec.14, T.9 S., R.91 W., on right bank at upstream side of bridge, 0.4 mile downstream from Willow Creek, 13 miles south of Raven, and 20 miles south of Silt.

Drainage area.--34.9 sq mi.

Records available.--October 1938 to September 1947, October 1963 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 7,820 ft (from topographic map). October 1938 to September 1947 at site 0.25 mile upstream at different datum.

Average discharge.--12 years, 27.5 cfs (19,910 acre-ft per year).

Extremes.--Maximum discharge during year, 222 cfs May 7 (gage height, 3.67 ft); minimum daily, 0.1 cfs Aug. 29, 30.

1938-47, 1963-66; Maximum discharge, 876 cfs May 13, 1941 (gage height, 3.27 ft, site and datum then in use), from rating curve extended above 320 cfs; no flow at times in 1939, 1940.

Remarks.--Records good except those for winter periods, which are poor. Records include water imported from Gunnison and Roaring Fork River basins.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.3	2.9	3.0	3.2	2.5	2.3	50	140	94	15	3.5	0.6
2	6.0	2.7	3.2	3.3	2.7	2.3	55	152	91	13	3.8	.5
3	5.8	2.5	3.2	3.3	2.5	2.3	52	168	92	11	5.8	.5
4	4.8	2.5	3.2	3.3	2.3	2.3	37	175	87	9.9	4.8	.5
5	3.8	2.7	3.4	3.3	2.3	2.1	29	188	78	8.4	2.7	.5
6	3.5	2.7	3.6	3.3	2.3	2.1	28	190	74	7.5	1.4	.4
7	3.3	2.7	4.0	3.1	2.3	2.1	31	192	68	6.6	1.2	.4
8	3.1	2.7	4.0	3.1	2.5	2.3	40	188	74	6.3	.9	.4
9	2.9	2.7	4.0	3.1	2.5	2.4	53	185	65	5.5	.8	.3
10	2.9	2.7	3.8	3.1	2.5	3.0	60	178	64	5.5	.8	.2
11	2.7	2.9	3.6	3.1	2.3	3.6	58	148	62	6.3	.7	.2
12	2.3	2.7	3.4	3.1	2.3	3.2	48	127	60	7.2	1.3	.6
13	2.3	2.9	3.2	2.9	2.3	3.6	39	100	57	6.0	1.4	1.2
14	2.3	2.7	3.2	2.9	2.3	5	39	96	56	5.5	.9	.7
15	2.3	2.9	3.4	2.9	2.3	7	42	94	56	4.5	.7	.9
16	2.3	3.3	3.2	2.9	2.3	10	52	98	53	4.5	.6	.7
17	2.7	3.5	3.0	2.7	2.3	9	63	107	52	4.5	.5	.5
18	5.8	3.8	2.8	2.7	2.3	8	67	114	47	4.5	.5	.5
19	6.0	3.5	2.8	2.7	2.3	7	63	109	42	4.2	.6	.5
20	5.0	3.1	2.8	2.7	2.3	7	63	105	39	4.2	1.5	.4
21	4.5	3.3	3.0	2.7	2.3	7.5	50	98	37	3.3	.9	.3
22	4.2	3.5	3.0	2.5	2.3	8	46	94	34	3.3	.7	.3
23	4.5	4.2	3.0	2.5	2.3	7	44	89	29	2.7	.6	.2
24	4.5	4.8	3.2	2.5	2.3	6	48	83	25	3.5	.5	.2
25	4.0	5.8	3.2	2.5	2.3	7	64	77	22	4.5	.4	.3
26	3.5	4.0	3.3	2.5	2.3	8	91	71	22	2.7	.3	.3
27	3.5	3.4	3.3	2.3	2.3	10	111	65	20	3.1	.3	.2
28	3.5	3.8	3.3	2.3	2.3	15	103	68	16	2.7	.2	.3
29	3.1	3.0	3.3	2.3	-	25	105	83	14	1.5	.1	.3
30	2.9	3.0	3.0	2.3	-----	35	122	91	15	1.2	.1	.3
31	2.7	-----	3.0	2.5	-----	45	-----	105	-----	3.8	.5	-----
Total	117.0	96.9	101.4	87.6	65.8	260.1	1,753	3,778	1,545	172.4	39.0	13.2
Mean	3.77	3.23	3.27	2.83	2.35	8.39	58.4	122	51.5	5.56	1.26	0.44
Ac-ft	232	192	201	174	131	516	3,480	7,490	3,060	342	77	26
(+)	0	0	0	0	0	0	0	120	1,460	190	0	0

Calendar year 1965: Max 352 Min 0.3 Mean 36.6 Ac-ft 26,510

Water year 1965-66: Max 192 Min 0.1 Mean 22.0 Ac-ft 15,930

Peak discharge (base, 150 cfs).--May 7 (2300) 222 cfs (3.67 ft).

† Imports, in acre-feet, from Gunnison and Roaring Fork River basins; furnished by State engineer of Colorado.

## DIVIDE CREEK BASIN

9-0895. West Divide Creek near Raven, Colo.

Location.--Lat 39°19'52", long 107°34'46", in W½ sec.29, T.8 S., R.91 W., on left bank 10 ft downstream from private road bridge, 0.8 mile upstream from Brook Creek, 8 miles south of Raven, and 16 miles south of Silt.

Drainage area.--65.8 sq mi.

Records available.--October 1955 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 7,050 ft (from topographic map).

Average discharge.--11 years, 28.3 cfs (20,490 acre-ft per year).

Extremes.--Maximum discharge during year, 219 cfs May 8 (gage height, 4.18 ft); minimum daily, 0.1 cfs Aug. 28-30.

1955-66: Maximum discharge, 790 cfs May 12, 1962 (gage height, 5.41 ft), from rating curve extended above 350 cfs; no flow at times in most years.

Remarks.--Records good except those for winter period, which are poor. Records include water imported from Gunnison River, Plateau Creek, and Roaring Fork River basins.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.9	5.2	5			3.2	60	154	114	19	3.0	0.2
2	7.3	5.0	5.5			3.2	70	166	103	16	3.1	.2
3	6.6	4.8	5.5			3.2	63	174	100	12	5.7	.2
4	6.1	4.5	5.5			3.0	49	176	93	10	4.2	.2
5	5.9	4.6	5.5			2.8	34	189	89	9.4	2.9	.2
6	5.5	4.6	5.9			2.8	38	194	83	7.9	2.1	.2
7	5.2	4.5	6.3			2.8	44	192	78	7.0	1.8	.2
8	5.0	4.5	6.6			3.0	50	197	81	6.6	1.6	.2
9	4.8	5.0	6.1			3.4	52	194	78	6.1	1.4	.2
10	4.6	4.6				4.0	60	194	73	5.7	1.3	.2
11	4.5	4.2				5.0	61	152	70	5.9	1.3	.2
12	4.6	5.0				4.6	53	145	66	7.3	1.4	.2
13	4.5	5.0				5.5	46	124	62	6.8	1.6	.3
14	4.5	4.8				7.5	45	122	60	5.9	1.2	.4
15	4.3	5.2		4.5	3.5	10	46	118	58	5.2	.9	.4
16	4.5	5.9				13	54	118	58	4.6	.7	.4
17	5.0	5.9				15	66	128	60	4.3	.7	.4
18	9.7	5.9				13	71	134	57	4.5	.6	.3
19	9.1	5.9				14	68	128	52	4.2	.5	.3
20	7.9	5.7				15	60	124	48	4.2	.8	.3
21	6.8	5.7	5.5			13	67	120	46	4.3	.7	.2
22	6.6	4.8				11	76	120	43	4.3	.6	.2
23	6.6	6.1				10	72	116	39	3.5	.5	.2
24	6.3	6.8				9.5	74	110	34	3.2	.4	.2
25	6.1	7.9				10	89	105	30	4.3	.3	.2
26	5.7	5.2				11	110	98	28	3.5	.2	.2
27	5.7	5.0				15	118	90	28	3.1	.2	.2
28	5.5	5.2				20	110	86	23	3.7	.1	.2
29	5.2	4.6				30	110	95	20	2.5	.1	.2
30	5.2	4.6				40	126	103	19	2.1	.1	.2
31	5.0					50		114		2.2	.2	
Total	182.2	156.7	172.9	139.5	98.0	353.5	2,042	4,270	1,793	189.3	40.2	7.2
Mean	5.88	5.22	5.58	4.5	3.5	11.4	68.1	138	59.8	6.11	1.30	0.24
Ac-ft	361	311	343	277	194	701	4,050	8,470	3,560	375	80	14
(+)	0	0	0	0	0	0	0	653	1,750	195	0	0

Calendar year 1965: Max 412 Min - Mean 42.6 Ac-ft 30,820

Water year 1965-66: Max 197 Min 0.1 Mean 25.9 Ac-ft 18,730

Peak discharge (base, 160 cfs).--May 8 (0200) 219 cfs (4.18 ft).

+ Imports, in acre-feet, from Gunnison River, Plateau Creek, and Roaring Fork River basins; furnished by State engineer of Colorado.

Note.--No gage-height record Dec. 10 to Mar. 22.

9-0925. Beaver Creek near Rifle, Colo.

Location.--Lat 39°28'20", long 107°49'55", in NE¼ sec.1, T.7 S., R.94 W., on left bank 150 ft upstream from unnamed tributary, 200 ft upstream from road bridge, 4 miles upstream from mouth, and 4.8 miles southwest of Rifle.

Drainage area.--7.90 sq mi.

Records available.--October 1952 to September 1966.

Gage.--Water-stage recorder and plank control. Altitude of gage is 6,685 ft (from topographic map).

Average discharge.--14 years, 4.25 cfs (3,080 acre-ft per year).

Extremes.--Maximum discharge during year, 39 cfs May 9 (gage height, 3.54 ft); minimum daily, 0.5 cfs Mar. 5.  
1952-66: Maximum discharge, 85 cfs May 24, 1964 (gage height, 4.00 ft), from rating curve extended above 37 cfs; minimum daily, 0.3 cfs Jan. 4-6, 1959.

Remarks.--Records good except those for winter periods, which are poor. Diversions above station for irrigation of about 170 acres below station and about 380 acres in Mamm Creek basin.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.1	2.2	1.4	1.2	0.8	0.7	4.6	12	20	6.1	1.8	1.4
2	3.1	2.2	1.4	1.2	1.0	.7	4.2	15	20	5.5	2.0	1.1
3	3.1	2.0	1.6	1.2	1.0	.7	3.8	17	20	4.9	2.0	1.1
4	3.1	2.0	1.8	1.3	1.2	.6	3.4	21	20	4.6	1.8	1.0
5	3.3	2.2	1.6	1.4	1.4	.5	2.6	23	18	4.3	1.7	1.0
6	3.3	2.2	1.4	1.4	1.2	.6	3.0	23	16	4.0	1.5	1.1
7	3.1	2.0	1.4	1.6	1.2	.8	3.6	26	15	3.8	1.5	1.0
8	3.1	2.0	1.4	1.6	1.2	.8	4.2	29	15	3.6	1.5	.8
9	3.1	2.2	1.5	1.8	1.2	1.0	4.8	30	13	3.6	1.5	.8
10	2.9	1.8	1.5	1.7	1.2	1.0	4.8	32	13	3.3	1.4	.8
11	2.9	1.7	1.5	1.7	1.2	1.2	4.4	24	12	3.1	1.4	.8
12	2.9	2.2	1.5	1.7	1.2	1.1	3.6	19	12	3.3	1.7	1.1
13	2.7	2.0	1.5	1.5	1.1	1.1	3.0	16	11	3.1	1.5	1.0
14	2.7	2.0	1.4	1.5	1.1	1.4	3.4	14	10	2.9	1.4	.8
15	2.7	2.0	1.4	1.5	1.0	1.4	4.0	14	9.8	2.7	1.4	1.1
16	2.9	2.0	1.4	1.4	1.0	1.2	4.4	17	9.8	2.7	1.2	1.0
17	2.9	2.0	1.2	1.4	1.0	1.0	4.8	20	9.4	2.7	1.1	.8
18	3.6	2.0	1.0	1.4	.8	1.0	5.5	22	9.0	2.7	1.1	.8
19	3.1	2.0	1.1	1.3	.8	1.0	5	22	8.2	2.9	1.2	.8
20	2.9	1.8	1.0	1.4	.8	1.1	4.4	23	7.8	2.5	1.4	.8
21	2.9	1.7	1.0	1.0	.8	1.2	4.0	23	7.4	2.5	1.4	.8
22	3.1	1.2	1.2	.8	.8	1.2	3.4	23	7.0	2.5	1.1	.7
23	2.9	1.4	1.4	.8	.8	1.0	3.8	20	7.0	2.5	1.1	.7
24	2.9	1.8	1.2	1.0	.8	1.2	4.4	20	7.0	2.5	1.1	.7
25	2.7	2.2	1.1	.8	.8	1.2	6	19	7.0	2.2	1.0	.7
26	2.5	1.7	1.2	.6	.8	1.4	7.4	19	6.7	2.0	1.0	.7
27	2.5	1.6	1.2	.8	.8	1.5	8.6	18	6.4	2.0	1.0	.7
28	2.5	1.2	1.2	.8	.8	2.2	7.8	17	6.1	1.8	1.1	.7
29	2.2	1.2	1.4	.8	-	2.6	7.4	17	6.1	1.8	1.4	.7
30	2.2	1.4	1.5	.8	-----	3.4	9.8	19	6.4	1.7	1.0	.7
31	2.2	-----	1.2	1.0	-----	4.0	-----	20	-----	1.7	1.4	-----
Total	89.1	55.9	41.6	38.4	27.8	39.8	144.1	634	336.1	95.5	42.7	26.2
Mean	2.87	1.86	1.34	1.24	0.99	1.28	4.80	20.5	11.2	3.08	1.38	0.87
Ac-ft	177	111	83	76	55	79	286	1,260	667	189	85	52

Calendar year 1965: Max 45 Min 0.5 Mean 5.87 Ac-ft 4,250  
Water year 1965-66: Max 32 Min 0.5 Mean 4.30 Ac-ft 3,120

Peak discharge (base, 25 cfs).--May 9 (2100) 39 cfs (3.54 ft); May 20 (2100) 27 cfs (3.45 ft).

## PARACHUTE CREEK BASIN

9-0930. Parachute Creek near Grand Valley, Colo.

Location.--Lat 39°34'15", long 108°06'35", in NE¼ sec.36, T.5 S., R.96 W., on right bank 600 ft downstream from bridge, 0.2 mile downstream from confluence of West and East Forks, and 9 miles north of Grand Valley.

Drainage area.--144 sq mi.

Records available.--October 1948 to September 1954, October 1964 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 5,770 ft (from topographic map). October 1948 to September 1954, at site 500 ft upstream at different datum.

Average discharge.--8 years, 19.2 cfs (13,900 acre-ft per year).

Extremes.--1964-65: Maximum discharge during water year, 199 cfs May 19 (gage height, 2.49 ft); no flow for many days.

1965-66: Maximum discharge during water year, 70 cfs Mar. 28; maximum gage height, 3.43 ft Apr. 9; minimum daily discharge, 0.2 cfs Mar. 4.

1948-54, 1964-66: Maximum discharge, 738 cfs May 5, 1952; maximum gage height, 5.20 ft May 6, 1952, site and datum then in use; no flow Dec. 2, 1948 (field observation), and many days in 1965.

Remarks.--Records fair except those for winter periods, which are poor. Diversions for irrigation of about 75 acres above station. One diversion from East Fork bypasses station for irrigation of about 100 acres below station.

Discharge, in cubic feet per second, water year October 1964 to September 1965

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	1.6	0.1				0	142	72	16	16	4.3
2	1.3	1.7					0	156	64	16	15	2.5
3	1.3	1.6					0	162	61	16	12	1.4
4	1.3	1.6					0	164	58	17	10	.9
5	1.2	1.3					0	174	54	16	8.8	1.3
6	1.1	.8	0.1				0	177	53	16	7.9	1.6
7	1.1	.8					0	150	51	16	7.6	1.8
8	1.1	.7					0	144	53	16	7.6	2.0
9	1.0	.7					0	128	53	16	7.6	1.9
10	1.0	.6					0	126	59	15	6.8	1.8
11	1.0	.7	0	0			0	118	61	15	7.3	1.8
12	1.0	.6					0	98	63	14	7.3	1.9
13	1.1	.7					0	123	58	15	7.6	1.9
14	1.2	.7					0	162	50	14	7.6	1.9
15	1.3	.7					0	152	47	14	11	1.9
16	1.3	.7	0.1				0	144	45	13	8.8	2.2
17	1.3	.8					0	168	46	13	9.7	3.1
18	1.3	.7					.6	184	42	20	9.7	3.5
19	1.3	.5					1.0	187	39	26	9.7	7.0
20	1.4	.3					7.0	187	35	18	12	8.5
21	1.4	.3	0				16	179	32	15	11	6.8
22	1.4	.3					32	166	27	15	9.4	6.5
23	1.5	.4					59	161	22	14	8	4.8
24	1.5	.4					58	142	22	18	7	4.1
25	1.6	.4					53	139	23	22	7.5	3.9
26	1.6	.3					66	124	22	16	7	4.1
27	1.7	.1					70	106	22	16	6	4.0
28	1.7	.1					62	95	20	14	5.5	3.8
29	1.7	.1					73	83	18	13	5.5	3.4
30	1.7	.1					106	77	15	13	5.5	3.0
31	1.6							74		16	4.1	
Total	41.4	20.3	1.0	0.6	2.8	1.5	603.6	4,392	1,287	494	266.5	97.6
Mean	1.34	0.68	0.03	0.02	0.1	0.05	20.1	142	42.9	15.9	8.60	3.25
Ac-ft	82	40	2.0	1.2	5.6	3.0	1,200	8,710	2,550	980	529	194

Calendar year 1964: Max - Min - Mean - Ac-ft -  
 Water year 1964-65: Max 187 Min 0 Mean 19.7 Ac-ft 14,300

Peak discharge (base, 150 cfs)--May 5 (2200) 187 cfs (2.40 ft); May 19 (2230) 199 cfs (2.49 ft).

Note.--No gage-height record Nov. 15 to Apr. 17.

9-0930. Parachute Creek near Grand Valley, Colo.--Continued

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.8	1.4				0.8	50	24	17	7.2	8.4	3.6
2	2.6	1.4				.6	54	24	16	6.6	7.5	3.6
3	2.4	1.4				.4	54	26	15	6.9	5.4	3.3
4	2.0	1.4				.2	51	27	14	6.9	5.4	2.8
5	1.8	1.3				.8	42	30	14	6.9	4.4	2.7
6	1.9	1.2				2.0	50	30	14	6.9	4.2	2.6
7	2.0	1.2				3.5	55	30	13	5.7	4.0	2.7
8	2.2	1.2				6	58	30	13	5.7	3.8	2.8
9	2.2	1.2				10	62	30	13	5.4	3.6	2.6
10	2.4	1.2				18	63	32	12	5.1	3.4	2.4
11	2.4	1.2				18	61	33	12	6.3	3.4	2.2
12	2.4	1.4				16	57	32	11	8.1	4.4	2.6
13	2.4	1.4				14	53	30	11	7.5	4.0	2.1
14	2.4	1.4				16	49	28	11	7.2	3.6	2.0
15	2.4	1.6				17	48	26	11	6.9	4.0	2.0
16	2.7	1.8	1.0	0.8	0.7	18	45	24	11	6.6	3.6	2.0
17	2.7	1.9				11	36	24	12	6.0	3.4	1.6
18	3.1	2.0				11	31	23	11	5.7	3.0	1.5
19	3.1	2.0				14	29	23	11	5.4	3.4	1.5
20	2.7	2.0				17	27	22	11	5.1	4.6	1.5
21	2.2	1.9				19	23	21	11	5.1	4.0	1.5
22	2.2	1.9				11	22	21	11	5.1	3.6	1.3
23	2.0	1.9				11	19	21	10	5.1	3.0	1.3
24	1.9	1.8				13	16	21	10	4.5	3.0	1.3
25	1.8	2.6				20	14	20	9.9	5.1	3.0	1.3
26	1.8	2.4				24	15	20	9.6	4.5	3.2	1.3
27	1.8	2.2				38	18	19	9.3	3.6	3.4	1.3
28	1.6	2.0				38	19	18	9.0	3.6	3.6	1.2
29	1.6	1.6				39	21	18	8.4	3.9	3.2	1.0
30	1.6	1.2				40	23	17	8.1	3.3	3.0	.9
31	1.6	-----				44	-----	18	-----	3.3	3.6	-----
Total	68.7	49.1	31.0	24.8	19.6	491.3	1,165	762	349.3	175.2	124.1	60.5
Mean	2.22	1.64	1.0	0.8	0.7	15.8	38.8	24.6	11.6	5.65	4.00	2.02
Ac-ft	136	97	61	49	39	974	2,310	1,510	693	348	246	120

Calendar year 1965: Max 187 Min 0 Mean 20.0 Ac-ft 14,470

Water year 1965-66: Max 63 Min 0.2 Mean 9.10 Ac-ft 6,590

Peak discharge (base, 150 cfs).--No peak above base.

Note.--No gage-height record Dec. 6 to Mar. 17.

## ROAN CREEK BASIN

9-0942. Roan Creek above Clear Creek, near De Beque, Colo.

Location.--Lat 39°29'30", long 108°21'15", in SE¼NW¼ sec.32, T.6 S., R.98 W., on left bank 1.7 miles upstream from Clear Creek and 14 miles northwest (revised) of De Beque.

Drainage area.--151 sq mi.

Records available.--October 1962 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 5,560 ft (from topographic map).

Extremes.--Maximum discharge during year, 79 cfs Dec. 30; maximum gage height, 3.56 ft May 11; minimum daily discharge, 4.0 cfs Jan. 21.

1962-66: Maximum discharge, about 800 cfs Aug. 14, 1965 (gage height, 7.26 ft); minimum daily, 1.0 cfs Nov. 23, 1963.

Remarks.--Records fair. Diversions for irrigation of about 1,400 acres above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	8.9	10	14	8.2	11	18	41	29	26	7.8	9.2
2	12	8.9	10	7.5	8.6	10	19	46	27	25	2.6	8.9
3	12	8.6	11	7.2	7.2	7.5	18	48	27	21	8.9	8.6
4	12	8.6	11	7.5	8.6	5.5	18	51	26	19	8.2	8.2
5	12	8.6	11	8.2	8.9	5.8	18	55	25	18	8.2	8.6
6	11	8.6	11	8.9	8.9	7.8	18	57	27	18	7.8	8.6
7	11	8.6	11	9.6	11	16	17	58	27	16	7.5	8.2
8	11	8.6	11	10	9.2	26	17	61	29	16	7.8	8.2
9	11	8.5	11	10	8.2	36	17	64	27	16	7.5	8.2
10	11	8.5	12	9.6	8.2	44	18	66	26	15	7.2	7.8
11	10	8.5	12	9.6	6.2	40	20	70	25	14	6.2	7.8
12	10	9	12	9.2	8.2	34	20	66	23	14	6.8	7.8
13	10	10	12	9.2	8.9	34	18	59	22	13	7.2	7.5
14	10	9.5	12	9.2	7.5	40	18	54	21	12	6.2	7.5
15	10	10	12	8.9	9.2	44	18	52	21	11	6.2	7.8
16	12	11	12	7.8	6.5	48	18	50	22	9.6	6.5	7.2
17	12	10	8.2	5.5	7.5	36	21	46	23	10	7.8	6.8
18	14	10	5.8	6.5	8.2	26	24	42	22	9.6	7.2	6.8
19	12	10	5.8	8.2	9.6	26	25	39	21	12	7.8	6.8
20	12	9.5	6.2	8.2	10	30	27	39	22	10	8.6	6.8
21	12	9	5.8	4.0	11	26	28	39	26	9.2	7.8	6.5
22	9.6	9	8.2	5.8	11	20	28	35	26	8.9	7.5	6.5
23	8.6	9.5	10	8.2	10	13	28	35	26	9.2	7.2	6.2
24	8.9	10	8.9	8.9	10	16	29	34	27	9.2	6.5	4.9
25	9.2	12	7.8	7.8	11	17	29	33	27	10	6.5	4.2
26	9.6	12	11	5.8	11	20	32	33	30	9.6	6.2	4.2
27	9.6	11	9.6	7.5	10	21	34	36	29	9.2	5.8	4.2
28	9.2	10	11	7.5	10	20	37	35	27	9.6	5.5	4.2
29	9.2	9	12	8.2	-	20	39	33	26	9.2	6.2	4.2
30	9.2	9	4.5	8.9	-	19	40	31	26	8.9	6.2	4.2
31	8.9	-----	17	9.6	-----	19	-----	32	-----	8.2	7.5	-----
Total	331.0	284.4	353.3	257.0	252.8	738.6	711	1,440	762	406.4	223.9	206.6
Mean	10.7	9.48	11.4	8.29	9.03	23.8	23.7	46.5	25.4	13.1	7.22	6.89
Ac-ft	657	564	701	510	501	1,460	1,410	2,860	1,510	806	444	410

Calendar year 1965: Max 396 Min 1.2 Mean 32.5 Ac-ft 23,510  
 Water year 1965-66: Max 70 Min 4.0 Mean 16.3 Ac-ft 11,840

Peak discharge (base, 80 cfs).--No peak above base.

9-0950. Roan Creek near De Beque, Colo.

Location.--Lat 39°27'15", long 108°19'00", on line between secs. 10 and 15, T.7 S., R.98 W., on left bank 15 ft downstream from bridge, half a mile downstream from Kimball Creek, and 10 miles northwest of De Beque (revised).

Drainage area.--321 sq mi.

Records available.--April 1921 to September 1926, October 1962 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 5,380 ft (from topographic map). Prior to October 1962, chain gage at different datum.

Average discharge.--9 years, 42.8 cfs (30,990 acre-ft per year).

Extremes.--Maximum discharge during year, 153 cfs Dec. 30 (gage height, 2.85 ft); minimum daily, 7.4 cfs Oct. 9.  
1921-26, 1962-66: Maximum discharge observed, 1,110 cfs May 21, 1922, from rating curve extended above 700 cfs; maximum gage height observed, 4.6 ft (datum then in use) May 6, 7, 1922; minimum daily discharge, 3.2 cfs Nov. 23, 1963, but may have been less during periods of no gage-height record.

Remarks.--Records good except those for winter periods, which are poor. Diversions above station for irrigation of about 3,500 acres above and about 500 acres below station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	12	21	24	17	24	53	32	22	33	18	16
2	15	12	21	14	18	22	54	39	18	30	21	16
3	12	11	21	15	15	16	52	43	20	25	21	15
4	9.8	11	21	15	16	10	46	43	22	22	16	15
5	9.8	11	21	16	16	12	42	45	24	23	16	15
6	8.4	11	21	17	16	16	38	47	25	23	16	15
7	8.0	12	22	18	18	32	37	48	24	21	16	14
8	7.7	11	22	20	17	53	35	47	22	21	17	13
9	7.4	10	21	20	14	70	36	49	20	22	16	13
10	7.7	10	22	19	11	78	36	50	18	21	16	12
11	8.4	10	23	20	9	79	36	53	16	21	15	13
12	8.8	9.8	22	20	11	67	37	51	14	22	16	13
13	9.8	9.1	23	20	14	68	34	45	11	21	16	12
14	9.8	8.0	22	20	12	74	30	41	9.8	21	15	12
15	10	9.8	22	19	16	88	25	40	10	19	14	12
16	13	11	21	15	12	93	24	40	12	17	14	11
17	11	12	14	13	14	72	25	36	14	20	16	11
18	11	11	13	14	16	53	25	34	16	22	16	11
19	11	12	13	17	17	54	25	33	16	25	18	10
20	11	12	13	18	19	55	25	31	18	24	19	10
21	11	14	14	9	22	55	29	26	27	19	18	10
22	10	18	17	10	22	44	29	25	31	18	16	10
23	9.4	18	21	16	20	39	26	25	32	16	16	10
24	8.8	19	17	17	20	39	23	25	32	17	15	9.1
25	8.4	20	17	14	22	42	23	25	31	19	15	8.0
26	8.8	24	20	11	22	50	25	23	35	16	14	8.0
27	9.1	22	20	12	20	55	24	24	33	18	13	8.0
28	9.1	20	20	14	20	54	24	21	32	18	13	8.4
29	9.1	20	24	14	-	54	28	18	32	18	13	8.4
30	9.4	21	80	15	-----	54	30	21	32	17	14	8.4
31	10	-----	31	18	-----	52	-----	26	-----	17	16	-----
Total	307.7	411.7	680	504	466	1,574	976	1,106	668.8	646	495	347.3
Mean	9.93	13.7	21.9	16.3	16.6	50.8	32.5	35.7	22.3	20.8	16.0	11.6
Ac-ft	610	817	1,350	1,000	924	3,120	1,940	2,190	1,330	1,280	982	689

Calendar year 1965: Max 372 Min 4.8 Mean 38.0 Ac-ft 27,470

Water year 1965-66: Max 93 Min 7.4 Mean 22.4 Ac-ft 16,230

Peak discharge (base, 100 cfs)--Dec. 30 (0815) 153 cfs (2.85 ft); Mar. 10 (2015) 127 cfs (2.58 ft).



9-0955. Colorado River near Cameo, Colo.

**Location.**--Lat 39°14'20", long 108°16'00", in SW¼SW¼ sec.30, T.9 S., R.97 W., on left bank 100 ft north of U. S. Highways 6 and 24, half a mile upstream from Jackson Canyon, 5.9 miles upstream from Grand Valley project diversion dam, and 7 miles northeast of Cameo.

**Drainage area.**--8,050 sq mi, approximately.

**Records available.**--October 1933 to September 1966.

**Gage.**--Water-stage recorder. Datum of gage is 4,813.73 ft above mean sea level, datum of 1929. Prior to Oct. 10, 1934, staff gage on river and water-stage recorder on highline canal, about 10 miles downstream at different datum. Oct. 10, 1934, to Feb. 27, 1958, water-stage recorder at site 3 miles downstream at datum 22.55 ft lower.

**Average discharge.**--33 years, 3,861 cfs (2,795,000 acre-ft per year).

**Extremes.**--Maximum discharge during year, 8,750 cfs May 10 (gage height, 6.65 ft); minimum daily, 1,500 cfs Jan. 29 to Feb. 1. 1933-66: Maximum discharge, 36,000 cfs June 16, 1935; maximum gage height, 11.60 ft June 8, 1952 (site and datum then in use); minimum daily discharge, 700 Dec. 29, 1939.

**Remarks.**--Records good except those for winter periods, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, and diversion for irrigation of about 160,000 acres. Records of chemical analyses and water temperatures for the water year 1966 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,280	2,300	2,070	2,320	1,500	1,850	2,760	2,930	7,330	3,200	1,940	1,840
2	3,190	2,280	2,200	2,270	1,600	1,810	2,920	3,420	7,020	3,920	1,870	1,800
3	3,190	2,270	2,200	1,860	1,600	1,830	2,950	4,140	6,850	3,680	1,840	1,830
4	3,220	2,280	2,250	1,700	1,700	1,730	2,830	4,880	6,660	3,400	2,040	1,790
5	3,240	2,280	2,300	1,900	1,800	1,610	2,520	5,890	6,180	3,200	2,450	1,830
6	3,170	2,280	2,360	2,000	1,800	1,740	2,540	6,640	5,580	3,060	2,590	1,780
7	3,060	2,270	2,330	2,100	1,900	1,930	2,400	7,500	4,930	2,900	2,290	1,760
8	2,970	2,270	2,280	2,200	1,800	2,080	2,300	8,180	4,690	2,740	2,140	1,800
9	2,920	2,240	2,320	2,100	1,800	2,120	2,190	8,410	4,690	2,570	2,060	1,780
10	2,850	2,250	2,330	2,000	1,800	2,460	2,290	8,490	4,450	2,480	1,870	1,740
11	2,780	2,240	2,440	2,000	1,700	2,740	2,610	8,030	4,600	2,450	1,830	1,720
12	2,730	2,220	2,380	2,000	1,700	2,460	2,510	6,970	4,510	2,390	1,830	1,750
13	2,680	2,270	2,350	1,900	1,900	2,220	2,590	6,040	4,540	2,480	1,960	1,740
14	2,660	2,300	2,240	2,000	1,800	2,190	2,350	5,240	4,510	2,450	2,080	1,790
15	2,620	2,320	2,190	2,000	1,700	2,380	2,180	4,670	4,490	2,390	2,020	1,720
16	2,620	2,330	2,130	1,900	1,700	2,490	2,140	4,340	4,510	2,300	1,960	1,740
17	2,570	2,350	2,130	1,800	1,800	2,560	2,160	4,360	4,430	2,230	1,860	1,750
18	2,780	2,380	2,030	1,700	1,800	2,320	2,240	4,620	4,360	2,200	1,780	1,780
19	2,660	2,350	1,930	1,700	1,900	2,100	2,320	4,890	4,360	2,110	1,780	1,700
20	2,590	2,320	1,850	1,800	1,900	2,130	2,280	5,330	4,340	2,360	1,790	1,660
21	2,520	2,330	1,940	1,700	1,800	2,190	2,220	5,940	4,230	2,360	1,870	1,650
22	2,480	2,330	2,060	1,600	1,800	2,180	2,100	6,660	4,250	2,360	1,920	1,580
23	2,480	2,320	2,250	1,700	1,800	2,070	2,030	6,880	4,270	2,300	1,960	1,550
24	2,410	2,350	2,360	1,700	1,800	1,940	1,940	6,610	4,030	2,290	1,830	1,550
25	2,410	2,490	2,240	1,800	1,800	1,970	1,930	6,800	3,680	2,360	1,760	1,540
26	2,400	2,730	2,060	1,700	1,900	2,000	1,970	7,140	3,480	2,340	1,760	1,540
27	2,330	2,460	2,190	1,700	1,900	2,060	2,200	6,970	3,300	2,290	1,810	1,540
28	2,330	2,280	2,040	1,800	1,860	2,180	2,590	6,440	3,080	2,200	1,780	1,580
29	2,320	2,180	2,400	1,500	-	2,360	2,620	6,110	3,000	2,140	1,740	1,580
30	2,320	2,010	2,800	1,500	-----	2,520	2,620	6,560	3,080	2,080	1,750	1,590
31	2,320	-----	2,920	1,500	-----	2,640	-----	7,040	-----	1,990	1,780	-----
Total	84,100	69,280	69,570	57,450	49,860	66,860	71,290	188,120	139,430	79,220	59,940	51,000
Mean	2,713	2,309	2,244	1,853	1,781	2,157	2,376	6,068	4,648	2,555	1,934	1,700
Ac-ft	166,800	137,400	138,000	114,000	98,900	132,600	141,400	373,100	276,600	157,100	118,900	101,200

Calendar year 1965: Max 22,000 Min 1,170 Mean 4,565 Ac-ft 3,305,000  
 Water year 1965-66: Max 8,490 Min 1,500 Mean 2,702 Ac-ft 1,956,000

9-0961. Vega Reservoir near Collbran, Colo.

Location.--Lat 39°13'30", long 107°48'40", in sec.6, T.10 S., R.93 W., at dam on Plateau Creek, 10 miles southeast of Collbran.Drainage area.--24.4 sq mi.Records available.--April 1960 to September 1966.Gage.--Staff gage read once daily. Datum of gage is 7,906 ft above mean sea level (Bureau of Reclamation bench mark); gage readings have been reduced to elevations above mean sea level.Extremes.--Maximum contents observed during year, 34,480 acre-ft May 11 (elevation, 7,985.7 ft); minimum observed, 5,550 acre-ft Sept. 30 (elevation, 7,936.5 ft).

1960-66: Maximum contents observed, 34,570 acre-ft June 16-20, 1965 (elevation, 7,985.8 ft); minimum observed, 1,260 acre-ft Apr. 15, 1960 (elevation, 7,917.5 ft).

Remarks.--Reservoir is formed by an earth- and rock-fill dam. Dam completed by Bureau of Reclamation in 1960. Usable storage began in May 1958 while dam was under construction. Capacity of reservoir, 32,930 acre-ft between elevations 7,906 (bottom of outlet gate) and 7,984 ft (crest of spillway). Dead storage, 823 acre-ft. Figures given herein are usable contents. Reservoir is used to store water for irrigation and power development.Cooperation.--Records furnished by Bureau of Reclamation.

Month-end elevations and contents, water year October 1965 to September 1966

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	7,959.2	15,000	-
Oct. 31.....	7,962.9	17,140	+2,140
Nov. 30.....	7,964.5	18,120	+980
Dec. 31.....	7,966.1	19,140	+1,020
Calendar year 1965.....	-	-	+14,640
Jan. 31.....	7,967.4	19,980	+840
Feb. 28.....	7,968.5	20,720	+740
Mar. 31.....	7,970.0	21,750	+1,030
Apr. 30.....	7,976.9	26,910	+5,160
May 31.....	7,984.0	32,930	+6,020
June 30.....	7,978.2	27,960	-4,970
July 31.....	7,964.6	18,190	-9,770
Aug. 31.....	7,950.0	10,490	-7,700
Sept. 30.....	7,936.5	5,550	-4,940
Water year 1965-66.....	-	-	-9,450

†Elevation at 0800.

9-0965, Plateau Creek near Collbran, Colo.

Location.--Lat 39°15'00", long 107°50'25", in NE¼ sec.26, T.9 S., R.94 W., on right bank 10 ft downstream from private bridge, 1½ miles downstream from Leon Creek, and 6 miles east of Collbran.

Drainage area.--80.4 sq mi.

Records available.--September 1921 to September 1966. Prior to October 1933 monthly discharge only, published in WSP 1313.

Gage.--Water-stage recorder. Altitude of gage is 7,130 ft (from topographic map).

Extremes.--Maximum discharge during year, 585 cfs May 9 (gage height, 4.01 ft); minimum daily, 3.0 cfs Jan. 22.

1921-66: Maximum discharge, 3,080 cfs May 27, 1922 (gage height, 6.90 ft), from rating curve extended above 1,300 cfs; minimum daily, 1.9 cfs Feb. 26, 1961 (result of storage in Vega Reservoir); minimum daily prior to construction of Vega Reservoir, 3 cfs Sept. 21, 1926.

Remarks.--Records good except those for winter periods, which are poor. Natural flow of stream affected by storage in Vega Reservoir since 1959, transbasin diversion to Surface Creek in Gunnison River basin, diversions above station for irrigation of about 800 acres above and about 8,400 acres below, and about 550 acres in Buzzard Creek drainage, and for power development.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	3.9	5.5	3.8	4.4	4.6	5.4	19	54	33	20	15
2	71	3.9	5.5	3.6	4.6	4.4	5.5	30	54	25	22	15
3	76	3.9	5.5	3.6	4.6	4.2	5.4	40	49	25	28	15
4	42	3.8	5.5	3.8	4.6	4.0	5.2	44	44	29	29	14
5	5.5	3.9	5.5	4.0	4.4	4.4	5.0	68	39	25	20	14
6	5.4	4.3	5.5	4.2	4.4	4.6	5.2	127	45	22	17	15
7	5.0	5.4	5.5	4.2	4.4	4.6	4.9	198	44	18	16	14
8	5.0	5.5	6	4.4	4.4	4.8	4.9	297	46	22	15	11
9	4.9	5.5	6	4.4	4.2	4.8	4.4	363	45	25	20	12
10	4.9	5.5	6	4.4	3.8	4.9	4.6	335	45	25	27	12
11	4.9	5.5	6	4.4	3.6	4.9	5.0	262	45	25	25	12
12	4.9	6.0	5.5	4.4	3.8	4.8	5.0	230	45	25	26	12
13	4.9	6.0	5.5	4.4	4.2	4.8	5.2	163	44	23	23	14
14	5.0	6.2	5	4.4	4.6	4.9	5.0	111	44	23	20	14
15	4.9	6.4	4.8	4.2	4.6	5.0	5.2	77	44	22	18	16
16	4.6	6.4	4.6	4.2	4.8	5.0	5.4	74	46	22	16	14
17	4.3	6.5	4.4	4.2	4.6	4.9	5.2	117	48	27	16	12
18	4.9	6.5	4.4	4.4	4.4	4.6	5.5	170	45	27	15	11
19	4.2	6.1	4.2	4.4	4.4	4.8	5.7	195	44	25	17	11
20	3.9	6.3	4.2	4.0	4.6	4.8	5.9	217	42	25	23	11
21	6.1	6.1	4.0	3.2	4.8	4.8	5.7	217	42	26	19	18
22	4.0	6.3	4.2	3.0	5.0	4.6	5.7	211	41	32	15	12
23	4.0	6.3	4.4	3.8	4.8	4.4	5.7	197	40	31	16	10
24	4.0	6.1	4.4	3.8	5.0	4.6	5.7	171	41	37	22	10
25	4.0	6.5	4.2	3.8	5.0	4.9	5.7	143	37	30	18	15
26	4.0	7	4.0	3.6	4.8	5.0	6.1	108	34	27	13	11
27	4.0	6.5	4.0	3.6	4.6	5.2	5.9	75	30	28	11	10
28	4.0	6	4.0	3.6	4.6	5.2	6.3	51	25	26	10	9.8
29	3.9	5.5	4.2	3.8	-	5.5	6.3	40	24	23	10	10
30	3.9	5.5	4.4	4.0	-----	5.7	12	43	33	19	13	16
31	3.9	-----	4.0	4.2	-----	5.7	-----	51	-----	20	16	-----
Total	370.0	169.3	150.9	123.8	126.0	149.4	168.7	4,444	1,259	792	576	385.8
Mean	11.9	5.64	4.87	3.99	4.50	4.82	5.62	143	42.0	25.5	18.6	12.9
Ac-ft	734	336	299	246	250	296	335	8,810	2,500	1,570	1,140	765

Calendar year 1965: Max 530 Min 3.6 Mean 35.0 Ac-ft 25,350  
 Water year 1965-66: Max 363 Min 3.0 Mean 23.9 Ac-ft 17,290

Note.--No gage-height record Nov. 28 to Dec. 28.

9-0968. Buzzard Creek below Owens Creek, near Heiberger, Colo.

Location.--Lat 39°14'10", long 107°38'00", in N½ sec.35, T.9 S., R.92 W., on left bank 500 ft downstream from Owens Creek, 2½ miles upstream from Porter Creek, 4½ miles southeast of Hightower ranger station, and 8½ miles southeast of Heiberger.

Drainage area.--52.2 sq mi.

Records available.--October 1955 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 8,206 ft (from topographic map).

Average discharge.--11 years, 24.4 cfs (17,660 acre-ft per year).

Extremes.--Maximum discharge during year, 256 cfs May 7 (gage height, 4.02 ft); no flow for many days.  
1955-66; Maximum discharge, 636 cfs June 4, 1957 (gage height, 5.82 ft); no flow at times most years.

Remarks.--Records good except those for winter periods, which are poor. Transbasin diversion above station by Owens Creek ditch for irrigation in West Divide Creek basin.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.8	5.8	3.6	4.0	3.2	2.8	5.0	166	66	6.0	2.2	0
2	11	4.6	3.8	3.6	3.2	2.8	55	192	49	4.6	4.6	0
3	15	4.8	3.8	3.4	3.2	2.6	48	190	40	3.8	1.0	0
4	12	4.6	3.8	3.2	3.2	2.4	42	182	36	2.8	7.2	.1
5	8.6	4.5	4.0	3.2	3.2	2.2	36	190	33	2.5	3.8	.2
6	7.2	4.3	4.2	3.2	3.4	2.2	32	194	30	2.0	2.1	0
7	6.5	4.6	4.2	3.4	3.6	2.4	34	200	26	1.6	1.0	0
8	6.0	4.5	4.2	3.6	3.4	2.6	48	192	36	1.2	.5	0
9	5.5	4.5	4.4	3.6	3.2	2.8	59	198	32	.9	.4	0
10	5.2	4.5	4.6	3.6	3.0	3.0	69	176	30	.7	.1	0
11	4.8	4.5	5.0	3.6	2.8	3.2	59	146	28	1.1	0	0
12	4.8	4.3	4.8	3.8	2.8	3.8	49	130	24	3.5	.3	.4
13	4.5	4.3	4.6	3.8	2.8	4.4	39	108	16	3.5	.3	.7
14	4.5	4.3	4.6	3.8	3.0	5.5	37	101	13	2.8	.1	.5
15	4.5	4.5	4.4	3.8	3.2	8	46	98	11	1.8	0	.7
16	4.8	5.0	4.2	3.6	3.0	9.5	55	108	11	1.4	0	1.0
17	6.8	5.0	4.0	3.4	2.8	8	66	107	19	1.4	0	.6
18	13	4.8	3.8	3.2	2.6	7	67	110	13	1.5	0	.4
19	10	4.5	3.6	3.6	2.6	8	57	108	10	1.7	0	.3
20	8.6	4.3	3.6	3.4	2.8	9.5	46	113	8.6	3.2	1.5	.3
21	8.0	4.0	3.6	3.0	3.0	8	41	108	8.0	2.5	1.8	.2
22	7.8	3.8	4.0	2.8	3.0	7	44	112	7.2	3.3	1.1	.2
23	7.8	4.0	4.4	3.0	2.8	6.5	42	98	6.0	3.3	.9	.2
24	8.0	4.4	4.0	3.2	2.6	7.5	46	76	4.8	3.3	.4	.1
25	7.5	4.2	3.8	3.2	2.4	9	65	64	4.3	3.5	.1	.2
26	7.2	3.8	3.6	3.2	2.4	12	113	55	4.3	3.2	0	.3
27	6.8	3.6	3.6	3.2	2.4	18	134	52	4.5	2.5	0	.3
28	6.8	3.4	3.6	3.2	2.6	26	122	60	3.8	1.6	0	.5
29	5.8	3.2	4.0	3.4	-	34	131	51	3.6	1.1	0	.4
30	5.8	3.4	5.0	3.4	-----	40	157	49	5.2	.6	0	.4
31	5.5	-----	4.6	3.4	-----	46	-----	77	-----	1.7	0	-----
Total	230.1	130.0	127.4	105.8	92.2	306.7	1,889	3,791	583.3	74.6	38.4	8.0
Mean	7.42	4.33	4.11	3.41	2.94	9.89	63.0	122	19.4	2.41	1.24	0.27
Ac-ft	456	258	253	210	163	608	3,750	7,520	1,160	148	76	16
(t)	0	0	0	0	0	0	0	533	285	5	0	0

Calendar year 1965: Max 342 Min - Mean 36.7 Ac-ft 26,600  
Water year 1965-66: Max 200 Min 0 Mean 20.2 Ac-ft 14,610

Peak discharge (base, 200 cfs).--May 7 (2100) 256 cfs (4.02 ft).

† Divisions, in acre-feet, by Owens Creek ditch; furnished by State engineer of Colorado.

Note.--No gage-height record Jan. 20 to Mar. 17.

## PLATEAU CREEK BASIN

9-0975. Buzzard Creek near Collbran, Colo.

Location.--Lat 39°16'20", long 107°51'00", in sec.14, T.9 S., R.94 W., on right bank 150 ft upstream from county bridge, half a mile upstream from Brush Creek, and 7 miles east of Collbran.

Drainage area.--139 sq mi.

Records available.--September 1921 to September 1966. Prior to October 1933 monthly discharge only, published in WSP 1313.

Gage.--Water-stage recorder. Altitude of gage is 6,955 ft (from topographic map).

Average discharge.--45 years, 46.8 cfs (33,880 acre-ft per year).

Extremes.--Maximum discharge during year, 260 cfs May 3 (gage height, 3.35 ft); minimum daily, 0.2 cfs Aug. 30.

1921-66: Maximum discharge, 1,630 cfs May 14, 1941 (gage height, 7.80 ft), from rating curve extended above 900 cfs; no flow for many days in 1959-60, 1963.

Remarks.--Records fair except those for winter periods, which are poor. Diversions for irrigation of about 1,300 acres above station. Erie Canal imports water from Plateau Creek for irrigation of about 280 acres above station. Small diversions above station from Middleton and Uhl Creeks to West Mamm Creek (Mamm Creek basin).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	9.8	8	9	7	7	103	171	87	8.6	1.0	0.7
2	20	9.4	8.5	7.5	7	7.5	109	186	65	1.0	1.3	.7
3	24	8.6	8.5	6.5	6.5	7	102	200	55	7.8	7.0	1.0
4	25	8.2	8.5	6.5	7	6.5	70	184	49	6.2	1.2	1.3
5	19	8.2	9	7	7	6.5	58	179	47	5.8	8.6	1.4
6	16	7.8	9	7.5	7.5	7	52	192	43	4.5	3.5	3.1
7	14	6.5	9	7.5	8	8	57	186	43	4.8	2.4	3.7
8	13	6.5	9	7.5	7.5	8.5	71	192	49	4.5	1.9	4.8
9	11	7.8	9	7.5	7.5	9.5	96	179	51	2.9	1.2	3.3
10	11	8.2	9.5	7.5	7	11	97	200	47	3.1	.8	4.5
11	10	6.8	10	8	6.5	13	96	151	43	3.3	.8	5.0
12	9.8	8.2	10	8	6.5	15	76	151	39	3.3	.8	5.8
13	9.4	7.8	9.5	7.5	7	19	72	128	33	3.1	1.0	3.9
14	9.4	7.4	9	7.5	7	24	65	112	28	3.5	.9	3.9
15	8.6	9.4	9	7.5	7	32	74	102	26	3.3	.7	4.3
16	10	11	8.5	7	6.5	40	77	107	27	2.2	.6	3.7
17	12	11	8	7	6.5	30	91	109	31	1.6	.5	3.9
18	27	11	8	7	7	24	93	109	28	1.9	.6	4.1
19	31	11	8	7.5	7.5	30	85	106	23	2.0	.6	3.5
20	22	10	8	7	7.5	34	71	112	22	1.4	.8	3.9
21	19	11	8	6	7.5	28	63	109	18	1.4	.6	3.3
22	16	7.0	8.5	5.5	7	24	71	109	16	2.9	.6	2.9
23	16	6.5	9	6.5	7	22	68	109	13	2.4	.7	2.4
24	16	8	8	7	7.5	24	66	99	11	3.1	.8	2.2
25	15	9	8	6.5	7.5	40	78	78	8.6	2.7	.8	2.4
26	14	8	8	6.5	7.5	53	110	71	6.8	2.0	.8	3.5
27	13	7.5	8	6.5	7.5	60	158	70	6.5	1.8	.4	3.7
28	13	7	8.5	6.5	7	69	128	74	6.0	1.8	.4	2.9
29	13	7	8.5	7	-	78	128	71	6.0	1.2	.4	2.5
30	11	7.5	10	7	-----	86	151	63	5.8	1.2	.2	2.5
31	11	-----	12	7	-----	91	-----	78	-----	1.2	.6	-----
Total	481.2	253.1	272.5	220.0	199.5	914.5	2,626	3,977	933.7	105.5	53.3	94.8
Mean	15.5	8.44	8.79	7.10	7.12	29.5	87.5	128	31.1	3.40	1.72	3.16
Ac-ft	954	502	540	436	396	1,810	5,210	7,890	1,850	209	106	188

Calendar year 1965: Max 410 Min 2.8 Mean 53.5 Ac-ft 38,710

Water year 1965-66: Max 200 Min 0.2 Mean 27.8 Ac-ft 20,090

Peak discharge (base, 350 cfs).--No peak above base.

9-0976, Brush Creek near Collbran, Colo.

Location.--Lat 39°19'30", long 107°50'30", in W½ sec.36, T.8 S., R.94 W., on right bank at site of former highway bridge, 1 mile downstream from West Brush Creek, 4 miles upstream from mouth, and 8½ miles northeast of Collbran.

Drainage area.--9.57 sq mi.

Records available.--October 1955 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 8,183 ft (from topographic map).

Average discharge.--11 years, 6.92 cfs (5,010 acre-ft per year).

Extremes.--Maximum discharge during year, 40 cfs May 2 (gage height, 3.00 ft); minimum daily, 0.5 cfs Sept. 18-22, 24.

1955-66: Maximum discharge, 317 cfs June 7, 1957 (gage height, 4.35 ft); minimum daily determined, 0.1 cfs Apr. 1, 2, 1961.

Remarks.--Records good except those for winter periods, which are poor. One small diversion for hay meadows above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.1	1.0				1.0	20	30	14	3.8	1.9	1.1
2	2.0	1.0				1.0	23	36	12	3.3	2.9	.8
3	2.0	1.0				1.0	22	37	10	3.2	2.4	.8
4	2.0	1.1				1.0	16	34	9.4	2.8	1.8	.8
5	2.0	1.1				1.0	13	34	7.8	2.6	1.4	.7
6	1.9	1.2				1.0	11	34	7.0	2.4	1.2	.6
7	1.9	1.1				1.2	12	34	6.2	2.3	1.2	.6
8	1.9	1.1				1.2	16	32	6.2	2.1	1.1	.6
9	2.0	1.2				1.3	22	33	5.8	2.0	.9	.6
10	2.0	1.1				1.4	24	32	5.8	1.9	.9	.6
11	2.0	1.3				1.4	21	28	5.6	2.1	.9	.6
12	1.9	1.3				1.4	18	24	5.4	2.0	1.2	.7
13	1.9	1.3				1.2	13	22	5.2	1.8	.9	.6
14	1.9	1.3				1.2	12	21	5.2	1.7	.8	.6
15	1.9	1.2				1.2	12	22	4.8	1.4	.8	.7
16	1.9	1.2	1.4	1.2	1.0	1.2	15	24	5.0	1.4	.8	.6
17	2.3	1.2				1.2	20	26	5.0	1.6	.8	.6
18	3.6	1.3				1.2	22	28	4.8	1.4	.7	.5
19	2.3	1.3				1.3	20	28	4.7	1.6	.8	.5
20	1.8	1.3				1.3	15	28	4.8	1.6	1.2	.5
21	1.4	1.3				1.3	12	26	4.7	2.0	.8	.5
22	1.6	1.0				1.2	10	27	4.2	2.1	.6	.5
23	1.6	1.2				1.2	9.0	26	4.2	1.9	.6	.6
24	1.6	1.4				1.2	8.6	24	4.0	1.8	.6	.5
25	1.6	1.6				1.8	11	22	3.6	1.7	.7	.6
26	1.4	1.4				2.6	20	20	3.8	1.6	.6	.6
27	1.3	1.2				5	28	20	3.6	1.7	.6	.6
28	1.3	.8				6	26	18	3.5	1.7	.6	.7
29	1.2	1.0			-	9	24	16	4.2	1.6	.6	.8
30	1.2	1.2				1.2	26	16	3.8	1.7	.7	.8
31	1.2					1.6		16		1.7	1.1	
Total	56.7	35.7	43.4	37.2	28	81.0	521.6	818	174.3	62.5	32.1	19.3
Mean	1.83	1.19	1.4	1.2	1.0	2.61	17.4	26.4	5.81	2.02	1.04	0.64
Ac-ft	112	71	86	74	56	161	1,030	1,620	346	124	64	38

Calendar year 1965: Max 148 Min - Mean 9.28 Ac-ft 6,720  
 Water year 1965-66: Max 37 Min 0.5 Mean 5.23 Ac-ft 3,790

Peak discharge (base, 50 cfs).--No peak above base.

Note.--No gage-height record Dec. 9 to Mar. 18.

## PLATEAU CREEK BASIN

9-1050. Plateau Creek near Cameo, Colo.

Location.--Lat 39°11'00", long 108°16'10", in NW¼SW¼ sec.18, T.10 S., R.97 W., on left bank 300 ft from State Highway 65, 1.1 miles upstream from mouth, and 4 miles northeast of Cameo.

Drainage area.--604 sq mi.

Records available.--October 1935 to September 1966. Prior to May 1936 monthly discharge only, published in WSP 1313.

Gage.--Water-stage recorder. Altitude of gage is 4,836 ft (from topographic map). Prior to Aug. 27, 1936, staff gage at same site and datum.

Average discharge.--31 years, 186 cfs (134,700 acre-ft per year).

Extremes.--Maximum discharge during year, 1,040 cfs May 10 (gage height, 4.80 ft); minimum daily, 44 cfs Aug. 11.

1935-66: Maximum discharge, 3,920 cfs May 27, 1942 (gage height, 7.73 ft), from rating curve extended above 3,000 cfs; minimum daily, 13 cfs July 31, 1959.

Remarks.--Records good except those for winter periods, which are poor. Natural flow of stream affected by storage reservoirs, diversions for irrigation of about 25,000 acres, return flow from irrigated areas, and for power development.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	227	150	158	140	90	91	235	354	220	66	55	91
2	277	170	152	100	90	102	265	358	190	93	57	104
3	284	170	150	113	90	104	274	378	158	89	64	97
4	268	165	148	122	90	97	211	382	138	89	69	69
5	226	165	142	118	90	95	172	378	128	89	68	66
6	214	168	132	142	95	106	170	402	128	84	63	64
7	214	170	104	132	100	128	162	465	128	82	57	71
8	190	170	106	138	95	158	170	605	142	80	53	80
9	182	170	111	148	89	229	196	705	150	82	49	78
10	165	170	115	115	91	265	232	784	150	78	46	55
11	162	170	135	89	89	244	253	590	142	82	44	60
12	170	168	125	85	106	170	235	585	135	76	52	78
13	170	165	118	84	108	165	220	485	130	60	55	93
14	170	168	106	84	102	180	196	370	118	55	52	91
15	172	155	97	84	95	188	202	315	108	54	53	102
16	172	135	108	84	82	193	220	280	111	54	50	89
17	165	135	91	84	113	172	244	301	113	63	52	76
18	241	130	106	85	108	106	265	358	93	72	49	71
19	220	125	165	85	100	122	262	370	80	58	71	72
20	211	125	148	90	100	128	208	394	85	60	74	80
21	208	128	150	90	102	138	182	398	106	55	60	91
22	211	118	180	85	108	97	193	374	102	58	63	100
23	208	150	168	80	108	87	185	366	95	63	72	93
24	202	148	132	85	108	97	185	318	89	61	71	66
25	182	247	125	90	128	108	193	274	82	64	69	69
26	180	214	125	85	97	130	223	238	80	60	74	80
27	175	168	122	80	89	155	277	217	84	60	53	97
28	175	152	125	80	97	170	268	202	68	55	52	100
29	165	148	150	85	-	185	284	199	57	54	61	95
30	145	158	280	90	-----	193	318	185	72	54	78	91
31	135	-----	158	90	-----	214	-----	211	-----	55	87	-----
Total	6,146	4,775	4,232	3,062	2,760	4,617	6,700	11,841	3,482	2,105	1,873	2,469
Mean	198	159	137	98.8	98.6	149	223	382	116	67.9	60.4	82.3
Ac-ft	12,190	9,470	8,390	6,070	5,470	9,160	13,290	23,490	6,910	4,180	3,720	4,900

Calendar year 1965: Max 1,230 Min 55 Mean 219 Ac-ft 158,700  
 Water year 1965-66: Max 784 Min 44 Mean 148 Ac-ft 107,200

## 9-1085. 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., at dam on Taylor River just downstream from Taylor Park, 17 miles northeast of Almont.

Drainage area.--254 sq mi.

Records available.--October 1937 to September 1966. Prior to October 1938, published in WSP 1313.

Gage.--Staff 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.--Maximum contents observed during year, 108,500 acre-ft May 31 to June 6 (elevation, 9,331.10 ft); minimum, 72,720 acre-ft Sept. 30 (elevation, 9,311.70).  
1937-66: 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.

Month-end elevation and contents, water year October 1965 to September 1966

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	9,325.20	96,470	-
Oct. 31.....	9,327.20	100,400	+3,930
Nov. 30.....	9,327.70	101,500	+1,100
Dec. 31.....	9,319.90	86,770	-14,730
Calendar year 1965.....	-	-	-18,690
Jan. 31.....	9,315.80	79,660	-7,110
Feb. 28.....	9,316.50	80,860	+1,200
Mar. 31.....	9,317.10	81,900	+1,040
Apr. 30.....	9,321.00	88,710	+6,810
May 31.....	9,331.10	108,500	-19,790
June 30.....	9,330.90	108,100	-400
July 31.....	9,329.20	104,600	-3,500
Aug. 31.....	9,321.40	89,430	-15,170
Sept. 30.....	9,311.70	72,720	-16,710
Water year 1965-66.....	-	-	-23,750

† Elevation at 0800.



## GUNNISON RIVER BASIN

9-1090. Taylor River below Taylor Park Reservoir, Colo.

Location.--Lat 38°48'50", long 106°36'40", in sec.24, T.14 S., R.83 W., on left bank 500 ft downstream from Taylor Park Reservoir Dam, 3½ miles upstream from Lottis Creek, and 16 miles northeast of Almont.

Drainage area.--254 sq mi.

Records available.--June 1929 to September 1934 (monthly discharge only, published in WSP 1313), October 1938 to September 1966.

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 1,000 ft downstream at datum 1.00 ft lower. Oct. 15, 1946, to May 4, 1952, supplementary chain and staff gages just downstream from reservoir outlet at different sites and datums used during winter months.

Average discharge.--33 years, 186 cfs (134,700 acre-ft per year).

Extremes.--Maximum discharge during year, 624 cfs June 1 (gage height, 4.93 ft); minimum daily, 49 cfs Apr. 27, 30, May 1-7. 1938-66: 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 preceding page) since 1937. One small diversion from Willow Creek above reservoir.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	96	103	135	375			53	49	604	279	374	370
2	97	105	185	375			53	49	592	272	374	370
3	97	103	235	375			53	49	584	250	370	366
4	96	103	285	375			53	49	556	229	370	366
5	92	103	350	375			54	49	524	214	370	366
6												
7	92	103	375	375			54	49	488	198	370	366
8	94	103	375	375			53	49	456	185	374	366
9	96	103	375	375			53	50	456	175	374	366
10	97	103	375	375			53	50	448	168	377	366
11	97	103	375	375			54	51	472	162	370	366
12												
13	97	103	375	375			54	51	460	159	370	370
14	98	103	375	375		55	53	51	430	173	370	370
15	98	103	375	375			53	51	408	175	370	370
16	98	103	375	165			54	51	402	168	374	370
17	100	103	375	60			54	51	398	159	366	370
18												
19	98	103	375	60			54	51	402	149	366	370
20	100	103	375	60			54	51	416	145	370	370
21												
22	100	103	375	60			54	51	408	153	370	370
23	100	103	375	60			54	51	394	178	370	370
24	100	103	375	60			54	51	377	286	370	370
25												
26	100	103	375	60			54	51	374	342	374	370
27	100	103	375	60			54	73	380	346	377	370
28	102	103	375	60			54	171	363	342	374	370
29	102	103	375	60		51	54	332	332	349	374	370
30	102	103	375	60		51	53	460	307	366	370	366
31												
32	102	60	375	60		51	52	544	300	370	374	366
33	102	103	375	60		52	49	536	300	370	370	366
34	103	103	375	60		53	50	524	286	370	366	363
35	103	103	375	60		53	53	516	265	370	366	360
36	103	103	375	60		53	49	544	262	374	370	366
37	103	-----	375	60	-----	53	-----	604	-----	374	370	-----
Total	3,065	3,049	10,940	6,060	1,680	1,682	1,593	5,359	12,444	7,850	11,504	11,035
Mean	98.9	102	353	195	60	54.3	53.1	173	415	253	371	368
Ac-ft	6,080	6,050	21,700	12,020	3,330	3,340	3,160	10,630	24,680	15,570	22,820	21,890
Calendar year 1965:	Max 1,090	Min 26			Mean 268			Ac-ft 193,900				
Water year 1965-66:	Max 604	Min 49			Mean 209			Ac-ft 151,300				

Note.--No gage-height record Nov. 28 to Mar. 24.

## 9-1100. Taylor River at Almont, Colo.

Location.--Lat 38°40', long 106°51', in sec.22, T.51 N., R.1 E., 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.

Records available.--July 1910 to September 1966. 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, datum of 1929. Prior to Apr. 16, 1922, staff gage at same site and datum.

Average discharge.--56 years, 340 cfs (246,100 acre-ft per year).

Extremes.--Maximum discharge during year, 986 cfs June 1 (gage height, 3.06 ft); minimum daily, 85 cfs Mar. 5.

1910-66: 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 poor. Flow regulated since September 1937 by Taylor Park Reservoir (see elsewhere in this report), 24 miles above station. Diversions for irrigation of about 360 acres above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	204	180	200	440	95	100	123	186	952	460	475	435
2	204	177	240	420	100	100	132	189	892	450	480	435
3	198	177	320	400	90	100	132	201	876	420	425	440
4	198	180	360	420	90	95	123	210	842	390	485	440
5	195	180	420	440	95	85	119	230	790	360	475	435
6	192	177	440	440	95	95	119	254	742	335	470	435
7	189	177	440	440	95	95	119	274	697	317	470	435
8	189	177	440	440	100	100	125	282	690	304	470	435
9	192	180	480	420	95	100	135	308	678	286	460	425
10	192	177	460	420	95	100	142	350	716	282	455	405
11	192	171	460	420	90	100	142	294	697	278	450	405
12	189	177	480	420	90	100	128	282	658	274	450	405
13	189	177	480	420	95	100	128	266	634	270	450	405
14	186	177	480	260	100	100	128	250	618	266	450	405
15	186	180	480	120	100	110	138	238	618	254	450	415
16	186	177	480	100	95	110	159	242	618	246	460	405
17	204	180	440	100	95	100	171	250	658	238	465	405
18	204	177	420	100	95	100	156	270	634	238	465	405
19	198	174	420	100	95	100	142	282	618	262	460	410
20	192	171	420	100	100	110	132	308	584	355	465	415
21	189	177	440	95	95	110	130	326	574	440	465	415
22	189	168	460	90	95	100	140	345	574	460	455	410
23	186	180	460	95	95	95	138	430	552	460	455	410
24	189	174	420	95	95	95	142	579	520	475	455	405
25	189	180	400	100	95	99	156	723	495	500	450	410
26	186	140	420	95	100	97	192	828	470	490	450	405
27	183	180	440	90	100	101	180	805	475	485	445	405
28	180	180	440	90	100	107	159	798	460	485	445	405
29	177	180	440	90	-	109	174	775	435	480	440	400
30	180	180	440	95	-----	111	183	820	445	480	435	405
31	177	-----	420	100	-----	117	-----	935	-----	480	435	-----
Total	5,904	5,282	13,140	7,455	2,680	3,141	4,287	12,530	19,212	11,520	14,230	12,465
Mean	190	176	424	240	95.7	101	143	404	640	372	459	416
Ac-ft	11,710	10,480	26,060	14,790	5,320	6,230	8,500	24,850	38,110	22,850	28,220	24,720

Calendar year 1965: Max 1,570 Min - Mean 460 Ac-ft 332,900

Water year 1965-66: Max 952 Min 85 Mean 306 Ac-ft 221,800

Note.--No gage-height record Nov. 26 to Mar. 23.

## GUNNISON RIVER BASIN

9-1122. East River below Cement Creek, near Crested Butte, Colo.

Location.--Lat 38°47'25", long 106°52'20", in sec.34, T.14 S., R.85 W., 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.

Records available.--October 1963 to September 1966.

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

Extremes.--Maximum discharge during year, 1,530 cfs May 8 (gage height, 6.96 ft); minimum daily, 48 cfs Mar. 5.  
1963-66: 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 periods, which are poor. Diversions for irrigation of about 4,500 acres above and below station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	241	124	100	86	55	65	262	720	978	438	148	86
2	253	122	100	80	60	60	324	792	969	402	160	88
3	262	120	104	70	50	60	304	852	978	356	170	90
4	265	116	106	75	55	55	244	1,050	928	338	178	88
5	259	116	104	80	60	48	217	1,220	838	321	162	86
6	244	116	102	90	60	60	214	1,340	774	286	148	81
7	232	114	102	100	65	65	220	1,430	715	268	142	74
8	223	110	104	95	70	65	253	1,460	740	250	138	70
9	217	114	108	95	65	70	310	1,380	650	235	134	68
10	211	114	110	90	60	75	356	1,220	700	223	130	67
11	205	104	110	90	55	75	335	969	638	223	126	67
12	196	112	108	85	60	75	293	817	638	223	124	67
13	184	114	102	85	65	70	282	685	665	211	124	67
14	178	112	100	90	65	70	290	614	660	196	120	66
15	172	122	95	90	60	75	321	586	655	184	114	67
16	172	120	95	85	55	80	398	602	642	181	112	67
17	196	122	90	75	55	70	466	618	660	178	108	66
18	193	120	85	75	60	65	450	626	665	175	100	65
19	178	116	80	75	60	70	406	670	634	170	102	64
20	168	108	85	70	65	70	352	745	626	181	106	64
21	160	118	90	65	60	70	332	817	618	187	104	64
22	158	92	98	60	60	65	321	888	650	196	102	64
23	152	112	98	60	55	60	310	804	586	202	100	64
24	150	124	90	65	55	65	349	838	550	199	96	64
25	146	124	85	70	55	70	430	944	506	184	96	62
26	142	102	94	60	60	75	534	1,000	482	170	92	62
27	140	106	92	55	65	85	578	873	446	165	92	62
28	134	100	90	55	65	95	566	859	446	160	92	66
29	130	95	92	60	-	110	574	896	418	158	90	67
30	128	90	85	60	-----	142	626	1,030	418	152	86	66
31	124	-----	79	65	-----	190	-----	1,050	-----	152	86	-----
Total	5,813	3,379	2,983	2,356	1,675	2,370	10,917	28,395	19,873	6,964	3,682	2,099
Mean	188	113	96.2	76.0	59.8	76.5	364	916	662	225	119	70.0
Ac-ft	11,530	6,700	5,920	4,670	3,320	4,700	21,650	56,320	39,420	13,810	7,300	4,160

Calendar year 1965: Max 2,530 Min 42 Mean 481 Ac-ft 348,400

Water year 1965-66: Max 1,460 Min 48 Mean 248 Ac-ft 179,500

Peak discharge (base, 1,500 cfs).--May 8 (0200) 1,530 cfs (6.96 ft).

9-1125. East River at Almont, Colo.

Location.--Lat 38°40', long 106°51', in sec.22, T.51 N., R.1 E., 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 (revised).

Records available.--April to October 1905, July 1910 to September 1922, October 1934 to September 1966. 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, datum of 1929. Apr. 16 to Sept. 30, 1905, and July 27, 1910, to Apr. 30, 1922, staff 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.--44 years, 342 cfs (247,600 acre-ft per year).

Extremes.--Maximum discharge during year, 1,430 cfs May 8 (gage height, 4.65 ft); minimum daily, 50 cfs Mar. 5.

1905, 1910-22, 1934-66: 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 periods, which are poor. Diversions for irrigation of about 7,400 acres above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	249	125	95	85	60	60	228	690	988	414	176	90
2	249	125	100	75	65	60	282	786	967	390	176	83
3	256	120	100	70	55	60	278	816	967	362	193	83
4	260	118	108	70	55	55	235	924	936	342	200	80
5	263	118	102	75	60	50	196	1,060	870	322	200	93
6	256	118	100	85	65	55	207	1,190	804	298	179	83
7	246	120	102	100	70	60	221	1,250	708	278	165	80
8	238	118	105	95	75	65	235	1,320	762	260	159	80
9	232	120	110	95	70	65	278	1,310	678	235	156	78
10	221	118	105	90	65	70	326	1,150	732	221	147	76
11	207	115	102	90	60	75	314	967	655	221	141	78
12	186	118	115	85	60	75	274	852	645	207	141	78
13	179	118	115	85	65	70	263	702	650	207	141	78
14	179	120	118	85	70	75	263	585	645	196	132	76
15	176	128	112	90	70	80	294	540	655	193	128	76
16	176	128	115	85	60	85	358	535	650	186	125	76
17	190	128	95	80	60	80	410	530	666	179	122	76
18	190	125	90	80	65	70	410	510	684	168	118	76
19	179	122	90	80	65	75	378	550	655	168	118	71
20	172	118	95	80	70	75	338	666	640	172	122	69
21	159	128	95	75	70	75	318	774	620	179	115	69
22	159	105	95	65	65	70	318	864	678	176	110	69
23	156	122	95	65	60	65	314	780	580	207	110	69
24	153	118	90	70	60	70	346	834	535	207	105	69
25	147	135	85	75	60	75	406	936	490	196	100	69
26	144	118	95	70	65	80	510	1,010	470	172	100	71
27	141	120	90	60	65	88	550	888	438	165	100	71
28	135	125	90	60	60	98	530	870	414	176	100	71
29	132	115	90	60	-	115	530	876	390	179	95	71
30	130	108	85	60	-----	138	565	1,020	402	179	95	71
31	128	-----	80	65	-----	176	-----	1,060	-----	182	95	-----
Total	5,888	3,614	3,064	2,405	1,790	2,410	10,175	26,845	19,974	7,037	4,164	2,270
Mean	190	120	98.8	77.6	63.9	77.7	339	866	666	227	134	75.7
Ac-ft	11,680	7,170	6,080	4,770	3,550	4,780	20,180	53,250	39,620	13,960	8,260	4,500

Calendar year 1965: Max 2,660 Min 45 Mean 497 Ac-ft 359,900

Water year 1965-66: Max 1,320 Min 50 Mean 246 Ac-ft 177,800

Peak discharge (base, 1,600 cfs).--No peak above base.

9-1133. Ohio Creek at Baldwin, Colo.

Location.--Lat 38°45'55", long 107°03'30", in NE¼ sec.12, T.15 S., R.87 W., on left bank three quarters of a mile northwest of Baldwin and 0.2 mile downstream from Castle Creek.

Drainage area.--48 sq mi, approximately.

Records available.--October 1958 to September 1966.

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

Average discharge.--8 years, 44.3 cfs (32,070 acre-ft per year).

Extremes.--Maximum discharge during year, 231 cfs May 8 (gage height, 2.80 ft); maximum gage height, 3.39 ft Mar. 24 (backwater from ice); minimum daily discharge, 5.2 cfs Sept. 26-30.  
1958-66: Maximum discharge, about 550 cfs May 9, 1962; maximum gage height, 3.77 ft May 12, 1962; minimum daily discharge determined, 3.8 cfs July 29, 1963.

Remarks.--Records good except those for winter periods, 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.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	19					64	131	135	59	8.7	12
2	40	18					76	135	131	51	20	12
3	39	19					73	145	131	43	38	12
4	37	19					59	155	119	38	36	11
5	35	18					57	168	112	36	27	10
6	33	18					57	180	99	24	24	10
7	30	16					62	186	92	19	21	10
8	28	13					73	201	92	16	18	10
9	26	13					86	195	78	11	16	8.4
10	24	15					91	170	92	11	15	6.3
11	24	16				10	80	145	82	15	15	6.3
12	23	15					72	131	78	20	16	6.6
13	22	16					68	117	80	12	15	6.3
14	22	16					72	105	82	11	15	6.0
15	21	17					77	101	89	11	14	8.7
16	24	17	14	12	11		92	105	91	11	14	7.2
17	31	18					102	115	98	10	14	6.6
18	33	17					98	125	99	10	14	6.0
19	28	14					89	129	86	11	15	6.0
20	26	14					77	137	81	11	17	5.6
21	24	15					73	145	88	13	14	5.6
22	23	12					73	155	86	17	12	5.4
23	24	14					75	137	73	35	12	5.4
24	23	16					80	135	63	57	12	5.4
25	22	16					96	137	57	31	11	5.4
26	20	14				15	117	133	54	18	11	5.2
27	20	13					110	117	54	15	11	5.2
28	20	12					104	109	53	12	10	5.2
29	19	11					109	109	53	11	10	5.2
30	18	11					121	125	58	10	11	5.2
31	19							133		10	12	
Total	816	462	434	372	308	365	2,483	4,311	2,586	659	498.7	220.2
Mean	26.3	15.4	14	12	11	12	82.8	139	86.2	21.3	16.1	7.34
Ac-ft	1,620	916	861	738	611	724	4,920	8,550	5,130	1,310	989	437

Calendar year 1965: Max 434 Min - Mean 81.2 Ac-ft 58,760  
Water year 1965-66: Max 201 Min 5.2 Mean 37.0 Ac-ft 26,810

Peak discharge (base, 300 cfs).--No peak above base.

Note.--No gage-height record Dec. 1 to Mar. 22.

9-1135. Ohio Creek near Baldwin, Colo.

Location.--Lat 38°42', long 107°00', in SW¼ sec.34, T.15 S., R.86 W., on right bank 600 ft upstream from bridge, 800 ft downstream from Mill Creek, 5½ miles southeast of Baldwin, and 11 miles upstream from mouth.

Drainage area.--124 sq mi.

Records available.--April 1940 to September 1950, October 1958 to September 1966. Monthly discharge only for some periods, published in WSP 1313.

Gage.--Water-stage recorder. Altitude of gage is 8,180 ft (by barometer). Prior to Apr. 3, 1942, staff gage at present site and datum. Apr. 3, 1942, to Sept. 30, 1950, water-stage recorder at present site and datum.

Average discharge.--18 years, 88.2 cfs (63,850 acre-ft per year).

Extremes.--Maximum discharge during year, 360 cfs May 7 (gage height, 2.02 ft); maximum gage height, 2.04 ft Mar. 27 (backwater from ice); minimum daily discharge, 11 cfs Sept. 23-30.

1940-50, 1958-66: 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 periods, which are poor. Diversions for irrigation of 3,850 acres above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	31	26	26	18	20	100	216	210	98	22	16
2	59	29	28	24	20	22	130	237	200	79	33	16
3	55	29	28	22	16	20	114	249	195	71	51	18
4	50	29	30	20	17	18	88	261	178	62	48	16
5	46	29	30	22	20	14	79	273	165	56	39	16
6	46	29	30	24	20	17	86	285	152	51	32	16
7	44	28	28	26	20	20	104	312	138	47	28	16
8	42	25	30	28	22	20	117	327	150	46	24	16
9	41	28	32	26	20	20	132	324	128	40	23	15
10	39	29	34	26	20	22	133	282	154	40	21	13
11	38	28	34	26	18	22	125	246	138	46	21	12
12	37	29	32	24	18	20	111	240	138	50	22	13
13	36	29	30	22	20	20	102	205	137	39	21	13
14	35	29	30	24	20	20	110	182	135	39	21	13
15	35	30	28	26	20	22	117	170	135	34	23	16
16	37	33	30	24	18	22	137	170	137	35	21	16
17	46	33	28	22	18	20	156	178	168	36	21	14
18	47	37	28	22	18	18	152	190	170	37	21	14
19	42	35	26	22	18	18	144	195	140	35	24	13
20	40	31	24	24	18	20	123	205	132	40	28	13
21	38	35	26	22	20	22	116	213	148	40	23	12
22	37	24	28	20	18	20	111	228	144	48	20	12
23	36	33	30	22	18	18	108	185	118	55	18	11
24	36	33	26	22	16	19	116	185	104	62	18	11
25	36	35	24	24	18	22	135	190	94	43	17	11
26	35	31	26	22	18	26	178	198	93	52	16	11
27	34	28	26	20	18	30	182	175	91	46	16	11
28	33	26	26	18	20	34	172	160	91	37	16	11
29	32	24	28	18	-	40	185	165	86	33	15	11
30	31	24	30	20	-----	50	208	202	94	29	16	11
31	31	-----	28	20	-----	70	-----	225	-----	26	18	-----
Total	1,239	893	884	708	525	746	3,871	6,873	4,163	1,452	737	407
Mean	40.0	29.8	28.5	22.8	18.8	24.1	129	222	139	46.8	23.8	13.6
Ac-ft	2,460	1,770	1,750	1,400	1,040	1,480	7,680	13,630	8,260	2,880	1,460	807

Calendar year 1965: Max 792 Min - Mean 143 Ac-ft 103,200

Water year 1965-66: Max 327 Min 11 Mean 61.6 Ac-ft 44,620

Peak discharge (base, 450 cfs).--No peak above base.

Note.--No gage-height record Feb. 18 to Mar. 23.

## 9-1145. Gunnison River near Gunnison, Colo.

Location.--Lat 38°32'50", long 106°57'00", on line between secs. 34 and 35, T.50 N., R.1 W., on right bank 1,570 ft downstream from Antelope Creek and 1 mile west of Gunnison.

Drainage area.--1,010 sq mi, approximately.

Records available.--October 1910 to December 1928, October 1944 to September 1966. Monthly discharge only for some periods, published in WSP 1313.

Gage.--Water-stage recorder. Altitude of gage is 7,670 ft (from river-profile map). Nov. 25, 1910, to Dec. 31, 1928, staff or chain gages (supplementary water-stage recorder Apr. 28, 1916, to June 17, 1918) at bridge about 1 mile downstream at various datums. Apr. 11, 1945, to Mar. 23, 1965, water-stage recorder at site 70 ft upstream at same datum.

Average discharge.--40 years, 781 cfs (565,400 acre-ft per year).

Extremes.--Maximum discharge during year, 2,280 cfs June 1 (gage height, 3.49 ft); minimum daily, 180 cfs Mar. 5. 1910-28, 1944-66: 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 periods, which are poor. Flow regulated by Taylor Park Reservoir (see elsewhere in this report), 37 miles above station. Diversions for irrigation of about 22,000 acres above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	540	298	378	590	230	240	561	893	2,150	839	624	432
2	522	294	432	560	240	240	652	980	2,010	798	631	414
3	510	290	498	520	220	220	631	990	1,960	729	715	408
4	492	278	589	540	230	200	516	1,090	1,860	673	701	408
5	468	302	652	600	240	180	426	1,260	1,740	610	666	378
6	456	340	680	620	250	190	426	1,410	1,590	534	638	360
7	438	340	687	640	250	200	444	1,500	1,470	498	603	366
8	408	335	694	640	250	210	498	1,590	1,560	450	596	366
9	402	350	708	620	250	220	582	1,630	1,440	408	617	360
10	396	350	680	600	240	230	652	1,510	1,520	378	596	345
11	384	340	680	590	220	220	638	1,260	1,440	384	547	345
12	360	355	673	580	220	220	540	1,160	1,340	378	540	350
13	345	350	659	580	230	220	504	990	1,310	360	554	355
14	345	345	659	500	240	220	492	866	1,270	345	547	355
15	345	366	645	340	250	230	522	774	1,250	320	547	372
16	350	366	645	250	210	240	617	758	1,240	315	540	372
17	402	372	617	250	210	240	722	758	1,380	335	547	372
18	414	366	610	250	210	220	736	729	1,430	315	547	366
19	390	355	610	250	210	220	680	774	1,340	320	547	355
20	372	340	610	240	220	250	596	884	1,260	402	582	340
21	360	355	617	230	240	260	534	1,000	1,240	516	561	330
22	360	340	638	210	240	250	575	1,190	1,330	582	540	335
23	350	355	631	220	220	240	516	1,200	1,210	624	534	335
24	345	366	603	230	220	232	534	1,350	1,070	715	516	330
25	335	420	596	250	220	228	596	1,590	950	774	492	340
26	310	390	610	240	220	252	750	1,830	911	715	486	355
27	306	320	596	220	230	286	848	1,760	902	715	450	355
28	306	378	596	220	240	320	766	1,740	839	701	450	360
29	302	345	603	220	-	350	736	1,740	798	687	438	372
30	302	345	610	230	-----	390	790	1,900	839	673	438	378
31	302	-----	582	240	-----	462	-----	2,120	-----	645	438	-----
Total	11,917	10,346	19,088	12,250	6,450	7,680	18,080	39,226	40,649	16,738	17,228	10,909
Mean	384	345	616	395	230	248	603	1,265	1,355	540	556	364
Ac-ft	23,640	20,520	37,860	24,300	12,790	15,230	35,860	77,800	80,630	33,200	34,170	21,640

Calendar year 1965: Max 4,600 Min 120 Mean 1,135 Ac-ft 821,500

Water year 1965-66: Max 2,150 Min 180 Mean 577 Ac-ft 417,600

Note.--No gage-height record Jan. 3 to Feb. 8.

9-1155. Tomichi Creek at Sargents, Colo.

Location.--Lat 38°24', long 106°25', in SW¼ sec.21, T.48 N., R.5 E., on right bank 300 ft from U. S. Highway 50, half a mile downstream from Marshall Creek, and three-quarters of a mile south of Sargents.

Drainage area.--155 sq mi.

Records available.--October 1916 to September 1922, October 1937 to September 1966. Monthly discharge only for some periods, published in WSP 1313.

Gage.--Water-stage recorder. Altitude of gage is 8,420 ft (estimated from railroad elevation). May 12 to Oct. 5, 1917, staff 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.--35 years, 63.4 cfs (45,900 acre-ft per year).

Extremes.--Maximum discharge during year, 151 cfs May 8 (gage height, 1.62 ft); minimum daily, 9.8 cfs Aug. 27-30. 1916-22, 1937-66: 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 cfs Nov. 16, 1920.

Remarks.--Records good except those for period of no gage-height record, 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).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	38					80	84	103	41	25	12
2	45	39					65	90	98	35	26	12
3	44	37					55	90	90	31	40	12
4	42	36					46	92	84	30	37	12
5	40	37					41	94	82	29	31	12
6	40	38					45	115	75	27	27	17
7	40	39					44	120	72	34	23	17
8	40	38				26	44	132	78	42	22	17
9	39	37					46	136	76	39	20	17
10	39	38					49	132	105	39	20	20
11	38	38					49	117	86	42	19	23
12	38	36					47	127	73	37	19	23
13	37	35					44	129	65	35	20	23
14	37	36					42	120	57	36	19	23
15	37	35					47	108	53	35	18	24
16	38	35	30	28	26		49	105	54	36	17	24
17	48	35					52	103	92	35	17	22
18	49	35					52	110	67	34	16	22
19	46	34					52	110	64	34	18	22
20	44	32					50	115	58	35	21	21
21	41	34				40	45	117	58	34	20	20
22	42	36					54	124	56	38	15	20
23	42	38					56	120	49	34	14	20
24	42	40					56	117	46	36	13	20
25	41	36					56	112	40	35	12	20
26	40	34					67	112	38	29	11	19
27	39	32					68	110	39	27	9.8	20
28	39	30				60	67	120	36	25	9.8	22
29	38	30					73	108	36	28	9.8	21
30	38	32					78	105	45	25	9.8	20
31	39							105		26	10	
Total	1,268	1,070	930	868	728	1,150	1,619	3,479	1,965	1,043	589.2	577
Mean	40.9	35.7	30	28	26	37	54.0	112	65.5	33.6	19.0	19.2
Ac-ft	2,520	2,120	1,840	1,720	1,440	2,280	3,210	6,900	3,900	2,070	1,170	1,140

Calendar year 1965: Max 434 Min 13 Mean 88.3 Ac-ft 63,920  
 Water year 1965-66: Max 136 Min 9.8 Mean 41.9 Ac-ft 30,320

Peak discharge (base, 200 cfs).--No peak above base.

Note.--No gage-height record Nov. 28 to Apr. 4.



## GUNNISON RIVER BASIN

9-1170. Tomichi Creek at Parlin, Colo.

Location.--Lat 38°29'50", long 106°43'30", in NW¼ sec.23, T.49 N., R.2 E., 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.

Records available.--October 1944 to September 1951, October 1963 to September 1966.

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.--10 years, 62.7 cfs (45,390 acre-ft per year).

Extremes.--Maximum discharge during year, 428 cfs Mar. 30 (gage height, 5.08 ft), from rating curve extended above 250 cfs; maximum gage height, 5.55 ft Mar. 29 (backwater from ice); minimum daily discharge, 3.0 cfs Sept. 9.  
1944-51, 1963-66: Maximum discharge, 669 cfs May 25, 1948 (gage height, 6.37 ft, site and datum then in use), from rating curve extended above 400 cfs; minimum daily, 0.5 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.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	39	34	34	24	30	156	56	102	25	26	5.0
2	42	39	36	32	22	30	145	50	86	23	22	4.2
3	38	39	36	30	22	30	116	48	68	22	23	3.8
4	36	39	38	28	24	28	84	48	56	19	33	4.0
5	34	39	36	30	26	26	71	43	50	16	32	4.0
6	34	37	36	32	28	28	77	47	46	14	27	3.8
7	34	36	36	34	30	32	77	53	46	12	23	3.8
8	32	35	36	36	28	34	72	52	53	10	19	3.6
9	32	38	38	38	26	34	75	71	56	10	16	3.0
10	34	38	40	40	26	34	77	78	66	9.0	15	3.6
11	32	36	36	40	24	32	81	77	71	9.5	13	6.5
12	29	38	36	36	26	32	84	114	66	10	13	9.0
13	29	39	36	36	30	34	78	139	57	11	13	10
14	30	43	36	36	28	38	72	124	51	12	13	12
15	31	43	36	36	28	42	70	110	46	12	13	12
16	31	45	40	34	24	40	70	96	45	12	12	12
17	38	46	36	32	22	40	74	81	67	17	12	12
18	45	45	34	32	22	40	72	66	82	19	11	13
19	49	44	32	34	24	42	75	59	63	19	11	12
20	48	40	34	32	26	44	72	70	54	22	10	8.5
21	44	40	36	30	26	50	68	78	49	23	9.5	7.4
22	43	36	40	30	24	55	77	90	47	47	8.5	6.8
23	42	42	40	30	24	50	90	86	39	43	7.4	5.9
24	42	44	36	30	26	55	90	79	36	52	5.6	6.2
25	42	48	34	32	30	70	78	81	31	52	5.6	5.9
26	42	42	36	28	32	100	77	81	28	41	5.0	6.2
27	40	36	38	26	34	140	82	85	26	37	5.0	5.9
28	40	34	36	26	32	180	81	86	22	34	4.8	5.3
29	37	30	36	26	-	200	70	91	23	31	4.8	5.9
30	36	34	34	28	-----	271	70	86	26	29	4.6	6.2
31	38	-----	34	26	-----	196	-----	90	-----	27	4.8	-----
Total	1,166	1,184	1,122	994	738	2,057	2,481	2,415	1,558	719.5	422.6	207.5
Mean	37.6	39.5	36.2	32.1	26.4	66.4	82.7	77.9	51.9	23.2	13.6	6.92
Ac-ft	2,310	2,350	2,230	1,970	1,460	4,080	4,920	4,790	3,090	1,430	838	412

Calendar year 1965: Max 551 Min 22 Mean 102 Ac-ft 73,650  
Water year 1965-66: Max 271 Min 3.0 Mean 41.3 Ac-ft 29,880

Peak discharge (base, 250 cfs).--Mar. 30 (0030) 428 cfs (5.08 ft).

Note.--No gage-height record Feb. 4 to Mar. 2.

9-1180. Quartz Creek near Ohio City, Colo.

Location.--Lat 38°33'35", long 106°38'10", in SW¼SW¼ sec.27, T.50 N., R.3 E., 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 City, and 1.4 miles downstream from Gold Creek.

Drainage area.--106 sq mi.

Records available.--October 1937 to September 1950 (published as "near Ohio"), October 1959 to September 1966. Monthly discharge only for some periods, published in WSP 1313.

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.--20 years, 44.8 cfs (38,800 acre-ft per year).

Extremes.--Maximum discharge during year, 187 cfs May 8 (gage height, 2.60 ft); minimum daily, 17 cfs Sept. 29, 30.  
1937-50, 1959-66: 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 periods, 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.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	40					75	70	139	62	32	24
2	48	41					65	80	134	54	39	24
3	47	40					50	88	129	52	58	24
4	46	40					44	97	118	48	52	24
5	43	40					40	114	112	44	44	24
6	39	40					34	134	106	36	40	24
7	40	40					33	149	101	33	40	24
8	40	39				22	34	162	106	31	36	24
9	39	39					39	157	103	27	33	23
10	39	39					39	149	116	30	32	23
11	37	37					40	125	101	31	31	23
12	37	40					37	123	93	32	36	23
13	36	40					36	106	88	31	37	23
14	36	39					33	101	83	33	34	20
15	37	40					39	101	83	31	33	18
16	40	39	30	24	22		41	103	86	28	34	20
17	46	40					41	103	104	27	33	20
18	46	39					40	110	95	27	32	20
19	41	37					40	118	86	28	36	20
20	39	34					39	129	83	30	37	20
21	39	34					34	139	85	34	34	20
22	40	33					43	146	81	50	31	20
23	40	36				35	43	146	75	36	31	20
24	40	38					41	146	70	40	30	20
25	40	38					44	152	67	47	27	20
26	39	36					48	146	65	50	24	20
27	39	32					52	127	65	47	23	20
28	40	30					50	127	64	44	23	18
29	39	28					54	125	60	43	23	17
30	40	30					64	132	67	36	24	17
31	39							139		33	24	
Total	1,261	1,118	930	744	616	890	1,312	3,844	2,765	1,175	1,043	637
Mean	40.7	37.3	30	24	22	29	43.7	124	92.2	37.9	33.6	21.2
Ac-ft	2,500	2,220	1,840	1,480	1,220	1,770	2,600	7,620	5,480	2,330	2,070	1,260

Calendar year 1965: Max 526 Min - Mean 82.7 Ac-ft 59,890  
Water year 1965-66: Max 162 Min 17 Mean 44.8 Ac-ft 32,400

Peak discharge (base, 220 cfs).--No peak above base.

Note.--No gage-height record Nov. 26 to Apr. 5.

9-1190. Tomichi Creek at Gunnison, Colo.

Location.--Lat 38°31'20", long 106°56'25", in NE¼SW¼ sec.11, T.49 N., R.1 W., 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.--1,020 sq mi, approximately.

Records available.--November and December 1910 (gage heights and discharge measurements only), October 1937 to September 1966. 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, datum of 1929. Nov. 25 to Dec. 24, 1910, staff 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.--29 years, 170 cfs (123,100 acre-ft per year).

Extremes.--Maximum discharge during year, 702 cfs Mar. 29 (gage height, 2.63 ft); minimum daily, 24 cfs Sept. 28. 1937-66: Maximum discharge, 1,900 cfs June 8, 1957 (gage height, 4.10 ft); minimum daily, 12 cfs Oct. 4, 1963.

Remarks.--Records good except those for period of no gage-height record, 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).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	156	107	90	90	80	60	276	123	264	98	123	54
2	150	107	95	85	75	60	264	120	248	95	123	52
3	145	107	95	80	70	60	237	123	216	87	162	53
4	142	107	100	70	70	55	186	138	201	75	195	54
5	142	107	95	75	75	50	150	142	192	69	171	53
6	138	104	95	80	80	55	159	142	174	69	142	54
7	132	107	95	85	80	60	159	159	177	54	132	54
8	130	104	100	90	75	65	162	180	204	54	125	52
9	123	107	100	100	70	70	162	198	210	53	123	50
10	120	116	110	100	65	70	165	216	225	53	132	48
11	120	125	100	90	60	65	171	198	225	58	128	50
12	118	128	100	85	65	65	174	222	198	60	120	53
13	118	130	100	85	70	70	162	248	171	60	130	52
14	118	132	95	90	70	75	153	234	142	62	130	48
15	120	135	90	90	70	80	150	219	123	64	132	44
16	123	135	100	80	60	80	148	201	128	60	125	34
17	138	138	90	75	55	75	153	186	171	58	116	36
18	165	138	80	80	55	75	153	174	204	59	104	39
19	165	132	75	85	55	80	153	159	189	87	98	44
20	156	120	80	80	60	95	150	165	162	95	104	48
21	135	130	85	75	60	110	140	177	153	95	111	47
22	120	114	90	75	60	120	150	207	153	120	102	44
23	120	132	100	75	55	100	168	204	148	177	93	45
24	118	135	90	80	55	110	165	201	130	195	89	44
25	116	153	85	80	60	120	159	192	109	225	82	44
26	114	142	95	75	65	140	156	201	107	180	78	43
27	114	100	95	75	65	200	150	198	111	162	71	34
28	111	90	90	75	60	280	148	207	104	165	64	24
29	109	80	90	80	-	480	140	213	62	168	62	27
30	109	90	90	85	-----	400	140	204	69	145	58	25
31	107	-----	85	85	-----	316	-----	225	-----	130	56	-----
Total	3,992	3,552	2,880	2,555	1,840	3,741	5,003	5,776	4,970	3,132	3,481	1,349
Mean	129	118	92.9	82.4	65.7	121	167	186	166	101	112	45.0
Ac-ft	7,920	7,050	5,710	5,070	3,650	7,420	9,920	11,460	9,860	6,210	6,900	2,680

Calendar year 1965: Max 1,120 Min 50 Mean 267 Ac-ft 193,000  
 Water year 1965-66: Max 480 Min 24 Mean 116 Ac-ft 83,840

Note.--No gage-height record Nov. 28 to Mar. 22.

9-1225. Soap Creek near Sapinero, Colo.

Location.--Lat 38°33'40", long 107°19'30", in SW¼ sec.29, T.50 N., R.4 W., on right bank 1½ miles upstream from Cow Creek and 6½ miles north of Sapinero.

Drainage area.--57.3 sq mi.

Records available.--August 1955 to September 1966 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 7,790 ft (from topographic map).

Average discharge.--11 years, 58.5 cfs (42,350 acre-ft per year).

Extremes.--Maximum discharge during year, 346 cfs May 7 (gage height, 3.59 ft); minimum daily, 3.3 cfs Aug. 29.

1955-66: Maximum discharge, about 1,000 cfs sometime during period June 4-6, 1957; maximum gage height, 6.07 ft June 6, 1957; minimum daily discharge, 2.4 cfs Sept. 18, 1962.

Remarks.--Records good except those for winter periods, which are poor. One small diversion for irrigation of hay meadows above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	14					176	258	190	41	10	5.4
2	28	13					205	272	182	36	10	5.0
3	27	12					171	287	171	32	18	5.0
4	27	10					120	291	158	29	14	4.5
5	25	10					90	306	143	26	12	4.2
6	25	11					85	326	128	24	10	3.9
7	24	10					85	318	119	23	8.6	3.9
8	23	11					113	306	119	21	8.1	3.9
9	22	12					148	283	108	20	7.6	3.6
10	21	11					158	268	119	20	7.2	3.9
11	21	10					140	215	111	20	6.8	4.5
12	20	11					115	176	108	20	6.8	4.5
13	20	11					99	143	100	18	6.8	4.5
14	19	11					90	128	95	18	5.8	4.2
15	18	12	10	9	8	10	100	112	95	17	5.8	6.8
16	18	13					122	124	93	16	5.4	5.8
17	21	13					153	133	100	16	5.4	4.5
18	27	13					148	153	106	15	5.4	4.2
19	24	12					126	166	91	15	5.4	3.9
20	21	12					104	176	86	15	6.3	3.9
21	20	11					97	182	83	16	5.8	3.9
22	20	10					88	182	78	20	5.0	3.9
23	20	11					80	179	70	16	4.2	3.9
24	20	12					86	179	64	17	4.2	3.9
25	18	14				24	113	182	59	15	3.9	3.9
26	17	12				30	166	182	56	13	3.6	4.2
27	16	11				38	196	171	53	12	3.6	3.9
28	16	10				50	185	171	47	12	3.6	4.2
29	14	9				80	193	163	43	11	3.3	3.9
30	14	8				110	234	179	43	11	4.2	3.9
31	14					140		190		10	5.4	
Total	646	340	310	279	224	712	3,986	6,408	3,018	595	212.2	129.7
Mean	20.8	11.3	10	9	8	23.0	133	207	101	19.2	6.85	4.32
Ac-ft	1,280	674	615	553	444	1,410	7,910	12,710	5,990	1,180	421	257

Calendar year 1965: Max 454 Min - Mean 89.0 Ac-ft 64,460

Water year 1965-66: Max 326 Min 3.3 Mean 46.2 Ac-ft 33,440

Peak discharge (base, 300 cfs).--May 7 (2230) 346 cfs (3.59 ft).

Note.--No gage-height record Nov. 29 to Mar. 25.

## GUNNISON RIVER BASIN

9-1245. Lake Fork at Gateview, Colo.

Location.--Lat 38°17'50", long 107°13'50", in sec.29, T.47 N., R.3 W., on left bank at old village of Gateview, 15 ft downstream from private bridge, a quarter of a mile upstream from Indian Creek, and 15 miles upstream from mouth.

Drainage area.--338 sq mi.

Records available.--October 1937 to September 1966. 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, datum of 1929. 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.--29 years, 245 cfs (177,400 acre-ft per year).

Extremes.--Maximum discharge during year, 1,200 cfs May 8 (gage height, 2.87 ft); minimum not determined.

1937-66: 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 periods or periods of no gage-height record, which are poor. Diversions for irrigation of about 1,600 acres above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	232	150	75				160	296	832	460	222	85
2	225	146	75				144	370	846	435	246	85
3	219	143	75				123	430	868	405	232	80
4	225	137	80				109	515	884	375	210	80
5	225	134	85				104	594	839	350	195	85
6	222	132	80				104	783	776	336	178	80
7	210	130	75				101	996	696	312	161	80
8	204	123	75			45	101	1080	660	288	150	75
9	201	125	80				101	1080	630	268	144	70
10	201	119	85				112	996	642	253	139	70
11	195	116	90				119	702	624	280	134	75
12	185	116	85				112	588	684	268	135	80
13	180	114	80				110	485	734	246	141	75
14	178	112	80				109	445	741	236	137	75
15	170	112	80				114	405	748	216	146	90
16	175	109	75	55	45	50	128	420	666	207	137	80
17	198	109	75			50	146	450	618	256	132	75
18	210	104	75			55	161	525	606	350	125	70
19	188	98	70			60	159	612	594	328	117	70
20	175	96	65			65	144	727	630	304	121	70
21	168	104	70			65	132	811	600	288	121	70
22	168	83	75			60	137	783	594	304	112	70
23	166	109	80			50	130	825	600	312	107	70
24	168	104	70			60	128	932	564	280	104	70
25	168	102	60			70	135	932	525	246	101	75
26	170	98	60			80	159	846	515	219	99	70
27	166	81	65			90	185	720	490	216	96	75
28	166	75	65			100	188	708	450	222	93	70
29	159	70	65			110	207	741	435	219	88	70
30	157	70	70			140	242	916	450	210	88	65
31	155		65			170		892		232	85	
Total	5,829	3,321	2,305	1,705	1,260	1,950	4,104	21,605	19,541	8,921	4,296	2,255
Mean	188	111	74.4	55	45	62.9	137	697	651	288	139	75.2
Ac-ft	11,560	6,590	4,570	3,380	2,500	3,870	8,140	42,850	38,760	17,690	8,520	4,470

Calendar year 1965: Max 1,840 Min 38 Mean 344 Ac-ft 249,200  
 Water year 1965-66: Max 1,080 Min - Mean 211 Ac-ft 152,900

Peak discharge (base, 1,400 cfs).--No peak above base.

Note.--No gage-height record Dec. 18 to Jan. 29, Aug. 31 to Sept. 30.

## 9-1246. 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., 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.

Records available.--October 1965 to September 1966.

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

Extremes.--Maximum contents observed during water year, 363,600 acre-ft June 22, 23 (elevation, 7,438.6 ft); no storage prior to Oct. 26, 1965.

Remarks.--Reservoir is formed by earth- and rock-fill dam. Storage began Oct. 26, 1965. Capacity, 940,800 acre-ft at elevation 7,519.4 ft (top of radial spillway gates). Dead storage, 111,200 acre-ft below elevation 7,358.0 ft (sill of outlet gate). 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 total contents.

Cooperation.--Records furnished by Bureau of Reclamation.

Month-end elevation and contents, water year October 1965 to September 1966

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	-	-	-
Oct. 31.....	7,246.3	5,930	+5,930
Nov. 30.....	7,304.6	41,180	+35,250
Dec. 31.....	7,342.6	85,240	+44,060
Calendar year 1965.....	-	-	+44,060
Jan. 31.....	7,361.4	117,700	+32,460
Feb. 28.....	7,371.3	138,300	+20,600
Mar. 31.....	7,383.9	168,100	+29,800
Apr. 30.....	7,393.0	192,300	+24,200
May 31.....	7,425.0	301,700	+109,400
June 30.....	7,437.6	358,700	+57,000
July 31.....	7,436.1	351,400	-7,300
Aug. 31.....	7,432.6	335,000	-16,400
Sept. 30.....	7,425.2	302,500	-32,500
Water year 1965-66.....	-	-	+302,500

† Elevation at 2400.

## GUNNISON RIVER BASIN

9-1247. Gunnison River below Blue Mesa Dam, Colo.

Location.--Lat 38°27'08", long 107°20'52", in NE¼NW¼ sec.5, T.48 N., R.4 W., on left bank 0.2 mile downstream from Pine Creek, 0.7 mile downstream from Blue Mesa Dam, and 11 miles east of Cimarron.

Drainage area.--3,453 sq mi.

Records available.--May 1963 to September 1966.

Gage.--Water-stage recorder. Datum of gage is 7,149.30 ft above mean sea level (Bureau of Reclamation bench mark). Prior to Dec. 15, 1965, at datum 6.00 ft higher.

Extremes.--Maximum discharge during year, 3,230 cfs June 1 (gage height, 11.60 ft); minimum daily, 10 cfs Nov. 29, Dec. 20, 21. 1963-66: Maximum discharge, 8,880 cfs June 21, 1965 (gage height, 17.71 ft, present datum); minimum daily, that of Nov. 29, Dec. 20, 21, 1965.

Remarks.--Records good except those for winter period, which are poor. Flow regulated by Blue Mesa Reservoir (see sta. 9-1246) since Oct. 26, 1965, and Taylor Park Reservoir (see sta. 9-1085). Transmountain diversions and diversions for irrigation of about 56,000 acres above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,250	106	55	56	62	120	637	1,020	1,130	1,500	1,230	1,220
2	1,240	94	55	55		120	641	786	2,240	1,500	1,220	1,220
3	1,190	96	55	54		120	646	608	2,100	1,460	1,230	1,220
4	1,170	99	55	54		120	641	608	1,020	1,430	1,230	1,220
5	1,140	102	55	54		120	639	800	1,030	1,440	1,230	1,210
6	1,120	102	60	54	80	120	748	1,020	1,030	1,440	1,230	1,210
7	1,090	105	60	53		120	818	1,020	1,040	1,370	1,230	1,210
8	1,030	109	60	53		125	1,040	1,020	1,040	1,300	1,230	1,210
9	1,000	106	65	54		125	1,190	1,020	1,020	1,300	1,240	1,210
10	984	104	65	54		125	1,190	800	1,030	1,300	1,220	1,210
11	960	144	70	55	120	125	1,190	620	1,030	1,300	1,210	1,210
12	916	110	70	55		125	1,130	619	1,030	1,250	1,210	1,200
13	884	110	70	55		125	1,160	623	1,030	1,240	1,220	1,210
14	872	110	70	55		125	1,160	741	1,030	1,240	1,210	1,210
15	860	110	66	57		135	1,160	858	1,030	1,220	1,220	1,200
16	868	120	67	57	120	145	1,170	858	1,020	1,220	1,210	1,180
17	980	120	67	58		145	1,170	850	1,040	1,220	1,220	1,160
18	1,100	100	68	56		170	1,100	850	1,040	1,220	1,210	1,160
19	1,030	90	68	57		180	1,000	722	1,040	1,220	1,210	1,080
20	972	90	10	58		180	1,000	508	1,040	1,220	1,210	1,020
21	912	90	10	58	120	180	1,000	508	1,720	1,220	1,220	1,030
22	860	90	50	57		180	1,000	514	2,500	1,220	1,220	1,020
23	864	90	54	58		180	1,000	518	2,500	1,220	1,210	1,020
24	852	90	54	59		180	1,000	518	2,420	1,220	1,210	1,020
25	848	90	54	60		240	1,000	635	2,300	1,220	1,220	1,030
26	546	70	54	59	-	260	1,000	1,210	2,300	1,220	1,220	1,030
27	228	50	54	60		260	1,000	1,710	2,190	1,000	1,230	1,030
28	94	50	55	59		370	1,000	1,980	2,120	1,220	1,220	1,030
29	103	10	55	59		550	1,020	1,980	1,910	1,220	1,220	1,030
30	105	20	56	60		619	1,020	2,000	1,600	1,220	1,220	1,030
31	110	-----	56	55	-----	623	-----	2,000	-----	1,220	1,220	-----
Total	26,179	2,777	1,763	1,748	2,390	6,312	29,470	29,524	45,270	39,590	37,830	34,040
Mean	844	92.6	56.9	56.4	85	204	982	952	1,509	1,277	1,220	1,135
Ac-ft	51,920	5,510	3,500	3,470	4,720	12,520	58,450	58,560	89,790	78,530	75,030	67,520

Calendar year 1965: Max 8,750 Min 10 Mean 2,020 Ac-ft 1,462,000  
 Water year 1965-66: Max 2,940 Min 10 Mean 704 Ac-ft 509,500

Note.--No gage-height record Nov. 12 to Dec. 14, Feb. 27 to Mar. 29.

9-1250. Curecanti Creek near Sapinero, Colo.

Location.--Lat 38°29'15", long 107°24'55", in sec.21, T.49 N., R.5 W., on downstream side of left pier of bridge on State Highway 92, 2½ miles upstream from mouth and 6 miles west of Sapinero.

Drainage area.--35.0 sq mi.

Records available.--October 1945 to September 1966. 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, datum of 1929. 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.--21 years, 33.0 cfs (23,890 acre-ft per year).

Extremes.--Maximum discharge during year, 218 cfs May 8 (gage height, 3.65 ft); minimum daily, 2.6 cfs Aug. 29.

1945-66: Maximum discharge, 480 cfs June 5, 1957; 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.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	8.6					85	155	125	19	4.7	4.0
2	15	8.3					80	164	113	16	4.9	3.8
3	15	8.0					70	170	99	14	8.0	3.9
4	14	7.4					60	173	92	14	6.5	3.9
5	13	7.7					55	191	83	12	5.5	3.8
6	12	7.1					44	194	76	11	4.4	3.9
7	12	7.4					47	197	70	10	4.2	3.9
8	12	7.1					57	207	72	9.8	3.8	3.8
9	12	8.0					76	204	66	9.2	3.6	3.6
10	11	6.5					85	194	76	8.9	3.8	3.9
11	11	6.5				8	76	164	70	9.2	3.6	4.0
12	11	7.7					64	138	68	8.6	4.2	4.4
13	10	7.1					56	111	62	8.3	4.4	4.4
14	10	6.8					53	97	56	8.3	3.8	4.2
15	10	7.4					58	90	53	7.7	3.8	7.1
16	10	7.4					74	92	56	7.4	3.6	5.3
17	12	8.0					90	99	58	7.4	3.8	4.5
18	15	7.4					85	113	57	6.5	3.9	4.4
19	13	7.1					78	120	50	6.5	3.8	4.2
20	12	6.3					66	125	47	7.4	4.9	4.0
21	12	7.1					58	128	42	6.5	4.7	4.0
22	12	6					57	128	39	6.8	3.9	3.9
23	11	7.5					55	130	35	6.8	3.6	3.9
24	11	7					58	130	30	7.7	3.6	4.0
25	10	6.5					70	128	26	6.3	3.4	4.4
26		9.8						97	128	24	5.9	4.4
27		9.5						118	125	23	5.9	4.2
28		9.5						113	128	19	5.3	4.4
29		8.6						115	122	20	5.3	2.6
30		8.6						138	128	20	5.1	2.8
31		8.6						130	130	4.9	4.4	4.2
Total	354.6	212.4	263.5	248	210	340	2,238	4,403	1,727	267.7	127.7	126.8
Mean	11.4	7.08	8.5	8	7.5	11	74.6	142	57.6	8.64	4.12	4.23
Ac-ft	703	421	523	492	417	674	4,440	8,730	3,430	531	253	252

Calendar year 1965: Max 311 Min - Mean 45.6 Ac-ft 32,990

Water year 1965-66: Max 207 Min 2.6 Mean 28.8 Ac-ft 20,860

Peak discharge (base, 250 cfs).--No peak above base.

Note.--No gage-height record Nov. 28 to Apr. 5.



## GUNNISON RIVER BASIN

9-1260. Cimarron River near Cimarron, Colo.

(Formerly published as Cimarron Creek near Cimarron, Colo.)

Location.--Lat 38°15'30", long 107°32'40", in sec.8, T.46 N., R.6 W., 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.--66.8 sq mi.

Records available.--October 1954 to September 1966. 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.--12 years, 89.2 cfs (64,580 acre-ft per year).

Extremes.--Maximum discharge during year, 554 cfs May 9; maximum gage height, 5.65 ft May 7; minimum daily discharge, 12 cfs Mar. 5. 1954-66: Maximum discharge, 1,790 cfs June 28, 1957 (gage height, 8.32 ft); minimum daily, 8 cfs Dec. 27, 28, 1962, Jan. 13, 1963.

Remarks.--Records good except those for winter periods, which are poor. Diversion above station through Owl Creek ditch into Uncompahgre River basin.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	65	42	26	16	20	18	65	118	374	116	52	24
2	66	41	26	18	18	16	77	150	398	106	52	23
3	65	40	22	16	15	16	62	172	378	100	44	23
4	62	38	24	18	16	14	52	182	358	92	40	22
5	59	35	24	20	16	12	40	218	318	98	36	24
6	58	33	24	21	16	14	46	254	272	78	34	24
7	58	33	24	21	16	16	59	290	242	70	29	22
8	57	32	26	21	16	16	78	294	236	66	30	21
9	57	32	28	21	16	16	71	354	236	62	29	20
10	55	31	32	21	15	16	68	378	233	66	29	20
11	52	29	26	20	16	16	65	263	239	66	27	21
12	50	29	24	21	16	15	58	236	278	61	32	24
13	49	29	23	20	16	16	51	212	275	66	30	21
14	49	28	22	20	16	17	52	180	294	59	30	21
15	48	29	21	20	14	19	64	176	284	55	27	28
16	50	28	22	19	14	22	77	192	266	57	27	22
17	55	28	20	19	16	18	78	210	239	58	26	21
18	54	27	18	19	16	22	70	248	239	50	25	21
19	51	26	18	21	16	20	62	266	233	55	27	20
20	54	26	19	20	16	20	58	278	230	58	42	20
21	52	24	20	18	16	21	57	254	205	77	36	20
22	52	20	22	16	16	15	55	266	205	74	27	20
23	55	26	22	18	17	14	74	378	188	71	26	19
24	55	29	22	19	18	17	88	378	168	68	25	20
25	51	26	21	18	19	20	96	334	156	59	24	22
26	50	21	21	16	19	19	90	294	142	52	24	19
27	48	18	22	16	19	22	86	225	130	47	24	21
28	46	16	21	18	18	28	86	239	124	64	22	21
29	44	18	21	18	-	36	92	278	146	52	22	20
30	47	22	20	20	-----	40	102	281	130	48	24	19
31	43	-----	18	21	-----	50	-----	287	-----	46	26	-----
Total	1,657	856	699	590	462	620	2,069	7,855	7,216	2,097	948	643
Mean	53.5	28.5	22.5	19.0	16.5	20.0	69.0	253	241	67.3	30.6	21.4
Ac-ft	3,290	1,700	1,390	1,170	916	1,230	4,100	15,580	14,310	4,140	1,880	1,280

Calendar year 1965: Max 674 Min 15 Mean 116 Ac-ft 84,270

Water year 1965-66: Max 398 Min 12 Mean 70.4 Ac-ft 50,980

Peak discharge (base, 400 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-9	2200	5.56	554	6-2	0045	5.54	478
5-24	2130	5.45	526	6-14	2045	5.45	446

## 9-1265. Cimarron River at Cimarron, Colo.

(Formerly published as Cimarron Creek at Cimarron)

Location.--Lat 38°26'28", long 107°33'13", in SW¼SW¼ sec.5, T.48 N., R.6 W., on left bank at Cimarron, 100 ft from U. S. Highway 50, 1,100 ft upstream from Squaw Creek, and 1.2 miles upstream from mouth.

Drainage area.--212 sq mi.

Records available.--October 1902 to November 1905, April 1962 to September 1966. Prior to October 1965, published as Cimarron Creek at Cimarron.

Gage.--Water-stage recorder. Datum of gage is 6,890.07 ft above mean sea level, datum of 1929. Prior to Apr. 1, 1962, staff gage at site 100 ft downstream at different datum. Apr. 1, 1962, to Sept. 15, 1965, water-stage recorder at site 700 ft downstream at datum 5.10 ft lower.

Average discharge.--7 years, 114 cfs (82,530 acre-ft per year).

Extremes.--Maximum discharge during year, 710 cfs May 8 (gage height, 4.49 ft); minimum daily, 13 cfs Aug. 18, 24-26, Sept. 9. 1902-5, 1962-66: Maximum discharge, about 1,600 cfs May 12, 13, 1962 (gage height not determined); minimum daily, 8 cfs Dec. 26, 27, 1962.

Remarks.--Records good except those for winter periods, which are poor. Natural flow of stream affected by Cimarron and Owl Creek ditches for irrigation of about 5,000 acres in Uncompahgre River drainage, imported water from Blue Creek drainage, diversions for irrigation of about 3,000 acres, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	105	33	60	38	40	36	202	220	410	51	32	17
2	107	32	60	44	34	34	212	270	400	44	38	18
3	103	32	55	44	28	32	174	338	374	37	46	18
4	98	32	60	40	30	30	136	378	351	35	39	18
5	93	32	60	42	32	32	121	428	292	31	34	16
6	89	32	60	44	34	34	119	495	246	24	27	16
7	67	32	60	46	36	36	125	530	186	21	26	15
8	64	32	65	50	38	38	132	505	206	24	22	14
9	61	35	70	55	38	40	152	475	174	22	21	13
10	56	32	75	60	36	42	152	490	195	22	20	15
11	44	32	70	60	34	46	150	320	168	24	18	15
12	40	33	65	55	32	50	134	262	195	25	18	16
13	38	34	60	50	30	55	119	202	209	27	18	15
14	39	32	55	44	28	60	98	162	186	33	16	16
15	37	46	50	40	26	75	108	145	177	25	15	18
16	39	63	50	38	28	100	132	165	150	28	14	15
17	52	63	48	36	30	70	140	189	138	31	14	15
18	77	59	46	36	32	80	132	246	136	33	13	16
19	55	57	42	40	34	90	117	306	121	33	14	15
20	57	55	40	40	36	70	108	378	127	35	19	15
21	56	58	44	34	36	70	110	382	114	30	18	14
22	56	41	48	34	34	70	130	369	114	38	16	15
23	56	67	55	36	32	65	121	432	108	37	14	15
24	55	69	55	38	32	80	125	455	84	39	13	15
25	54	74	48	36	32	105	134	450	76	35	13	16
26	54	59	44	32	34	116	160	374	69	32	13	20
27	51	47	48	30	36	119	171	288	64	32	14	24
28	48	40	50	30	38	123	155	302	57	35	14	22
29	36	34	50	30	-	138	152	328	59	40	14	24
30	35	44	48	34	-----	158	174	392	69	33	15	24
31	34	-----	42	38	-----	174	-----	428	-----	32	18	-----
Total	1,856	1,331	1,683	1,274	930	2,268	4,195	10,704	5,255	988	626	505
Mean	59.9	44.4	54.3	41.1	33.2	73.2	140	345	175	31.9	20.2	16.8
Ac-ft	3,680	2,640	3,340	2,530	1,840	4,500	8,320	21,230	10,420	1,960	1,240	1,000

Calendar year 1965: Max 780 Min 22 Mean 140 Ac-ft 101,500  
 Water year 1965-66: Max 530 Min 13 Mean 86.6 Ac-ft 62,710

9-1275. Crystal Creek near Maher, Colo.

Location.--Lat 38°33'05", long 107°30'20", in SE¼ sec.35, T.50 N., R.6 W., on left bank 640 ft downstream from private bridge, half a mile upstream from diversion dam for Cattleman's ditch, 0.7 mile downstream from Dyer Creek, 7 miles upstream from mouth, and 7 miles southeast of Maher.

Drainage area.--42.2 sq mi.

Records available.--July 1945 to September 1954, October 1960 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 8,070 ft (from topographic map). July 6, 1945, to Sept. 30, 1954, at site 140 ft upstream at datum 1.45 ft higher.

Average discharge.--15 years, 28.6 cfs (20,710 acre-ft per year).

Extremes.--Maximum discharge during year, 251 cfs May 7 (gage height, 2.96 ft), from rating curve extended above 150 cfs; minimum daily, 2.5 cfs Sept. 23, 26, 27, 30.

1945-54, 1960-66: Maximum discharge, 542 cfs Apr. 29, 1948 (gage height, 5.05 ft, site and datum then in use), from rating curve extended above 200 cfs; minimum daily, 1.8 cfs Aug. 29, 31, 1954.

Remarks.--Records good except those for winter periods, which are poor. Small diversions for irrigation of hay meadows above station. Diversions above station for irrigation of about 800 acres below station and about 700 acres in Iron Creek basin.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	7.2	8	5	6.0	6	94	140	81	20	6.4	6.0
2	16	6.8	8.5	4.6	5.6	5.5	94	152	73	18	6.4	5.6
3	16	6.8	8.5	4.8	5	5	73	158	69	13	9.0	5.6
4	15	6.8	8	5	5	5	56	158	64	12	7.2	5.2
5	14	6.8	8	5.5	5.5	5	51	165	57	12	6.0	4.0
6	13	6.4	8	5.5	6	5	43	176	53	12	4.8	4.0
7	12	6.0	8	5.5	6.5	5.5	41	197	47	10	4.4	4.8
8	11	6.4	8	5.5	7	6	48	194	45	10	4.0	3.4
9	10	6.8	8.5	5.5	7	6.5	60	168	43	9.0	4.0	3.4
10	9.0	6.0	9	5.5	7	7	66	140	48	8.0	4.4	3.1
11	8.5	6.0	8	5.5	6.8	8	63	98	42	8.5	4.0	3.4
12	8.5	6.4	8.5	5.5	7.2	9	55	80	39	8.5	5.6	4.4
13	8.0	6.0	8	6	6.5	11	50	66	37	8.0	5.2	4.4
14	8.0	6.0	7.5	5.6	6	13	48	58	34	8.0	4.8	3.7
15	8.5	6.4	7.5	5.2	6.5	16	51	55	33	7.6	4.0	7.6
16	7.6	6.4	7.5	5.2	6	18	62	59	32	7.6	3.7	4.8
17	9.5	6.8	7	5	5.5	14	73	65	39	8.0	4.0	4.4
18	12	6.8	6.5	5	6	18	69	71	46	7.2	4.0	3.7
19	12	6.8	6.5	5.5	6.5	15	65	78	42	8.0	4.0	3.4
20	12	6.4	6.5	5.5	6.5	14	59	89	40	8.5	6.4	3.1
21	12	6.8	7	4.4	6	14	56	94	37	9.5	4.8	2.8
22	12	7	7.5	4.8	6	14	57	89	35	9.5	4.0	2.8
23	12	8	7.5	5.5	6	12	54	94	33	9.0	3.7	2.5
24	11	8.5	7	5.5	6.5	14	56	97	30	9.5	4.4	2.8
25	10	9.0	6	5.5	7	14	63	98	26	8.5	4.0	3.1
26	9.5	8	5.5	5	7	18	77	95	24	21	3.7	2.5
27	8.5	7	5.5	5	7	30	94	84	23	20	3.7	2.5
28	8.0	6	5.5	5	6.5	40	90	83	21	18	3.7	3.1
29	7.6	6.5	5.5	5.5	-	50	97	80	20	17	3.4	2.8
30	7.2	7.5	6	6.0	-----	60	116	87	20	13	3.7	2.5
31	7.2	-----	5.5	6.0	-----	70	-----	87	-----	7.6	6.4	-----
Total	330.6	204.3	224.5	164.6	176.1	528.5	1,981	3,355	1,233	346.5	147.8	115.4
Mean	10.7	6.81	7.24	5.31	6.29	17.0	66.0	108	41.1	11.2	4.77	3.85
Ac-ft	656	405	445	326	349	1,050	3,930	6,650	2,450	687	293	229

Calendar year 1965: Max 302 Min 4.6 Mean 43.4 Ac-ft 31,450

Water year 1965-66: Max 197 Min 2.5 Mean 24.1 Ac-ft 17,470

Peak discharge (base, 160 cfs).--May 7 (1915) 251 cfs (2.96 ft); May 26 (0030) 188 cfs (2.74 ft).

Note.--No gage-height Feb. 13 to Mar. 16.

9-1280. Gunnison River below Gunnison tunnel, Colo.

Location.--Lat 38°32', long 107°39', in NW¼ sec.10, T.49 N., R.7 W., on left bank a quarter of a mile downstream from east portal of Gunnison tunnel, 5 miles downstream from Crystal Creek, and 12 miles northeast of Montrose.

Drainage area.--3,980 sq mi, approximately.

Records available.--October 1903 to September 1966. 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, datum of 1929. Apr. 9, 1905, to Aug. 20, 1915, staff 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, staff 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.--63 years, 1,444 cfs, unadjusted (1,045,000 acre-ft per year).

Extremes.--Maximum discharge during year, 2,940 cfs June 3 (gage height, 5.68 ft); minimum daily, 60 cfs Nov. 30, Dec. 21. 1903-66: 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 except those for winter period, which are poor. 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. 9-1085), Blue Mesa Reservoir (see sta. 9-1246), diversions for irrigation of about 63,000 acres, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,080	135	110	150	170	180	808	766	1,720	560	275	268
2	1,070	111	120	130	160	180	868	652	2,570	548	278	268
3	1,010	116	150	140	150	180	790	460	2,030	532	296	272
4	992	135	140	130	140	170	452	496	632	528	286	268
5	958	118	160	130	140	150	220	705	572	520	282	268
6	934	118	150	130	140	160	260	1,100	508	508	268	264
7	862	120	140	130	140	170	300	1,170	424	432	268	264
8	802	120	140	130	140	180	360	1,190	448	356	264	261
9	796	162	150	140	150	180	624	1,110	392	352	264	261
10	745	152	178	150	150	180	644	1,050	444	348	254	261
11	644	116	175	160	160	180	624	444	392	345	240	264
12	552	120	166	160	160	180	536	348	396	300	247	268
13	516	116	160	150	150	180	508	216	420	292	247	268
14	512	116	170	150	150	180	460	180	380	306	244	264
15	496	159	160	150	140	180	496	278	370	286	244	306
16	488	219	150	150	140	190	572	320	334	282	240	352
17	572	222	150	140	140	190	640	314	324	289	240	317
18	755	212	140	140	140	200	544	404	310	289	240	317
19	675	160	140	150	140	210	504	384	278	286	244	268
20	772	157	70	150	140	220	500	230	282	289	261	181
21	820	175	60	140	150	220	480	261	656	282	261	175
22	755	132	110	140	170	210	536	244	1,680	296	250	181
23	755	196	120	140	170	210	552	272	1,690	296	247	181
24	750	196	130	150	170	230	556	324	1,600	300	244	181
25	838	216	140	140	180	260	588	380	1,450	296	244	184
26	684	193	140	140	180	300	680	874	1,440	289	254	193
27	376	87	140	140	180	300	772	1,280	1,330	424	261	193
28	172	94	140	140	190	400	740	1,630	1,110	326	254	193
29	130	90	150	140	-	500	640	1,650	904	292	254	193
30	135	60	170	150	-----	700	675	1,740	690	282	261	193
31	135	-----	160	160	-----	730	-----	1,920	-----	278	268	-----
Total	20,771	4,323	4,379	4,440	4,330	7,700	16,929	22,392	25,776	11,009	7,980	7,327
Mean	670	144	141	143	155	248	564	722	859	355	257	244
Ac-ft	41,200	8,570	8,690	8,810	8,590	15,270	33,580	44,410	51,130	21,840	15,830	14,530
(†)	16,390	1,660	0	0	0	5,380	46,860	59,490	55,420	57,780	58,880	54,360

Calendar year 1965: Max 10,100 Min 60 Mean 1,988 Ac-ft 1,439,000  
 Water year 1965-66: Max 2,570 Min 60 Mean 376 Ac-ft 272,400

† Diversions, in acre-ft, through Gunnison tunnel; furnished by Uncompahgre Valley Water Users Association.  
 Note.--No gage-height record Dec. 13 to Feb. 24.

## GUNNISON RIVER BASIN

9-1285. Smith Fork near Crawford, Colo.

Location (revised).--Lat 38°43'40", long 107°30'20", in sec.24, T.15 S., R.91 W., on left bank 20 ft upstream from Forest Service bridge, 0.4 mile upstream from Second Creek, 6 miles northeast of Crawford, and 6½ miles upstream from Iron Creek.

Drainage area.--42 sq mi, approximately.

Records available.--October 1935 to September 1966. Monthly discharge only for some periods, published in WSP 1313.

Gage.--Water-stage recorder. Altitude of gage is 7,200 ft (by barometer). Prior to Nov. 16, 1938, staff gage at same site and datum.

Average discharge.--31 years, 42.2 cfs (30,550 acre-ft per year).

Extremes.--Maximum discharge during year, 241 cfs May 10 (gage height, 4.26 ft); minimum daily, 2.4 cfs Sept. 23, 26, 27.

1935-66: 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 periods, which are poor. 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 from Virginia Creek to Iron Creek drainage, and Head and Ferrier ditch diverts water from Curecanti Creek drainage.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	15	13	5.5	7	7	108	147	90	26	5.2	3.8
2	28	14	12	5	6.5	6	133	161	87	24	5.2	3.8
3	28	14	12	5	5	5.5	123	169	87	22	5.8	4.0
4	28	13	12	5.5	6	5.5	97	180	84	20	5.8	3.8
5	28	13	11	6	7	6	84	180	77	15	5.5	3.8
6	27	13	12	6	7.5	6.5	73	189	74	13	4.9	4.6
7	26	13	12	6	8	7	70	213	73	12	4.0	4.6
8	25	13	11	6	8	8	76	220	72	12	3.8	4.9
9	24	13	12	6	8	9	87	220	64	11	3.5	4.9
10	22	12	13	6.5	8	10	97	206	64	11	3.5	4.9
11	22	12	13	7	7.5	11	95	155	62	11	3.2	4.9
12	21	12	13	6.5	8	13	90	130	59	11	4.0	6.1
13	20	12	12	6	7.5	15	81	103	57	9.8	3.8	6.1
14	19	11	11	5.5	8	19	79	92	54	9.8	3.5	5.8
15	19	12	10	5.5	8	24	79	91	52	9.0	3.2	7.4
16	18	12	10	5.5	7	30	88	94	51	7.0	3.0	5.5
17	20	13	9	5.5	6.5	38	108	98	55	7.8	3.0	4.0
18	24	12	8	5.5	7	34	112	112	57	6.7	3.2	4.9
19	21	11	7.5	5.5	8	32	108	108	53	6.4	3.2	4.0
20	20	11	7.5	6	8	33	95	110	49	6.7	3.8	3.2
21	20	11	7.5	4.8	8	34	87	112	45	7.0	3.2	2.6
22	20	9.8	8	5	7.5	32	86	110	42	7.0	3.2	2.6
23	19	12	8.5	6	7.5	26	82	112	38	7.4	3.0	2.4
24	19	16	8	6.5	7.5	28	86	106	32	8.2	3.0	2.8
25	18	16	7.5	6	7.5	28	91	103	31	7.0	2.8	3.0
26	18	14	7	5.5	8	37	117	106	28	6.4	2.8	2.4
27	17	12	6.5	5.5	8	56	158	100	26	6.1	2.5	2.4
28	17	10	6	6	7.5	72	152	103	25	5.5	2.5	3.0
29	16	10	6	6.5	-	86	138	98	24	5.5	2.5	2.8
30	16	12	6.5	7	-----	90	138	98	24	5.8	2.5	2.6
31	16	-----	6	7	-----	98	-----	95	-----	5.5	4.0	-----
Total	665	373.8	298.5	181.8	208.0	906.5	3,018	4,121	1,636	322.6	113.1	121.6
Mean	21.5	12.5	9.63	5.86	7.43	29.2	101	133	54.5	10.4	3.65	4.05
Ac-ft	1,320	741	592	361	413	1,800	5,990	8,170	3,240	640	224	241

Calendar year 1965: Max 362 Min 5 Mean 57.5 Ac-ft 41,600

Water year 1965-66: Max 220 Min 2.4 Mean 32.8 Ac-ft 23,730

Peak discharge (base, 260 cfs).--No peak above base.

9-1298. Clear Fork near Ragged Mountain, Colo.

Location.--Lat 39°08'35", long 107°25'50", in sec.34, T.10 S., R.90 W., 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.

Records available.--October 1965 to September 1966.

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

Extremes.--Maximum discharge during year, 345 cfs May 5 (gage height, 2.84 ft), from rating curve extended above 220 cfs; minimum daily, 0.6 cfs Aug. 28, 29.

Remarks.--Records good except those for period of no gage-height record, 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 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.5						90	240	58	6.3	3.2	1.7
2	8.2						100	270	53	5.3	3.3	1.2
3	7.8						90	260	49	4.5	2.9	1.2
4	7.5						80	250	44	3.8	8.8	1.2
5	7.5						75	267	39	3.3	5.5	1.0
6						3.5						
7	7						70	275	36	3.0	3.4	1.0
8	7						70	271	33	2.9	3.0	.9
9	6.5						80	255	38	2.6	2.6	1.0
10	6.5						90	223	33	2.5	2.3	1.0
							95	203	32	2.4	2.2	.8
11	6						90	162	29	2.5	1.9	.7
12	5.5						80	131	28	2.9	3.6	.9
13	5						75	115	26	2.4	2.5	1.2
14	4.5						70	110	24	2.2	1.9	1.6
15	4						70	110	24	2.0	1.6	2.0
16	5	5	4.5	4	3.5	8	89	110	25	1.9	1.5	1.6
17	6						108	118	25	2.0	1.0	1.4
18	8						110	118	22	2.1	1.0	1.2
19	8						96	116	20	2.7	1.4	1.0
20	7						81	115	19	2.6	3.0	.8
21	6						70	112	16	6.8	1.6	.8
22	6						70	107	12	8.2	1.0	1.0
23	6						68	104	10	7.8	1.0	.8
24	5.5						74	98	9.3	1.5	.8	1.0
25	5.5						105	96	8.0	1.3	.8	1.4
26	5					25	150	92	7.5	6.5	.7	1.4
27	5						140	79	7.5	4.9	.7	1.4
28	5						120	74	6.1	4.2	.6	1.4
29	5						140	51	5.7	3.8	.6	1.2
30	5						200	56	6.1	3.3	.8	1.0
31	5							64		3.2	1.5	
Total	191.5	150	139.5	124	98.0	385.5	2,846	4,652	745.2	136.6	73.7	34.8
Mean	6.18	5	4.5	4	3.5	12	94.9	150	24.8	4.41	2.38	1.16
Ac-ft	380	298	277	246	194	765	5,640	9,230	1,480	271	146	69
(†)	0	0	0	0	0	0	0	120	1,090	190	0	0

Calendar year 1965: Max - Min - Mean - Ac-ft -  
 Water year 1965-66: Max 275 Min 0.6 Mean 26.2 Ac-ft 19,000

Peak discharge (base, 200 cfs).--May 5 (2000) 345 cfs (2.84 ft).

† Divisions, in acre-feet, by Clear Fork ditch; furnished by State engineer of Colorado.

Note.--No gage-height record Oct. 4 to Apr. 15.

9-1312. West Muddy Creek near Somerset, Colo.

Location.--Lat 39°05'25", long 107°30'15", in N½ sec.24, T.11 S., R.91 W., on right bank 300 ft downstream from Cow Creek, 1½ miles southeast of West Muddy ranger station, and 13 miles north of Somerset.

Drainage area.--50.1 sq mi.

Records available.--October 1961 to September 1966.

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

Average discharge.--5 years, 29.9 cfs (21,650 acre-ft per year).

Extremes.--Maximum discharge during year, 371 cfs May 2 or 3 (gage height, 2.10 ft, from recorded range in stage); minimum daily, 1.4 cfs Aug. 18, 19.

1961-66: Maximum discharge, about 900 cfs May 11, 1962 (gage height not determined); minimum daily, 0.1 cfs Aug. 1, 1963.

Remarks.--Records good 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 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	8.6					100	200	50	13	3.6	3.8
2	18	8.3					120	230	36	12	4.2	3.8
3	18	8.3					100	240	27	10	7.1	3.4
4	14	8.0					80	220	25	8.3	6.3	3.6
5	13	7.1					75	216	23	7.1	4.7	3.6
6	11	7.4					70	210	21	6.5	3.6	3.9
7	10	7.7					85	201	21	5.9	2.8	4.4
8	9.2	7.4					95	201	29	5.1	2.6	4.2
9	8.3	7.1					110	195	24	4.9	2.2	3.8
10	8.0	7.7					120	159	20	4.6	2.1	3.8
11	7.7	6.8					110	104	16	5	2.0	3.6
12	7.4	7.7					100	102	14	6	2.7	3.9
13	7.4	7.4					85	96	12	4.6	3.0	4.0
14	6.8	8.0					76	92	13	3.8	2.4	4.0
15	6.5	8.3					86	78	14	3.4	2.4	5.1
16	7.7	9					102	68	14	3.3	2.1	4.5
17	10	10					132	76	21	3.8	2.0	3.6
18	18	10					144	72	14	5.1	1.4	3.3
19	18	10					120	62	14	5.3	1.4	2.8
20	16	9.5					100	59	14	4.7	3.3	2.7
21	14	10					90	56	14	4.5	3.3	2.6
22	14	8					90	62	12	5.5	2.6	3.0
23	14	7					85	57	10	5.3	2.1	3.2
24	14	8					100	48	8.9	7.4	1.8	3.0
25	14	9					120	37	9.2	5.9	3.8	3.9
26	13	8					140	32	8.9	4.4	3.0	4.2
27	12	7.5					120	36	11	4.5	2.8	4.2
28	10	7.5					100	48	9.5	4.7	3.0	4.2
29	9.5	7.5					90	39	9.5	4.7	3.0	3.6
30	8.9	8					150	37	13	3.4	3.2	3.2
31	8.9							56		3.0	3.8	
Total	371.3	244.8	217	201.5	168	490	3,095	3,389	528.0	175.7	94.3	110.9
Mean	12.0	8.16	7	6.5	6	16	103	109	17.6	5.67	3.04	3.70
Ac-ft	736	486	430	400	333	972	6,140	6,720	1,050	348	187	220

Calendar year 1965: Max 395 Min - Mean 37.9 Ac-ft 27,410

Water year 1965-66: Max 240 Min 1.4 Mean 24.9 Ac-ft 18,020

Peak discharge (base, 250 cfs).--May 2 or 3, 371 cfs (2.10 ft).

Note.--No gage-height record Nov. 16 to Apr. 13, Apr. 19 to May 4.

9-1325. 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., on right bank 1½ miles east of Somerset and 4 miles upstream from Hubbard Creek.

Drainage area.--521 sq mi.

Records available.--October 1933 to September 1966. 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, datum of 1929.

Average discharge.--33 years, 433 cfs (313,500 acre-ft per year).

Extremes.--Maximum discharge during year, 2,220 cfs May 5 (gage height, 3.72 ft); minimum daily, 50 cfs Mar. 4.  
1933-66: Maximum discharge, 7,860 cfs June 4, 1957 (gage height, 6.14 ft); minimum daily, 17 cfs Nov. 10, 1950.

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

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	256	120	316	248	55	65	661	900	1,110	282	205	198
2	268	113	298	200	55	60	870	1,100	1,030	268	205	198
3	268	111	298	200	55	55	942	1,400	982	236	240	198
4	264	109	298	200	60	50	814	1,770	910	212	222	198
5	212	107	298	220	65	60	726	1,920	822	198	188	198
6	164	105	307	220	65	65	689	1,990	734	208	188	194
7	152	103	334	236	66	75	654	1,990	675	226	202	155
8	140	101	338	236	66	80	675	2,000	703	216	198	128
9	132	105	338	233	66	85	750	1,920	619	216	191	128
10	125	107	312	226	60	85	782	1,880	710	220	184	135
11	130	99	280	226	55	85	689	1,540	640	210	180	135
12	152	161	276	222	55	90	460	1,410	633	210	180	135
13	152	220	272	212	60	100	424	1,210	612	220	174	135
14	146	210	272	216	65	140	379	1,170	584	212	174	130
15	140	200	252	212	65	188	397	1,120	577	205	180	140
16	140	190	264	198	60	222	480	1,090	552	212	177	122
17	164	180	222	194	55	216	577	1,130	577	212	180	118
18	222	188	212	198	55	180	591	1,170	591	205	180	115
19	216	180	226	164	60	184	564	1,170	510	205	184	115
20	191	177	236	90	65	194	475	1,190	490	222	188	113
21	177	177	240	90	65	212	420	1,240	505	222	188	113
22	167	161	260	100	60	236	402	1,240	500	216	184	118
23	164	198	264	100	55	212	379	1,240	438	198	188	115
24	161	202	252	100	55	219	392	1,210	392	208	184	115
25	155	244	244	100	60	222	500	1,210	356	205	184	118
26	149	264	248	100	65	248	600	1,200	338	202	188	115
27	143	325	240	90	60	307	650	1,070	320	205	194	113
28	138	302	240	85	60	379	700	1,050	312	202	194	113
29	130	276	240	85	-	428	700	1,010	284	202	194	113
30	128	284	264	85	-----	490	800	1,080	280	205	202	111
31	122	-----	256	70	-----	584	-----	1,100	-----	216	205	-----
Total	5,268	5,319	8,404	5,156	1,688	5,816	18,142	41,720	17,786	6,683	5,925	4,132
Mean	170	177	271	166	60.3	188	605	1,346	593	216	191	138
Ac-ft	10,450	10,550	16,670	10,230	3,350	11,540	35,980	82,750	35,280	13,260	11,750	8,200
(†)	18,470	17,030	7,610	1,180	1,780	3,700	16,260	18,500	18,500	15,270	7,610	1,230

Calendar year 1965: Max 3,920 Min 32 Mean 619 Ac-ft 447,900  
Water year 1965-66: Max 2,000 Min 50 Mean 345 Ac-ft 250,000

† Month-end contents, in acre-ft, in Paonia Reservoir (contents on Sept. 30, 1965, 17,920 acre-ft); furnished by North Fork Conservancy District.

Note.--No gage-height record Feb. 12 to Mar. 13.



## GUNNISON RIVER BASIN

9-1327. Main Hubbard Creek near Paonia, Colo.

(Formerly published as Hubbard Creek near Paonia)

Location.--Lat 39°03'25", long 107°37'44", in NE¼ sec.35, T.11 S., R.92 W., on left bank 100 ft upstream from Overland ditch crossing, 2 miles southwest of Hubbard Park, and 13 miles north of Paonia.

Drainage area.--1.31 sq mi (revised).

Records available.--October 1960 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 9,710 ft (from topographic map).

Average discharge.--6 years, 1.60 cfs (1,160 acre-ft per year).

Extremes.--Maximum discharge, 14 cfs Aug. 2 (gage height, 3.14 ft); minimum not determined.

1960-66: Maximum discharge, 24 cfs May 6, 1963, June 17, 1965; maximum gage height, 4.77 ft May 1, 1965 (backwater from ice); minimum daily discharge determined, 0.1 cfs Oct. 1-8, 1961, many days in September to December 1963, January to March 1964, and February 1965.

Remarks.--Records good except those for winter periods, which are poor. No diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966												
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.5						0.7	3.4	7.6	2.2	0.4	0.3
2	1.3						.8	4.0	7.3	1.7	1.1	.3
3	1.1						.7	4.0	6.6	1.4	2.5	.3
4	.9						.6	5	6.3	1.1	1.8	.2
5	.9						.7	6	6.3	1.0	.7	.2
6	.8						.7	6.5	5.2	.9	.4	.2
7	.7						.7	7	4.7	.7	.3	.2
8	.6					0.2	.8	6.5	4.4	.7	.3	.2
9	.6						.9	6.5	4.4	.6	.3	.2
10	.6						.8	6	4.4	.5	.2	.2
11	.5						.7	4.0	4.4	.6	.2	.2
12	.5						.7	2.6	4.2	.6	.2	.2
13	.4						.7	2.0	4.7	.5	.2	.3
14	.4						.6	1.8	4.2	.4	.2	.3
15	.4						.9	2.4	4.7	.4	.2	.4
16	.8	0.3	0.3	0.2	0.2		.8	5	4.9	.4	.2	.3
17	.8						.8	6.5	4.7	.4	.2	.3
18	.9						.8	7.5	4.4	.4	.2	.3
19	.7						.7	8	4.2	.4	.2	.2
20	.7						.6	9	3.7	.4	.3	.2
21	.9						.6	6.0	3.7	.7	.3	.2
22	1.2						.6	7.9	3.5	.7	.2	.2
23	.9						.6	7.9	3.5	.4	.2	.2
24	.7					.4	.6	7.3	2.6	.4	.2	.3
25	.6						.8	5.7	2.2	.4	.2	.4
26	.6						1.2	5.4	2.1	.4	.2	.3
27	.6						1.6	4.9	2.1	.4	.2	.2
28	.5						1.6	6.0	2.0	.4	.2	.2
29	.6						2.0	6.3	1.8	.4	.2	.2
30	.5						2.8	7.0	2.2	.3	.2	.2
31	.4							7.9		.3	.3	
Total	22.6	9.0	9.3	6.2	5.6	9.4	27.1	176.0	127.0	20.1	12.5	7.4
Mean	0.73	0.3	0.3	0.2	0.2	0.3	0.90	5.68	4.23	0.65	0.40	0.25
Ac-ft	45	18	18	12	11	19	54	349	252	40	25	15

Calendar year 1965: Max 17 Min - Mean 2.21 Ac-ft 1,600

Water year 1965-66: Max 9 Min - Mean 1.18 Ac-ft 857

Peak discharge (base, 20 cfs).--No peak above base.

Note.--No gage-height record Oct. 30 to Apr. 13, Apr. 18 to May 20.

9-1328. Middle Hubbard Creek near Paonia, Colo.

Location.--Lat 39°02'58", long 107°37'13", in SW¼ sec.36, T.11 S., R.92 W., on left bank 100 ft upstream from Overland ditch crossing, 2 miles southwest of Hubbard Park, and 12 miles north of Paonia.

Drainage area.--1.34 sq mi (revised).

Records available.--October 1960 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 9,650 ft (from topographic map).

Average discharge.--6 years 1.76 cfs (1,270 acre-ft per year).

Extremes.--Maximum discharge during year, 18 cfs June 1 (gage height, 3.74 ft); maximum gage height, 4.61 ft May 6 (backwater from ice); minimum discharge not determined.

1960-66: Maximum discharge, 36 cfs June 21, 1962 (gage height, 4.10 ft); maximum gage height, 4.67 ft May 21, 1964 (backwater from ice); minimum daily discharge determined, 0.1 cfs for many days in most years.

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

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.2						0.9	4.3	1.2	1.8	0.4	0.5
2	1.2						1.0	5.2	1.1	1.3	1.4	.5
3	1.0						.9	5.2	1.0	1.0	3.1	.5
4	1.0						.8	5.4	9.7	.8	2.0	.4
5	1.0						.9	6.0	9.0	.8	1.0	.4
6	.9						.9	7.8	7.4	.7	.7	.4
7	.8						.9	8.4	7.1	.7	.5	.4
8	.8					0.3	1.0	7.1	8.1	.7	.5	.4
9	.7						1.1	7.4	6.6	.6	.4	.4
10	.7						1.0	6.4	7.4	.6	.4	.4
11	.7						.9	4.1	7.4	.6	.4	.4
12	.6						.9	3.1	6.8	.7	.4	.5
13	.6						1.0	2.8	6.0	.5	.4	.4
14	.6						1.0	2.7	5.6	.5	.3	.4
15	.6						1.1	3.0	5.4	.5	.3	.7
16	.8	0.6	0.5	0.4	0.3		1.0	4.5	7.1	.5	.3	.4
17	.8						1.1	5.8	6.6	.4	.3	.4
18	1.0						1.0	7.4	5.4	.5	.3	.4
19	.8						1.0	9.0	4.8	.4	.4	.4
20	.8						.8	9.4	4.1	.5	.7	.4
21	1.3						.8	9.0	5.6	.6	.5	.4
22	1.1						.8	11	4.1	.8	.4	.3
23	1.1					.5	.8	11	3.1	.6	.3	.3
24	1.0						.8	10	2.7	.6	.3	.3
25	.9						1.0	8.4	2.3	.5	.3	.5
26	.8						1.4	8.1	2.0	.4	.3	.4
27	.8						1.8	7.4	2.0	.5	.3	.4
28	.7						1.8	8.7	1.7	.6	.4	.4
29	.9						2.1	9.4	1.5	.6	.3	.4
30	.7						3.1	10	1.8	.4	.3	.4
31	.6						11	11		.4	.4	
Total	26.5	18.0	15.5	12.4	8.4	12.5	33.6	219.0	174.3	20.1	18.0	12.5
Mean	0.85	0.6	0.5	0.4	0.3	0.4	1.12	7.06	5.81	0.65	0.58	0.42
Ac-ft	53	36	31	25	17	25	67	434	346	40	36	25

Calendar year 1965: Max 23 Min - Mean 2.47 Ac-ft 1,790

Water year 1965-66: Max 12 Min - Mean 1.56 Ac-ft 1,130

Peak discharge (base, 20 cfs).--No peak above base.

Note.--No gage-height record Nov. 1 to Apr. 13.

## GUNNISON RIVER BASIN

9-1329. 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., on left bank 75 ft upstream from Overland ditch crossing, 3 miles south of Hubbard Park, and 11 miles north of Paonia.

Drainage area.--2.59 sq mi.

Records available.--October 1960 to September 1966.

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

Average discharge.--6 years, 3.40 cfs (2,460 acre-ft per year).

Extremes.--Maximum discharge during year, 34 cfs May 22; gage height, 4.01 ft; minimum not determined.  
1960-65: Maximum discharge, 52 cfs July 8, 1965; maximum gage height, 4.35 ft June 15, 1965; minimum daily discharge determined, 0.1 cfs Apr. 4, 8, 1964.

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

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.3	1.3					1.0	4.8	2.0	3.7	1.0	0.7
2	2.3	1.2					1.2	6.8	19	3.0	1.5	.6
3	2.2	1.3					.9	7.6	17	2.8	2.8	.6
4	2.0	1.5					.8	8.3	16	2.4	2.5	.6
5	1.9	1.4					.9	11	15	2.3	1.4	.6
6	1.8	1.4					1.0	13	12	2.2	1.1	.6
7	1.7	1.4					1.1	15	11	2.0	1.0	.6
8	1.6	1.5				0.7	1.1	15	14	1.9	.9	.6
9	1.6	1.5					1.2	16	12	1.8	.9	.6
10	1.6	1.4					1.0	15	13	1.7	.8	.6
11	1.6	1.3					.9	7.6	13	1.7	.8	.6
12	1.5	1.2					.9	6.5	12	1.7	.8	.6
13	1.4	1.1					1.0	4.1	10	1.6	.8	.6
14	1.4	1.0					1.0	3.9	9.6	1.5	.8	.6
15	1.4	1.0					1.0	4.4	9.3	1.4	.8	.8
16	1.6	.9	0.9	0.8	0.7		1.2	7.3	11	1.3	.8	.6
17	1.6	.9					1.5	10	10	1.3	.8	.6
18	1.7	1.0					1.4	13	9.0	1.3	.7	.6
19	1.6	1.0					1.2	16	7.6	1.1	.8	.5
20	1.6	.9					1.1	19	6.5	1.1	.8	.6
21	1.6	1.0					1.0	20	7.9	1.1	.8	.6
22	1.6	.9					1.0	25	6.2	1.3	.7	.5
23	1.6	.9				.8	1.0	23	5.1	1.2	.6	.5
24	1.6	1.0					1.0	20	4.6	1.1	.6	.5
25	1.6	1.1					1.2	17	4.3	1.1	.6	.5
26	1.5	1.0					1.8	16	4.3	1.0	.6	.5
27	1.4	.9					2.3	13	4.3	1.2	.6	.5
28	1.4	.8					2.4	16	3.9	1.3	.6	.5
29	1.4	.9					2.6	16	4.1	1.2	.6	.5
30	1.3	.9					3.7	18	4.3	1.2	.6	.5
31	1.3							22		1.1	.6	
Total	50.7	33.6	27.9	24.8	19.6	23.3	39.4	410.3	296.0	50.6	28.7	17.3
Mean	1.64	1.12	0.9	0.8	0.7	0.75	1.31	13.2	9.87	1.63	0.93	0.58
Ac-ft	101	67	55	49	39	46	78	814	587	100	57	34

Calendar year 1965: Max 36 Min - Mean 4.99 Ac-ft 3,610  
Water year 1965-66: Max 25 Min - Mean 2.80 Ac-ft 2,030

Peak discharge (base, 40 cfs).--No peak above base.

Note.--No gage-height record Nov. 9 to Apr. 13.

9-1345. Leroux Creek near Cedaredge, Colo.

Location.--Lat 38°55'35", long 107°47'35", in NW¼ sec.16, T.13 S., R.93 W., on right bank 200 ft upstream from headgate of Overland ditch, 400 ft upstream from Cow Creek, and 7 miles northeast of Cedaredge.

Drainage area.--35.1 sq mi.

Records available.--October 1936 to September 1956, October 1960 to September 1966. Monthly discharge only for some periods, published in WSP 1313.

Gage.--Water-stage recorder. Altitude of gage is 7,160 ft (by barometer).

Average discharge.--26 years, 47.2 cfs (34,170 acre-ft per year).

Extremes.--Maximum discharge during year, 432 cfs May 7 (gage height, 3.37 ft); minimum daily, 5.5 cfs Jan. 2, 3.  
1936-56, 1960-66: Maximum discharge, 1,310 cfs May 26, 1942 (gage height, 4.95 ft), from rating curve extended above 650 cfs; maximum gage height, 5.10 ft May 10, 1937 (backwater from diversion dam); minimum daily discharge, 1.8 cfs Nov. 10, 1950.

Remarks.--Records good except those for winter periods, which are poor. One small diversion and several small reservoirs above station for irrigation below.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	24	9.5	6	6.8	6.8	51	228	120	41	26	23
2	35	23	9.5	5.5	6.8	6.8	62	255	98	32	25	21
3	33	22	9.5	5.5	6.8	6.8	53	242	86	26	29	21
4	29	22	9.2	6	6.8	6.5	32	245	76	24	34	18
5	26	22	8.6	6.5	6.8	6.8	26	290	70	28	24	17
6	24	22	8	7	6.8	6.8	21	306	66	31	24	16
7	24	23	8	7	7.0	7.0	21	342	58	29	24	16
8	23	23	7.6	7	7.2	7.0	27	303	67	29	22	14
9	22	27	6.6	7	6.8	7.2	43	303	64	31	23	14
10	21	29	6.6	7.5	7.2	7.4	62	270	64	32	22	15
11	21	28	6.6	8	7.0	7.8	55	200	56	33	22	16
12	22	27	6.4	8	7.0	8.0	43	148	52	34	23	16
13	22	30	6.6	7.2	7.0	8.3	38	122	48	33	22	19
14	21	28	6.2	7.0	7.0	9.2	38	112	42	36	22	19
15	21	28	6.5	7.0	7.0	10	43	126	37	34	22	20
16	22	27	7	7.0	7.0	12	59	170	41	36	20	18
17	24	25	6.5	7.0	7.0	10	70	195	46	36	20	17
18	28	25	6	7.2	7.0	9.5	67	210	38	36	18	16
19	25	22	6.5	7.6	7.0	8.9	50	210	36	33	19	16
20	24	18	7	7.6	7.0	9.2	41	212	32	34	20	13
21	27	17	7	7.4	7.0	8.9	34	210	31	38	19	13
22	28	14	6.5	7.4	7.0	8	36	210	28	39	18	10
23	29	18	6	7.4	6.8	8	32	198	25	31	16	10
24	28	16	6	7.2	6.8	8.5	38	165	22	28	16	10
25	26	9.8	6.5	7.0	7.0	8.9	64	146	22	26	19	10
26	27	8	6.5	6.8	7.0	12	126	124	25	27	18	10
27	28	7.5	6.5	6.8	7.0	19	160	114	26	27	20	9.5
28	28	7.5	7	6.8	6.6	26	138	114	24	28	22	9.2
29	28	8	7.5	6.8	-	32	148	110	24	27	21	8.6
30	25	9	7.5	6.8	-----	34	198	108	38	27	24	7.0
31	25	-----	7	6.8	-----	41	-----	142	-----	25	26	-----
Total	803	609.8	222.4	215.8	194.2	368.3	1,876	6,130	1,462	971	680	442.3
Mean	25.9	20.3	7.17	6.96	6.94	11.9	62.5	198	48.7	31.3	21.9	14.7
Ac-ft	1,590	1,210	441	428	385	731	3,720	12,160	2,900	1,930	1,350	877

Calendar year 1965: Max 471 Min - Mean 55.8 Ac-ft 40,430  
Water year 1965-66: Max 342 Min 5.5 Mean 38.3 Ac-ft 27,720

Peak discharge (base, 600 cfs).--No peak above base.

## GUNNISON RIVER BASIN

9-1347. Cow Creek near Cedaredge, Colo.

Location.--Lat 38°55'35", long 107°47'25", in N½ sec.16, T.13 S., R.93 W., on right bank at mouth 300 ft upstream from Overland ditch diversion headgate and 7 miles northeast of Cedaredge.

Drainage area.--6.90 sq mi.

Records available.--October 1960 to September 1966.

Gage.--Water-stage recorder.

Average discharge.--6 years, 12.3 cfs (8,900 acre-ft per year).

Extremes.--Maximum discharge during year, 212 cfs Apr. 29 (gage height, 3.20 ft), from rating curve extended above 61 cfs; no flow for many days.

1960-66: Maximum discharge, about 350 cfs May 17, 1964 (gage height, 4.20 ft, backwater from debris); no flow for many days in most years.

Remarks.--Records good except those for periods of no gage-height record, which are poor. Natural flow of stream affected by one small diversion above station to Dever Creek drainage. Most of flow is water imported by Overland ditch from Overland Reservoir (capacity, 6,280 acre-ft) in West Muddy Creek drainage. Overland ditch also intercepts intermediate tributaries to North Fork Gunnison River during high flows.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							27	55	33	31	25	0.1
2							40	52	36	30	27	.1
3							31	40	32	29	31	.1
4							19	52	38	28	38	.1
5							17	48	34	27	31	.1
6							16	42	36	27	26	.1
7	0						18	24	31	29	25	.1
8						0.2	23	16	36	29	23	.1
9							33	29	33	33	23	.1
10							29	25	33	33	25	.1
11							20	22	32	30	25	.1
12							17	21	27	31	25	.1
13							16	20	25	30	24	.1
14							18	21	25	30	24	.1
15							27	22	22	29	23	.1
16		0.2	0.2	0.1	0.1	1.0	50	25	22	29	22	.1
17						2.6	63	25	29	29	23	.1
18						4.0	45	24	21	27	22	.1
19						5	30	21	17	28	21	.1
20						5.5	26	24	16	31	20	.1
21						5.5	21	31	22	30	16	.1
22	.1					5	22	34	29	30	13	0
23						4.5	20	34	22	24	12	0
24						5	29	32	20	25	7.9	0
25						7.3	81	21	18	28	4.6	0
26						9.4	108	27	18	24	3.0	0
27						11	78	32	17	27	2.4	0
28						12	63	39	16	26	1.8	0
29						14	81	39	23	25	.6	0
30						16	90	44	29	24	.4	0
31						21		44		24	.1	
Total	1.5	6.0	6.2	3.1	2.8	131.8	1,158	985	799	877	564.8	2.1
Mean	0.05	0.2	0.2	0.1	0.1	4.25	38.6	31.8	26.6	28.3	18.2	0.70
Ac-ft	3.0	12	12	6.1	5.6	261	2,300	1,950	1,580	1,740	1,120	4.2

Calendar year 1965: Max 104 Min 0 Mean 14.5 Ac-ft 10,480

Water year 1965-66: Max 108 Min 0 Mean 12.4 Ac-ft 9,000

Note.--No gage-height record Oct. 6 to Mar. 17, Aug. 26 to Sept. 30.

9-1362. Gunnison River near Lazear, Colo.

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

Drainage area.--5,260 sq mi, approximately.

Records available.--May 1962 to September 1966.

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

Extremes.--Maximum discharge during year, 3,910 cfs June 1 (gage height, 3.38 ft); minimum daily, 260 cfs Feb. 9, 10, Mar. 23.  
1962-66: Maximum discharge, 14,800 cfs May 13, 1962 (gage height, 6.30 ft); minimum daily, 115 cfs Oct. 6, 1963.

Remarks.--Records good except those for winter periods, which are poor. Natural flow of stream affected by transmountain and trans-basin diversions, storage reservoirs, and diversions for irrigation of about 150,000 acres, part of which is in the Uncompahgre River basin.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1520	480	504	512	320	302	1860	2670	2820	690	375	392
2	1480	452	512	466	338	296	2280	2790	3120	652	370	386
3	1420	431	544	466	338	302	2350	2600	3290	628	392	386
4	1440	424	544	473	302	308	1920	2650	1600	612	454	392
5	1440	410	560	500	296	350	1420	2860	1330	596	428	380
6	1300	410	552	520	285	308	1260	3290	1190	573	386	380
7	1250	410	578	540	290	308	1320	3330	1090	545	375	375
8	1180	404	596	520	285	302	1290	3400	1220	454	375	380
9	1110	404	596	520	260	374	1800	3220	1080	440	375	375
10	1070	473	614	504	260	445	1950	3350	1160	428	370	375
11	1010	417	641	496	270	459	1880	2330	1110	440	355	375
12	872	398	596	488	280	417	1470	2220	1040	416	350	392
13	840	536	569	473	285	398	1220	1800	942	392	360	386
14	810	459	560	473	290	445	1060	1580	882	392	350	386
15	800	480	528	466	296	520	1020	1500	837	392	345	398
16	850	578	544	480	392	438	1190	1500	782	370	350	454
17	916	614	496	450	302	496	1530	1510	782	386	350	422
18	1340	596	500	430	280	424	1570	1600	804	398	355	416
19	1240	552	480	400	275	452	1340	1740	720	380	355	416
20	1160	536	460	392	270	536	1260	1510	660	404	365	335
21	1260	552	480	398	275	536	1040	1540	670	398	370	318
22	1180	536	488	404	275	320	1090	1540	2060	422	360	318
23	1140	614	528	417	290	260	1020	1480	2010	410	360	314
24	1130	614	512	452	296	265	1040	1510	1930	392	355	314
25	1160	614	504	431	302	290	1160	1510	1640	422	355	318
26	1210	730	512	440	320	368	1560	1770	1600	392	365	326
27	810	641	512	460	314	569	1900	2190	1560	489	365	330
28	605	520	512	460	302	730	2270	2550	1330	370	365	330
29	520	459	504	440	-	1080	2250	2530	1080	380	365	326
30	488	452	544	400	-----	1400	2420	2700	894	380	365	326
31	488	-----	552	386	-----	1680	-----	2820	-----	380	380	-----
Total	33,039	15,196	16,622	14,257	8,288	15,378	46,740	69,590	41,233	14,023	11,440	11,021
Mean	1,066	507	536	460	296	496	1,558	2,245	1,374	452	369	367
Ac-ft	65,530	30,140	32,970	28,280	16,440	30,500	92,710	138,000	81,780	27,810	22,690	21,860

Calendar year 1965: Max 12,500 Min 398 Mean 2,706 Ac-ft 1,959,000  
Water year 1965-66: Max 3,400 Min 260 Mean 813 Ac-ft 588,700

9-1378. Dirty George Creek near Grand Mesa, Colo.

(Formerly published as George Creek near Grand Mesa)

Location.--Lat 38°57', long 108°02', in NW¼ sec.5, T.13 S., R.95 W., on left bank 200 ft upstream from falls on Cedar Park ditch, 3½ miles upstream from confluence with Sara Creek, 7½ miles northwest of Cedaredge, and 8 miles southwest of Grand Mesa.

Drainage area.--8.3 sq mi, approximately.

Records available.--October 1957 to September 1966. Prior to October 1965, published as George Creek near Grand Mesa.

Gage.--Water-stage recorder.

Average discharge.--9 years, 6.75 cfs (4,890 acre-ft per year).

Extremes.--Maximum discharge during year, 36 cfs Apr. 2 (gage height, 1.54 ft); minimum not determined.

1957-66: Maximum discharge, 86 cfs May 1, 1965 (gage height, 2.08 ft), from rating curve extended above 23 cfs; maximum gage height, 3.02 ft Aug. 4, 1964 (backwater from debris); minimum discharge not determined.

Remarks.--Records fair except those for winter period, which are poor. Natural flow of stream affected by storage reservoirs, diversions above station for municipal water supply of town of Delta, and three small diversions above station for irrigation below.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.4	9.1				5.5	24	18	11	7.7	8.0	6.0
2	6.1	10				5	26	21	9.9	7.2	7.7	5.8
3	5.6	9.1				5	21	28	9.3	6.9	8.3	5.6
4	5.6	7.9				4.6	16	29	9.3	6.8	8.6	5.5
5	5.4	8.2				4.8	14	28	8.3	6.4	8.0	5.3
6	5.4	8.5				5	13	25	8.3	6.4	7.4	5.2
7	6.1	8.5				5.5	15	24	8.0	7.1	7.1	5.2
8	6.1	8.5				6.5	18	25	8.3	7.1	6.9	4.8
9	6.1	8.8				7	18	28	8.3	6.6	6.9	4.7
10	6.1	8.8				8	17	27	8.0	6.6	6.9	4.5
11	6.1	9.1				7.5	16	25	7.4	7.2	7.2	4.8
12	5.8	9.1				7	15	23	7.1	7.1	7.4	4.8
13	5.8	9.1				7.5	14	19	6.8	7.1	7.2	5.0
14	5.8	9.1				8	14	18	6.6	7.4	7.4	5.0
15	6.7	9.5				9	15	16	6.6	7.4	7.2	5.0
16	8.2	10				10	16	15	6.8	7.2	7.2	5.2
17	8.5	10				9	18	13	7.2	7.4	7.1	5.0
18	9.4	10				8	17	12	6.9	7.4	6.8	5.0
19	8.8	9.5				9	14	10	6.6	7.2	6.8	4.8
20	7.9	9				9	13	10	6.8	7.4	6.8	4.8
21	7.3	8.5				8	13	10	6.6	7.7	6.8	5.0
22	7.6	8				7	12	10	6.4	8.3	6.4	5.2
23	7.0	8				6	12	10	6.8	7.7	6.8	5.2
24	6.7	9				7	12	11	6.4	7.7	6.6	5.0
25	6.7	9				9	13	11	6.6	7.4	6.1	5.0
26	6.7	8.5				10	18	11	6.4	7.2	6.0	5.2
27	6.7	7.5				14	20	11	6.8	7.2	6.0	5.0
28	6.4	7				16	18	11	6.8	8.3	5.8	5.0
29	6.1	6.5				18	17	11	7.1	8.0	5.8	4.8
30	6.1	6.5				20	19	11	8.0	7.7	5.8	4.7
31	7.0	-----				21	-----	11	-----	7.7	6.1	-----
Total	206.2	260.3	217	186	140	276.9	488	532	225.4	226.5	215.1	152.1
Mean	6.65	8.68	7	6	5	8.93	16.3	17.2	7.51	7.31	6.94	5.07
Ac-ft	409	516	430	369	278	549	968	1,060	447	449	427	302

Calendar year 1965: Max 45 Min - Mean 9.13 Ac-ft 6,610

Water year 1965-66: Max 29 Min - Mean 8.56 Ac-ft 6,200

Note.--No gage-height record Nov. 15 to Mar. 25.

9-1392. Ward Creek near Grand Mesa, Colo.

Location.--Lat 38°59', long 107°58', on line between secs.25 and 26, T.12 S., R.95 W., on left bank 300 ft upstream from headgate of Lake Fork and Surface Creek Canal, 3½ miles upstream from William Creek, 4½ miles south of Grand Mesa, and 6 miles northwest of Cedaredge.

Drainage area.--14 sq mi, approximately.

Records available.--October 1957 to September 1966.

Gage.--Water-stage recorder. Prior to June 4, 1958, at site half a mile upstream at different datum.

Average discharge.--9 years, 11.7 cfs (8,470 acre-ft per year).

Extremes.--Maximum discharge during year, 56 cfs May 8 (gage height, 3.46 ft), from rating curve extended above 42 cfs; minimum daily, 0.8 cfs Sept. 25-30.

1957-66: Maximum discharge, about 150 cfs May 25, 1958; minimum daily determined, 0.7 cfs Apr. 3-10, 1964.

Remarks.--Records fair except those for winter periods, which are poor. Flow regulated by numerous small storage reservoirs. At times water is exported from Hotel Lake above station to Baron Lake in Kiser Creek basin.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.5	11				2.2	11	35	20	15	26	25
2	5.5	4.2				2.1	14	36	20	15	26	25
3	5.5	4.1				1.8	13	37	20	14	28	25
4	5.5	4.1				1.6	11	41	20	13	30	26
5	5.5	4.1				2.0	10	43	19	12	28	26
6	5.7	4.1				2.2	9	42	18	11	26	26
7	5.7	4.0				2.4	9.4	46	18	23	26	26
8	5.7	4.0				2.6	12	49	20	24	26	26
9	5.7	4.1				3.0	14	49	19	24	26	26
10	5.5	4.0				3.4	15	41	19	24	26	26
11	5.9	3.8				3.2	14	36	18	24	26	26
12	14	4.5				3.0	12	33	17	23	26	26
13	14	16				3.2	11	31	17	22	26	26
14	14	16				3.6	10	29	18	23	26	26
15	14	13				4.0	11	28	18	23	28	22
16	14	9	2.5	2.2	2.0	4.5	14	27	18	23	28	22
17	14	8				3.6	17	23	20	23	26	22
18	14	8				3.2	16	22	22	23	26	22
19	14	9				3.0	14	19	21	22	26	22
20	14	8				3.4	12	18	20	22	26	22
21	14	7				3.2	11	18	20	22	26	22
22	14	6				2.8	11	18	18	22	26	20
23	14	6				2.6	11	18	16	22	26	20
24	14	7				2.6	11	18	16	22	26	1.5
25	14	8				2.8	14	17	14	22	26	.8
26	13	7				3.2	20	17	14	22	26	.8
27	13	6				4.1	22	18	14	24	26	.8
28	13	5				5.5	20	19	12	24	26	.8
29	13	4				6.8	29	19	13	24	26	.8
30	13	3				8.2	31	18	14	26	26	.8
31	13					9.1		20		26	26	
Total	335.7	202.0	77.5	68.2	56.0	108.9	429.4	885	533	659	818	561.3
Mean	10.8	6.73	2.5	2.2	2.0	3.51	14.3	28.5	17.8	21.3	26.4	18.7
Ac-ft	666	401	154	135	111	216	852	1,760	1,060	1,310	1,620	1,110

Calendar year 1965: Max 50 Min - Mean 14.0 Ac-ft 10,150  
 Water year 1965-66: Max 49 Min 0.8 Mean 13.0 Ac-ft 9,390

Note.--No gage-height record Nov. 15 to Mar. 15.



## GUNNISON RIVER BASIN

9-1402. Kiser Creek near Grand Mesa, Colo.

Location.--Lat 39°00', long 107°56', in N½ sec.19, T.12 S., R.94 W., on left bank a quarter of a mile upstream from unnamed tributary, 3½ miles south of Grand Mesa, 5½ miles upstream from Cottonwood Creek, and 7 miles northwest of Cedaredge.

Drainage area.--5.3 sq mi, approximately.

Records available.--October 1957 to September 1966.

Gage.--Water-stage recorder.

Average discharge.--9 years, 8.05 cfs (5,830 acre-ft per year).

Extremes.--Maximum discharge during year, 46 cfs July 21 (gage height, 3.12 ft); minimum not determined.

1957-66: Maximum discharge, 83 cfs June 7, 1958 (gage height, 3.40 ft); from rating curve extended above 33 cfs; maximum gage height, 4.59 ft Mar. 11, 1964 (backwater from ice); minimum daily discharge determined, 0.1 cfs for many days in 1963-65.

Remarks.--Records good except those for winter periods, which are poor. No diversion above station. Flow regulated by numerous small storage reservoirs. At times water is imported from Hotel Lake in Ward Creek basin to Baron Lake above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.3	8.9				1.2	3.6	8.4	14	34	31	31
2	5.0	2.5				1.2	3.8	8.4	17	25	18	31
3	4.7	2.5				1.0	3.6	8.4	16	24	17	22
4	4.4	2.4				9	3.0	8.9	16	23	17	22
5	4.4	2.4				1.0	2.8	9.9	16	22	16	22
6	4.4	2.2				1.0	3.2	9.9	16	24	23	16
7	4.1	2.2				1.1	3.3	10	17	24	23	16
8	4.1	2.2				1.2	3.4	10	17	24	23	17
9	4.1	6.8				1.2	3.6	9.9	17	22	33	17
10	4.1	6.5				1.4	3.8	7.3	16	22	35	22
11	4.4	5.6				1.4	3.6	6.8	16	24	34	22
12	8.9	5.3				1.2	3.6	6.2	15	27	34	22
13	8.9	4.7				1.2	3.4	6.2	14	27	23	13
14	8.9	4.7				1.2	3.6	6.5	13	24	23	13
15	8.9	2.0	1.2	1.0	1.0	1.4	3.8	8.4	13	24	23	7.8
16	8.9	1.6				1.6	4.4	9.9	11	28	33	7.3
17	8.9	1.4				1.4	5.0	10	11	28	34	5.6
18	9.4	1.4				1.3	5.0	9.9	12	30	35	5.9
19	9.4	1.6				1.4	4.7	8.9	12	35	34	5.9
20	9.4	1.8				1.6	4.7	7.8	12	37	34	5.9
21	9.4	1.6				1.6	4.0	7.8	15	41	34	5.9
22	9.9	1.4				1.4	4.4	7.8	15	37	34	5.9
23	9.9	1.6				1.3	4.1	7.3	27	21	34	5.9
24	10	1.8				1.4	4.1	7.3	26	20	35	7.3
25	10	2.0				1.6	4.7	6.8	18	19	34	7.3
26	11	1.8				1.8	5.3	7.3	18	25	34	7.3
27	11	1.6				2.2	5.9	8.4	18	33	28	6.2
28	11	1.4				2.7	6.5	8.4	37	30	27	6.2
29	11	1.2				2.9	6.5	9.4	38	30	27	5.6
30	11	1.2				3.3	6.8	8.4	37	31	28	5.6
31	11					3.3		7.3		31	31	
Total	245.8	84.3	37.2	31.0	28.0	48.4	128.2	257.9	540	846	889	387.6
Mean	7.93	2.81	1.2	1.0	1.0	1.56	4.27	8.32	18.0	27.3	28.7	12.9
Ac-ft	488	167	74	61	56	96	254	512	1,070	1,680	1,760	769

Calendar year 1965: Max 40 Min - Mean 7.05 Ac-ft 5,100  
 Water year 1965-66: Max 41 Min - Mean 9.65 Ac-ft 6,990

Note.--No gage-height record Nov. 15 to Mar. 15.

9-1407. Cottonwood Creek near Grand Mesa, Colo.

Location.--Lat 38°58', long 107°57', in SW¼ sec.30, T.12 S., R.94 W., on left bank 300 ft upstream from culvert on county highway, 3½ miles upstream from mouth, 5 miles south of Grand Mesa, and 5½ miles northwest of Cedaredge.

Drainage area.--2.5 sq mi, approximately.

Records available.--October 1957 to September 1966.

Gage.--Water-stage recorder and timber weir.

Average discharge.--9 years, 1.34 cfs (970 acre-ft per year).

Extremes.--Maximum discharge during year, 38 cfs May 7 (gage height, 2.04 ft); no flow for many days.

1957-66: Maximum discharge, that of May 7, 1966; no flow for many days in most years.

Remarks.--Records good except those for period of no gage-height record, which are poor. Flow regulated by numerous small storage reservoirs.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.5	0.1				0.2	4.5	5.2	1.4	0.7	0	0.1
2	.4	.1				.2	4.6	5.7	1.2	.3	.8	.1
3	.4	.1					3.9	6.2	1.0	.2	1.4	.1
4	.3	.1				.1	2.7	6.6	.9	.1	.9	0
5	.2	.1				.1	2.3	6.7	.8	.1	.3	0
6	.2	.1				.2	2.2	7.2	.7	.1	.1	0
7	.1	.1				.2	2.6	14	7.2	.1	.1	0
8	.1	.1				.3	2.8	16	8.0	.1	0	0
9	.1	.1				.4	3.2	11	6.7	.1	0	0
10	.1	.1				.5	3.2	8.9	6.2	.1	0	0
11	.1	.1				.6	3.0	6.3	5.2	.1	0	0
12	.1	.1				.7	3.0	5.3	4.9	.1	0	.1
13	.1	.1				.9	3.0	4.5	4.8	.1	0	.1
14	.1	.1				1.1	2.7	3.6	4.6	.1	0	0
15	.2	.1				1.4	2.8	3.2	4.5	.1	0	0
16	.2	.2	0.2	0.2	0.2	.9	3.2	3.5	5.0	.1	0	0
17	.3	.2				.6	3.5	3.3	5.2	.1	0	0
18	.6	.3				.5	3.3	3.1	5.6	.2	0	0
19	.6	.2				.5	3.0	2.8	5.3	.2	0	0
20	.4	.2				.4	2.7	2.6	4.8	.2	0	0
21	.4					.3	2.6	2.2	3.0	.2	0	0
22	.3					.2	2.4	2.2	2.0	.2	0	0
23	.2					.2	2.3	2.0	1.4	.2	0	0
24	.2					.2	2.2	1.9	1.1	.1	0	0
25	.2	.2				.3	2.7	1.5	.9	.1	0	0
26	.1					.8	3.5	1.4	.9	.1	0	0
27	.1					1.6	3.6	1.4	.8	.1	0	0
28	.1					2.3	3.5	1.4	.7	.4	0	0
29	.1					2.7	3.9	1.4	.6	.1	0	0
30						3.5	4.5	1.3	.9	.1	0	0
31	.1					3.9		1.6		.1	.2	
Total	7.0	4.6	6.2	6.2	5.6	26.0	93.4	144.0	96.3	4.9	3.8	0.5
Mean	0.23	0.15	0.2	0.2	0.2	0.84	3.11	4.65	3.21	0.16	0.12	0.02
Ac-ft	14	9.1	12	12	11	52	185	286	191	9.7	7.5	1.0

Calendar year 1965: Max 22 Min 0 Mean 1.89 Ac-ft 1,370  
 Water year 1965-66: Max 16 Min 0 Mean 1.09 Ac-ft 790

Note.--No gage-height record Nov. 15 to Mar. 15.

## GUNNISON RIVER BASIN

9-1412. Youngs Creek near Grand Mesa, Colo.

Location.--Lat 38°58', long 107°55', in S½ sec.32, T.12 S., R.94 W., on left bank 200 ft upstream from bridge, a quarter of a mile downstream from Horse Creek, 4½ miles north of Cedaredge, and 6 miles southeast of Grand Mesa.

Drainage area.--10 sq mi, approximately.

Records available.--October 1957 to September 1966.

Gage.--Water-stage recorder.

Average discharge.--9 years, 6.92 cfs (5,010 acre-ft per year).

Extremes.--Maximum discharge during year, 67 cfs May 3 (gage height, 2.55 ft); minimum daily, 1.3 cfs Sept. 30.

1957-66: Maximum discharge, 86 cfs June 6, 1958 (gage height, 2.77 ft); minimum daily determined, 0.4 cfs Nov. 20, 21, 1964.

Remarks.--Records good except those for period of no gage-height record, which are poor. Flow regulated by numerous small storage reservoirs. At times water is diverted from Eureka Reservoirs No. 1 and 2 above station to Milk Creek in Surface Creek basin. Three small diversions above station for irrigation below.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.0	2.8				2.2	15	20	16	22	6.8	7.3
2	4.3	2.6				2.0	18	20	14	20	15	1.6
3	3.9	2.5				1.6	16	27	13	19	13	1.6
4	3.7	2.5				1.8	12	28	13	18	10	1.6
5	3.7	2.5				1.8	9.8	34	12	18	5.0	1.6
6	2.8	2.4				2.0	8.6	34	11	15	3.8	1.6
7	2.6	2.1				2.0	9.8	38	11	15	3.6	1.6
8	2.7	2.2				2.2	12	40	13	11	6.6	1.7
9	2.8	2.3				2.6	13	41	10	10	7.8	2.6
10	2.8	2.3				3.0	13	37	10	9.5	12	2.9
11	5.8	2.1				3.8	12	29	10	14	13	2.9
12	6.3	2.2				4.6	11	25	8.9	9.8	8.0	3.9
13	4.3	2.3				5.5	9.8	22	8.9	11	7.3	4.0
14	4.2	2.3				6.5	9.2	20	8.6	11	7.0	3.9
15	3.4	2.4				8	10	20	9.5	12	5.4	3.9
16	3.5	2.7	2.6	2.4	2.2	7.5	13	22	10	13	5.1	3.3
17	3.6	2.8				5.0	17	20	14	12	5.0	3.1
18	3.8	2.6				4.0	16	20	13	9.2	5.0	3.0
19	3.4	2.8				4.5	14	21	12	9.2	4.8	2.4
20	3.0	2.8				5.3	13	20	10	17	4.6	2.1
21	3.1	2.6				5.0	11	20	8.9	17	4.5	2.1
22	3.3	2.4				3.4	11	20	10	11	8.0	2.2
23	3.2	2.6				2.6	9.8	19	9.8	9.8	8.6	2.9
24	3.1	2.8				3.7	10	17	9.8	10	7.8	3.3
25	3.7	3.0				4.0	13	15	15	7.8	7.5	3.3
26	4.0	2.8				5.1	18	15	15	7.8	6.8	2.4
27	4.0	2.6				7.0	19	15	19	10	6.8	2.0
28	4.0	2.4				8.9	18	13	19	10	6.6	1.7
29	3.9	2.6				9.8	19	13	20	6.6	4.8	1.4
30	3.9	2.6				11	20	13	20	6.1	5.3	1.3
31	3.9					13		15		5.8	7.0	
Total	115.7	75.6	80.6	74.4	61.6	149.4	401.0	713	374.4	377.6	222.5	79.2
Mean	3.73	2.52	2.6	2.4	2.2	4.82	13.4	23.0	12.5	12.2	7.18	2.64
Ac-ft	229	150	160	148	122	296	795	1,410	743	749	441	157

Calendar year 1965: Max 53 Min - Mean 8.93 Ac-ft 6,470  
 Water year 1965-66: Max 41 Min 1.3 Mean 7.47 Ac-ft 5,400

Note.--No gage-height record Nov. 18 to Mar. 15.

9-1430. Surface Creek near Cedaredge, Colo.

Location.--Lat 38°59', long 107°51', in NW¼ sec. 25, T.12 S., R.94 W., on left bank 5 ft downstream from private bridge, 1½ miles downstream from Caesar Creek, and 7 miles northeast of Cedaredge.

Drainage area.--26.7 sq mi.

Records available.--June 1939 to September 1966. Monthly discharge only for some periods, published in WSP 1313.

Gage.--Water-stage recorder. Altitude of gage is 8,180 ft (by barometer).

Average discharge.--27 years, 41.4 cfs (29,970 acre-ft per year).

Extremes.--Maximum discharge during year, 262 cfs May 9 (gage height, 2.54 ft); maximum gage height, 3.02 ft Mar. 18 (backwater from ice); minimum daily discharge, 3.2 cfs Jan. 22.  
1939-66: 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 periods, which are poor. Flow regulated by many small reservoirs. Some water imported from Leon Lake in Plateau Creek drainage.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	25	4.6	4.0	4.0	4.2	37	119	110	66	60	47
2	23	9.1	4.8	4.0	3.8	4.0	47	117	117	71	42	45
3	22	7.0	5	4.0	3.6	3.8	42	125	106	69	42	24
4	21	6.8	5.5	4.0	3.6	3.6	31	132	104	68	47	20
5	25	6.5	5.5	4.2	3.8	3.8	28	125	101	80	44	20
6	25	18	5.5	4.2	4.0	4.0	25	123	96	77	45	20
7	23	18	5	4.2	4.2	4.6	30	138	110	84	44	20
8	23	18	5	4.2	4.2	5.5	40	156	112	82	45	20
9	34	21	5	4.4	4.0	6	50	214	99	77	51	20
10	33	20	4.8	4.4	3.8	6.5	47	214	99	73	51	23
11	32	6.2	4.8	4.2	3.8	6.5	37	148	94	71	49	25
12	32	6.2	4.8	4.0	3.8	6	31	121	89	83	50	26
13	31	6.5	4.6	4.0	3.8	5.5	27	103	84	83	39	21
14	26	6.0	4.6	4.2	3.8	6	31	96	71	77	38	20
15	25	5.0	4.6	4.0	3.8	7.5	44	94	69	76	38	29
16	27	7.3	4.4	4.0	3.6	8	64	110	70	71	60	31
17	27	6.0	4.2	4.0	3.8	8	73	138	71	68	62	30
18	29	6.8	4.0	4.0	3.8	7.5	60	142	71	68	71	30
19	31	6.0	4.0	3.8	4.0	7.5	44	148	66	70	73	30
20	31	6.0	4.0	3.6	4.0	7.9	39	150	65	69	41	26
21	30	6.0	4.2	3.4	3.8	7.9	36	174	64	57	37	24
22	29	6.8	4.4	3.2	3.8	7.5	32	174	60	54	38	20
23	28	7.0	4.4	3.4	3.8	7	30	156	66	44	47	20
24	28	7.6	4.2	3.6	4.0	7.5	36	142	65	38	50	26
25	28	5.2	4.2	3.8	4.2	8	66	130	69	38	51	28
26	28	4.8	4.4	3.8	4.0	9	99	119	71	59	51	28
27	26	4.6	4.4	3.8	3.8	10	94	114	69	65	52	26
28	31	4.4	4.4	3.8	4.0	13	88	110	69	68	52	26
29	31	4.4	4.6	3.8	-	17	98	104	74	66	52	26
30	26	4.6	4.4	4.0	-----	20	117	104	73	60	50	24
31	26	-----	4.2	4.2	-----	26	-----	117	-----	59	49	-----
Total	859	266.8	142.5	122.2	108.6	249.3	1523	4,157	2,484	2,091	1,521	775
Mean	27.7	8.89	4.60	3.94	3.88	8.04	50.8	134	82.8	67.5	49.1	25.8
Ac-ft	1,700	529	283	242	215	494	3,020	8,250	4,930	4,150	3,020	1,540

Calendar year 1965: Max 245 Min 2.4 Mean 46.0 Ac-ft 33,320  
 Water year 1965-66: Max 214 Min 3.2 Mean 39.2 Ac-ft 28,360

Note.--No gage-height record Feb. 2 to Mar. 16.

## GUNNISON RIVER BASIN

9-1435. Surface Creek at Cedaredge, Colo.

Location.--Lat 38°54', long 107°55', in sec.20, T.13 S., R.94 W., on left bank at Cedaredge, 500 ft east of State Highway 65 and 8½ miles upstream from mouth.

Drainage area.--39.5 sq mi.

Records available.--October 1916 to September 1966. Monthly discharge only for some periods, published in WSP 1313.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 6,500 ft (by barometer). Prior to June 8, 1917, staff gage at same site at datum 0.5 ft higher.

Average discharge.--50 years, 27.1 cfs (19,620 acre-ft per year).

Extremes.--Maximum discharge during year, 122 cfs Apr. 25 (gage height, 1.41 ft); minimum daily, 1.2 cfs Nov. 11.

1916-66: 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 periods, which are poor. Natural flow of stream affected by diversion to and from nearby streams, many small storage reservoirs, diversions for irrigation, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	10	6	3.6	3.6	4.1	59	92	88	42	25	16
2	25	6.0	5.5	3.4	3.4	3.8	74	84	77	31	26	14
3	24	3.2	5.5	3.4	3.4	3.6	77	84	70	24	28	15
4	23	3.0	5.5	3.6	3.4	3.4	62	94	64	23	26	12
5	20	3.5	5	3.8	3.4	3.4	48	83	62	34	19	12
6	17	6.0	4.8	4.0	3.6	3.8	44	76	59	35	15	11
7	14	4.4	4.6	4.2	3.8	4.2	52	77	58	33	14	8.6
8	14	4.8	4.2	4.6	3.6	4.8	67	79	58	30	14	9.3
9	18	4.1	4.0	5.1	3.2	5.5	72	99	52	34	17	10
10	17	2.3	3.7	4.8	3.4	6	67	93	54	35	18	9.3
11	16	1.2	3.8	4.4	3.6	6	54	81	53	35	20	8.0
12	14	1.7	4.0	4.1	3.6	5.5	44	86	52	35	24	9.3
13	13	3.5	4.0	3.7	3.6	6	42	77	48	31	17	11
14	12	4.4	4.0	3.5	3.6	7.5	40	72	47	23	14	10
15	13	3.7	3.8	3.7	3.6	9.3	47	69	44	20	13	10
16	16	4.8	3.6	3.8	3.4	11	59	77	46	22	18	10
17	19	5.1	3.6	3.8	3.6	8.6	70	83	50	22	19	13
18	21	5.5	3.4	3.8	3.6	8.5	59	77	46	20	27	14
19	23	7.0	3.4	3.6	3.8	8	48	81	40	28	34	15
20	21	6.5	3.4	3.4	3.8	8.0	44	83	39	32	25	14
21	18	7.0	3.6	3.2	3.6	7.5	46	93	40	26	22	14
22	16	2.5	3.8	3.2	3.5	7	47	92	39	24	24	11
23	14	11	3.8	3.2	3.7	7.0	42	86	38	22	26	10
24	13	10	3.6	3.4	3.7	7	47	84	37	21	26	13
25	13	11	3.6	3.6	4.1	7.5	74	86	38	20	26	14
26	8.0	5.1	3.6	3.6	4.1	9.3	103	83	39	22	26	14
27	7.0	4.6	3.8	3.6	3.8	15	92	86	39	24	20	13
28	9.3	4.4	4.0	3.6	3.8	22	92	86	43	23	18	13
29	8.6	4.6	4.4	3.6	-	31	83	96	47	21	19	13
30	9.3	5	4.0	3.8	-----	39	84	83	48	23	20	12
31	11	-----	3.8	3.8	-----	52	-----	97	-----	26	20	-----
Total	495.2	155.9	127.8	116.9	101.3	325.3	1,839	2,599	1,515	841	660	358.5
Mean	16.0	5.20	4.12	3.77	3.62	10.5	61.3	83.8	50.5	27.1	21.3	12.0
Ac-ft	982	309	253	232	201	645	3,650	5,160	3,000	1,670	1,310	711

Calendar year 1965: Max 137 Min 1.2 Mean 29.7 Ac-ft 21,490  
 Water year 1965-66: Max 103 Min 1.2 Mean 25.0 Ac-ft 18,120

9-1442. Tongue Creek at Cory, Colo.

Location.--Lat 38°47'15", long 107°59'40", in SE¼ sec.34, T.14 S., R.95 W., on left bank at downstream side of bridge, 500 ft upstream from North Delta Canal headgate, half a mile west of Cory, and 1 mile upstream from mouth.

Drainage area.--200 sq mi, approximately.

Records available.--October 1957 to September 1966.

Gage.--Digital water-stage recorder since Jan. 28, 1964. Altitude of gage is 5,030 ft (from topographic map). Prior to Jan. 28, 1964, graphic water-stage recorder at same site and datum.

Average discharge.--9 years, 28.4 cfs (20,560 acre-ft per year).

Extremes.--Maximum discharge during year, 301 cfs Apr. 3 (gage height, 4.01 ft); minimum daily, 2.3 cfs Aug. 18.  
1957-66: Maximum discharge, 748 cfs June 7, 1958; maximum gage height, 5.40 ft July 29, 1965; minimum daily discharge, 0.5 cfs July 15, 16, 21, 1964.

Remarks.--Records good. 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.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	67	50	40	38	29	30	187	21	22	9.8	11	11
2	64	47	37	26	28	29	239	16	14	8.3	9.6	9.5
3	58	44	37	30	27	27	215	18	11	9.0	13	11
4	55	43	38	34	27	26	127	25	12	9.2	11	12
5	54	40	37	35	28	31	88	32	12	9.2	10	12
6	53	41	36	33	28	30	64	25	12	8.0	9.2	12
7	51	41	36	33	30	33	62	22	14	6.3	8.5	13
8	42	41	36	34	29	40	85	23	18	4.6	6.5	15
9	41	41	39	34	27	49	102	30	20	3.8	4.5	14
10	40	46	43	32	25	53	97	36	22	4.2	3.4	14
11	41	47	57	33	25	55	84	27	22	3.2	4.5	14
12	41	44	47	32	26	52	60	72	22	4.0	3.5	16
13	40	42	45	31	26	52	53	59	22	6.3	3.6	16
14	40	40	44	32	25	54	50	45	20	4.5	5.0	18
15	39	44	42	32	25	58	55	37	18	3.8	6.3	20
16	40	41	43	29	24	73	69	27	15	3.0	6.1	19
17	46	50	34	31	24	56	105	18	13	5.1	5.8	18
18	80	45	30	32	30	40	78	14	12	5.2	3.8	15
19	66	42	32	32	34	43	40	14	12	5.2	3.2	15
20	58	42	32	31	31	46	33	16	12	7.2	3.5	17
21	49	43	33	27	30	47	27	23	10	5.9	3.8	17
22	50	36	39	26	29	36	24	20	9.1	4.2	4.2	18
23	48	76	42	26	28	34	17	18	8.1	3.9	4.1	18
24	49	53	40	28	29	35	12	10	8.3	4.5	3.2	19
25	48	80	39	28	32	38	20	8.1	8.9	4.3	2.3	18
26	50	76	39	30	34	51	56	8.4	7.5	3.4	4.3	16
27	51	48	37	31	31	84	42	8.0	7.3	3.0	5.7	12
28	52	44	38	30	29	115	27	9.2	5.6	7.5	5.4	11
29	54	42	39	30	-	133	20	15	6.7	11	4.5	8.3
30	51	40	44	30	-----	149	19	12	8.3	9.8	5.4	8.4
31	48	-----	39	30	-----	173	-----	20	-----	10	8.5	-----
Total	1,566	1,409	1,214	960	790	1,772	2,157	728.7	404.8	187.4	183.4	437.2
Mean	50.5	47.0	39.2	31.0	28.2	57.2	71.9	23.5	13.5	6.05	5.92	14.6
Ac-ft	3,110	2,790	2,410	1,900	1,570	3,510	4,280	1,450	803	372	364	867

Calendar year 1965: Max 326 Min 7.7 Mean 45.7 Ac-ft 33,060  
Water year 1965-66: Max 239 Min 2.3 Mean 32.4 Ac-ft 23,420

## GUNNISON RIVER BASIN

9-1462. Uncompahgre River near Ridgway, Colo.

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

Drainage area.--150 sq mi, approximately.

Records available.--October 1958 to September 1966.

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

Average discharge.--8 years, 156 cfs (112,900 acre-ft per year).

Extremes.--Maximum discharge during year, 700 cfs May 7 (gage height, 3.87 ft); minimum daily, 34 cfs Mar. 4.  
1958-66: Maximum discharge, 1,500 cfs July 12, 1965 (gage height, 4.89 ft); minimum daily, 26 cfs Jan. 13, 1963.

Remarks.--Records good except those for winter periods, which are poor. 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.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	166	106	68	61	44	41	162	227	528	315	151	85
2	159	106	68	48	46	40	166	261	528	283	142	77
3	159	102	68	50	46	39	142	327	542	263	126	72
4	164	99	71	50	44	34	110	387	542	245	120	71
5	162	101	71	50	45	36	91	462	497	237	110	69
6	148	96	69	50	44	36	86	524	458	235	102	75
7	138	93	68	52	44	40	90	546	394	224	99	71
8	132	93	68	54	45	41	93	551	380	207	96	64
9	130	93	69	54	44	58	101	515	370	200	94	61
10	132	90	69	54	42	74	110	488	373	192	93	61
11	130	86	71	54	42	86	110	343	380	197	88	65
12	126	88	68	52	42	77	99	312	418	178	93	65
13	124	85	66	50	43	82	91	263	450	171	91	64
14	124	83	61	50	40	96	88	240	442	166	122	65
15	124	91	62	50	42	102	104	230	422	168	112	82
16	132	88	62	50	38	98	128	240	373	183	99	69
17	144	86	58	46	40	71	138	263	366	209	101	65
18	185	80	57	44	40	59	130	327	363	200	94	65
19	180	75	57	47	40	68	118	383	373	207	110	64
20	176	74	50	47	41	69	110	446	383	183	132	66
21	153	77	55	46	41	64	106	446	334	171	116	62
22	148	66	56	44	41	50	108	426	334	173	101	59
23	138	98	61	46	41	48	102	470	337	188	96	58
24	136	95	58	46	40	59	108	560	318	178	94	58
25	132	86	55	46	40	66	126	560	288	153	88	59
26	128	78	57	44	41	69	151	502	272	146	85	58
27	124	69	57	46	42	85	162	430	256	144	83	62
28	120	68	57	44	40	96	162	373	250	138	77	62
29	114	66	66	46	-	112	168	380	315	138	74	57
30	112	64	29	45	-----	124	200	474	363	146	75	55
31	110	-----	64	46	-----	142	-----	538	-----	148	96	-----
Total	4,350	2,572	1,986	1,512	1,178	2,162	3,660	12,494	11,649	5,986	3,160	1,966
Mean	140	85.7	64.1	48.8	42.1	69.7	122	403	388	193	102	65.5
Ac-ft	8,630	5,100	3,940	3,000	2,340	4,290	7,260	24,780	23,110	11,870	6,270	3,900

Calendar year 1965: Max 1,160 Min 32 Mean 217 Ac-ft 156,800

Water year 1965-66: Max 560 Min 34 Mean 144 Ac-ft 104,500

Peak discharge (base, 1,000 cfs).--No peak above base.

9-1464. West Fork Dallas Creek near Ridgway, Colo.

Location.--Lat 38°04'30", long 107°51'10", in SE¼ sec.9, T.44 N., R.9 W., on right bank 100 ft downstream from unnamed tributary, 5 miles upstream from confluence with East Fork Dallas Creek, and 7½ miles southwest of Ridgway.

Drainage area.--13.2 sq mi.

Records available.--October 1955 to September 1966.

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

Average discharge.--11 years, 12.9 cfs (9,340 acre-ft per year).

Extremes.--Maximum discharge during year, 90 cfs (estimated) June 15; maximum gage height, 2.49 ft June 15 (backwater from debris); minimum daily discharge, 4.0 cfs Feb. 21-23.

1955-66: 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.

Remarks.--Records fair except those for winter periods, which are poor. One diversion above station for irrigation below.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	9.2	6.4	8.0	5.3	4.7	14	24	36	39	21	12
2	12	9.2	6.8	6	5.6	4.7	15	22	36	32	22	12
3	12	9.2	6.4	5.5	4.8	4.7	12	20	38	26	17	11
4	12	9.2	6.0	6	5.3	4.2	9	23	40	26	14	10
5	13	8.8	6.0	6	5.3	4.4	8.5	29	30	26	13	9.8
6	12	8.8	6.4	6	5.3	4.6	9	32	32	30	12	10
7	11	9.2	7.2	8.0	5.3	4.7	11	30	26	29	11	10
8	11	8.4	6.0	7.6	5.1	4.7	12	27	24	25	9.8	9.4
9	12	8.8	5.8	7.6	5.1	4.9	12	32	22	23	9.4	8.7
10	12	8.4	5.8	7.6	4.9	4.9	12	38	24	22	9.1	8.7
11	12	8.4	5.8	7.2	5.1	4.9	11	27	26	21	8.4	9.8
12	11	8.0	5.8	7.2	4.6	4.4	10	24	30	21	9.4	11
13	11	8.4	5.8	7.2	4.9	4.7	9.6	20	38	19	8.7	11
14	11	8.4	6.0	7.2	4.7	4.9	10	18	42	17	8.0	11
15	11	9.2	5.8	7.2	4.7	4.7	11	18	50	17	8.0	12
16	11	8.8	6.0	6.8	4.6	4.7	12	19	32	15	8.0	10
17	12	8.8	6.0	6.4	4.7	4.5	12	21	32	18	7.3	9.1
18	12	8.8	6.0	6.8	4.5	4.6	12	25	33	18	7.3	9.1
19	9.2	9.2	6.4	6.8	4.5	4.9	10	27	33	20	7.6	8.6
20	10	9.6	7.6	6.4	4.5	4.9	9	30	39	20	12	8.6
21	10	9.6	8.0	6.0	4.0	4.9	8	30	36	21	15	8.6
22	10	10	7.5	6.4	4.0	4.6	9	32	40	22	12	8.6
23	10	8	6.0	6.0	4.0	4.4	10	34	30	21	11	8.6
24	10	7.6	6.0	5.8	4.6	4.6	11	35	26	19	11	8.2
25	9.6	7.6	6.0	5.6	5.3	4.9	14	33	24	16	9.8	8.2
26	9.2	6.0	6.0	5.8	4.9	5.6	15	29	22	15	9.4	8.2
27	9.2	6.0	6.0	5.6	4.9	6.4	16	29	17	14	9.1	8.6
28	9.2	6.0	6.0	5.6	4.7	8.0	15	24	20	13	8.7	8.2
29	9.2	6.0	6.0	5.6	-	9.6	18	22	29	13	8.4	8.2
30	9.6	6.0	7.2	5.3	-----	12	20	26	45	20	9.4	8.2
31	9.6	-----	8.0	5.3	-----	13	-----	32	-----	21	15	-----
Total	334.8	249.6	196.7	200.5	135.2	171.7	357.1	832	952	659	341.8	285.4
Mean	10.8	8.32	6.35	6.47	4.83	5.54	11.9	26.8	31.7	21.3	11.0	9.51
Ac-ft	664	495	390	398	268	341	708	1,650	1,890	1,310	678	566

Calendar year 1965: Max 90 Min 2.8 Mean 19.3 Ac-ft 14,010  
 Water year 1965-66: Max 50 Min 4.0 Mean 12.9 Ac-ft 9,350

Peak discharge (base, 30 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-10	0500	2.12	47	6-15	-	-	90
5-25	-	-	40	6-30	2015	2.39	55
6-4	-	-	50	7-7	0015	2.33	39



## GUNNISON RIVER BASIN

9-1465. East Fork Dallas Creek near Ridgway, Colo.

Location.--Lat 38°05'40", long 107°48'40", in SE¼NE¼ sec.2, T.44 N., R.9 W., on right bank 300 ft below private bridge, 2 miles upstream from Beaver Creek, and 5 miles southwest of Ridgway.

Drainage area.--16.8 sq mi.

Records available.--October 1947 to September 1953, October 1960 to September 1966.

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 three-quarters of a mile downstream at different datums. Datum raised 3.00 ft Oct. 1, 1949.

Average discharge.--12 years, 24.7 cfs (17,880 acre-ft per year).

Extremes.--Maximum discharge during year, 185 cfs June 30 (gage height, 3.13 ft), from rating curve extended above 95 cfs; minimum daily, 4.2 cfs Mar. 8.

1947-53, 1960-66: Maximum discharge, 297 cfs June 18, 1949 (gage height, 3.43 ft, site and datum the in use), from rating curve extended above 100 cfs; maximum gage height, 4.28 ft Dec. 13, 1961 (ice jam); minimum daily discharge determined, 3.6 cfs Mar. 11-13, 1962.

Remarks.--Records good except those for winter period, which are poor. One small diversion above station diverts water to Beaver Creek drainage for irrigation of about 50 acres of hay meadows.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	16	13	8.5	7	7	12	17	60	125	55	27
2	20	16	12	7	6	6.6	13	19	82	114	52	25
3	19	16	13	7.5	5.5	5.5	12	20	98	108	47	24
4	21	16	12	7.5	6.5	5	9	24	104	98	43	23
5	21	16	12	8	7	4.6	9	30	102	96	41	22
6	21	16	11	8.5	8	4.6	9	36	94	88	37	22
7	21	16	11	9	7.5	4.6	11	37	73	82	36	22
8	20	15	11	9	7.5	4.2	12	38	71	76	35	20
9	19	15	11	8.5	6.5	4.6	12	40	65	71	35	19
10	19	15	11	8.5	5.5	5.4	12	40	69	65	35	19
11	19	14	11	8.5	6	5.8	12	36	73	64	34	19
12	18	15	10	8	7.5	5.8	12	33	86	60	35	21
13	18	15	10	7.8	8	7	11	31	104	58	32	19
14	18	14	10	8.5	7	8	12	28	112	52	35	19
15	18	15	10	8.5	7.5	10	12	27	112	52	34	21
16	19	14	10	8.4	7	9.5	13	27	94	50	32	19
17	20	14	9.5	6.5	7.5	9	13	29	82	58	31	18
18	20	14	9	8	7	8	13	33	78	58	30	17
19	19	14	8.5	8.5	6.5	9.5	13	38	88	58	32	17
20	18	14	8	8	6	8.5	13	42	106	52	37	17
21	18	13	8.5	7	6	7.5	11	42	88	50	36	16
22	18	12	9	7.5	5.5	6.6	13	43	104	50	31	16
23	18	14	9	8.4	6	6	12	46	116	50	29	14
24	19	14	9	8.1	6.5	6.5	13	60	108	49	27	14
25	19	14	8	8.1	7.5	6.2	14	69	104	46	26	14
26	18	14	8	7.4	7	6.6	15	55	92	43	24	14
27	18	12	8.5	7.8	6.6	7.5	14	47	78	42	24	14
28	18	11	8.5	7.8	5.5	8	15	42	78	42	22	14
29	17	12	9	7.8	-	9	16	46	114	44	22	13
30	16	12	8.8	7.4	-----	10	16	58	140	55	24	14
31	17	-----	8.8	7.4	-----	10	-----	60	-----	64	30	-----
Total	585	428	308.1	247.4	187.6	217.1	374	1193	2,775	2,020	1,043	553
Mean	18.9	14.3	9.94	7.98	6.70	7.00	12.5	38.5	92.5	65.2	33.6	18.4
Ac-ft	1,160	849	611	491	372	431	742	2,370	5,500	4,010	2,070	1,100

Calendar year 1965: Max 188 Min 5 Mean 32.8 Ac-ft 23,720  
 Water year 1965-66: Max 140 Min 4.2 Mean 27.2 Ac-ft 19,700

Peak discharge (base, 120 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
6-15	0015	3.02	150	6-30	0115	3.13	185
6-23	0115	3.02	150				

9-1465.5, Beaver Creek near Ridgway, Colo.

Location.--Lat 38°07'00", long 107°49'00", in SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.25, T.45 N., R.9 W., on left bank 10 ft below private bridge, 300 ft upstream from mouth, and 4 miles southwest of Ridgway.

Drainage area.--12.0 sq mi.

Records available.--October 1960 to September 1966.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 7,680 ft (from topographic map).

Average discharge.--6 years, 4.32 cfs (3,130 acre-ft per year).

Extremes.--Maximum discharge during year, 64 cfs July 18 (gage height, 3.09 ft), from rating curve extended above 27 cfs by logarithmic plotting; minimum daily, 0.7 cfs Sept. 9.

1960-66: Maximum discharge, 132 cfs Aug. 5, 1964 (gage height, 3.43 ft), from rating curve extended above 27 cfs by logarithmic plotting; maximum gage height recorded, 3.82 ft Feb. 24, 1965 (backwater from ice); minimum daily discharge, 0.4 cfs Oct. 7, 1963.

Remarks.--Records good except those for winter period, which are poor. Two small diversions above station for irrigation of 130 acres of hay meadows. Water imported above station from East Fork Dallas Creek for irrigation of about 50 acres of hay meadows above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.0	4.0	4.4			3.4	4.9	5.4	4.0	10	6.4	1.0
2	4.0	4.0	4.5			3.0	5.1	5.4	7.6	11	5.8	.9
3	3.8	4.0	4.7			2.8	4.7	5.4	10	11	5.4	1.0
4	3.6	4.0	4.7			2.6	4.3	5.6	11	9.8	5.1	1.0
5	3.6	4.0	4.7			2.8	3.6	5.8	11	9.1	5.1	1.0
6	3.6	4.0	4.5			3.2	4.3	6.1	12	8.2	5.1	1.0
7	3.6	4.0	4.7			3.4	4.3	6.7	11	7.3	4.9	.9
8	3.8	4.0	4.7			3.8	4.5	6.1	8.8	7.6	4.5	.9
9	3.6	4.0	4.6			5	4.9	4.5	7.9	7.0	4.3	.7
10	3.4	4.0	4.8			5.5	4.9	4.3	7.6	6.4	4.3	.9
11	3.6	4.0	4.8			6	4.9	4.0	6.7	6.7	4.3	.9
12	3.6	4.3	4.6			5.5	4.9	4.5	6.4	6.4	4.3	.9
13	3.6	4.0	4.4			6	4.7	4.5	7.0	6.1	4.0	1.2
14	3.6	4.0	4.4			7	4.7	4.9	7.6	5.8	4.0	1.7
15	3.6	4.5	4.4			6.1	4.7	5.4	8.2	5.6	3.8	2.0
16	3.8	4.3		3.8	3.4	5.4	4.9	5.6	9.4	6.1	3.4	2.0
17	4.0	4.3				4.0	4.9	7.9	9.8	6.7	3.4	2.3
18	4.0	4.0				3.6	5.1	7.9	9.8	17	3.1	2.5
19	4.5	4.0				4.0	4.9	6.7	10	15	3.4	2.5
20	4.7	4.0				3.8	4.7	7.6	10	12	4.3	2.6
21	4.5	4.0				3.4	4.4	8.8	8.8	11	3.8	2.6
22	4.3	3.4				3.4	5.4	9.4	9.8	10	3.6	2.6
23	4.3	4.7	4.2			4.0	5.4	11	10	9.4	3.6	2.6
24	4.0	4.5				3.6	5.1	10	9.1	8.2	3.0	2.8
25	4.0	4.7				4.0	5.1	11	7.6	7.6	2.0	3.0
26	4.3	4.5				4.5	5.1	8.2	7.3	7.3	1.7	2.6
27	4.3	4.2				4.5	5.1	5.4	6.7	7.3	2.5	2.5
28	4.0	3.6				4.7	4.9	3.4	6.7	6.7	1.5	2.6
29	3.8	4.2				4.5	5.4	2.8	7.3	6.4	1.4	2.5
30	4.3	4.4				4.5	5.4	3.3	11	6.4	1.4	2.3
31	4.0					4.7		3.8		6.1	1.4	
Total	121.8	123.6	136.1	117.8	95.2	132.7	145.2	191.4	260.1	261.2	114.8	54.0
Mean	3.93	4.12	4.39	3.8	3.4	4.28	4.84	6.17	8.67	8.43	3.70	1.80
Ac-ft	242	245	270	234	189	263	288	380	516	518	228	107

Calendar year 1965: Max 29 Min 1.4 Mean 6.71 Ac-ft 4,860  
 Water year 1965-66: Max 17 Min 0.7 Mean 4.81 Ac-ft 3,480

Note.--No gage-height record Dec. 15 to Mar. 14.

9-1466. Pleasant Valley Creek near Noel, Colo.

Location.--Lat 38°08'50", long 107°55'00", in SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec.13, T.45 N., R.10 W., on right bank 3 miles north of Noel and 7 miles upstream from mouth.

Drainage area.--7.88 sq mi.

Records available.--October 1955 to September 1966.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 8,680 ft (from topographic map).

Average discharge.--11 years, 2.39 cfs (1,730 acre-ft per year).

Extremes.--Maximum discharge during year, 93 cfs Mar. 30 (gage height, 2.86 ft); minimum daily, 0.1 cfs on many days.  
1955-66: Maximum discharge, about 500 cfs July 29, 1957 (gage height, 4.60 ft), from rating curve extended above 140 cfs; no flow at times in 1958-59, 1963.

Remarks.--Records good except those for winter periods, which are poor. Small diversions above station for irrigation.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0.1					28	1.5	0.2	0.2	0.1	0.1
2	.1	.1					26	1.4	.2	.1	.7	.1
3	.1	.1					8.8	1.2	.1	.1	.3	.1
4	.1	.1					6.0	1.2	.1	.1	.1	.1
5	.1	.1					5.3	1.0	.1	.1	.1	.1
6	.1	.1				0.1	7.0	.9	.1	.1	.1	.1
7	.1	.1					7.3	.8	.1	.1	.1	.1
8	.1	.1					6.6	.7	.2	.1	.1	.1
9	.1	.1					6.2	.6	.1	.1	.1	.1
10	.1	.1					4.5	.9	.2	.1	.1	.1
11	.1	.1				.4	4.3	.8	.1	.1	.1	.8
12	.1	.1				.6	3.7	1.8	.1	.1	.1	.2
13	.1	.1				.8	3.2	1.7	.1	.1	.1	.1
14	.1	.1				.8	2.7	1.0	.1	.1	.1	.1
15	.1	.1	0.1	0.1	0.1	.9	2.7	.6	.1	.1	.1	.1
16	.1	.1				1.8	2.7	.6	.1	.1	.1	.1
17	.1	.1				2.6	2.6	.5	.1	4.3	.1	.1
18	.1	.1				3.0	2.1	.5	.1	.2	.1	.1
19	.1	.1				2.6	1.8	.5	.1	.1	3.9	.1
20	.3	.1				2.6	2.2	.5	.1	.1	.3	.1
21	.3	.1				3.0	4.2	.5	.1	.1	.1	.1
22	.3	.1				2.6	6.8	.5	.1	1.2	.1	.1
23	.2	.1				2.0	9.6	.4	.1	.1	.1	.1
24	.1	.1				1.4	8.2	.4	.1	.1	.1	.1
25	.1	.1				2.0	6.0	.3	.1	.1	.1	.1
26	.1	.1				6	4.5	.4	.1	.1	.1	.1
27	.1	.1				10	2.8	.4	.1	.1	.1	.1
28	.1	.1				14	2.6	.4	.1	.1	.1	.1
29	.1	.1				23	2.1	.3	.1	.1	.1	.1
30	.1	.1				32	1.7	.3	.1	.1	.1	.1
31	.1					31		.3		.1	.1	
Total	3.8	3.0	3.1	3.1	2.8	144.1	182.2	22.9	3.4	8.6	7.9	3.8
Mean	0.12	0.10	0.1	0.1	0.1	4.65	6.07	0.74	0.11	0.28	0.25	0.13
Ac-ft	7.5	6.0	6.1	6.1	5.6	286	361	45	6.7	17	16	7.5

Calendar year 1965: Max 120 Min - Mean 3.23 Ac-ft 2,340  
Water year 1965-66: Max 32 Min 0.1 Mean 1.06 Ac-ft 771

Peak discharge (base, 50 cfs).--Mar. 30 (1600) 93 cfs (2.86 ft); July 17 (1350) 64 cfs (2.71 ft).

Note.--No gage-height record Nov. 29 to Mar. 14.

9-1470. Dallas Creek near Ridgeway, Colo.

Location.--Lat 38°10'30", long 107°45'40", in SE½ sec.5, T.45 N., R.8 W., on right bank 20 ft downstream from highway bridge, 1½ miles upstream from mouth, and 1½ miles northwest of Ridgeway.

Drainage area.--96.2 sq mi.

Records available.--March 1922 to October 1927, October 1955 to September 1966. Monthly discharge only for some periods, published in WSP 1313.

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

Average discharge.--16 years, 39.2 cfs (28,380 acre-ft per year).

Extremes.--Maximum discharge during year, 236 cfs Mar. 9 (gage height, 3.56 ft); maximum gage height, 4.22 ft Jan. 28 (backwater from ice); minimum daily discharge, 1.4 cfs May 7-9, 15-17.

1922-27, 1955-66: 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, 0.8 cfs Oct. 14, 1955, May 10-13, 18, 1956.

Remarks.--Records good except those for winter periods, which are poor. Diversions above station for irrigation of about 4,500 acres above and 700 acres below station. One small diversion from Leopard Creek (Dolores River basin).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	37	30	28	19	20	105	20	8.7	98	62	12
2	42	34	32	24	18	18	111	17	16	68	57	12
3	44	36	32	22	19	18	76	8.0	21	59	51	14
4	43	36	34	24	20	15	51	3.6	27	51	44	16
5	38	37	32	24	20	16	37	1.8	28	46	40	16
6	32	38	30	24	22	17	38	1.6	28	42	33	16
7	28	38	30	24	20	18	42	1.4	23	37	31	14
8	28	38	30	24	22	20	45	1.4	18	28	30	12
9	27	40	30	24	20	71	48	1.4	11	25	28	10
10	26	39	30	22	19	74	45	1.8	14	25	28	8.7
11	25	38	28	19	18	52	42	1.8	14	32	24	9.8
12	25	37	25	17	19	43	38	2.4	22	25	28	9.8
13	25	36	24	19	20	41	35	1.6	40	21	28	9.0
14	22	37	26	20	18	53	27	1.5	50	20	27	11
15	22	40	26	18	20	54	25	1.4	58	20	27	14
16	26	37	26	19	17	41	26	1.4	50	20	27	12
17	30	37	26	20	18	29	22	1.4	44	30	24	12
18	47	36	22	19	18	22	22	2.2	38	40	21	11
19	50	31	22	20	19	30	22	2.2	38	58	22	12
20	42	28	24	20	19	30	30	4.0	50	48	30	12
21	38	33	24	20	19	29	28	3.4	36	62	24	12
22	39	26	24	19	19	22	36	4.6	38	66	18	9.5
23	46	44	26	20	20	20	41	6.8	51	80	18	6.5
24	46	34	26	20	19	29	45	11	44	72	17	4.2
25	44	39	24	20	19	27	45	26	36	60	16	4.2
26	42	33	26	20	18	31	42	24	37	58	14	3.9
27	42	30	26	20	18	44	40	16	22	62	12	3.9
28	40	28	26	19	19	48	33	8.4	20	54	11	3.9
29	39	28	29	20	-	62	22	5.0	40	52	10	3.6
30	39	30	58	22	-----	84	18	9.4	104	62	11	3.6
31	39	-----	32	20	-----	93	-----	12	-----	76	14	-----
Total	1,120	1,055	880	651	536	1,171	1,237	204.5	1,026.7	1,496	827	298.6
Mean	36.1	35.2	28.4	21.0	19.1	37.8	41.2	6.60	34.2	48.3	26.7	9.95
Ac-ft	2,220	2,090	1,750	1,290	1,060	2,320	2,450	406	2,040	2,970	1,640	592

Calendar year 1965: Max 253 Min 2.8 Mean 59.9 Ac-ft 43,360  
 Water year 1965-66: Max 111 Min 1.4 Mean 28.8 Ac-ft 20,830

## GUNNISON RIVER BASIN

9-1471. Cow Creek near Ridgway, Colo.

Location.--Lat 38°08'20", long 107°38'20", in N½ sec.21, T.45 N., R.7 W., on left bank 400 ft upstream from Cobbs Gulch and 6½ miles southeast of Ridgway.

Drainage area.--41.1 sq mi.

Records available.--October 1955 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 7,750 ft (from topographic map).

Average discharge.--11 years, 62.4 cfs (45,180 acre-ft per year).

Extremes.--Maximum discharge during year, 545 cfs May 24 (gage height, 3.81 ft), from rating curve extended above 230 cfs; minimum daily, 6.5 cfs Mar. 5.

1955-66: Maximum discharge, 1,360 cfs June 28, 1957 (gage height, 7.70 ft); minimum daily, 2.0 cfs Jan. 9, 1957.

Remarks.--Records good except those for winter period, which are poor. No diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	26	13	8.0	8	8.5	67	89	327	74	34	14
2	38	26	13	7.5	7.5	8.5	62	110	323	68	32	13
3	39	23	14	7.5	7	8	44	138	299	62	28	13
4	39	22	15	8	7.5	7.5	32	165	283	59	25	12
5	39	21	16	8.5	8	6.5	28	251	247	57	23	12
6	37	20	16	9.5	8	7.5	26	319	211	53	20	13
7	35	20	16	9.5	8	8	27	355	185	50	20	12
8	32	19	13	9.5	8	8.5	28	351	178	48	19	12
9	31	20	13	8.5	7.5	9	33	347	178	46	18	11
10	30	17	12	8.0	7.5	10	37	295	178	48	17	11
11	30	16	11	8.0	7	11	36	162	203	47	17	12
12	29	17	10	7.5	7	12	30	126	219	41	18	13
13	27	17	11	7.5	7.5	15	28	106	219	40	17	12
14	27	16	12	7.5	7.5	16	28	92	215	37	21	11
15	26	16	12	7.5	7	18	35	96	199	37	18	17
16	29	16	10	7.5	7	20	46	108	169	37	18	12
17	35	16	11	7.5	7.5	17	46	140	169	36	17	11
18	34	15	9.5	7.5	8	15	40	195	165	33	15	11
19	42	14	10	7.0	8	16	34	255	169	34	17	9.8
20	45	14	10	7.0	8	16	31	299	151	31	34	9.8
21	40	13	11	6.5	8	15	34	267	146	33	22	9.5
22	39	19	11	7	7.5	14	33	267	143	33	17	9.5
23	38	17	9.5	7.5	8	13	33	315	130	34	16	9.2
24	36	15	9.0	7.5	8.5	14	41	351	119	34	15	10
25	35	14	9.0	7.5	8.5	15	53	303	110	28	15	11
26	34	14	8.5	7.5	8.5	20	61	239	98	27	14	9.2
27	31	13	8.0	7.5	8.5	28	59	219	92	25	14	11
28	30	12	8.5	7.5	8.5	34	57	231	85	33	13	9.2
29	26	12	9.0	7.5	-	35	64	283	94	34	13	8.3
30	27	13	9.5	8	-----	41	75	307	87	33	14	7.7
31	26	-----	8.5	8	-----	55	-----	323	-----	33	15	-----
Total	1,044	513	349.0	241.0	217.5	522.0	1,248	7,104	5,391	1,285	596	336.2
Mean	33.7	17.1	11.3	7.77	7.77	16.8	41.6	229	180	41.5	19.2	11.2
Ac-ft	2,070	1,020	692	478	431	1,040	2,480	14,090	10,690	2,550	1,180	667

Calendar year 1965: Max 650 Min - Mean 82.1 Ac-ft 59,400  
 Water year 1965-66: Max 355 Min 6.5 Mean 51.6 Ac-ft 37,380

Peak discharge (base, 500 cfs)

Note.--No gage-height record Jan. 22 to Mar. 10.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-9	2000	3.75	515	6-1	2000	3.72	500
5-24	2000	3.81	545				

## 9-1475. Uncompahgre River at Colona, Colo.

Location.--Lat 38°19'50", long 107°46'40", in NW¼ sec.17, T.47 N., R.8 W., on right bank 15 ft downstream from county highway bridge, a quarter of a mile north of Colona, and 1 mile upstream from Beaton Creek.

Drainage area.--437 sq mi.

Records available.--April 1903 to November 1905, April to June 1906 (gage heights and discharge measurements only), October 1912 to September 1966. 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, datum of 1929. Supplementary water-stage recorder on left bank at same datum. Prior to June 24, 1921, staff or chain gages and June 24, 1921, to Oct. 28, 1938, water-stage recorder, at several sites within 5 miles of present site at various datums. Oct. 29, 1938, to Aug. 2, 1949, water-stage recorder at present site at datum 3.00 ft higher and Aug. 3 to Sept. 30, 1949, at datum 1.00 ft higher.

Average discharge.--56 years (1903-5, 1912-66), 270 cfs (195,500 acre-ft per year).

Extremes.--Maximum discharge during year, 1,020 cfs May 8 (gage height, 3.87 ft); minimum daily, 36 cfs Sept. 30. 1903-5, 1915-66: Maximum daily discharge, 4,080 cfs June 13, 14, 1921; minimum daily, 12 cfs Sept. 19, 1956.

Remarks.--Records fair except those for winter periods, which are poor. 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.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	274	177	120	100	90	70	388	394	634	448	191	73
2	256	174	115	90	75	65	424	436	646	376	188	63
3	250	167	115	75	75	60	334	502	658	328	167	61
4	246	161	122	90	80	55	223	580	652	304	152	61
5	241	158	122	85	95	60	184	670	598	268	143	59
6	218	158	120	90	93	65	177	758	556	262	130	63
7	198	152	120	95	91	70	177	790	472	246	120	61
8	184	149	120	95	90	75	177	790	478	214	118	57
9	190	152	120	99	75	113	191	734	430	202	115	57
10	177	140	120	95	70	174	210	742	448	188	113	54
11	164	138	120	95	70	202	214	484	448	205	105	57
12	158	140	113	93	73	158	188	430	496	184	107	57
13	161	138	111	85	75	158	174	340	556	167	111	55
14	155	135	105	87	70	194	146	280	562	161	115	57
15	161	143	107	91	70	202	161	241	538	161	122	73
16	170	143	109	87	73	191	202	268	466	170	105	61
17	202	138	93	79	70	143	218	298	466	214	105	59
18	264	132	90	81	75	103	161	400	454	205	97	57
19	310	128	80	85	75	118	188	490	442	256	97	57
20	298	122	85	80	79	132	194	568	478	218	128	57
21	262	130	97	75	75	122	191	568	424	228	120	54
22	246	111	111	75	65	105	214	514	412	232	101	50
23	246	155	113	80	60	85	205	568	430	262	95	48
24	241	149	107	90	65	103	228	664	400	250	93	44
25	232	140	101	85	70	118	286	686	370	210	85	44
26	218	132	105	85	70	128	328	598	334	194	83	43
27	210	111	105	90	70	167	322	508	298	191	77	43
28	205	113	103	90	65	198	304	448	268	184	69	44
29	194	105	111	90	-	236	304	466	322	174	65	42
30	191	109	194	90	-----	262	346	580	484	184	59	36
31	184	-----	120	85	-----	346	-----	634	-----	218	77	-----
Total	6,796	4,200	3,474	2,692	2,054	4,278	7,059	16,429	14,220	7,104	3,453	1,647
Mean	219	140	112	86.8	73.4	138	235	530	474	229	111	54.9
Ac-ft	13,480	8,330	6,890	5,340	4,070	8,490	14,000	32,590	28,200	14,090	6,850	3,270

Calendar year 1965: Max 1,450 Min 55 Mean 330 Ac-ft 239,200  
 Water year 1965-66: Max 790 Min 36 Mean 201 Ac-ft 145,600

## GUNNISON RIVER BASIN

9-1495. Uncompahgre River at Delta, Colo.

Location.--Lat 38°44'30", long 108°04'50", in SW¼ sec.13, T.15 S., R.96 W., 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.--1,110 sq mi, approximately.

Records available.--April 1903 to October 1931 (no winter records in most year), September 1938 to September 1966. Monthly discharge only for some periods, published in WSP 1313. Published as "near Delta" 1907-24.

Gage.--Digital water-stage recorder. Datum of gage is 4,926.49 ft above mean sea level, datum of 1929. Prior to Oct. 31, 1923, staff gage at several sites a half to 2½ miles upstream at various datums. Apr. 26, 1924, to Nov. 2, 1931, graphic water-stage recorder at site 800 ft upstream at different datum. Sept. 1, 1938, to May 5, 1941, graphic water-stage recorder at site 420 ft upstream at datum 3.43 ft higher. May 9, 1941, to Apr. 25, 1946, chain gage at site 500 ft upstream at datum 3.43 ft higher. Apr. 26, 1946, to Feb. 17, 1960, graphic water-stage recorder at site 600 ft upstream at datum 3.43 ft higher. Feb. 18, 1960, to Mar. 26, 1963, graphic water-stage recorder at site 750 ft upstream at datum 3.43 ft higher. Mar. 27, 1963, to Jan. 28, 1964, graphic water-stage recorder and Jan. 29, 1964, to May 12, 1965, digital water-stage recorder at site 1,050 ft upstream at datum 6.08 ft higher.

Average discharge.--30 years (1907-8, 1920-21, 1938-66), 275 cfs (199,100 acre-ft per year).

Extremes.--Maximum discharge during year, 1,620 cfs Oct. 18 (gage height, 5.77 ft); minimum daily, 59 cfs Mar. 6. 1903-31, 1938-66: 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.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	600	296	265	214	133	92	480	371	350	352	160	179
2	550	289	248	140	131	91	500	425	319	290	141	172
3	500	305	223	150	115	77	550	381	483	246	136	190
4	470	264	227	155	111	69	400	392	451	224	130	183
5	451	259	227	182	115	67	320	454	443	206	129	192
6	430	258	220	176	122	52	250	548	434	168	121	205
7	387	253	209	159	122	79	230	635	357	150	127	217
8	320	258	217	155	124	97	230	700	351	144	124	230
9	292	258	214	157	120	122	230	637	294	139	117	232
10	285	277	223	148	109	240	260	661	322	127	109	228
11	248	209	227	152	104	341	300	451	301	138	111	245
12	248	226	206	152	100	290	260	495	315	139	120	309
13	294	228	194	140	103	184	217	452	367	128	117	310
14	290	221	188	133	102	183	180	335	364	120	120	314
15	263	234	165	140	111	241	164	273	365	118	123	350
16	318	267	182	132	94	274	170	239	305	121	116	331
17	397	226	150	121	110	293	211	193	296	163	119	298
18	1140	204	135	119	111	117	237	195	298	196	113	287
19	879	176	135	139	107	74	400	236	300	153	107	300
20	797	170	125	144	110	90	546	270	321	161	118	297
21	563	176	145	124	110	95	585	313	291	138	134	281
22	517	168	176	119	112	215	532	281	257	168	118	257
23	515	209	200	132	104	253	390	312	247	165	110	246
24	515	328	182	128	100	278	380	372	211	257	114	250
25	516	280	160	127	109	300	380	441	172	218	109	254
26	432	338	176	134	116	304	333	372	155	195	106	251
27	355	275	165	122	114	356	312	314	175	187	101	227
28	339	253	170	122	107	382	306	269	158	132	101	226
29	313	205	192	122	-	375	286	275	170	152	112	216
30	301	213	288	126	-----	380	336	352	316	148	120	219
31	296	-----	342	133	-----	450	-----	491	-----	152	154	-----
Total	13,821	7,303	6,183	4,397	3,126	6,468	9,975	12,135	9,188	5,395	3,737	7,496
Mean	446	243	199	142	112	209	333	391	306	174	121	250
Ac-ft	27,410	14,490	12,260	8,720	6,200	12,830	19,790	24,070	18,220	10,700	7,410	14,870

Calendar year 1965: Max 1,550 Min 66 Mean 383 Ac-ft 277,000  
 Water year 1966-66: Max 1,140 Min 59 Mean 244 Ac-ft 177,000

9-1520. Kannah Creek near Whitewater, Colo.

Location.--Lat 38°59', long 108°14', in sec.34, T.12 S., R.97 W., on right bank at downstream side of private bridge, a quarter of a mile downstream from intake of pipeline for Grand Junction water supply and 12 miles east of Whitewater.

Drainage area.--61.9 sq mi.

Records available.--October 1917 to September 1921, September 1922 to September 1966. Monthly discharge only for some periods, published in WSP 1313. Prior to October 1962, published as Kannah Creek near Whitewater.

Gage.--Water-stage recorder and concrete control. Prior to Sept. 30, 1932, staff gage and Sept. 30, 1932, to Oct. 14, 1935, water-stage recorder, at site 300 ft upstream at different datum.

Average discharge (combined flow).--48 years, 39.3 cfs (28,450 acre-ft per year).

Extremes (combined flow).--Maximum discharge during year, 352 cfs May 7; minimum daily, 7.6 cfs Jan. 2.

1917-21, 1922-66: 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 periods, 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. Regulation by a few small reservoirs above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	9.5	9	6	2.6	3.0	12	94	43	36	13	13
2	13	9.5	9	5.5	2.6	3.0	15	130	38	34	15	8.0
3	14	9.0	9	6	2.6	2.8	13	192	34	32	16	7.5
4	13	8.5	8.5	6	2.6	2.8	10	220	32	30	16	6.5
5	13	9.0	8	6	2.6	2.8	8.0	231	31	21	15	5.7
6	13	9.5	8	6	2.6	2.8	8.0	253	31	19	15	5.1
7	13	9.5	8.5	6	2.6	3.3	8.0	253	28	16	15	5.4
8	12	9.0	9	6	2.6	3.9	10	238	28	19	14	3.9
9	12	9.5	9.5	6	2.6	4.5	13	228	27	16	12	7.5
10	11	9.5	10	6	2.6	4.8	14	186	26	15	10	8.0
11	12	9.5	10	6	2.6	3.9	15	111	24	15	8.5	9.0
12	12	9.5	10	5.5	2.6	3.0	13	77	22	16	4.5	9.0
13	11	9.5	9.0	5	2.6	2.6	12	79	22	16	3.6	8.0
14	7.5	9.5	8.5	4.2	3.4	2.8	12	65	22	16	3.6	2.8
15	6.5	10	8	4.2	3.4	3.6	12	79	22	15	3.6	4.2
16	11	11	7	4.2	3.4	4.2	14	92	22	15	5.4	5.4
17	13	11	7	4.2	3.2	3.0	16	104	22	15	7.0	5.4
18	19	10	7.5	4.2	3.0	3.6	17	104	21	15	5.7	5.1
19	14	10	7	4.2	3.0	3.3	16	107	20	16	8.5	3.9
20	12	10	7.5	4.2	3.2	3.9	15	86	22	18	9.5	1.6
21	11	9.5	7	4.2	3.2	3.3	14	102	23	18	9.5	1.6
22	11	8.5	7	4.0	3.2	3.0	15	102	24	17	9.0	1.2
23	11	11	6.5	4.0	3.2	7.0	13	90	25	17	5.7	3.3
24	12	10	6.5	4.2	3.2	4.5	13	80	24	16	3.9	4.2
25	12	10	6	4.2	3.3	2.8	15	75	24	16	2.8	4.5
26	12	10	6	4.2	3.3	4.8	22	62	23	15	3.0	3.9
27	11	9.5	6	3.4	3.0	6.0	27	54	22	14	6.5	3.9
28	10	9	6	2.6	3.0	7.0	34	49	27	14	5.4	4.2
29	9.5	9	6	2.6	-	8.5	44	45	33	12	6.5	4.5
30	9.5	9	6.5	2.6	-----	8.0	58	43	32	12	13	5.1
31	9.5	-----	7	2.6	-----	9.0	-----	43	-----	12	15	-----
Total	363.5	288.0	240.5	144.0	91.8	131.5	508.0	3,674	794	558	281.2	161.4
Mean	11.7	9.60	7.76	4.65	2.92	4.24	16.9	119	26.5	18.0	9.07	5.38
Ac-ft	721	571	477	286	162	261	1,010	7,290	1,570	1,110	558	320

Adjusted for diversions

Mean	19.6	15.6	12.4	9.96	9.54	11.0	27.9	132	36.6	30.2	20.5	13.6
Ac-ft	1,210	926	763	613	530	677	1,660	8,120	2,170	1,860	1,260	807

Observed								Adjusted				
Calendar year 1965:	Max	450	Min	0.3	Mean	34.2	Ac-ft	24,780	Mean	42.9	Ac-ft	31,050
Water year 1965-66:	Max	253	Min	1.2	Mean	19.8	Ac-ft	14,330	Mean	28.4	Ac-ft	20,590

Note.--No gage-height record Dec. 18 to Feb. 24.



## 9-1525. Gunnison River near Grand Junction, Colo.

Location.--Lat 38°59', long 108°27', near center of sec.14, T.2 S., R.1 E., Ute meridian, 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.--7,870 sq mi, approximately.

Records available.--October 1894 to December 1895 (gage heights only), October 1896 to September 1899, October 1901 to October 1906, October 1916 to September 1966. 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, datum of 1929. Prior to Apr. 11, 1895, staff gage 13 miles downstream near mouth at different datum. Apr. 11, 1895, to July 6, 1901, and Apr. 10, 1902, to October 1906 staff or chain gage at present site at datum 1.04 ft lower. Apr. 1, 1917, to June 24, 1934, staff gage and June 25, 1934, to Sept. 30, 1959, water-stage recorder, at site 11½ miles downstream at datum 72.98 ft lower.

Average discharge.--58 years (1896-99, 1901-6, 1916-66), 2,591 cfs (1,876,000 acre-ft per year).

Extremes.--Maximum discharge during year, 5,830 cfs May 8 (gage height, 6.06 ft); minimum daily, 540 cfs Mar. 4.

1896-99, 1901-6, 1916-66: 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 winter periods, which are poor. 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 water year 1966 are published in Part 2 of this report.

Cooperation.--Two discharge measurements furnished by U. S. Bureau of Reclamation.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.630	1.070	990	1.050	808	666	3.240	4.060	4.280	1.520	716	903
2	2.450	1.060	1.040	894	780	666	3.640	4.400	3.320	1.300	707	860
3	2.380	1.040	1.030	760	720	631	4.020	4.360	4.410	1.170	707	892
4	2.270	990	1.050	760	660	540	3.450	4.300	3.400	1.100	734	914
5	2.220	970	1.060	780	680	560	2.680	4.520	2.320	1.080	761	925
6	2.040	960	1.060	840	700	617	2.270	5.020	2.150	969	680	969
7	1.910	960	1.030	900	720	652	2.060	5.240	1.960	881	638	980
8	1.790	950	1.060	940	720	673	2.310	5.360	1.860	810	617	980
9	1.660	950	1.070	960	720	704	2.720	5.220	1.880	707	604	969
10	1.600	970	1.080	960	700	876	3.120	5.200	1.760	680	598	947
11	1.540	1.000	1.150	960	640	1.050	3.580	4.480	1.890	659	580	1.000
12	1.400	930	1.130	920	620	1.060	3.300	3.780	1.700	689	574	1.100
13	1.390	950	1.060	880	600	970	2.450	3.620	1.700	652	586	1.120
14	1.370	1.050	1.040	900	600	980	2.100	2.890	1.670	624	586	1.090
15	1.360	1.000	1.020	880	580	1.140	1.910	2.590	1.570	624	586	1.120
16	1.390	1.070	970	840	560	1.240	2.040	2.420	1.520	624	598	1.160
17	1.560	1.150	970	800	580	1.370	2.500	2.330	1.450	624	592	1.180
18	2.940	1.140	876	800	600	1.220	2.940	2.320	1.460	734	580	1.110
19	3.190	1.110	800	820	600	1.010	2.770	2.400	1.490	707	586	1.110
20	2.410	1.050	800	840	620	1.070	3.010	2.480	1.420	725	586	1.090
21	2.270	1.000	780	760	652	1.190	2.680	2.280	1.350	743	610	969
22	2.100	1.000	760	800	645	1.140	2.410	2.320	1.690	743	638	892
23	2.010	1.010	800	820	638	1.050	2.250	2.200	2.670	820	624	881
24	2.010	1.220	840	800	645	980	2.010	2.150	2.570	860	610	850
25	1.980	1.250	900	800	666	1.000	2.080	2.260	2.280	925	604	881
26	2.030	1.600	920	780	680	1.050	2.490	2.260	2.020	892	592	881
27	1.800	1.320	950	760	696	1.250	3.080	2.740	2.060	790	580	860
28	1.440	1.160	950	760	673	1.660	3.450	2.980	1.890	892	574	860
29	1.180	1.010	960	780	-	1.960	3.580	3.200	1.600	666	586	860
30	1.100	950	1.150	824	-----	2.490	3.720	3.250	1.550	725	604	840
31	1.070	-----	1.180	824	-----	2.880	-----	3.650	-----	707	743	-----
Total	58,490	31,890	30,476	26,192	18,503	34,345	83,860	106,280	62,890	25,642	19,381	29,193
Mean	1,887	1,063	983	845	661	1,108	2,795	3,428	2,096	827	625	973
Ac-ft	116,000	63,250	60,450	51,950	36,700	68,120	166,300	210,800	124,700	50,860	38,440	57,900

Calendar year 1965: Max 15,300 Min 650 Mean 3,693 Ac-ft 2,673,000  
 Water year 1965-66: Max 5,360 Min 540 Mean 1,444 Ac-ft 1,046,000

## 9-1635. Colorado River near Colorado-Utah State line

Location.--Lat 39°09', long 108°57', in sec.25, T.10 S., R.104 W., on right bank 4.8 miles downstream from Salt Creek, 6½ miles southwest of Mack, Colo., and 7½ miles upstream from Colorado-Utah State line.

Drainage area.--17,900 sq mi, approximately.

Records available.--May 1951 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 4,370 ft (from river-profile map).

Average discharge.--15 years, 5,700 cfs (4,127,000 acre-ft per year).

Extremes.--Maximum discharge during year, 14,400 cfs May 11 (gage height, 8.01 ft); minimum daily, 1,620 cfs Aug. 19.

1951-66: 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 year 1966 are published in Part 2 of this report as "below Colorado-Utah State line."

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,430	3,770	3,280	4,240	2,760	2,810	5,970	6,000	10,800	4,220	2,100	2,410
2	6,200	4,090	3,430	3,490	2,690	2,780	6,490	6,670	10,500	4,240	2,030	2,620
3	6,240	3,830	3,570	2,880	2,590	2,800	6,910	7,510	10,400	4,760	2,010	2,560
4	5,940	3,710	3,590	2,460	2,570	2,590	6,910	8,080	10,500	4,370	1,980	2,640
5	5,820	3,690	3,690	2,440	2,560	2,380	6,000	8,890	8,440	3,890	2,240	2,570
6	5,670	3,670	3,750	2,710	2,780	2,340	5,140	10,200	7,600	3,550	2,660	2,620
7	5,380	3,630	3,590	2,970	2,950	2,640	4,920	11,800	6,730	3,280	2,590	2,570
8	5,210	3,590	3,590	3,340	3,100	3,020	4,780	12,800	6,020	2,990	2,260	2,560
9	4,950	3,590	3,630	3,530	3,080	3,280	4,780	13,700	6,120	2,740	2,080	2,590
10	4,780	3,570	3,670	3,630	2,850	3,770	5,190	13,700	5,820	2,570	1,870	2,510
11	4,580	3,630	3,930	3,450	2,600	4,390	5,700	13,600	5,770	2,440	1,740	2,460
12	4,450	3,570	4,180	3,370	2,500	4,600	6,170	11,400	5,720	2,410	1,680	2,610
13	4,280	3,490	3,970	3,300	2,500	4,070	5,330	10,300	5,600	2,410	1,680	2,690
14	4,280	3,630	3,850	3,240	2,500	3,790	4,880	8,500	5,500	2,410	1,820	2,680
15	4,260	3,710	3,650	3,200	2,600	4,010	4,240	7,330	5,380	2,350	1,920	2,740
16	4,780	3,710	3,590	3,000	2,560	4,370	3,930	6,580	5,380	2,290	1,870	2,710
17	4,670	3,830	3,530	2,800	2,520	4,560	4,140	6,200	5,190	2,230	1,830	2,760
18	5,870	3,850	3,260	2,500	2,610	4,200	4,650	6,300	5,090	2,240	1,680	2,760
19	6,220	3,830	2,880	2,300	2,850	3,670	4,970	6,610	5,070	2,350	1,620	2,690
20	5,500	3,770	2,760	2,200	2,970	3,340	4,810	7,060	5,020	2,230	1,810	2,620
21	5,160	3,690	2,710	2,100	2,950	3,690	4,650	7,420	5,000	2,570	1,780	2,490
22	5,020	3,650	2,970	2,000	3,010	3,810	4,260	8,110	4,810	2,560	1,870	2,350
23	4,880	3,870	3,430	2,000	2,930	3,530	4,010	8,770	5,740	2,680	1,950	2,190
24	4,850	3,850	3,630	2,200	2,850	3,320	3,550	8,410	5,970	2,610	2,010	2,160
25	4,970	4,160	3,610	2,400	2,810	3,110	3,430	8,350	5,550	2,690	1,870	2,130
26	4,650	4,630	3,350	2,300	2,850	3,220	3,430	8,770	4,970	2,690	1,780	2,130
27	4,630	4,560	3,470	2,200	2,930	3,430	4,050	9,110	4,740	2,640	1,770	2,120
28	4,220	3,990	3,530	2,300	2,880	3,870	4,950	8,990	4,580	2,460	1,790	2,090
29	4,030	3,670	3,410	2,300	-	4,340	5,620	8,830	4,370	2,430	1,790	2,120
30	3,810	3,340	4,050	2,400	-----	5,070	5,600	8,860	4,070	2,160	1,770	2,100
31	3,690	-----	5,020	2,620	-----	5,550	-----	10,000	-----	2,200	1,960	-----
Total	155,420	113,570	110,570	85,870	77,350	112,350	149,460	278,850	186,450	87,660	59,810	74,250
Mean	5,014	3,786	3,567	2,770	2,762	3,624	4,982	8,995	6,215	2,828	1,929	2,475
Ac-ft	308,300	225,300	219,300	170,300	153,400	222,800	296,400	553,100	369,800	173,900	118,600	147,300

Calendar year 1965: Max 35,800 Min 1,980 Mean 8,256 Ac-ft 5,977,000  
 Water year 1965-66: Max 13,700 Min 1,620 Mean 4,087 Ac-ft 2,958,000

## DOLORES RIVER BASIN

9-1650. Dolores River below Rico, Colo.

Location.--Lat 37°38'20", long 108°03'35", in SW¼ sec.15, T.39 N., R.11 W., on left bank at upstream side of bridge on State Highway 145, at Dolores-Montezuma County line, half a mile upstream from Ryman Creek, and 4 miles southwest of Rico.

Drainage area.--105 sq mi.

Records available.--October 1951 to September 1966.

Gage.--Water-stage recorder. Datum of gage is 8,422.23 ft above mean sea level, datum of 1929.

Average discharge.--15 years, 131 cfs (94,840 acre-ft per year).

Extremes.--Maximum discharge during year, 951 cfs May 9 (gage height, 4.60 ft); minimum daily, 16 cfs Feb. 3.

1951-66: Maximum discharge, 2,120 cfs June 10, 1952 (gage height, 6.15 ft); minimum daily, 7.0 cfs Nov. 16, 17, 1956, Feb. 6, 7, 1961.

Maximum flood known occurred Oct. 5, 1911.

Remarks.--Records good except those for winter period, which are poor. No diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	118	52	34	26	18	20	193	440	576	160	67	39
2	117	49	32	24	17	20	220	470	530	125	93	37
3	117	45	30	24	16	19	210	495	485	107	95	35
4	112	44	30	24	18	18	169	546	460	98	89	33
5	107	43	30	24	20	22	144	679	410	98	67	33
6	102	42	30	24	20	22	129	741	358	85	57	33
7	95	41	30	22	20	20	133	748	318	78	51	33
8	89	40	28	22	20	20	149	755	314	74	48	30
9	82	42	28	22	20	20	158	762	300	69	46	29
10	74	37	30	22	20	20	180	741	300	68	43	28
11	68	36	30	22	17	22	175	525	272	69	41	30
12	64	36	28	22	18	26	153	425	263	64	44	43
13	59	38	28	20	20	28	140	358	257	60	48	35
14	55	37	28	22	19	30	140	310	245	59	42	31
15	52	38	28	22	18	32	173	296	235	55	42	46
16	52	38	26	20	18	44	220	338	215	60	39	36
17	58	38	24	20	19	42	242	395	210	62	39	32
18	59	37	24	20	20	40	230	515	200	59	37	29
19	60	33	24	22	20	50	198	624	184	55	36	29
20	66	31	22	20	20	54	171	684	184	56	38	29
21	66	36	20	20	20	55	151	708	186	74	37	29
22	68	22	24	20	19	51	151	720	198	87	33	26
23	68	39	26	20	22	40	136	708	166	88	36	26
24	68	39	24	19	20	46	140	690	149	67	34	27
25	69	37	24	18	19	57	164	636	136	59	32	34
26	69	30	24	19	22	59	202	535	129	53	30	29
27	66	28	24	20	20	74	232	500	121	54	29	29
28	61	30	24	20	20	86	254	386	111	59	29	33
29	58	30	26	20	-	109	296	362	136	62	27	29
30	57	32	30	20	-----	133	366	475	175	65	33	27
31	53	-----	28	19	-----	162	-----	606	-----	81	45	-----
Total	2,309	1,120	838	659	540	1,441	5,619	17,172	7,823	2,300	1,427	959
Mean	74.5	37.3	27.0	21.3	19.3	46.5	187	554	261	74.2	46.0	32.0
Ac-ft	4,580	2,220	1,660	1,310	1,070	2,860	11,150	34,060	15,520	4,560	2,830	1,900

Calendar year 1965: Max 1,160 Min 15 Mean 209 Ac-ft 151,600  
 Water year 1965-66: Max 762 Min 16 Mean 116 Ac-ft 83,720

Peak discharge (base, 800 cfs).--May 9 (2315) 951 cfs (4.60 ft); May 23 (2000) 874 cfs (4.52).

## 9-1665. Dolores River at Dolores, Colo.

Location.--Lat 37°28', long 108°30', in sec.16, T.37 N., R.15 W., on left bank 70 ft downstream from bridge on State Highway 184 in Dolores and a quarter of a mile upstream from Lost Canyon Creek.

Drainage area.--556 sq mi.

Records available.---June 1895 to October 1903, August 1910 to November 1912, October 1921 to September 1966. Monthly discharge only for some periods, published in WSP 1313.

Gage.---Water-stage recorder. Datum of gage is 6,918.74 ft above mean sea level, datum of 1929. June 23, 1895, to Oct. 31, 1903, staff gage at site a quarter of a mile upstream at different datum. Aug. 27, 1910, to Nov. 30, 1912, and Apr. 11, 1922, to Mar. 26, 1934, chain gage, staff gage, or water-stage recorder on downstream side of bridge 70 ft upstream at different datums. Mar. 27, 1934, to Oct. 7, 1952, water-stage recorder at site 340 ft upstream at datum 6.17 ft higher.

Average discharge.---55 years, 434 cfs (314,200 acre-ft per year).

Extremes.---Maximum discharge during year, 2,560 cfs May 10 (gage height, 7.90 ft); minimum daily, 50 cfs Mar. 4. 1895-1903, 1910-12, 1921-66: Maximum discharge, 10,000 cfs Oct. 5, 1911 (gage height, 10.2 ft, site and datum then in use), from rating curve extended above 2,800 cfs; minimum daily, 8 cfs Aug. 16, 1896.

Remarks.---Records good except those for winter period, which are poor. Diversions for irrigation of about 2,000 acres above station. Flow partly regulated by Ground Hog Reservoir (capacity, 21,710 acre-ft).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	254	132	100	90	65	65	1,010	1,610	1,410	398	237	188
2	240	128	100	80	65	60	1,170	1,690	1,270	303	291	158
3	228	121	100	75	65	55	1,090	1,690	1,180	249	367	142
4	215	116	100	75	70	50	810	1,740	1,100	225	295	132
5	201	112	110	75	70	55	672	1,840	1,010	252	228	125
6	188	109	100	75	75	60	612	1,970	912	246	215	121
7	173	110	100	75	70	60	666	2,040	822	283	220	125
8	166	107	110	80	65	65	744	2,090	810	307	215	121
9	158	109	115	80	65	65	786	2,080	762	295	210	109
10	153	106	124	80	60	65	884	2,260	744	283	158	107
11	149	99	116	80	60	70	870	1,700	690	287	130	117
12	143	95	110	80	60	90	732	1,480	660	291	132	132
13	136	102	104	75	55	110	666	1,240	654	303	142	142
14	132	99	103	75	55	150	684	1,160	612	295	132	121
15	130	103	100	75	55	230	792	1,070	588	315	132	155
16	147	104	102	75	55	300	961	1,150	540	327	132	138
17	176	107	86	70	60	300	1,110	1,240	510	363	140	113
18	176	106	60	65	65	250	1,090	1,420	485	367	128	104
19	160	100	70	70	70	270	926	1,620	445	343	121	99
20	162	92	75	70	65	303	822	1,680	425	295	125	99
21	158	96	75	70	65	319	768	1,600	406	271	132	99
22	160	82	90	65	65	267	822	1,620	430	327	123	94
23	162	113	85	65	65	212	750	1,660	384	315	128	90
24	168	130	90	70	65	249	846	1,640	339	279	128	87
25	171	151	90	70	65	291	961	1,560	303	255	132	90
26	171	124	80	65	65	331	1,060	1,420	283	240	121	93
27	162	85	80	65	65	425	1,180	1,320	263	240	117	90
28	151	90	85	70	65	510	1,240	1,170	255	279	115	87
29	141	90	85	65	-	624	1,320	1,080	275	311	111	81
30	139	90	110	75	-----	732	1,510	1,220	351	249	111	76
31	136	-----	100	75	-----	858	-----	1,360	-----	263	175	-----
Total	5,206	3,208	2,955	2,275	1,790	7,491	27,554	48,420	18,918	9,056	5,143	3,435
Mean	168	107	95.3	73.4	63.9	242	918	1,562	631	292	166	114
Ac-ft	10,330	6,360	5,860	4,510	3,550	14,860	54,650	96,040	37,520	17,960	10,200	6,810

Calendar year 1965: Max 3,150 Min 36 Mean 570 Ac-ft 412,900  
 Water year 1965-66: Max 2,260 Min 50 Mean 371 Ac-ft 268,700

Peak discharge (base, 1,800 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-10	0515	7.90	2,560	5-24	0230	7.03	1,860
5-20	0330	7.06	1,890				

9-1681. Disappointment Creek near Dove Creek, Colo.

Location.--Lat 37°52', long 108°35', in SE¼ sec.25, T.42 N., R.16 W., a quarter of a mile downstream from ford, 6½ miles southeast of Cedar, and 19 miles northeast of town of Dove Creek.

Drainage area.--145 sq mi.

Records available.--August 1957 to September 1966.

Gage.--Water-stage recorder.

Average discharge.--9 years, 15.8 cfs (11,440 acre-ft per year).

Extremes.--Maximum discharge during year, 182 cfs Mar. 15 (gage height, 3.68 ft); no flow Aug. 29, Sept. 26-30.

1957-66: Maximum discharge, 4,360 cfs July 13, 1965 (gage height, 13.54 ft), from rating curve extended above 250 cfs on basis of slope-area measurements at gage heights 7.18, 9.86, 10.95, and 13.54 ft; no flow for several days in 1959-64, 1966.

Remarks.--Records fair except those for winter period, which are poor. Several small reservoirs and ponds above station. Small diversions for irrigation above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.6	4.8	1.8	1.1		1.6	80	40	31	8.6	2.6	1.3
2	8.4	4.8	1.4	4.0		1.6	84	32	28	5.6	6.1	3.0
3	8.4	4.6	1.6	2.0		1.2	74	46	23	4.0	1.5	1.0
4	7.8	3.9	1.8	2.2		1.0	49	75	19	3.2	2.8	2.2
5	7.6	4.0	2.0	2.2		2.0	37	72	17	2.9	2.4	2.0
6	7.8	4.4	2.4			5	36	71	16	2.7	1.0	.9
7	7.6	4.2	3.0			10	32	74	14	2.1	.8	.8
8	7.4	3.5	3.6			20	36	75	16	1.6	.5	.8
9	7.4	3.9	3.8			47	42	73	14	1.5	.6	.6
10	7.2	3.9	1.4			54	44	82	14	1.4	.5	.6
11	6.6	3.8	1.1			53	44	63	13	1.4	.4	.6
12	4.2	3.8	6.4			45	40	70	11	1.2	1.9	1.1
13	4.0	3.6	6.2			48	34	56	10	1.0	1.6	.9
14	4.0	3.8	3.4			83	32	47	10	.9	.6	1.1
15	3.9	3.8	2.8			96	34	39	9.4	1.4	.6	3.0
16	24	3.9	2.2		1.8	92	42	39	9.0	1.8	.4	.8
17	21	3.9	1.6			52	50	41	8.0	.8	.4	.7
18	25	4.0	1.0			27	55	45	7.8	.8	.3	.6
19	56	3.8	1.2			40	55	46	8.0	1.1	.2	.5
20	51	3.6	1.6			44	55	46	7.2	1.6	.2	.4
21	18	3.6	2.2			34	42	46	7.2	1.1	.3	.3
22	12	3.5	2.4			12	50	47	7.2	5.8	.2	.2
23	8.2	1.2	2.8			8	44	47	6.2	3.2	.2	.1
24	6.2	8.0	1.8			15	34	44	5.8	2.6	.3	.1
25	6.0	7.5	2.0			28	24	40	5.2	2.5	.2	.1
26	6.8	2.6	2.2			48	28	35	4.8	2.5	.2	0
27	6.0	6.8	2.4			63	15	33	4.8	2.4	.1	0
28	5.8	4.8	2.6			62	15	33	4.8	2.4	.1	0
29	5.8	3.0	3.0			63	22	31	8.9	1.2	0	0
30	4.4	2.0	1.3			64	34	30	10	1.2	.5	0
31	4.0	-----	1.4			74	-----	33	-----	6.4	7.1	-----
Total	360.1	224.7	121.2	73.4	50.4	1,194.4	1,263	1,551	350.3	108.4	48.1	55.2
Mean	11.6	7.49	3.91	2.37	1.8	38.5	42.1	50.0	11.7	3.50	1.55	1.84
Ac-ft	714	446	240	146	100	2,370	2,510	3,080	695	215	95	109

Calendar year 1965: Max 238 Min 0.4 Mean 26.7 Ac-ft 19,320  
 Water year 1965-66: Max 96 Min 0 Mean 14.8 Ac-ft 10,710

Peak discharge (base, 560 cfs).--No peak above base.

Note.--No gage-height record Jan. 2 to Mar. 8.

9-1725. 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., on right bank 0.7 mile downstream from Specie Creek and 4 miles northwest of Placerville.

Drainage area.--308 sq mi.

Records available.--January to December 1909, September 1910 to December 1912, April 1930 to September 1934, April 1942 to September 1966. 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). Jan. 1 to Dec. 31, 1909, staff gage at site 3.3 miles downstream at different datum. Aug. 27, 1910, to Nov. 30, 1912, staff gage and Apr. 25, 1930, to Sept. 30, 1934, water-stage recorder, at site 3.2 miles upstream at different datums. Apr. 1, 1942, to Oct. 21, 1958, at site 0.7 mile upstream at datum 40.64 ft higher.

Average discharge.--30 years (1910-12, 1930-34, 1942-66), 229 cfs (165,800 acre-ft per year).

Extremes.--Maximum discharge during year, 860 cfs May 10 (gage height, 4.55 ft); maximum gage height, 5.11 ft Feb. 17 (backwater from ice); minimum daily discharge, 50 cfs Mar. 4.

1909-12, 1930-34, 1942-66: 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 poor. 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 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	192	140	100			60	250	320	642	390	168	101
2	185	148	100			60	262	370	663	338	185	99
3	172	133	100			55	218	415	684	310	226	97
4	190	131	100			50	174	482	684	293	188	92
5	198	127	95			55	156	544	642	283	162	92
6	190	118	90			60	159	608	607	270	152	101
7	183	117	95			65	167	657	495	255	140	90
8	174	117	95			70	178	684	474	240	131	94
9	163	122	95			70	190	677	454	221	118	84
10	159	107	95			70	195	726	454	210	105	89
11	165	115	100			75	198	579	406	221	105	89
12	165	120	94			75	178	509	418	210	110	96
13	163	117	96			75	176	442	530	210	127	92
14	167	108	90			81	176	395	544	196	112	85
15	156	115	95			95	181	350	544	198	122	96
16	154	133	110	70	65	107	198	375	474	190	125	90
17	154	129	100			98	212	370	454	188	114	84
18	156	120	90			83	225	448	467	180	108	77
19	159	113	75			94	215	544	474	182	101	79
20	169	107	75			102	202	621	488	185	118	85
21	172	107	75			94	195	621	412	196	114	77
22	161	98	90			80	215	600	460	201	110	70
23	154	125	85			70	208	635	448	204	114	68
24	150	125	90			78	212	705	412	178	114	70
25	154	120	90			83	228	733	375	172	99	84
26	154	106	85			90	258	719	355	158	99	75
27	152	90	90			104	271	642	334	178	87	80
28	148	90	100			125	271	474	307	165	84	80
29	150	85	130			156	271	430	365	172	80	77
30	142	90	180			190	289	572	385	170	80	75
31	138	-----	150			222	-----	649	-----	180	108	-----
Total	5,089	3,473	3,055	2,170	1,820	2,792	6,328	16,896	14,451	6,744	3,806	2,568
Mean	164	116	98.5	70	65	90.1	211	545	482	218	123	85.6
Ac-ft	10,090	6,890	6,060	4,300	3,610	5,540	12,550	33,510	28,660	13,380	7,550	5,090

Calendar year 1965: Max 1,360 Min - Mean 322 Ac-ft 232,800

Water year 1965-66: Max 733 Min 50 Mean 190 Ac-ft 137,200

Peak discharge (base, 900 cfs)--No peak above base.

Note.--No gage-height record Dec. 15 to Feb. 16.

9-1730. Beaver Creek near Norwood, Colo.

Location.--Lat 37°58'10", long 108°11'40", in sec.28, T.43 N., R.12 W., on left bank 20 ft downstream from county highway bridge, 805 ft upstream from Goat Creek and 13 miles southeast of Norwood.

Drainage area.--35.2 sq mi.

Records available.--October 1941 to September 1961, October 1962 to September 1966. Monthly discharge only for some periods, published in WSP 1313.

Gage.--Water-stage recorder and concrete control. Datum of gage is 8,016.81 ft above mean sea level (Bureau of Reclamation bench mark). Prior to Oct. 1, 1948, at site 335 ft downstream at datum 6.00 ft lower. Oct. 1, 1948, to July 16, 1952, at site 335 ft downstream at datum 8.00 ft lower. July 17, 1952, to Sept. 30, 1961, at site 285 ft downstream at datum 8.00 ft lower.

Average discharge.--24 years, 16.7 cfs (12,090 acre-ft per year).

Extremes.--Maximum discharge during year, 194 cfs May 7 (gage height, 4.08 ft), from rating curve extended above 170 cfs; no flow Aug. 25-29.

1941-61, 1962-66: Maximum discharge, 750 cfs June 9 or 10, 1952 (gage height, 5.67 ft, from floodmarks, site and datum then in use), from rating curve extended above 370 cfs; no flow at times in 1946, 1950-51, 1954, 1956, 1959, 1963-64, 1966.

Remarks.--Records good except those for winter periods, which are poor. Gurley ditch diverts water above station to Gurley Reservoir (capacity, 8,800 acre-ft, 3,200 acre-ft prior to September 1948) for irrigation of about 12,000 acres in Naturita Creek drainage.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	9.5	8			3.0	22	60	10	4.8	0.6	0.4
2	13	9.5	3.8			2.8	30	120	9.0	2.9	1.3	.4
3	13	9.0	3.8			2.6	28	115	8.0	1.6	3.6	.2
4	12	8.5	3.8			2.4	20	117	7.5	1.2	1.5	.2
5	12	8.0	4.0			2.6	16	122	7.0	.9	.7	.2
6	13	8.0				2.8	16	120	6.8	.8	.5	.2
7	12	8.0				3.0	19	130	6.4	.6	.4	.2
8	12	7.5				3.0	22	132	5.6	.5	.2	.2
9	11	8.0				3.2	22	137	5.0	.4	.2	.1
10	10	9.5				3.2	27	130	5.0	.4	.1	.3
11	10	8.0				3.4	27	77	4.4	.4	.1	.6
12	10	10				3.6	20	44	4.0	.3	.5	.4
13	10	10				4.0	22	30	4.0	.3	.4	.3
14	9.5	10				4.2	22	21	4.2	.3	.2	.2
15	9.0	10				4.8	26	19	4.0	.4	.2	.4
16	10	11		3.0	2.8	6	30	20	3.8	.7	.1	.4
17	12	10				4.6	34	22	3.8	1.3	.1	1.2
18	11	10	3.4			4.6	35	22	3.4	1.0	.1	.8
19	12	8.5				4.8	28	24	2.9	.7	.1	.4
20	11	9.0				5	27	22	2.4	1.5	.1	.3
21	10	10				5	20	17	2.2	1.2	.1	.3
22	11	8				4.6	26	17	1.8	1.7	.1	.2
23	12	12				4.2	22	16	1.5	2.1	.1	.2
24	13	10				5	23	15	1.3	1.0	.1	.2
25	13	9				6.2	24	14	1.1	.6	0	.3
26	12	9				6.5	27	13	1.0	.4	0	.3
27	12	9				8	27	12	1.2	.4	0	.3
28	11	9				12	25	11	1.5	.4	0	.4
29	9.5	8.5				15	25	9.5	2.0	.6	0	.4
30	9.5	8.5				17	27	10	4.0	.5	.1	.3
31	9.5					20		11		1.1	.2	
Total	350.0	275.0	111.8	93.0	78.4	177.1	739	1,629.5	124.8	31.0	11.7	10.3
Mean	11.3	9.17	3.61	3.0	2.8	5.71	24.6	52.6	4.16	1.00	0.38	0.34
Ac-ft	694	545	222	184	156	351	1,470	3,230	248	61	23	20

Calendar year 1965: Max 209 Min 0.3 Mean 15.1 Ac-ft 10,920  
 Water year 1965-66: Max 137 Min 0 Mean 9.95 Ac-ft 7,200

Note.--No gage-height record Nov. 26 to Mar. 16.

9-1755. San Miguel River at Naturita, Colo.

Location.--Lat 38°13'10", long 108°34'00", in SE¼SW¼ sec.19, T.46 N., R.15 W., 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.

Records available.--October 1917 to September 1929, May 1940 to September 1966. 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, datum of 1929. Apr. 26, 1918, to Sept. 2, 1926, chain 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, staff gage at same site and datum.

Average discharge.--38 years, 349 cfs (252,700 acre-ft per year).

Extremes.--Maximum discharge during year, 1,200 cfs Apr. 2 (gage height, 4.15 ft); minimum daily, 6.5 cfs Aug. 29.

1917-29, 1940-66: 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 except those for winter period, which are poor. 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.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	239	169	149	151	100	90	790	578	568	355	173	58
2	239	179	145	95	100	93	845	765	582	311	169	43
3	222	179	147	80	95	81	750	910	600	260	239	41
4	210	169	149	100	95	75	488	954	591	228	165	34
5	230	169	137	110	100	80	371	1,010	555	220	97	29
6	230	161	128	110	110	86	359	1,040	524	200	75	33
7	210	155	145	110	110	107	371	972	434	177	68	42
8	200	149	151	110	100	175	402	1,030	406	167	58	35
9	188	155	147	115	100	270	411	949	375	137	52	36
10	177	132	153	101	100	279	438	1,070	398	121	34	31
11	175	104	171	107	100	283	434	866	351	120	26	33
12	183	103	137	115	100	227	402	720	335	118	15	42
13	183	109	132	97	110	218	363	615	406	112	26	40
14	177	99	141	90	95	274	331	519	442	110	34	37
15	186	113	137	100	100	434	339	438	460	97	26	54
16	193	161	161	94	85	542	375	406	406	107	31	45
17	200	171	149	93	95	384	411	424	388	109	32	37
18	323	163	130	94	100	239	416	447	375	99	19	30
19	230	153	110	121	100	270	456	528	398	96	15	28
20	245	141	110	118	101	359	447	610	420	103	19	46
21	236	139	110	100	106	363	388	610	363	123	29	55
22	228	127	130	95	96	228	456	586	359	128	22	26
23	212	163	120	100	94	163	483	600	398	165	18	18
24	200	198	130	104	99	177	542	680	339	147	22	15
25	195	191	130	97	100	200	474	685	303	113	20	16
26	203	210	120	110	100	260	488	675	284	88	12	24
27	193	137	120	110	88	424	519	615	260	92	8.5	20
28	188	132	140	110	84	506	519	496	239	179	8.5	29
29	181	118	179	110	-	610	514	420	260	177	6.5	37
30	181	127	350	110	-----	685	546	488	319	179	7.0	30
31	171	-----	220	110	-----	745	-----	578	-----	181	30	-----
Total	6,428	4,476	4,578	3,267	2,763	8,927	14,128	21,284	12,138	4,819	1,556.5	1,044
Mean	207	149	148	105	98.7	288	471	687	405	155	50.2	34.8
Ac-ft	12,750	8,880	9,080	6,480	5,480	17,710	28,020	42,220	24,080	9,560	3,090	2,070

Calendar year 1965: Max 3,720 Min 47 Mean 442 Ac-ft 319,700

Water year 1965-66: Max 1,070 Min 6.5 Mean 234 Ac-ft 169,400

Peak discharge (base, 1,800 cfs).--No peak above base.



## DOLORES RIVER BASIN

9-1775. Taylor Creek near Gateway, Colo.

Location.--Lat 38°31', long 109°07', in sec.24, T.26 S., R.25 E., in Utah, on left bank at downstream side of bridge, a quarter of a mile downstream from South Taylor Creek and 12 miles southwest of Gateway.

Drainage area.--12 sq mi, approximately.

Records available.--October 1944 to September 1966.

Gage.--Water-stage recorder and plank control. Altitude of gage is 8,120 ft (by barometer). Prior to Aug. 31, 1949, at site 770 ft downstream at datum 6.00 ft lower.

Average discharge.--22 years, 3.26 cfs (2,360 acre-ft per year), unadjusted.

Extremes.--Maximum discharge during year, 343 cfs July 21 (gage height, 4.78 ft); minimum daily, 0.2 cfs Sept. 4, 20-23.

1944-66: Maximum discharge, 555 cfs Apr. 18, 1948, from rating curve extended above 220 cfs; maximum gage height, 5.72 ft Aug. 6, 1945, site and datum then in use; no flow at times June to August 1946, Sept. 29, 1949, May 17, 18, 1964.

Remarks.--Records good except those for winter period, which are poor. Diversion above station by Hubbard ditch for irrigation in John Brown Creek basin since 1956.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.5	0.4	0.8	0.7	0.3	0.4	57	8.1	5.8	1.6	1.6	0.4
2	.4	.4	.8	.7	.3	.5	65	6.9	5.3	1.1	.8	.3
3	.4	.4	.7	.7	.3	.4	36	7.8	4.1	.7	.8	.3
4	.3	.4	.7	.7	.3	.4	20	8.1	3.0	.6	.7	.2
5	.4	.5	.7	.7	.3	.4	14	7.5	2.4	.5	.7	.3
6	.5	.5	.7	.7	.3	.4	15	5.8	2.8	.4	.6	.4
7	.4	.5	.7	.7	.4	.4	22	5.3	2.6	.3	.5	.4
8	.4	.4	.7	.7	.4	.5	25	5.0	3.6	.4	.5	.3
9	.3	.4	.7	.7	.5	.6	20	6.7	3.2	.4	.5	.3
10	.3	.4	.2	.7	.5	.6	16	5.5	2.8	.4	.5	.3
11	.3	.4	.9	.7	.4	.7	13	5.0	2.6	.5	.5	.3
12	.4	.4	.9	.6	.4	.8	12	6.7	2.6	.6	.5	.3
13	.4	.3	.8	.7	.4	.8	9.6	5.0	.9	.6	.6	.3
14	.4	.3	.8	.6	.4	.8	8.1	4.1	.8	.6	.6	.3
15	.5	.4	.7	.6	.4	1.1	9.9	3.6	1.8	.6	.6	.3
16	1.2	.7	.7	.6	.4	1.6	13	3.4	1.6	.6	.6	.3
17	1.6	.7	.6	.6	.4	1.6	12	3.2	1.6	1.9	.6	.3
18	2.3	.9	.5	.6	.4	1.8	9.0	3.0	1.4	1.4	.6	.3
19	1.6	.7	.5	.6	.4	2.1	7.5	3.0	1.4	3.1	.6	.3
20	.9	.7	.6	.5	.4	2.3	9.3	2.6	1.2	.8	.6	.2
21	.7	.6	.8	.6	.5	2.8	8.1	2.6	1.1	2.1	.5	.2
22	.7	.4	.8	.6	.5	2.6	6.4	2.4	1.2	2.6	.4	.2
23	.7	.4	.8	.6	.4	2.4	5.3	2.1	1.1	1.2	.3	.2
24	.7	.4	.8	.6	.3	2.6	5.3	2.1	.9	.9	.3	.3
25	.6	.3	.8	.5	.3	4.1	6.4	2.3	.8	.7	.3	.3
26	.6	.3	.8	.5	.3	7.2	8.4	1.9	.7	.6	.3	.3
27	.6	.3	.8	.5	.3	15	7.8	1.9	.7	.5	.3	.3
28	.5	.3	.9	.5	.4	23	8.4	2.1	.6	.5	.3	.3
29	.4	.4	.7	.4	-	32	7.2	1.9	.6	.5	.3	.3
30	.4	.6	.7	.3	-----	36	8.1	4.3	1.8	.4	.3	.3
31	.4	-----	.6	.3	-----	45	-----	5.5	-----	.3	.3	-----
Total	19.8	13.8	22.9	18.5	10.6	190.9	464.8	135.4	61.0	46.3	16.6	8.8
Mean	0.64	0.46	0.74	0.60	0.38	6.16	15.5	4.37	2.03	1.49	0.54	0.29
Ac-ft	39	27	45	37	21	379	922	269	121	92	33	17
(†)	0	0	0	0	0	9.1	402	502	18	0	0	0

Calendar year 1965: Max 48 Min 0.3 Mean 2.02 Ac-ft 1,460  
 Water year 1965-66: Max 65 Min 0.2 Mean 2.77 Ac-ft 2,000

Peak discharge (base, 40 cfs).--Apr. 2 (1730) 130 cfs (3.65 ft); July 21 (1300) 343 cfs (4.78 ft).

† Diversions, in acre-feet, by Hubbard ditch.

9-2375. Yampa River near Oak Creek, Colo.

Location.--Lat 40°17', long 106°50', in SE¼ sec.29, T.4 N., R.84 W., on left bank just upstream from Upper Yampa damsite, 1 mile upstream from Morrison Creek, and 6½ miles east of town of Oak Creek.

Drainage area.--227 sq mi.

Records available.--September 1939 to September 1944, October 1956 to September 1966. Monthly discharge only for some periods, published in WSP 1313.

Gage.--Water-stage recorder. Altitude of gage is 7,100 ft (from river-profile map). Prior to Nov. 16, 1939, staff gage at same site and datum.

Average discharge.--15 years, 81.3 cfs (58,860 acre-ft per year).

Extremes.--Maximum discharge during year, 322 cfs Mar. 27 (gage height, 4.25 ft), from rating curve extended above 160 cfs; maximum gage height, 7.46 ft Mar. 17 (backwater from ice); minimum daily discharge, 23 cfs Sept. 24.  
1939-44, 1956-66: Maximum discharge, 1,400 cfs Apr. 16, 1962 (gage height, 7.56 ft), from rating curve extended above 540 cfs; minimum daily, 8.9 cfs May 22, 1963.

Remarks.--Records good except those for winter period, which are poor. Diversions for irrigation of about 12,000 acres above station. Natural flow of stream affected by 2 diversions for irrigation to Egeria Creek in Colorado River basin and by storage in Stillwater Reservoir (capacity, 6,200 acre-ft).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	113	54	48	42	38	46	140	51	54	53	51	32
2	108	47	50	38	34	48	138	49	45	53	51	31
3	105	46	50	34	32	46	110	40	34	44	56	30
4	102	46	55	32	30	42	95	29	32	38	68	30
5	97	50	60	36	32	38	78	34	32	35	60	29
6	94	52	55	44	34	50	90	27	30	31	53	27
7	92	53	55	50	36	55	80	29	30	27	45	27
8	91	54	55	55	40	60	81	30	30	29	45	30
9	84	64	55	50	36	70	90	40	38	27	47	26
10	84	68	55	46	34	65	98	64	53	24	44	25
11	85	67	60	42	34	65	96	61	52	35	42	26
12	82	74	55	46	32	70	87	62	48	94	47	30
13	76	76	50	46	34	75	87	56	42	66	51	30
14	79	74	46	50	34	95	74	49	35	94	43	29
15	76	76	42	50	36	100	74	38	30	62	40	29
16	76	81	38	48	34	130	80	36	34	53	39	27
17	78	79	36	46	36	140	90	33	44	61	39	27
18	82	76	34	42	38	130	83	33	51	72	39	26
19	84	74	32	44	42	120	74	33	47	103	40	25
20	75	75	32	50	46	140	62	32	45	87	47	25
21	68	72	34	38	46	150	57	31	44	67	39	25
22	64	60	36	42	44	120	54	33	47	62	39	24
23	62	55	40	42	44	110	51	45	51	57	35	25
24	61	55	40	40	46	120	51	38	45	60	38	23
25	60	60	36	36	48	130	54	33	35	64	34	30
26	57	55	34	34	48	150	60	29	30	60	31	31
27	57	50	34	32	48	194	47	29	31	60	30	27
28	56	44	36	32	48	218	44	38	31	54	27	26
29	55	42	42	36	-	200	44	43	34	53	25	27
30	55	44	48	36	-	174	48	48	40	48	27	25
31	54	-----	46	40	-----	154	-----	53	-----	47	34	-----
Total	2,412	1,823	1,389	1,299	1,084	3,295	3,297	1,246	1,194	1,720	1,306	824
Mean	77.8	60.8	44.8	41.9	38.7	106	76.6	40.2	39.8	55.5	42.1	27.5
Ac-ft	4,780	3,620	2,760	2,580	2,150	6,540	4,560	2,470	2,370	3,410	2,590	1,630

Calendar year 1965: Max 475 Min 32 Mean 104 Ac-ft 75,570  
 Water year 1965-66: Max 218 Min 23 Mean 54.5 Ac-ft 39,450

9-2378. Service Creek near Oak Creek, Colo.

Location.--Lat 40°17'40", long 106°48'00", in NW¼ sec.27, T.4 N., R.84 W., on left bank a quarter of a mile upstream from mouth, 8 miles east of Oak Creek, and 13 miles south of Steamboat Springs.

Drainage area.--39.6 sq mi.

Records available.--October 1965 to September 1966.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 7,000 ft (from river-profile map).

Extremes.--Maximum discharge during year, 351 cfs May 9 (gage height, 4.26 ft); minimum daily, 2.0 cfs for many days in August and September.

Remarks.--Records good except those for winter period and those for periods of no gage-height record, which are poor. One transbasin diversion above station to Big Muddy Creek basin.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		6	6.5	5.8	4.4	4.4	36	120	101	23	3.8	2.4
2		6	6.5	5.5	4.2	4.0	44	134	90	16	3.9	2.5
3		6	7.1	5	4.0	3.6	43	174	82	12	4.4	2.6
4		6	7.1	5	4.0	3.6	40	196	76	10	5.6	2.6
5		6	6.8	5	4.6	3.6	36	200	74	8.8	5.8	2.4
6		7	6.8	5	4.7	3.6	33	234	68	8.0	4.1	2.2
7		7	6.8	5	4.6	3.6	34	290	61	7.4	3.4	2.0
8		7	6.8	5.5	4.6	3.6	35	265	59	6.8	2.7	2.0
9		7	6.8	5.5	4.6	3.6	40	270	58	6.3	2.5	2.0
10		6.8	6.8	5.6	4.2	3.8	44	290	55	5.6	2.4	2.0
11		5.1	7.1	5.6	4.0	3.8	43	234	52	5.8	2.3	2.0
12		6.0	7.1	5.6	4.2	3.8	40	198	46	8.8	2.7	2.2
13		6.8	7.1	5.6	4.1	4.0	38	164	42	8.5	4.6	2.4
14		7.4	6.8	5.6	4.2	4.2	34	151	37	9.2	3.4	2.4
15		8.0	6.8	5.6	4.2	4.6	38	151	35	6.8	2.6	2.4
16	8	7.7	6.6	5.6	4.0	5.5	49	161	34	5.6	2.4	2.8
17		8.0	6.0	5.6	4.2	5	52	170	35	8.0	2.3	2.4
18		8.0	6.3	5.5	4.2	5	52	167	32	6.0	2.2	2.0
19		7.4	6.0	5.5	4.0	5	49	167	27	11	2.2	2.0
20		7.7	6	5.3	4.2	5.5	46	164	25	8.5	2.2	2.0
21		6.8	6	5.1	4.4	5	43	170	23	5.5	2.4	2.0
22		4.4	6.6	5.1	4.2	5	42	170	23	4.7	2.2	2.2
23		8.8	6.3	5.1	4.2	5	43	164	20	4.4	2.2	2.2
24		8.2	6.3	5.3	4.6	5	51	145	18	4.4	2.2	2.6
25		7.7	6.0	5.1	4.8	6	68	142	16	4.4	2.2	4.0
26		6.0	6.3	4.9	4.8	7	90	140	14	3.9	2.2	5.5
27		6.5	6.0	4.2	4.8	9	101	128	14	4.7	2.0	4.4
28		6	6.0	3.8	4.6	12	86	123	13	4.9	2.0	4.2
29		6.5	6.0	4.4	-	19	90	120	12	4.1	2.0	4.0
30		6	6.6	4.2	-----	23	98	115	12	3.5	2.0	4.2
31		-----	6.0	4.2	-----	32	-----	113	-----	3.4	2.0	-----
Total	248	203.8	201.9	159.8	121.6	211.8	1,538	5,420	1,254	230.0	88.9	80.6
Mean	8	6.79	6.51	5.15	4.34	6.83	51.3	175	41.8	7.42	2.87	2.69
Ac-ft	492	404	400	317	241	420	3,050	10,750	2,490	456	176	160

Calendar year 1965: Max - Min - Mean - Ac-ft -  
 Water year 1965-66: Max 290 Min 2.0 Mean 26.7 Ac-ft 19,360

Peak discharge (base, 350 cfs).--May 9 (2330) 351 cfs (4.26 ft).

Note.--No gage-height record Oct. 1 to Nov. 9.

9-2385. Walton Creek near Steamboat Springs, Colo.

Location.--Lat 40°24'30", long 106°47'00", in NW¼ sec.11, T.5 N., R.84 W., on left bank a quarter of a mile downstream from Beaver Creek, half a mile downstream from Storm King Creek, 4½ miles upstream from mouth, and 6 miles southeast of Steamboat Springs.

Drainage area.--42.4 sq mi.

Records available.--October 1920 to September 1922, October 1965 to September 1966 (after September 1922 flow of Highline Canal included). Monthly discharge only prior to 1965, published in WSP 1313.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 7,100 ft (from river profile map). Prior to October 1, 1965, water-stage recorder at site a quarter of a mile downstream at different datum. Supplementary water-stage recorder on Highline Canal.

Extremes.--Maximum discharge during year, 717 cfs May 20 (gage height, 2.58 ft); minimum daily, 5.0 cfs Aug. 28, 29.  
1920-22, 1965-66: Maximum daily discharge, 2,800 cfs June 15, 1921; minimum daily, 4.5 cfs Oct. 29, Nov. 7, 8, 1921.

Remarks.--Records good except those for period of no gage-height record, which are poor. Records show combined flow of creek and Highline Canal. Highline Canal diverts water from Beaver and Storm King Creeks for irrigation below station. No other diversions above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		12	14	12	10	10	34	125	291	49	9.2	9.3
2		12	15	10	10	10	38	175	263	40	9.8	8.3
3		12	15	10	10	10	38	229	239	33	18	7.0
4		12	15	12	10	10	34	270	206	28	59	6.3
5		14	14	12	10	8	31	328	196	24	21	6.0
6		14	14	12	10	10	30	451	159	21	15	5.6
7		14	14	12	10	10	31	514	148	20	11	6.0
8		14	13	12	10	11	31	528	176	19	9.7	7.0
9		14	13	12	10	11	36	486	144	18	8.7	6.0
10		14	14	12	10	11	42	430	142	17	8.0	6.0
11		6.7	14	12	10	11	40	278	133	18	7.7	6.0
12		9.0	14	12	10	10	37	214	116	23	11	7.9
13		12	14	12	10	12	34	175	100	18	11	10
14		15	14	12	10	12	32	166	91	19	8.0	8.4
15	18	16	12	12	10	13	34	218	87	16	7.4	10
16		16	14	12	8	14	38	316	85	16	7.0	13
17		17	12	12	10	13	42	390	100	24	6.6	8.7
18		16	10	12	10	12	39	398	85	17	6.6	7.3
19		16	10	12	10	12	38	428	74	19	7.0	6.6
20		16	12	11	10	12	35	475	67	16	8.0	6.3
21		15	12	11	10	12	34	510	62	13	8.7	6.0
22		12	12	11	10	12	34	454	58	13	7.3	6.0
23		17	13	11	8	10	36	380	57	13	6.3	5.6
24		16	12	11	10	10	44	374	48	13	6.0	5.6
25		16	12	10	10	10	72	416	41	13	5.6	16
26		15	12	10	10	14	104	386	40	11	5.2	16
27		16	12	10	10	16	108	374	37	13	5.2	9.4
28		14	12	10	10	20	83	356	34	13	5.0	7.5
29		12	12	10	-	24	78	368	33	10	5.0	6.7
30		12	12	10	-----	27	89	373	34	8.7	5.2	6.3
31		-----	12	9.5	-----	30	-----	319	-----	8.7	8.4	-----
Total	558	416.7	400	348.5	276	407	1,396	10,904	3,346	584.4	317.6	236.8
Mean	18	13.9	12.9	11.2	9.86	13.1	46.5	352	112	18.9	10.2	7.89
Ac-ft	1,110	827	793	691	547	807	2,770	21,630	6,640	1,160	630	470

Calendar year 1965: Max - Min - Mean - Ac-ft -  
Water year 1965-66: Max 528 Min 5.0 Mean 52.6 Ac-ft 38,060

Peak discharge (base, 600 cfs).--May 7 (1830) 690 cfs (2.55 ft); May 20 (1930) 717 cfs (2.58 ft).

Note.--No gage-height record Oct. 1 to Nov. 10.

## 9-2394. Spring Creek near Steamboat Springs, Colo.

Location.--Lat 40°29'30", long 106°48'20", in NE½SE¼ sec.9, T.6 N., R.84 W., on left bank 1.5 miles east of Steamboat Springs and 1.6 miles upstream from mouth.

Drainage area.--6.96 sq mi.

Records available.--October 1965 to September 1966.

Gage.--Water-stage recorder and concrete control.

Extremes.--Maximum discharge during year, 59 cfs May 9 (gage height, 2.75 ft), minimum daily, 0.1 cfs Aug. 24-30, Sept. 4-14.

Remarks.--Records good except those for period of no gage-height record, which are poor. One diversion above station by Steamboat Gardens ditch to Soda Creek drainage for irrigation.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		1.2	1.4	1.3	1.1	1.1	15	20	31	1.0	0.2	0.2
2		1.2	1.4	1.2	1.1	1.1	17	24	29	1.0	.2	.2
3		1.2	1.4	1.2	1.1	1.1	15	28	28	.8	.8	.2
4		1.2	1.4	1.2	1.1	1.1	12	33	25	.7	1.4	.1
5		1.2	1.3	1.2	1.1	1.1	10	38	22	.6	.7	.1
6		1.4	1.2	1.2	1.1	1.1	10	42	19	.6	.5	.1
7		1.4	1.3	1.2	1.1	1.1	10	47	18	.6	.4	.1
8		1.4	1.2	1.2	1.2	1.1	10	48	18	.5	.2	.1
9		1.4	1.2	1.2	1.2	1.2	12	51	15	.5	.2	.1
10		1.2	1.4	1.2	1.1	1.4	13	51	12	.5	.2	.1
11		1.0	1.4	1.2	1.1	1.4	12	43	7.6	.5	.2	.1
12		1.0	1.4	1.2	1.1	1.4	12	36	6.8	.5	.2	.1
13		1.2	1.4	1.2	1.1	1.5	11	32	5.9	.5	.2	.1
14		1.2	1.4	1.2	1.1	1.6	11	28	5.2	.4	.2	.1
15		1.7	1.4	1.2	1.1	2.4	13	27	4.5	.4	.2	.2
16	1.4	1.7	1.4	1.2	1.0	3.1	14	28	4.4	.4	.2	.3
17		2.2	1.3	1.2	1.1	3.1	15	29	4.1	.4	.2	.4
18		2.1	1.2	1.2	1.1	2.7	14	31	3.2	.4	.2	.6
19		2.0	1.2	1.2	1.0	2.8	13	33	2.7	.4	.2	.5
20		1.8	1.2	1.2	1.1	2.9	12	35	2.3	.3	.2	.5
21		1.6	1.2	1.1	1.2	3.0	11	38	2.2	.3	.2	.5
22		1.1	1.3	1.1	1.2	2.9	11	37	1.9	.3	.2	.4
23		1.8	1.3	1.1	1.2	2.4	11	34	1.6	.3	.2	.4
24		1.7	1.2	1.1	1.2	2.5	13	37	1.2	.3	.1	.4
25		1.6	1.2	1.1	1.1	2.8	16	39	1.2	.2	.1	.9
26		1.4	1.2	1.1	1.1	3.4	20	37	1.1	.3	.1	1.0
27		1.5	1.2	1.1	1.1	4.8	21	35	1.0	.3	.1	.6
28		1.4	1.2	1.1	1.1	7.3	17	33	1.0	.3	.1	.5
29		1.4	1.2	1.1	-	9.7	16	34	.9	.2	.1	.5
30		1.4	1.3	1.1	-----	12	18	35	.9	.2	.1	.5
31		-----	1.3	1.1	-----	13	-----	33	-----	.2	.2	-----
Total	43.4	43.6	40.1	36.2	31.2	98.1	405	1096	276.7	13.9	8.3	9.9
Mean	1.4	1.45	1.29	1.17	1.11	3.16	13.5	35.4	9.22	0.45	0.27	0.33
Ac-ft	86	86	80	72	62	195	803	2,170	549	28	16	20

Calendar year 1965: Max - Min - Mean - Ac-ft -  
 Water year 1965-66: Max 51 Min 0.1 Mean 5.76 Ac-ft 4,170

Peak discharge (base, 50 cfs).--May 9 (2100) 59 cfs (2.75 ft).

Note.--No gage-height record Oct. 1 to Nov. 13.

## 9-2395. Yampa River at Steamboat Springs, Colo.

Location--Lat 40°29', long 106°50', in sec.17, T.6 N., R.84 W., on right bank 30 ft downstream from First Street Bridge in Steamboat Springs and a quarter of a mile upstream from Soda Creek.

Drainage area--604 sq mi.

Records available--May 1904 to October 1906, October 1909 to September 1966. Monthly discharge only for some periods, published in WSP 1313.

Gage--Water-stage recorder. Datum of gage is 6,695.47 ft above mean sea level, datum of 1929. Prior to May 8, 1905, staff gage at bridge a quarter of a mile upstream at datum 4.16 ft higher. May 8, 1905, to Oct. 31, 1906, chain gage on bridge 30 ft upstream at datum 0.44 ft higher. Mar. 8, 1910, to Sept. 11, 1934, water-stage recorder at present site at datum 0.44 ft higher.

Average discharge--59 years, 465 cfs (336,600 acre-ft per year).

Extremes--Maximum discharge during year, 1,940 cfs May 7 (gage height, 3.99 ft); minimum daily, 45 cfs Aug. 30.

1904-6, 1909-66: Maximum discharge, 6,820 cfs June 14, 1921 (gage height, 7.08 ft, present datum), from rating curve extended above 4,800 cfs; minimum daily, 4 cfs Sept. 8, 1934, Sept. 10-13, 1944.

Remarks--Records good except those for winter period, which are poor. Natural flow of stream affected by 2 diversions for irrigation to Egeria Creek in Colorado River basin, 1 diversion for irrigation from Trout Creek drainage to Oak Creek drainage, irrigation of about 19,700 acres above station, and storage in Stillwater Reservoir (capacity, 6,200 acre-ft).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	318	131	120	100	85	90	740	695	1,110	138	76	63
2	355	128	120	90	80	80	859	837	1,020	180	81	62
3	365	120	120	75	75	70	652	1,000	941	140	96	60
4	336	117	130	75	70	65	435	1,160	837	115	190	54
5	297	120	150	85	75	60	370	1,270	755	93	140	52
6	262	120	140	100	80	75	410	1,480	647	84	108	50
7	240	124	140	120	90	85	430	1,680	594	72	91	49
8	234	120	140	130	95	95	410	1,760	629	68	80	51
9	220	131	140	120	85	101	435	1,700	588	51	78	51
10	206	128	140	110	80	105	460	1,780	588	52	76	49
11	202	133	150	100	75	109	450	1,350	583	52	72	49
12	195	147	140	110	70	117	400	1,140	490	111	75	53
13	189	168	120	110	75	120	365	969	415	119	88	63
14	186	171	110	120	80	133	341	878	370	133	81	63
15	186	180	100	120	80	150	350	927	350	117	70	68
16	180	202	90	120	70	190	395	1,100	326	91	63	69
17	180	212	85	110	70	350	470	1,220	365	108	61	66
18	195	209	80	100	70	280	465	1,250	345	117	62	61
19	220	195	80	110	75	212	420	1,280	295	170	63	57
20	206	180	80	120	75	277	370	1,380	263	152	70	51
21	198	170	85	90	75	425	350	1,480	241	126	74	50
22	186	150	90	100	75	251	332	1,420	230	109	69	47
23	174	140	100	100	75	183	328	1,310	230	98	62	46
24	168	150	95	95	80	180	355	1,210	196	100	60	46
25	159	160	90	90	85	202	440	1,310	168	98	60	60
26	153	140	80	80	85	254	578	1,280	148	102	54	83
27	147	130	85	75	90	346	695	1,190	131	108	52	75
28	144	110	90	75	90	495	583	1,180	119	104	49	68
29	138	100	100	85	-	602	544	1,210	106	91	46	63
30	135	110	120	80	-----	662	561	1,280	100	84	45	61
31	135	-----	110	85	-----	650	-----	1,210	-----	76	57	-----
Total	6,509	4,396	3,420	3,080	2,210	7,014	14,003	38,936	13,180	3,259	2,349	1,740
Mean	210	147	110	99.4	78.9	226	467	1,256	439	105	75.8	58.0
Ac-ft	12,910	8,720	6,780	6,110	4,380	13,910	27,770	77,230	26,140	6,460	4,660	3,450

Calendar year 1965: Max 4,300 Min 65 Mean 537 Ac-ft 389,000

Water year 1965-66: Max 1,780 Min 45 Mean 274 Ac-ft 198,500

Peak discharge (base, 3,000 cfs)--No peak above base.

## GREEN RIVER BASIN

9-2410. Elk River at Clark, Colo.

Location.--Lat 40°43'03", long 106°54'55", in NW¼ sec.27, T.9 N., R.85 W., on left bank 30 ft downstream from bridge on State Highway 129, 0.8 mile north of Clark, and 2 miles upstream from Cottonwood Gulch.

Drainage area.--206 sq mi.

Records available.--May 1910 to September 1922 (published as "near Clark"), April 1930 to September 1966. Monthly discharge only for some periods, published in WSP 1313.

Gage.--Water-stage recorder. Datum of gage is 7,267.75 ft above mean sea level (State Highway Department bench mark). May 1910 to September 1922, chain gage at site 30 ft upstream at datum 0.15 ft lower. Apr. 23, 1930, to Sept. 27, 1934, water-stage recorder at present site at datum 0.15 ft lower.

Average discharge.--48 years, 338 cfs (244,700 acre-ft per year).

Extremes.--Maximum discharge during year, 1,840 cfs May 8 (gage height, 3.90 ft); minimum daily, 32 cfs Sept. 23, 24. 1910-22, 1930-66: Maximum daily discharge, 4,470 cfs June 6, 9, 1912; minimum daily determined, 22 cfs Dec. 12, 1963, but a lesser discharge may have occurred during periods of no gage-height record prior to 1939.

Remarks.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 230 acres above and about 460 acres below station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	179	82	70			40	180	668	1,280	324	79	47
2	185	80	70			42	280	773	1,280	332	96	51
3	182	77	70			38	280	882	1,240	288	96	46
4	176	76	65			34	243	1,010	1,160	257	208	43
5	163	76	60			38	214	1,130	1,020	240	131	41
6	152	76	60	55	44	48	217	1,220	850	223	100	39
7	147	76	60			50	243	1,320	787	208	87	37
8	140	69	65			55	280	1,520	815	193	79	38
9	138	76	65			60	340	1,410	745	185	76	36
10	133	71	65			55	390	1,460	787	171	74	36
11	131	65	65			60	360	1,370	850	165	68	37
12	124	61	65			65	320	954	738	158	76	38
13	120	76	60			70	304	801	686	155	76	45
14	114	75	60			75	328	731	698	142	65	41
15	112	75	55			90	430	745	724	131	60	43
16	108	80	55	55	44	100	495	815	686	129	57	53
17	108	80	50			130	575	906	731	174	56	48
18	116	75	48			120	495	858	731	140	54	42
19	122	75	46			110	405	866	698	129	60	39
20	116	70	48			110	316	922	644	131	72	37
21	108	70	55			120	300	1,060	608	118	72	37
22	116	65	55			110	312	1,200	580	112	61	36
23	112	70	60			100	320	1,070	590	104	54	32
24	108	75	55			95	420	996	505	104	51	32
25	104	80	55			90	565	1,080	460	102	48	41
26	95	80	55			90	662	1,100	430	96	47	57
27	96	70	55			95	632	1,030	400	95	43	48
28	93	65	55			100	490	1,100	370	89	41	41
29	89	60	60			110	520	1,140	332	82	39	39
30	84	65	75			120	602	1,240	332	77	38	37
31	80	-----	70			140	-----	1,310	-----	77	53	-----
Total	3,851	2,191	1,852	1,705	1,232	2,560	11,518	32,677	21,757	4,931	2,217	1,237
Mean	124	73.0	59.7	55	44	82.6	384	1,054	725	159	71.5	41.2
Ac-ft	7,640	4,350	3,670	3,380	2,440	5,080	22,850	64,810	43,150	9,780	4,440	2,450

Calendar year 1965: Max 2,930 Min - Mean 395 Ac-ft 286,200  
 Water year 1965-66: Max 1,520 Min 32 Mean 240 Ac-ft 174,000

Peak discharge (base, 1,900 cfs).--No peak above base.

9-2441. Fish Creek near Milner, Colo.

Location.--Lat 40°20'10", long 107°08'20", in NW¼ sec.11, T.4 N., R.87 W., on left bank 200 ft downstream from highway bridge, a quarter of a mile upstream from Coyote Creek, and 12 miles southwest of Milner.

Drainage area.--34.5 sq mi.

Records available.--October 1955 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 6,930 ft (from topographic map). Prior to Apr. 8, 1958, at site 200 ft upstream at different datum. Apr. 8 to Aug. 14, 1958, at site 200 ft upstream at datum 3.14 ft higher.

Average discharge.--11 years, 12.0 cfs (8,690 acre-ft per year).

Extremes.--Maximum discharge during year, 71 cfs May 18 (gage height, 4.00 ft); maximum gage height, 4.88 ft Mar. 15 (backwater from ice); minimum daily discharge, 0.4 cfs July 30 to Aug. 1.

1955-66: Maximum discharge, 255 cfs Mar. 27, 1960 (gage height, 5.63 ft), from rating curve extended above 110 cfs; maximum gage height, 6.13 ft Feb. 1, 1963 (ice jam); minimum daily discharge, 0.4 cfs Sept. 22, 1964, July 30 to Aug. 1, 1966.

Remarks.--Records good except those for winter period, which are poor. Diversions above station for irrigation.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.5	4.0		4.6	3.7	3.8	21	28	5.0	1.5	0.4	1.6
2	7.8	3.8		3.8	4.1	3.7	23	28	3.7	1.6	.5	1.5
3	7.5	3.6		3.8	4.4	3.4	18	31	2.6	1.5	.6	1.9
4	6.5	3.6		4.2	4.2	3.2	12	28	2.8	1.4	1.4	1.6
5	5.8	3.8		4.4	4.0	3.6	10	26	5.0	1.4	1.1	1.5
6	5.3	3.8		4.8	4.2	3.9	9	24	4.8	1.4	.8	1.6
7	4.9	3.8		5	4.2	4.1	9	21	6.4	1.4	.6	1.8
8	4.7	4.0		5	4.0	4.1	11	21	5.3	1.4	.6	1.5
9	4.9	4.0		4.8	3.8	7	13	34	6.7	1.7	.6	1.5
10	4.4	3.8		4.6	3.8	6	17	37	7.5	2.4	.6	1.5
11	4.0	4.0		4.6	4.0	6	16	28	4.1	2.5	.5	1.8
12	4.0	4.2		4.6	4.1	6.5	13	24	3.1	5.0	.7	2.1
13	4.0	5.3		4.6	4.1	7	13	20	3.1	3.9	.7	1.9
14	3.8	5.3		4.6	4.1	8	12	17	4.4	3.1	.6	1.8
15	3.6	5.3	4.6	4.4	4.0	9	13	16	3.7	2.8	.6	1.9
16	3.6	5.5		4.2	3.8	11	17	15	2.9	2.8	.6	1.7
17	3.8	5.8		4.0	3.8	12	20	15	5.5	3.1	.6	1.7
18	5.1	5.5		4.2	3.8	12	20	21	4.8	2.9	.6	1.5
19	4.9	5.1		4.4	4.0	11	20	13	3.1	3.7	.7	1.5
20	4.9	5.3		4.4	3.8	11	19	8.4	4.1	3.2	.8	1.5
21	4.4	5.3		3.8	3.7	12	16	8.4	4.6	2.5	.8	1.5
22	4.4	5		4.2	3.8	10	16	9.1	4.1	2.1	.8	1.4
23	4.4	5		4.6	3.8	9.5	16	12	3.2	2.1	.9	1.4
24	4.4	5.5		4.6	4.0	10	18	6.7	2.6	1.8	.9	1.4
25	4.0	5.5		4.6	4.0	12	24	4.8	2.8	.6	.9	2.4
26	4.0	5		4.4	4.1	18	32	5.8	3.2	.6	.9	2.5
27	4.0	4.8		4.1	3.9	25	35	4.8	3.4	.7	.9	1.8
28	4.0	4.6		4.1	3.8	28	24	5.3	4.1	.6	.9	1.6
29	4.0	4.8		3.9	-	26	24	4.8	4.8	.5	.6	1.5
30	4.0	5		3.9		24	26	3.9	2.4	.4	1.1	1.4
31	4.0			3.9		21		4.8		.4	1.6	
Total	146.6	140.0	142.6	135.1	111.0	331.8	537	525.8	123.8	61.0	23.9	50.3
Mean	4.73	4.67	4.6	4.36	3.96	10.7	17.9	17.0	4.13	1.97	0.77	1.68
Ac-ft	291	278	283	268	220	658	1,070	1,040	246	121	47	100

Calendar year 1965: Max 110 Min 2.4 Mean 11.7 Ac-ft 8,480

Water year 1965-66: Max 37 Min 0.4 Mean 6.38 Ac-ft 4,620

Peak discharge (base, 180 cfs).--No peak above base.

Note.--No gage-height record Dec. 4 to Jan. 5.



9-2443. Grassy Creek near Mount Harris, Colo.

Location.--Lat 40°26'45", long 107°08'38", in SE¼ sec.28, T.6 N., R.87 W., on right bank 60 ft downstream from bridge, 150 ft downstream from small tributary, 2½ miles south of Mount Harris, and 3 miles upstream from mouth.

Drainage area.--25.8 sq mi.

Records available.--October 1958 to September 1966 (discontinued).

Gage.--Water-stage recorder and concrete control. Altitude of gage is 6,580 ft (from topographic map).

Average discharge.--8 years, 1.44 cfs (1,040 acre-ft per year).

Extremes.--Maximum discharge during year, 152 cfs Mar. 16 (gage height, 4.15 ft); no flow for many days.  
1958-66: Maximum discharge, 247 cfs Apr. 20, 1965; no flow for many days in each year.

Remarks.--Records fair except those for winter period and those for periods of no gage-height record, which are poor. No diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0	0	0.6		0.2	2.5	1.2	0.1	0	0	
2	.1	0	0	.4		.3	2.2	1.1	.1	0	0	
3	.1	0	0	.3		.1	1.6	1.0	0	0	.1	
4	.1	0	0	.2		0	1.3	1.0	0	0	.3	
5	.1	0	0	.1		0	1.4	1.0	0	0	.2	
6	0	0	0	0		.4	1.2	1.0	0	0	.1	
7	.1	0	0	0		.6	1.1	1.0	0	0	.1	
8	.1	0	0	0		.8	1.1	1.0	0	0	.1	
9	.1	.1	0	0		1.2	1.0	1.1	0	0	0	
10	.1	.1	0	0		1.0	1.1	1.2	0	0	0	
11	.1	.1	0	0		1.0	1.2	1.2	0	0	0	
12	.1	.1	0	0		1.6	1.2	1.0	0	0	0	
13	.1	.2	0	0		2.0	1.2	1.0	0	0	0	
14	.1	.3	0	0		3.0	1.2	.7	0	0	0	
15	.1	.2	0	0		4.4	1.2	.5	0	0	0	
16	.1	.3	0	0	0.1	5.0	1.2	.5	0	0	0	
17	0	.3	0	0		1.9	1.5	.4	0	0	0	
18	.1	.2	0	0		1.0	1.4	.4	0	0	0	
19	.1	.1	0	0		.7	1.2	.2	0	.1	0	
20	.1	.4	0	0		.8	1.0	.2	0	0	0	
21	0	.4	0	0		7.5	.8	.2	0	0	0	
22	.1	.3	0	0		.7	.6	.2	0	0	0	
23	.1	.5	0	0		6.5	.5	.2	0	0	0	
24	0	.4	0	0		.7	.7	.2	0	0	0	
25	0	.6	0	0		7.6	1.0	.1	0	0	0	
26	0	.5	0	0		1.4	1.2	.1	0	0	0	
27	0	.3	0	0		1.7	1.4	.1	0	0	0	
28	0	.2	0	0		1.7	1.3	.1	0	0	0	
29	0	.1	.3	0		1.0	1.3	.1	0	0	0	
30	0	0	.9	0		6.3	1.2	.1	0	0	0	
31	0	-----	.7	0		3.7	-----	.1	-----	0	0	-----
Total	2.0	5.7	1.9	1.6	2.8	280.8	36.8	18.2	0.2	0.1	0.9	0
Mean	0.06	0.19	0.06	0.05	0.1	9.06	1.23	0.59	.007	.003	0.03	0
Ac-ft	4.0	11	3.8	3.2	5.6	557	73	36	0.4	0.2	1.8	0

Calendar year 1965: Max 113 Min 0 Mean 2.72 Ac-ft 1,970  
Water year 1965-66: Max 50 Min 0 Mean 0.96 Ac-ft 696

Peak discharge (base, 8.0 cfs).--Mar. 16 (1200) 152 cfs (4.15 ft); Mar. 26 (2130) 30 cfs (2.24 ft).

Note.--No gage-height record Nov. 27 to Mar. 9, July 5 to Sept. 30.

## 9-2445. Elkhead Creek near Clark, Colo.

Location.--Lat 40°44'00", long 107°10'20", in SE¼ sec.17, T.9 N., R.87 W., on left bank 0.5 mile downstream from South Fork, 13 miles west of Clark, and 17 miles north of Hayden.

Drainage area.--45.4 sq mi.

Records available.--October 1942 to March 1943 (monthly discharge only, published in WSP 1313), July 1943 to September 1944, October 1958 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 7,800 ft (from topographic map). Prior to October 1958, water-stage recorder at site 40 ft downstream at different datum.

Average discharge.--9 years (1943-44, 1958-66), 31.2 cfs (22,590 acre-ft per year).

Extremes.--Maximum discharge during year, 504 cfs May 11 (gage height, 4.29 ft), from rating curve extended above 240 cfs; minimum daily, 0.9 cfs Aug. 29, 30, Sept. 8.

1942-44, 1958-66: Maximum discharge, 977 cfs May 17, 1964 (gage height, 5.92 ft), from rating curve extended above 240 cfs; maximum gage height, 7.05 ft May 5, 1965 (backwater from ice); minimum daily discharge, 0.3 cfs Aug. 23, 28, 29, 1961.

Remarks.--Records good except those for winter period, which are poor. No diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.2	3.1					50	184	62	10	2.8	1.9
2	9.6	3.1					65	196	56	10	2.8	1.7
3	8.7	3.1					80	208	50	8.2	3.0	1.9
4	6.9	3.1					75	206	46	6.9	5.7	1.7
5	6.4	2.8					65	204	41	6.5	4.0	1.4
6	5.3	3.0					70	198	38	6.2	3.0	1.2
7	4.9	2.6					75	202	36	5.9	2.6	1.1
8	4.9	3.0					85	202	37	5.4	2.4	.9
9	4.6	3.1					100	186	34	4.8	2.4	1.0
10	4.2	2.8					120	276	31	4.6	2.1	1.0
11	4.2	3.4				5	110	336	30	5.4	1.7	1.0
12	4.2	4.0					100	222	25	5.4	1.9	1.2
13	4.2	4.4					90	180	23	4.8	2.6	1.4
14	4.2	5					110	166	20	4.3	1.9	1.2
15	3.8	5.5					122	166	19	3.8	1.4	1.9
16	4.6	6.0	3.5	3.2	3.0		168	166	19	4.0	1.4	1.9
17	4.6	8.2					198	166	20	4.8	1.4	1.9
18	4.6	10					150	148	21	4.0	1.2	1.7
19	4.6	8.7					105	136	16	4.3	1.4	1.4
20	4.6	8					75	128	15	4.6	2.1	1.2
21	3.8	6.5					68	126	14	3.8	2.1	1.7
22	4.2	5.5					75	128	14	3.5	1.9	1.2
23	4.2	5					96	114	16	3.0	1.4	1.2
24	3.8	6.4					140	97	13	3.3	1.7	1.1
25	3.8	6.5					208	90	11	3.3	1.1	2.1
26	3.5	6				16	248	89	10	3.0	1.1	2.6
27	3.1	4.0					204	86	10	3.0	1.1	2.6
28	3.8	3.6					144	73	9.5	3.0	1.0	2.1
29	3.5	3.6					150	73	9.2	2.6	.9	1.9
30	3.5	3.8					172	70	9.2	2.1	.9	1.7
31	3.5							70		2.8	1.9	
Total	149.0	143.8	108.5	99.2	84.0	276	3,518	4,892	754.9	147.3	62.9	46.8
Mean	4.81	4.79	3.5	3.2	3.0	8.9	117	158	25.2	4.75	2.03	1.56
Ac-ft	296	285	215	197	167	547	6,980	9,700	1,500	292	125	93

Calendar year 1965: Max 518 Min - Mean 42.1 Ac-ft 30,460  
 Water year 1965-66: Max 336 Min 0.9 Mean 28.2 Ac-ft 20,390

Peak discharge (base, 300 cfs).--Apr. 26 (1830) 398 cfs (3.83 ft); May 11 (0045) 504 cfs (4.29 ft).

Note.--No gage-height record Nov. 28 to Apr. 14.

## 9-2450. Elkhead Creek near Elkhead, Colo.

Location.--Lat 40°40'15", long 107°17'10", in NW¼ sec.8, T.8 N., R.88 W., on right bank 0.2 mile upstream from North Fork Elkhead Creek, 4½ miles northwest of Elkhead, and 12 miles north of Hayden.

Drainage area.--64.2 sq mi.

Records available.---January to November 1910 and May to November 1920 (monthly discharge only, published in WSP 1313; published as "at Hayes Ranch"), April 1953 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 6,830 ft (from topographic map). Prior to Nov. 30, 1920, staff gage or water-stage recorder at site 675 ft upstream at different datum.

Average discharge.--13 years (1953-66), 46.9 cfs (33,950 acre-ft per year).

Extremes.--Maximum discharge during year, 692 cfs May 11 (gage height, 5.26 ft); minimum daily, 0.6 cfs Aug. 29, 30. 1910, 1920, 1953-66: Maximum daily discharge, 1,660 cfs May 22, 1920; no flow Sept. 1, 1954, Sept. 12-19, 24, 1955, Aug. 27-29, 1961.

Remarks.--Records good except those for winter period, which are poor. No Diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	4.8	6.5	7	6	5	106	297	80	12	2.4	1.8
2	1.4	4.6	7	6	6	5.5	146	310	72	15	2.6	2.3
3	1.3	4.6	6.5	5.5	5.5	5	146	323	64	11	2.9	2.6
4	11	4.6	6.5	5.5	5	4.6	104	323	58	8.6	5.8	2.6
5	9.9	4.6	7	6	5.5	5	78	310	54	8.0	5.3	2.6
6	9.0	4.8	7	6.5	5.5	5.5	77	294	51	6.9	3.4	2.4
7	8.3	5.0	6.5	7	5.5	6.5	102	294	48	6.6	2.8	2.3
8	8.0	4.6	6.5	7	5.5	7	139	290	48	5.8	2.3	2.2
9	8.0	5.0	6.5	7	5	7.5	172	263	47	5.3	1.8	1.7
10	7.6	5.3	6.5	6.5	5	7	209	360	43	5.0	2.2	1.6
11	7.2	4.8	6.5	6.5	5	7.5	177	499	42	5.3	1.7	2.0
12	7.2	5.5	6.5	6.5	5.5	8	139	336	36	6.2	1.5	2.4
13	6.9	6.9	6	6.5	5.5	9	130	269	32	5.5	1.8	3.2
14	7.2	9.4	6	6.5	5.5	10	146	251	29	5.0	2.0	3.2
15	6.6	9.4	6	6	5.5	11	201	254	27	4.4	1.4	3.9
16	6.6	11	5.5	5.5	5	13	266	248	26	3.9	1.1	4.8
17	7.2	14	5	5	4.8	15	323	237	27	4.6	.9	5.0
18	6.9	17	5	5.5	5	15	269	209	30	4.8	.9	4.8
19	7.6	16	4.6	6	5.5	14	201	188	24	4.1	.9	4.4
20	7.6	15	4.6	6	6	14	144	175	21	4.8	1.5	3.9
21	6.6	12	5	4.4	5.5	14	128	167	20	4.4	2.0	3.7
22	6.2	9.9	6.5	4.8	5	14	139	165	19	4.1	1.6	4.1
23	6.6	9	6	5.5	5	13	162	153	22	3.0	1.4	4.4
24	5.8	12	5.5	5.5	5.5	14	226	133	19	2.8	1.2	4.1
25	5.5	12	6	5.5	5.5	15	310	120	15	2.9	1.2	5.5
26	5.3	11	6.5	5	5.5	16	394	116	14	2.8	.8	8.3
27	5.0	9	6.5	5	5.5	17	326	110	13	2.6	.8	9.0
28	5.3	7	6	5.5	5	20	237	106	12	2.8	.7	9.0
29	5.3	6	7	5.5	-	22	246	95	12	2.6	.6	8.3
30	5.3	6	8	5.5	-	35	275	88	11	2.2	.6	7.6
31	4.8	-----	7.5	5.5	-----	65	-----	90	-----	1.8	.9	-----
Total	235.5	250.8	192.7	181.7	150.3	420.1	5,718	7,073	1,016	164.8	57.0	123.7
Mean	7.60	8.36	6.22	5.86	5.37	13.6	191	228	33.9	5.32	1.84	4.12
Ac-ft	467	497	382	360	298	833	11,340	14,030	2,020	327	113	245

Calendar year 1965: Max 722 Min 2.4 Mean 67.6 Ac-ft 48,960  
 Water year 1965-66: Max 499 Min 0.6 Mean 42.7 Ac-ft 30,910

Peak discharge (base, 800 cfs).---No peak above base.

9-2455. North Fork Elkhead Creek near Elkhead, Colo.

Location.--Lat 40°40'50", long 107°17'10", in NW¼ sec.5, T.8 N., R.88 W., on right bank 70 ft upstream from small tributary, 0.8 mile upstream from mouth, and 13 miles north of Hayden.

Drainage area.--21 sq mi, approximately.

Records available.--January to November 1910 and May to November 1920 (monthly discharge only, published in WSP 1313; published as "at Hayes Ranch"), October 1958 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 6,990 ft (from topographic map). January to November 1910 and May to September 1920, staff gage and October to November 1920, water-stage recorder, at site 0.6 mile downstream at different datum.

Average discharge.--8 years (1958-66), 14.7 cfs (10,640 acre-ft per year).

Extremes.--Maximum discharge during year, 188 cfs May 11 (gage height, 3.56 ft); no flow for many days.

1910, 1920, 1958-66: Maximum discharge, 575 cfs May 19, 1964; no flow at times in 1910, 1959-63, 1966.

Remarks.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 100 acres of hay meadows.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.4	1.4	2.2			2.0	50	70	27	1.8	0	0
2	4.2	1.5	2.0			2.2	55	79	22	1.8	0	0
3	4.0	1.5	2.2			2.0	50	85	20	1.4	.3	0
4	3.4	1.4	2.2			1.8	30	85	17	1.0	1.0	0
5	3.0	1.4	2.4			2.0	26	82	15	.9	.6	0
6	2.6	1.4	2.4			2.0	28	77	13	.7	.2	0
7	2.4	1.2	2.4			2.2	40	74	12	.6	.2	0
8	2.2	1.5	2.2			2.2	46	76	12	.6	.1	0
9	2.2	1.5	2.2			2.4	61	66	11	.4	.1	0
10	2.1	1.4	2.2			2.4	64	99	9.0	.3	0	0
11	2.0	1.2				2.6	50	125	8.6	.5	0	0
12	2.0	1.5				2.8	41	83	7.8	.8	0	0
13	2.0	2.2				3.0	41	66	7.0	.6	0	0
14	2.0	2.7				3.2	40	67	6.2	.4	0	0
15	2.0	2.7		2.2	2.0	3.8	60	72	5.4	.2	0	0
16	2.0	3.0				4.6	80	67	5.1	.2	0	0
17	2.0	3.8				5	85	61	5.1	.3	0	.2
18	2.0	4.0				4.8	69	50	5.8	.2	0	0
19	2.1	3.8				4.6	53	44	4.6	.3	0	.2
20	2.1	3.5				5	41	42	4.3	.6	0	.1
21	1.8	3.0	2.2			4.8	38	41	4.0	.2	.2	.1
22	1.8	2.6				4.6	36	41	3.8	.2	.2	.1
23	1.8	2.4				4.4	37	37	4.6	.2	0	.1
24	1.6	3.0				4.4	50	32	3.2	.1	0	.2
25	1.5	3.2				4.6	72	30	2.6	0	0	.3
26	1.5	3.0				8	23	30	2.2	0	0	.8
27	1.5	2.6				15	72	32	2.4	0	0	.6
28	1.5	2.4				24	53	31	1.8	0	0	.5
29	1.4	2.4				30	56	30	1.6	0	0	.3
30	1.4	2.2				40	67	29	1.6	0	0	.3
31	1.4					46		29		0	0	
Total	67.9	69.4	68.6	68.2	56.0	246.4	1,584	1,832	245.7	14.3	2.9	3.8
Mean	2.19	2.31	2.21	2.2	2.0	7.95	52.8	59.1	8.19	0.46	0.09	0.13
Ac-ft	135	138	136	135	111	489	3,140	3,630	487	28	5.8	7.5

Calendar year 1965: Max 234 Min - Mean 21.6 Ac-ft 15,610  
 Water year 1965-66: Max 125 Min 0 Mean 11.7 Ac-ft 8,450

Peak discharge (base, 200 cfs).--No peak above base.

Note.--No gage-height record Dec. 11 to Mar. 8.

9-2486. East Fork of Williams Fork above Willow Creek, Colo.

Location.--Lat 40°15'40", long 107°17'35", in NE¼ sec.5, T.3 N., R.88 W., on right bank 3½ miles south of Willow Creek store, 3.8 miles upstream from Willow Creek, and 16 miles south of Hayden.

Drainage area.--108 sq mi.

Records available.--October 1956 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 7,100 ft (from topographic map).

Average discharge.--10 years, 109 cfs (78,910 acre-ft per year).

Extremes.--Maximum discharge during year, 531 cfs May 7 (gage height, 5.52 ft); maximum gage height, 5.60 ft Dec. 18 (backwater from ice); minimum daily discharge, 14 cfs Aug. 25-27, Sept. 5, 6.  
1956-66: Maximum discharge, about 1,500 cfs June 25, 1957; maximum gage height, 6.85 ft May 12, 1962; minimum daily discharge, 14 cfs Aug. 25-27, Sept. 5, 6, 1966.

Remarks.--Records good except those for winter period, which are poor. Diversions for irrigation of about 800 acres above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	73	35	36	30	34	22	63	225	254	51	27	19
2	77	35	36	28	32	20	72	261	222	47	28	17
3	84	33	36	28	32	22	66	303	200	41	36	16
4	80	32	38	30	30	20	55	315	180	39	47	15
5	73	32	38	32	28	26	42	335	168	37	34	14
6	69	32	36	36	28	30	49	360	145	36	28	14
7	65	32	36	40	30	30	52	396	130	35	27	18
8	62	30	36	38	28	28	59	386	136	34	26	18
9	60	33	36	34	28	26	71	373	128	33	25	16
10	56	32	34	32	26	26	83	386	118	34	24	16
11	55	28	34	34	24	26	78	272	113	38	24	17
12	53	34	34	32	26	28	70	219	107	40	29	18
13	52	36	34	32	26	28	66	188	97	35	28	18
14	49	36	32	34	26	28	64	192	94	36	24	18
15	48	36	30	32	24	30	72	213	88	33	22	18
16	48	36	30	28	26	30	85	275	88	33	22	20
17	49	27	28	30	28	28	100	315	88	36	20	18
18	56	37	26	30	28	32	98	299	84	35	17	18
19	54	35	28	32	28	30	91	291	78	36	16	17
20	54	35	32	32	28	28	78	307	72	36	18	16
21	47	34	34	28	28	28	79	315	73	32	18	17
22	50	24	32	32	26	28	91	319	72	33	16	16
23	48	34	32	32	28	32	79	279	69	32	15	16
24	47	34	32	32	26	30	91	258	61	32	15	16
25	43	32	32	32	28	30	126	264	55	31	14	27
26	40	31	34	30	26	30	182	254	53	28	14	21
27	39	30	36	32	22	34	200	237	52	30	14	19
28	40	27	36	30	22	38	156	228	52	30	15	18
29	37	34	38	32	-	44	160	228	53	27	16	18
30	36	36	36	34	-----	46	188	250	52	25	16	18
31	36	-----	34	32	-----	55	-----	331	-----	26	18	-----
Total	1,680	992	1,046	992	766	933	2,763	8,864	3,182	1,071	693	527
Mean	54.2	33.1	33.7	32.0	27.4	30.1	92.1	286	106	34.5	22.4	17.6
Ac-ft	3,330	1,970	2,070	1,970	1,520	1,850	5,480	17,580	6,310	2,120	1,370	1,050

Calendar year 1965: Max 870 Min 19 Mean 116 Ac-ft 90,920  
Water year 1965-66: Max 396 Min 14 Mean 64.4 Ac-ft 46,630

Peak discharge (base, 450 cfs).--May 7 (2230) 531 cfs (5.52 ft); May 31 (0030) 510 cfs (5.56 ft).

Note.--No gage-height record Dec. 19 to Feb. 23.

9-2490. East Fork of Williams Fork near Pagoda, Colo.

Location.--Lat 40°18'45", long 107°19'15", in SW¼ sec.18, T.4 N., R.88 W., on right bank 20 ft downstream from private road bridge, half a mile upstream from Dowden Gulch, 1½ miles downstream from Willow Creek, and 5½ miles southeast of Pagoda.

Drainage area.--150 sq mi, approximately.

Records available.--October 1953 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 6,830 ft (from topographic map).

Average discharge.--13 years, 110 cfs (79,640 acre-ft per year).

Extremes.--Maximum discharge during year, 543 cfs May 9 (gage height, 3.17 ft); maximum gage height, 3.42 ft Dec. 20 (backwater from ice); minimum daily discharge, 16 cfs Aug. 26, 27.

1953-66: Maximum discharge, 1,620 cfs June 26, 1957; maximum gage height, 4.82 ft June 6, 1957; minimum daily discharge, 12 cfs Aug. 28, Sept. 22, 1954.

Remarks.--Records good except those for winter period, which are poor. Diversions for irrigation of about 900 acres above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	90	45	44	38	36	30	101	239	278	53	27	22
2	96	47	42	32	36	30	112	270	246	49	29	20
3	99	41	44	34	36	28	99	315	227	46	36	19
4	97	42	42	36	34	28	84	320	203	44	51	18
5	92	44	42	38	32	26	74	346	194	40	39	17
6	87	42	40	40	32	30	72	376	171	38	31	18
7	81	42	42	44	32	32	76	400	154	37	28	21
8	74	40	42	42	32	30	81	416	157	33	28	21
9	70	45	42	40	32	32	97	416	152	32	27	21
10	67	44	42	40	30	30	114	400	137	33	26	21
11	66	39	44	38	28	32	110	290	132	39	26	20
12	64	46	42	40	28	30	96	242	124	41	30	21
13	61	48	40	38	28	32	92	206	110	36	31	22
14	60	46	40	40	28	34	87	194	103	37	26	21
15	60	47	38	38	28	36	96	216	103	32	24	22
16	60	48	40	36	26	36	112	282	103	33	24	23
17	60	48	36	32	30	34	126	320	99	38	24	22
18	70	49	32	34	32	32	126	295	94	36	20	22
19	64	45	32	36	30	36	99	295	89	37	19	21
20	61	46	34	34	32	34	106	310	81	38	20	20
21	57	44	38	32	30	34	103	325	81	35	21	20
22	58	37	40	36	28	32	105	325	81	35	19	19
23	58	46	38	40	26	30	97	295	73	33	18	19
24	56	44	40	38	30	34	110	262	66	34	18	19
25	51	46	38	38	32	36	140	270	58	34	18	29
26	49	44	38	36	32	40	197	262	57	30	16	27
27	51	42	42	36	30	50	231	246	56	32	16	23
28	51	40	42	36	30	65	171	239	54	33	17	22
29	47	38	46	36	-	75	171	246	54	29	19	21
30	46	42	44	38	-----	87	197	300	54	27	20	22
31	45	-----	40	38	-----	92	-----	340	-----	26	21	-----
Total	2,048	1,317	1,246	1,154	860	1,207	3,482	9,258	3,591	1,120	769	633
Mean	66.1	43.9	40.2	37.2	30.7	38.9	116	299	120	36.1	24.8	21.1
Ac-ft	4,060	2,610	2,470	2,290	1,710	2,390	6,910	18,360	7,120	2,220	1,530	1,260

Calendar year 1965: Max 912 Min 20 Mean 136 Ac-ft 98,430  
 Water year 1965-66: Max 416 Min 16 Mean 73.1 Ac-ft 52,930

Peak discharge (base, 500 cfs).--May 9 (2300) 543 cfs (3.17 ft).

9-2492. South Fork of Williams Fork near Pagoda, Colo.

Location.--Lat 40°10'10", long 107°25'50", in sec.1, T.2 N., R.90 W., on left bank at downstream side of private bridge, a quarter of a mile upstream from Berry Creek and 11 miles south of Pagoda.

Drainage area.--19.2 sq mi.

Records available.--October 1965 to September 1966.

Gage.--Water-stage recorder.

Extremes.--Maximum discharge during year, 458 cfs May 9 (gage height, 3.38 ft), from rating curve extended above 200 cfs; minimum daily, 0.2 cfs for many days during August, September.

Remarks.--Records good except those for winter period and those for periods of no gage-height record, which are poor. Diversions above station for irrigation of about 100 acres above and 50 acres below station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	7.5	7	6.5	6.5	4.8	33	178	91	4.5	0.9	0.5
2	20	7.5	7	5.5	6.5	4.6	39	215	63	4.5	1.2	.3
3	22	7.0	7.5	5.5	6	4.4	32	255	55	4.0	1.4	.3
4	20	6.5	7.5	6	5.5	4.2	26	260	48	3.6	6.4	.2
5	19	6.5	7.5	6.5	5.5	4.6	24	265	45	3.4	2.6	.2
6	18	6.5	7.5	7	5	5.5	20	270	36	3.2	1.4	.2
7	17	6.5	7.5	7.5	5.5	6.5	22	265	32	2.6	1.0	.4
8	16	6.5	7.5	7.5	6	7	24	250	36	2.4	.7	.2
9	15	6.5	7.5	7	6	8	30	280	32	2.2	.3	.2
10	14	6.5	7	6.5	5.5	7.5	45	220	32	2.2	.9	.2
11	14	6	7	6	5	8	40	166	28	2.2	1.7	.2
12	13	6.5	6.5	6.5	5.5	8.5	30	123	24	2.4	2.5	.2
13	12	8	6	6.5	5	9	26	105	21	2.2	3.2	.2
14	12	9.0	6	7	5	10	26	102	18	2.0	2.0	.2
15	12	9.8	6	6.5	5	12	32	112	17	1.8	1.7	.2
16	12	10	6	6	5	14	42	138	16	1.6	1.5	.3
17	14	12	5.5	5.5	5.5	16	58	154	15	2.0	1.4	.2
18	16	11	5.5	5.5	6	16	53	147	14	1.8	1.4	.2
19	15	10	5.5	6	6	14	42	141	12	2.0	1.7	.2
20	13	9.2	6	6.5	5.5	15	30	144	11	2.0	2.7	.2
21	12	9.0	7	5.5	5	15	34	141	11	1.8	3.7	.2
22	13	8	6.5	6	5.5	14	32	141	11	1.6	2.5	.2
23	12	10	6.5	7	5	13	34	118	9.5	1.4	1.1	.5
24	12	12	6.5	6.5	5.5	13	48	105	8.0	1.4	.2	1.4
25	12	11	6.5	6.5	5.5	15	100	102	7.2	1.2	.2	3.8
26	10	10	7	6	6	17	170	93	6.0	1.0	.2	3.8
27	9	9	7	6	5.5	19	147	87	5.7	1.2	.2	2.5
28	9	8	7.5	6.5	5	21	95	83	5.1	1.0	.4	1.9
29	8.5	6	8	7	-	25	112	81	5.1	.8	.2	1.9
30	8	7	7.5	7	-----	27	138	85	4.8	.7	.2	1.8
31	7.5	-----	7	7	-----	31	-----	102	-----	.7	.5	-----
Total	426.0	249.0	210.5	198.5	154.5	389.6	1584	4928	709.4	65.4	46.0	22.8
Mean	13.7	8.30	6.79	6.40	5.52	12.6	52.8	159	23.6	2.11	1.48	0.76
Ac-ft	845	494	418	394	306	773	3,140	9,770	1,410	130	91	45

Calendar year 1965: Max - Min - Mean - Ac-ft -  
 Water year 1965-66: Max 280 Min 0.2 Mean 24.6 Ac-ft 17,820

Peak discharge (base, 400 cfs).--May 9 (2000) 458 cfs (3.38 ft).

Note.--No gage-height record Jan. 5 to Feb. 23, July 3 to Aug. 3.

9-2497. Morapos Creek near Hamilton, Colo.

Location.--Lat 40°13'40", long 107°35'10", on line between secs. 14 and 15, T.3 N., R.91 W., on right bank 10 ft upstream from private bridge, 8 miles upstream from Deer Creek, and 10 miles south of Hamilton.

Drainage area.--13.7 sq mi.

Records available.--October 1965 to September 1966.

Gage.--Water-stage recorder.

Extremes.--Maximum discharge during year, 73 cfs Apr. 26 (gage height, 3.50 ft), from rating curve extended above 55 cfs; maximum gage height, 3.58 ft Mar. 23 (backwater from ice); no flow Aug. 17-19, 26-28.

Remarks.--Records good except those for winter period, which are poor. One diversion above station for irrigation of a few acres of hay meadows below.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.8	1.3	1.8	1.3	1.1	1.0	10	47	15	1.9	0.6	0.2
2	3.2	1.2	1.9	1.2	1.1	1.0	14	50	13	1.8	.5	.2
3	3.0	1.2	2.3	1.2	1.1	1.0	11	55	12	1.2	.8	.1
4	3.0	1.1	1.9	1.2	1.1	.8	10	58	12	1.2	1.5	.1
5	2.8	1.3	1.5	1.2	1.2	.9	8	58	11	1.5	1.0	.1
6	2.9	1.1	1.3	1.2	1.1	1.0	8.5	55	9.7	1.5	.6	.1
7	2.3	1.2	1.4	1.1	1.1	1.0	9	50	8.8	1.4	.4	.2
8	1.8	1.1	1.3	1.1	1.1	1.2	10	52	10	1.4	.4	.1
9	1.8	1.3	1.3	1.1	1.1	1.2	14	53	9.4	1.3	.3	.1
10	1.8	1.1	1.4	1.1	1.0	1.4	18	55	8.8	1.4	.3	.1
11	1.6	.9	1.8	1.1	.9	1.3	17	46	8.5	1.4	.2	.1
12	1.5	1.0	1.8	1.1	1.0	1.2	13	38	7.9	1.8	.4	.2
13	1.4	1.2	1.6	1.1	1.0	1.2	14	32	6.1	1.2	.4	.4
14	1.3	1.1	1.5	1.1	.9	1.2	13	29	5.9	1.0	.2	.2
15	1.3	1.3	1.6	1.1	1.0	1.8	17	28	5.7	1.0	.1	.4
16	1.4	1.4	1.6	1.1	.8	2.0	23	32	5.5	.9	.1	.4
17	2.1	1.9	1.2	1.0	.9	2.0	25	33	5.5	1.0	0	.4
18	2.3	1.6	1.0	1.0	.9	1.8	24	30	5.0	1.0	0	.2
19	2.2	1.4	.8	1.0	1.0	2.0	20	29	5.0	1.0	0	.2
20	2.1	1.4	1.0	1.0	1.0	2.2	18	29	4.8	.8	.1	.2
21	1.8	1.3	1.4	.7	1.0	2.4	15	29	4.8	1.0	.2	.2
22	1.8	1.0	1.8	.8	1.0	2.2	16	29	3.8	.9	.1	.2
23	1.5	1.4	1.6	.9	1.0	1.8	17	26	2.8	.9	.1	.1
24	1.6	1.8	1.4	.9	1.0	2.0	22	23	2.5	1.0	.1	.1
25	1.5	2.2	1.5	.9	1.0	2.0	37	22	2.2	1.0	.1	.7
26	1.4	1.8	1.4	1.0	1.0	2.8	58	20	1.9	.8	0	.7
27	1.3	1.4	1.3	1.0	1.0	3.0	51	17	1.8	.9	0	.4
28	1.4	1.2	1.2	1.2	1.0	3.6	39	15	1.8	1.0	0	.3
29	1.3	1.6	1.2	1.2	-	5	42	14	1.8	.7	.1	.2
30	1.3	1.8	1.4	1.2	-----	6	48	13	1.8	.5	.1	.2
31	1.3	-----	1.3	1.2	-----	8	-----	15	-----	.6	.1	-----
Total	59.8	40.6	45.5	33.3	28.4	66.0	641.5	1,082	194.8	35.0	8.8	7.1
Mean	1.93	1.35	1.47	1.07	1.01	2.13	21.4	34.9	6.49	1.13	0.28	0.24
Ac-ft	119	81	90	66	56	131	1,270	2,150	386	69	17	14

Calendar year 1965: Max - Min - Mean - Ac-ft -  
 Water year 1965-66: Max 58 Min 0 Mean 6.14 Ac-ft 4,450

Peak discharge (base, 100 cfs).--No peak above base.



## 9-2500. Milk Creek near Thornburg, Colo.

Location.--Lat 40°12', long 107°44', in NE¼ sec.32, T.3 N., R.92 W., on right bank 2½ miles northwest of Thornburg and 3 miles upstream from Little Creek.

Drainage area.--65 sq mi, approximately.

Records available.--October 1952 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 6,450 ft (by barometer).

Average discharge.--14 years, 21.3 cfs (15,420 acre-ft per year).

Extremes.--Maximum discharge during year, 140 cfs (estimated) May 10; maximum gage height, 3.96 ft May 6; minimum daily discharge, 0.2 cfs Aug. 26-30, Sept. 2-10.

1952-66: Maximum discharge, 491 cfs May 10, 1957; maximum gage height, 5.52 ft June 1, 1957; minimum daily discharge, 0.2 cfs Oct. 5-7, 1956, Aug. 10, 11, Oct. 15, 1963, Aug. 26-30, Sept. 2-10, 1966.

Remarks.--Records good except those for winter period, which are poor. Diversions for irrigation of about 2,000 acres above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	6.3	7.5	5	5.5	6.5	50	112	25	4.3	1.3	0.3
2	14	6.3	7	4.8	5.5	6	65	111	17	3.7	1.3	.2
3	14	6.3	6.5	5	5	5.5	70	112	16	3.0	1.7	.2
4	14	5.9	6.5	5.5	4.8	5	54	110	15	2.4	2.6	.2
5	13	5.9	7	6	5	4.6	42	110	13	2.1	3.2	.2
6	12	5.9	7	6.5	5.5	5	41	100	14	2.1	2.1	.2
7	11	5.9	7	6.5	5.5	5.5	42	95	14	2.8	1.5	.2
8	9.5	5.5	7.5	6	5.5	6	48	90	15	4.3	1.2	.2
9	9.5	5.5	7.5	5.5	5.5	7	60	100	15	4.3	1.2	.2
10	9.0	5.5	7.5	5.5	5	9	77	120	14	4.8	1.1	.2
11	8.4	5.0	7.5	5.5	4.8	14	77	110	13	5.1	.8	.3
12	8.4	5.0	7	5.5	4.8	16	66	107	12	5.1	.8	.3
13	8.0	5.9	7	5.5	4.8	22	65	92	8.2	4.3	.8	.3
14	8.0	5.9	6.5	5	5	28	62	83	9.6	4.0	.7	.3
15	7.6	6.3	6.5	4.8	5.5	34	70	76	9.1	2.6	.7	.3
16	7.6	7.6	7	4.6	5	40	82	74	9.1	2.8	.6	.3
17	8.4	8.4	6	4.6	4.8	30	90	75	9.6	3.7	.5	.3
18	9.5	11	5	4.6	5	24	100	74	9.6	4.3	.5	.3
19	10	8.0	5	4.8	5.5	26	92	66	9.6	4.0	.6	.3
20	9.0	8.0	5.5	5	5.5	24	82	61	9.6	3.2	.6	.3
21	8.0	8.4	6	4.6	5	20	83	49	9.1	2.8	.6	.3
22	7.6	8.0	6.5	4.8	5	17	83	37	9.1	3.2	.4	.3
23	7.6	8	6.5	5	5	16	82	36	9.1	2.8	.4	.3
24	7.1	8	6	4.8	5.5	17	84	32	9.1	2.8	.4	.3
25	7.1	7.5	6	4.6	5.5	18	98	30	7.2	3.4	.3	.3
26	7.1	7	6.5	4.6	5.5	20	114	25	7.2	3.0	.2	.3
27	6.7	6.5	7	4.8	6	24	125	25	7.7	2.6	.2	.3
28	6.7	6	7	5	6.5	30	104	25	6.0	2.6	.2	.3
29	6.7	7	6.5	5.5	-	30	89	25	6.0	1.7	.2	.4
30	6.7	7.5	6	5.5	-----	37	104	23	5.4	1.3	.2	.5
31	6.3	-----	5.5	5.5	-----	46	-----	26	-----	1.3	.3	-----
Total	286.5	204.0	203.5	160.9	147.5	593.1	2,301	2,211	333.3	100.4	27.2	8.4
Mean	9.24	6.80	6.56	5.19	5.27	19.1	76.7	71.3	11.1	3.24	0.88	0.28
Ac-ft	568	405	404	319	293	1,180	4,560	4,390	661	199	54	17

Calendar year 1965: Max 286 Min 2.4 Mean 30.8 Ac-ft 22,280  
 Water year 1965-66: Max 125 Min 0.2 Mean 18.0 Ac-ft 13,040

Peak discharge (base, 250 cfs).--No peak above base.

9-2510. Yampa River near Maybell, Colo.

Location.--Lat 40°30'10", long 108°01'45", in NW¼ sec.2, T.6 N., R.95 W., on left bank 100 ft downstream from bridge on U. S. Highway 40, 2 miles downstream from Lay Creek, and 3 miles east of Maybell.

Drainage area.--3,410 sq mi, approximately.

Records available.--April 1904 to October 1905, June 1910 to November 1912, April 1916 to September 1966. Monthly discharge only for some periods, published in WSP 1313. No winter records prior to 1917.

Gage.--Water-stage recorder. Datum of gage is 5,900.23 ft above mean sea level, datum of 1929. Prior to Apr. 24, 1916, staff or chain gage at Thornburgh Bridge 14 miles downstream at different datum. Apr. 24, 1916, to Nov. 3, 1917, chain gage and Nov. 4, 1917, to Mar. 8, 1937, water-stage recorder, at site 700 ft downstream, at datum 0.92 ft higher prior to Oct. 1, 1932, and at present datum thereafter.

Average discharge.--50 years (1916-66), 1,542 cfs (1,116,000 acre-ft per year).

Extremes.--Maximum discharge during year, 6,900 cfs Mar. 16 (gage height, 6.71 ft); minimum daily, 24 cfs Sept. 14.  
1904-5, 1910-12, 1916-66: Maximum discharge observed, 17,900 cfs May 19, 1917 (gage height, 10.4 ft, from floodmarks, site and datum then in use), from rating curve extended above 12,000 cfs; minimum daily, 2 cfs July 17-19, 1934.

Remarks.--Records good except those for winter period, which are poor. Natural flow of stream affected by transbasin diversions, numerous storage reservoirs, and diversions above station for irrigation of about 65,000 acres above and about 800 acres below station. Records of chemical analyses and water temperatures for the water year 1966 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,020	390	280	500	350	260	2,450	2,560	3,910	594	120	33
2	915	380	280	420	350	260	2,450	2,970	3,500	607	91	34
3	873	370	290	380	340	260	3,040	3,360	3,370	642	117	34
4	901	360	300	360	320	240	2,850	3,860	3,210	628	268	39
5	894	345	310	320	280	220	2,030	4,170	3,070	540	216	40
6	838	330	320	330	300	240	1,800	4,470	2,800	464	425	39
7	768	330	340	340	310	280	1,600	4,710	2,340	405	365	38
8	719	330	360	350	330	360	1,500	5,070	2,060	340	264	35
9	670	330	360	370	320	450	1,500	5,340	2,080	289	216	35
10	642	320	350	360	300	600	1,600	5,410	1,990	256	191	34
11	600	330	380	350	270	900	1,800	5,580	1,930	226	155	30
12	576	350	380	340	270	1,500	2,000	5,390	2,050	202	122	30
13	558	345	360	340	270	1,800	1,800	4,340	1,960	194	113	27
14	540	370	350	340	270	2,000	1,700	3,540	1,660	177	97	24
15	522	395	320	350	260	2,500	1,600	3,150	1,560	216	111	25
16	510	405	300	360	250	3,490	1,700	3,090	1,590	216	106	26
17	510	486	280	340	240	4,690	1,800	3,390	1,540	212	91	29
18	498	528	270	320	240	2,960	2,100	3,610	1,510	184	67	43
19	498	564	260	300	250	1,840	2,500	3,470	1,680	219	61	57
20	534	582	250	320	250	1,750	2,100	3,410	1,520	219	57	72
21	558	552	250	280	250	1,980	1,900	3,520	1,410	216	61	70
22	534	552	260	270	240	1,800	1,700	3,720	1,260	244	60	62
23	510	516	270	270	240	1,260	1,600	3,960	1,200	202	57	60
24	498	442	300	280	250	1,000	1,500	3,620	1,200	191	61	67
25	480	564	290	300	270	800	1,500	3,230	1,080	177	61	75
26	469	621	270	290	280	900	2,000	3,420	943	194	55	72
27	447	576	250	290	270	1,200	2,900	3,560	845	180	45	58
28	425	400	280	300	260	1,700	3,330	3,310	789	158	41	64
29	415	320	400	320	-	2,200	2,570	3,330	726	161	39	87
30	405	260	600	340	-----	2,300	2,390	3,340	649	152	34	100
31	395	-----	600	350	-----	2,510	-----	3,690	-----	138	32	-----
Total	18,722	12,643	10,110	10,380	7,830	44,250	61,310	119,590	55,432	8,833	3,809	1,439
Mean	604	421	326	335	280	1,427	2,044	3,858	1,848	285	123	48.0
Ac-ft	37,130	25,080	20,050	20,590	15,530	87,770	121,600	237,200	109,900	17,520	7,560	2,850

Calendar year 1965: Max 11,300 Min 240 Mean 1,871 Ac-ft 1,355,000  
 Water year 1965-66: Max 5,580 Min 24 Mean 971 Ac-ft 702,800

Peak discharge (base, 7,000 cfs).--No peak above base.

9-2530. Little Snake River near Slater, Colo.

Location.--Lat 41°00'00", long 107°08'35", in NW¼ sec.15, T.12 N., R.87 W., on left bank just downstream from highway bridge at Focus Ranch, a quarter of a mile downstream from Spring Creek and 12 miles east of Slater.

Drainage area.--285 sq mi.

Records available.--October 1942 to September 1947, October 1950 to September 1966.

Gage.--Water-stage recorder. Datum of gage is 6,831.00 ft above mean sea level, datum of 1929.

Average discharge.--21 years, 211 cfs (152,800 acre-ft per year).

Extremes.--Maximum discharge during year, 1,330 cfs May 11 (gage height, 6.44 ft); minimum daily, 10 cfs Aug. 29, 30.  
1942-47, 1950-66: Maximum discharge, 3,230 cfs June 7, 1957 (gage height, 8.27 ft); minimum daily, 8.6 cfs Sept. 10, 1944.

Remarks.--Records good except those for winter periods, which are poor. Diversions for irrigation of about 2,000 acres above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	94	36	32	34	30	26	209	576	726	90	24	16
2	99	34	34	30	30	28	253	696	678	104	34	15
3	96	32	36	30	30	26	222	774	624	72	49	14
4	90	30	36	40	28	24	174	843	576	60	50	14
5	82	30	34	42	26	22	148	892	516	53	44	12
6	75	32	34	42	26	26	155	934	445	48	29	12
7	72	30	34	40	28	30	182	976	405	48	25	13
8	69	30	34	38	28	32	206	1,100	395	45	24	12
9	68	30	36	36	26	36	239	1,070	360	39	23	12
10	65	28	38	34	24	38	275	1,140	350	37	24	12
11	61	28	38	32	24	38	246	1,150	375	48	22	12
12	60	32	36	32	26	40	215	864	306	47	23	17
13	57	36	34	32	28	42	212	732	272	44	31	17
14	55	46	32	34	28	46	232	678	250	42	22	15
15	54	54	30	34	28	55	283	648	236	34	19	17
16	53	55	28	32	26	65	350	660	222	31	17	21
17	53	58	28	30	24	75	420	690	225	34	16	22
18	55	62	28	30	24	75	420	672	206	38	15	18
19	64	61	28	30	26	75	330	672	179	40	16	14
20	62	60	30	32	28	66	253	708	160	40	28	13
21	58	51	32	30	28	62	250	768	146	34	26	13
22	57	30	36	28	26	56	239	843	141	31	22	12
23	57	40	36	28	24	56	242	774	174	29	17	15
24	54	51	32	30	26	54	275	708	132	30	16	12
25	51	51	32	30	28	59	370	732	106	41	14	16
26	46	42	34	28	28	63	510	732	98	30	12	27
27	44	38	32	28	28	72	558	696	92	28	11	23
28	42	36	32	28	26	98	405	690	84	28	11	17
29	40	34	36	30	-	121	395	708	77	27	10	17
30	38	32	40	32	-	153	465	750	74	23	10	15
31	36	-	38	32	-	171	-	774	-	22	14	-
Total	1,907	1,209	1,040	1,008	752	1,830	8,733	24,650	8,630	1,317	698	465
Mean	61.5	40.3	33.5	32.5	26.9	59.0	291	795	288	42.5	22.5	15.5
Ac-ft	3,780	2,400	2,060	2,000	1,490	3,630	17,320	48,890	17,120	2,610	1,380	922

Calendar year 1965: Max 2,290 Min 27 Mean 267 Ac-ft 193,400  
Water year 1965-66: Max 1,150 Min 10 Mean 143 Ac-ft 103,600

Peak discharge (base, 1,600 cfs)--No peak above base.

## 9-2550. Slater Fork near Slater, Colo.

Location.--Lat 40°59', long 107°23', in SW¼ sec.21, T.12 N., R.89 W., on right bank 25 ft downstream from highway bridge, 1 mile upstream from mouth, and 1½ miles south of Slater.

Drainage area.--161 sq mi.

Records available.--May to October, December 1910, March to October 1911, and April to May 1912 (published as Slater Creek), July 1931 to September 1966. Monthly discharge only for some periods, published in WSP 1313.

Gage.--Water-stage recorder. Altitude of gage is 6,600 ft (from river-profile map). May 28, 1910, to May 25, 1912, staff gage at site 1½ miles upstream at different datum. July 9, 1931, to May 6, 1932, chain gage at site a quarter of a mile downstream at different datum.

Average discharge.--35 years (1931-66), 69.7 cfs (50,460 acre-ft per year).

Extremes.--Maximum discharge during year, 680 cfs May 11 (gage height, 6.96 ft), from rating curve extended above 550 cfs; minimum daily, 0.4 cfs Aug. 1.

1910-12, 1931-66: Maximum discharge observed, 1,700 cfs May 19, 1912 (gage height, 5.00 ft, site and datum then in use); no flow Aug. 2-10, 1934, Aug. 18, 25-27, 1936, Aug. 29 to Sept. 3, 1954.

Remarks.--Records good except those for winter periods, which are poor. Diversions for irrigation of about 500 acres above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	16	20	18	18	15	96	270	262	19	0.4	3.8
2	39	17	20	17	17	16	106	297	217	21	1.1	4.4
3	40	16	20	16	17	15	95	339	186	18	2.7	4.5
4	36	16	20	20	17	12	65	345	168	12	1.4	3.8
5	33	17	22	22	17	12	57	321	134	15	3.1	3.5
6	29	16	22	22	18	13	61	298	103	12	2.4	3.3
7	26	17	22	22	19	15	78	316	96	12	2.1	3.1
8	25	16	22	20	19	17	94	368	102	10	2.0	3.1
9	24	18	20	19	17	20	106	363	94	9.0	1.9	3.0
10	22	15	20	18	15	22	121	458	83	8.2	2.1	3.0
11	22	15	20	18	13	20	106	536	90	8.6	1.9	3.0
12	21	16	20	17	15	20	95	346	94	9.8	2.4	3.3
13	20	21	20	17	16	22	90	244	65	9.4	2.6	3.7
14	20	21	18	18	16	26	89	222	57	8.0	2.7	4.0
15	19	21	16	19	15	32	109	215	55	6.8	2.2	4.5
16	19	23	14	18	14	38	143	226	58	6.0	1.8	5.1
17	19	23	15	17	13	36	187	254	58	5.7	1.5	5.1
18	20	27	16	16	13	34	197	230	64	5.8	1.0	4.8
19	21	26	16	16	14	34	141	211	57	6.2	.8	3.8
20	21	26	17	17	15	32	106	211	52	7.0	1.8	3.5
21	19	22	18	17	15	28	97	237	47	7.2	3.0	3.5
22	19	16	18	16	13	24	92	272	46	6.0	2.6	3.5
23	18	26	20	16	13	30	92	251	50	5.2	2.6	3.5
24	18	25	18	17	15	34	110	205	43	4.8	2.5	2.8
25	18	28	18	17	16	38	166	208	30	4.6	3.6	.8
26	17	20	17	16	16	44	258	222	21	4.5	3.1	1.4
27	17	18	16	15	15	52	291	201	21	4.6	3.0	4.1
28	18	16	17	15	14	57	165	230	19	4.4	3.0	3.7
29	17	18	20	16	-	63	155	249	17	4.2	2.7	3.3
30	17	20	22	17	-----	65	220	258	17	3.5	2.5	3.1
31	17	-----	20	18	-----	71	-----	279	-----	12	5.2	-----
Total	708	592	584	547	435	957	3,788	8,682	2,396	259.7	69.7	106.0
Mean	22.8	19.7	18.8	17.6	15.5	30.9	126	280	79.9	8.38	2.25	3.53
Ac-ft	1,400	1,170	1,160	1,080	863	1,900	7,510	17,220	4,750	515	138	210

Calendar year 1965: Max 704 Min 7.2 Mean 84.4 Ac-ft 61,070

Water year 1965-66: Max 536 Min 0.4 Mean 52.4 Ac-ft 37,920

Peak discharge (base, 430 cfs).--May 4 (0200) 448 cfs (5.83 ft); May 11 (0615 680 cfs (6.96 ft).

9-2580. Willow Creek near Dixon, Wyo.

Location.--Lat 40°55'00", long 107°31'10", in SW¼ sec.8, T.11 N., R.90 W., in Colorado on right bank 6 miles south of Colorado-Wyoming State line, 7 miles south of Dixon, and 8 miles upstream from mouth.

Drainage area.--24 sq mi, approximately.

Records available.--October 1953 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 6,700 ft (from topographic map).

Average discharge.--13 years, 8.40 cfs (6,080 acre-ft per year).

Extremes.--Maximum discharge during year, 59 cfs May 31 (gage height, 3.45 ft); minimum daily, 0.4 cfs Sept. 21-24, 30.

1953-66: Maximum discharge, 210 cfs Apr. 20, 1965 (gage height, 4.80 ft); maximum gage height, 4.97 ft May 10, 1957; no flow Sept. 17-19, 1955.

Remarks.--Records good except those for winter periods, which are poor. No diversion above station. Regulation by Elk Lake (capacity, 400 acre-ft).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.8	2.6	2.8	2.4	2.6	2.6	2.4	11	35	6.7	3.0	2.1
2	5.8	2.4	2.6	2.2	2.4	2.4	2.3	8.9	29	7.7	2.8	2.6
3	6.0	2.2	2.6	2.2	2.2	2.2	1.3	9.2	26	5.4	3.0	2.3
4	6.0	2.1	2.8	2.4	2.4	2.0	7.4	10	25	4.4	5.6	2.1
5	5.4	2.3	2.6	2.6	2.4	2.0	5.8	9.2	21	4.0	3.6	1.8
6	4.6	2.3	2.4	2.8	2.6	2.2	7.0	8.4	18	3.8	2.8	1.8
7	4.4	2.3	2.4	3.0	2.6	2.4	10	12	16	3.6	2.6	1.8
8	4.2	2.0	2.4	2.8	2.6	3.2	12	20	20	3.2	2.5	1.8
9	3.8	2.5	2.4	2.8	2.4	4.0	13	24	16	2.6	2.5	1.8
10	2.8	1.9	2.4	2.8	2.2	4.2	15	30	17	2.6	2.5	1.8
11	3.0	2.0	2.6	2.6	2.0	3.8	10	26	19	2.8	2.4	1.8
12	2.8	1.8	2.6	2.6	2.2	3.2	7.7	18	16	2.8	3.1	2.6
13	2.5	2.4	2.4	2.6	2.4	5	7.9	14	13	2.4	3.1	2.4
14	2.4	2.8	2.6	2.8	2.4	10	7.9	12	13	2.3	2.4	2.0
15	2.1	2.8	2.4	2.8	2.4	22	9.2	12	13	2.1	2.1	2.4
16	2.4	3.2	2.2	2.6	2.2	31	12	14	13	2.6	2.0	2.5
17	2.8	3.6	2.0	2.4	2.0	10	13	16	13	2.6	2.0	2.4
18	2.8	3.6	2.0	2.4	2.0	5.8	13	15	17	2.6	2.0	1.2
19	2.8	4.0	2.2	2.4	2.2	4.4	9.2	15	14	2.5	2.5	.6
20	3.0	4.0	2.4	2.4	2.4	4.0	6.7	18	11	2.5	3.8	.5
21	2.8	3.0	2.6	2.2	2.4	3.4	6.7	21	11	2.4	2.6	.4
22	2.6	2.2	2.6	2.4	2.2	3.0	5.8	26	12	3.4	2.4	.4
23	2.6	2.6	2.6	2.6	2.2	2.8	5.8	20	13	3.4	2.3	.4
24	2.8	3.4	2.4	2.4	2.4	3.6	6.5	16	10	3.4	2.1	.4
25	2.8	2.8	2.6	2.2	2.6	6	8.7	19	8.9	3.2	1.9	.9
26	2.6	2.6	2.6	2.4	2.6	8	11	22	7.9	3.2	1.8	1.2
27	2.6	2.4	2.6	2.4	2.4	12	12	18	7.7	3.2	1.8	1.1
28	2.8	2.4	2.4	2.4	2.6	14	8.4	22	6.7	3.0	1.8	.8
29	2.8	2.6	2.6	2.6	-	16	8.2	24	6.2	2.8	1.8	.6
30	2.6	2.8	2.8	2.8	-	17	9.7	31	6.0	2.6	1.8	.4
31	2.6	-----	2.6	2.8	-----	19	-----	40	-----	2.6	2.0	-----
Total	105.0	79.6	77.2	78.8	66.0	231.2	309.6	561.7	454.4	102.4	78.6	44.9
Mean	3.39	2.65	2.49	2.54	2.36	7.46	10.3	18.1	15.1	3.30	2.54	1.50
Ac-ft	208	158	153	156	131	459	614	1,110	901	203	156	89

Calendar year 1965: Max 92 Min - Mean 10.5 Ac-ft 7,630  
 Water year 1965-66: Max 40 Min 0.4 Mean 6.00 Ac-ft 4,340

Peak discharge (base, 70 cfs).--No peak above base.

Note.--No gage-height record Feb. 11 to Mar. 10.

9-2597. Little Snake River near Baggs, Wyo.

Location.--Lat 41°00'00", long 107°55'10", in NE¼ sec.24, T.12 N., R.94 W., in Wyoming, on left bank 600 ft upstream from Wyoming-Colorado State line, half a mile upstream from Scandinavian Wash, and 15 miles west of Baggs.

Drainage area.--3,020 sq mi, approximately.

Records available.--October 1961 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 6,050 ft (from topographic map). Prior to Apr. 12, 1962, at site 800 ft downstream at datum 3.00 ft lower.

Average discharge.--5 years, 506 cfs (366,300 acre-ft per year).

Extremes.--Maximum discharge during year, 4,290 cfs Mar. 15 (gage height, 5.16 ft); no flow Sept. 12, 30.

1961-66: Maximum discharge, about 10,000 cfs Mar. 28, 1962 (gage height, 8.0 ft, from floodmark, present datum); no flow Sept. 12, 30, 1966.

Remarks.--Records good except those for winter periods, which are poor. Diversions for irrigation of about 15,000 acres above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	388	135	150	160	110	120	1700	1360	1570	54	2.6	0.9
2	302	132	160	140	100	110	1870	1510	1460	68	3.0	1.0
3	280	130	160	130	90	100	1700	1710	1320	44	18	.8
4	266	130	160	120	80	100	1310	1890	1200	101	20	.8
5	248	130	150	110	90	90	916	2000	1080	74	21	.6
6	223	128	140	100	90	90	765	2010	940	45	15	.4
7	212	130	140	100	90	120	668	2010	788	20	7.0	.2
8	198	130	150	110	100	220	802	2160	698	21	5.0	.1
9	186	130	160	120	90	360	870	2380	705	18	4.2	.1
10	183	128	180	130	80	550	1020	2350	638	14	3.0	.1
11	177	135	180	130	70	800	1080	3040	615	12	2.2	.1
12	174	132	150	120	80	1400	1010	2820	638	10	3.8	0
13	168	128	120	110	80	1600	924	1890	518	9.0	2.6	.1
14	165	147	90	120	70	2400	908	1590	414	7.0	2.6	.2
15	162	156	60	120	80	3500	948	1430	356	5.5	6.5	.5
16	159	171	60	120	70	3420	1080	1380	319	5.5	5.5	.4
17	153	177	65	110	75	2670	1230	1380	302	6.0	4.2	.1
18	156	168	75	100	80	1180	1390	1350	324	11	3.0	.1
19	159	177	80	100	85	900	1360	1260	308	18	4.6	.1
20	168	174	80	120	90	728	1080	1200	262	15	4.6	.1
21	171	177	110	110	90	690	940	1280	226	16	9.5	.1
22	168	171	100	100	90	506	892	1380	198	11	3.8	.1
23	159	150	110	100	80	302	840	1510	206	9.0	3.4	.1
24	156	150	90	110	90	248	818	1410	220	9.0	3.8	.1
25	150	140	95	110	90	319	916	1310	202	9.0	1.8	.4
26	147	110	110	90	100	466	1210	1310	159	15	2.2	.3
27	144	80	90	90	110	772	1540	1290	125	8.0	.9	.1
28	135	50	100	100	120	988	1460	1250	103	5.0	.6	.1
29	138	40	120	100	-	1390	1220	1300	72	3.0	.3	.1
30	141	80	150	100	-----	1510	1210	1380	59	2.6	.5	0
31	135	-----	180	110	-----	1510	-----	1510	-----	2.2	.5	-----
Total	5,771	4,016	3,765	3,490	2,470	29,159	33,677	51,650	16,025	647.8	165.7	8.1
Mean	186	134	121	113	88.2	941	1,123	1,666	534	20.9	5.35	0.27
Ac-ft	11,450	7,970	7,470	6,920	4,900	57,840	66,800	102,400	31,790	1,280	329	16

Calendar year 1965: Max 5,060 Min 28 Mean 678 Ac-ft 490,900  
 Water year 1965-66: Max 3,500 Min 0 Mean 413 Ac-ft 299,200

Peak discharge (base, 3,400 cfs).--Mar. 15 (0300) 4,290 cfs (5.16 ft); May 11 (2030) 3,480 cfs (4.73 ft).

## GREEN RIVER BASIN

9-2600. Little Snake River near Lily, Colo.

Location.--Lat 40°32'50", long 108°25'25", in NW¼NE¼ sec.20, T.7 N., R.98 W., on left bank 170 ft downstream from highway bridge, 6 miles north of Lily, and 10 miles upstream from mouth.

Drainage area.--3,730 sq mi, approximately.

Records available.--June to August 1904 (published as "near Maybell"), October 1921 to September 1966. Monthly discharge only for some periods, published in WSP 1313.

Gage.--Water-stage recorder. Altitude of gage is 5,685 ft (from river-profile map). June 9 to Aug. 14, 1904, chain gage and May 5, 1922, to Nov. 30, 1935, water-stage recorder, at site 300 ft upstream at different datums.

Average discharge.--45 years (1921-66), 423 cfs (405,400 acre-ft per year).

Extremes.--Maximum discharge during year, 7,720 cfs Mar. 15 (gage height, 7.08 ft); no flow for many days in August and September. 1904, 1921-66: Maximum discharge, 14,200 cfs May 27, 1926 (gage height, 10.5 ft, site and datum then in use), from rating curve extended above 3,600 cfs; maximum gage height, 11.1 ft (from floodmark, backwater from ice), Feb. 13, 1962; no flow at times in many years.

Remarks.--Records good except those for winter periods, which are poor. Diversions for irrigation of about 21,000 acres above station. Records of chemical analyses and water temperatures for the water year 1966 are published in Part 2 of this report as "above Lily."

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	456	145	70	200	100	130	1350	1050	1380	99	11	
2	438	140	100	180	90	120	1540	1190	1480	74	8.8	
3	380	140	120	160	80	110	1650	1330	1370	152	19	
4	325	140	140	150	90	110	1530	1480	1260	90	26	
5	293	140	150	140	90	100	1210	1720	1180	40	9.9	
6	285	140	160	130	100	130	908	1790	1070	66	13	
7	274	138	160	140	100	170	739	1820	984	68	7.7	
8	257	138	160	150	110	250	665	1890	862	37	5.1	
9	240	135	170	160	100	400	665	2090	739	24	4.8	
10	218	130	182	170	90	1000	782	2280	730	15	3.6	
11	209	125	191	160	80	1420	871	2260	697	21	1.7	
12	209	130	209	150	90	2020	1010	2940	633	18	1.8	
13	203	140	185	140	90	2050	937	2490	633	13	1.2	
14	197	132	148	150	80	2640	826	1820	595	10	.7	
15	188	125	121	150	90	4430	756	1550	487	10	.3	
16	191	145	70	140	80	3800	730	1360	420	11	.2	
17	188	161	70	130	90	3000	853	1280	395	15	.1	
18	185	179	80	120	100	2360	1060	1270	370	10	0	
19	185	185	90	130	100	1220	1310	1260	370	7.2	.1	
20	179	194	90	140	100	1020	1260	1180	380	6.0	.2	
21	173	209	90	120	100	862	1020	1110	343	6.0	.4	
22	182	200	100	110	100	748	808	1180	317	10	.6	
23	185	197	110	110	90	610	790	1300	293	9.9	.4	
24	182	179	100	120	100	438	739	1420	257	10	.2	
25	179	170	110	120	100	356	681	1340	250	8.8	.1	
26	176	160	120	110	110	390	714	1230	257	7.2	.1	
27	164	150	100	100	120	515	1020	1230	236	5.5	.1	
28	158	90	110	100	130	722	1380	1250	194	4.4	0	
29	155	50	130	100	-	975	1330	1210	158	2.5	0	
30	152	60	160	100	-	1240	1040	1220	132	2.2	0	
31	148	-----	220	110	-----	1360	-----	1260	-----	6.6	0	-----
Total	6,954	4,367	4,016	4,190	2,700	34,696	30,174	47,800	18,472	859.3	117.1	0
Mean	224	146	130	135	96.4	1,119	1,006	1,542	616	27.7	3.78	0
Ac-ft	13,790	8,660	7,970	8,310	5,360	68,820	59,850	94,810	36,640	1,700	232	0

Calendar year 1965: Max 5,300 Min 42 Mean 689 Ac-ft 498,900

Water year 1965-66: Max 4,430 Min 0 Mean 423 Ac-ft 306,100

Peak discharge (base, 3,500 cfs).--Mar. 15 (0900) 7,720 cfs (7.08 ft).

9-3024.2. White River above Ripple Creek, near Trapper's Lake, Colo.

Location.--Lat 40°02'50", long 107°18'30", in NW¼ sec.19, T.1 N., R.88 W., on right bank 10 ft downstream from private bridge, 0.7 mile downstream from Bear Creek, 2 miles upstream from Ripple Creek, and 6 miles northwest of Trapper's Lake.

Drainage area.--62.3 sq mi.

Records available.--October 1965 to September 1966.

Gage.--Water-stage recorder.

Extremes.--Maximum discharge during year, 208 cfs May 26 (gage height, 3.87 ft); minimum daily, 44 cfs Sept. 30.

Remarks.--Records good except those for winter periods, which are poor. No diversions above station. Natural regulation by Trapper's Lake.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	85	77	66	61	58	56	64	79	191	71	58	51
2	85	77	66	55	58	56	64	83	185	71	58	48
3	85	77	66	55	55	55	62	87	177	70	58	48
4	85	77	66	55	55	55	62	88	166	66	58	47
5	85	75	64	62	58	55	60	98	156	66	54	48
6	85	75	64	62	58	55	60	105	146	65	53	47
7	85	75	62	62	58	54	60	120	136	64	53	47
8	85	75	62	62	58	54	62	146	129	62	53	46
9	85	75	62	62	58	54	64	164	127	62	51	46
10	85	75	64	62	58	54	65	177	124	62	53	47
11	85	75	66	62	55	54	65	177	118	62	53	47
12	85	82	66	62	58	50	64	169	113	60	59	48
13	85	77	64	59	56	54	62	156	111	58	54	50
14	86	75	64	59	55	54	60	141	107	58	54	50
15	86	75	65	59	55	54	62	134	105	58	54	58
16	84	75	64	55	55	54	64	131	102	58	54	53
17	84	77	60	55	58	55	65	131	100	58	53	48
18	88	77	60	55	58	50	65	127	98	56	51	47
19	86	75	60	55	55	54	65	127	98	58	53	46
20	86	77	60	59	59	54	64	134	98	58	53	46
21	82	75	60	55	59	54	64	151	96	56	51	46
22	82	73	64	55	55	50	65	180	90	56	50	45
23	82	75	62	58	55	50	65	197	88	58	50	45
24	82	75	62	58	55	50	66	197	83	58	50	45
25	82	73	61	61	59	54	70	197	83	61	50	50
26	79	73	62	55	59	54	74	202	81	59	48	46
27	79	71	61	55	59	55	78	194	79	59	48	47
28	79	71	61	55	59	55	72	183	76	58	48	47
29	82	60	61	58	-	56	71	177	74	56	48	46
30	79	66	62	58	-----	58	74	183	74	56	48	44
31	77	-----	61	58	-----	60	-----	197	-----	56	53	-----
Total	2,590	2,235	1,948	1,804	1,598	1,677	1,958	4,632	3,411	1,876	1,631	1,429
Mean	83.5	74.5	62.8	58.2	57.1	54.1	65.3	149	114	60.5	52.6	47.6
Ac-ft	5,140	4,430	3,860	3,580	3,170	3,330	3,880	9,190	6,770	3,720	3,240	2,830

Calendar year 1965: Max - Min - Mean - Ac-ft -  
 Water year 1965-66: Max 202 Min 44 Mean 73.4 Ac-ft 53,140



## GREEN RIVER BASIN

9-3024.5. Lost Creek near Buford, Colo.

Location.--Lat 40°03'00", long 107°28'05", in SE¼ sec.15, T.1 N., R.90 W., on left bank at downstream side of highway bridge, 540 ft upstream from mouth, 0.5 mile downstream from Long Creek, and 9 miles northeast of Buford.

Drainage area.--21.6 sq mi.

Records available.--October 1964 to September 1966.

Gage.--Water-stage recorder.

Extremes.--Maximum discharge during year, 142 cfs May 2 (gage height, 3.35 ft); maximum gage height, 3.80 ft sometime between Apr. 14-28 (backwater from ice); minimum daily discharge, 0.8 cfs Aug. 17, 18.  
1964-66: Maximum discharge, 655 cfs May 21, 1965 (gage height, 4.65 ft); minimum daily, that of Aug. 17, 18, 1966.

Remarks.--Records good except those for winter period, which are poor. No diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.2	3.4	3.4	3.0	3.4	2.9	36	106	18	2.1	1.3	1.1
2	9.3	3.2	3.6	2.8	3.2	2.9	49	106	15	1.9	1.2	1.1
3	9.3	2.9	3.6	2.6	3.2	2.9	46	106	14	1.7	1.6	1.0
4	7.9	3.0	3.6	2.6	3.2	2.9	38	101	12	1.6	3.0	1.0
5	6.8	3.0	3.4	2.8	3.2	3.0	32	100	12	1.5	1.7	1.1
6	5.8	3.0	3.4	3.0	3.2	3.2	30	94	11	1.5	1.2	1.3
7	5.0	3.2	3.4	3.2	3.0	3.4	38	89	9.6	1.5	1.0	1.3
8	4.5	3.0	3.6	3.2	3.0	3.0	46	83	10	1.5	1.0	1.2
9	4.2	2.8	3.8	3.2	3.2	3.2	62	86	10	1.4	1.1	1.2
10	4.0	3.2	3.8	3.2	2.9	3.4	67	90	9.6	1.4	1.0	1.1
11	3.8	2.3	4.0	3.0	3.0	3.7	52	78	8.2	1.4	1.0	1.2
12	3.6	3.6	4.0	3.0	3.0	2.3	44	67	6.5	1.4	1.2	1.4
13	3.6	3.6	3.8	3.0	3.0	3.0	38	59	6.0	1.4	1.2	1.4
14	3.4	3.6	3.4	3.0	3.0	3.0	36	54	6.0	1.3	1.0	1.3
15	3.2	3.6	3.2	3.2	3.0	3.2	44	50	5.2	1.2	.9	1.4
16	3.4	3.8	3.0	3.2	3.0	3.4	70	51	5.0	1.1	.9	1.4
17	3.8	4.0	2.8	3.2	3.0	3.4	80	51	5.2	1.2	.8	1.2
18	5.8	4.0	2.8	3.2	3.0	3.2	80	46	4.8	1.2	.8	1.1
19	5.0	3.8	3.0	3.2	3.0	3.4	60	42	4.0	1.3	.9	1.0
20	4.5	3.6	3.2	3.2	3.0	3.6	55	40	3.6	1.3	1.0	1.0
21	4.0	3.6	3.4	3.2	2.9	3.6	50	38	3.4	1.3	1.0	.9
22	3.8	3.6	3.4	3.2	2.9	3.6	55	34	3.4	1.3	.9	1.0
23	3.8	3.8	3.4	3.4	3.0	3.8	60	31	3.0	1.4	.9	1.0
24	3.6	3.8	3.4	3.4	3.0	4.2	80	28	2.5	1.5	.9	1.0
25	3.4	3.8	3.2	3.4	3.0	4.4	90	26	2.0	1.7	.9	1.7
26	3.2	3.6	3.0	3.2	2.8	4.8	110	24	2.0	1.5	.9	1.4
27	3.0	3.4	3.0	3.4	2.8	5.5	100	23	1.9	1.4	.9	1.1
28	3.6	3.2	3.0	3.4	2.8	6	95	23	1.9	1.4	.9	1.1
29	3.0	3.2	3.2	3.4	-	7	90	21	1.9	1.3	.9	1.0
30	3.4	3.2	3.2	3.4	-----	11	98	21	2.1	1.2	.9	1.1
31	3.4	-----	3.2	3.6	-----	20	-----	23	-----	1.3	1.3	-----
Total	142.3	101.8	104.2	97.8	84.7	136.9	1,831	1,791	199.8	44.2	34.2	35.1
Mean	4.59	3.39	3.36	3.15	3.02	4.42	61.0	57.8	6.66	1.43	1.10	1.17
Ac-Ft	282	202	207	194	168	272	3,630	3,550	396	88	68	70

Calendar year 1965: Max 376 Min 1.9 Mean 28.1 Ac-ft 20,330  
Water year 1965-66: Max 110 Min 0.8 Mean 12.6 Ac-ft 9,130

Peak discharge (base, 150 cfs).--No peak above base.

9-3028, White River near Buford, Colo.

Location.--Lat 40°02', long 107°31', in SW¼ sec.20, T.1 N., R.90 W., on right bank a third of a mile upstream from highway bridge, three-quarters of a mile downstream from Ute Creek, and 6½ miles northeast of Buford.

Drainage area.--223 sq mi.

Records available.--July 1903 to December 1906, October 1956 to September 1966. Monthly discharge only for some periods, published in WSP 1313. Published as North Fork White River near Buford prior to 1956. Records for May 1910 to December 1915 and July 1919 to December 1920 at site 6½ miles downstream not equivalent owing to inflow between the sites.

Gage.--Water-stage recorder. Prior to October 1956, staff gage at highway bridge a third of a mile downstream at different datum.

Average discharge.--13 years, 297 cfs (215,000 acre-ft per year).

Extremes.--Maximum discharge during year, 714 cfs May 9 (gage height, 4.02 ft); minimum daily, 103 cfs Aug. 17, 18, 24, 26, 27. 1903-6, 1956-66: Maximum daily discharge, 1,950 cfs June 8, 1905; minimum daily, 90 cfs Jan. 13, 14, 1964.

Remarks.--Records good except those for winter periods, which are poor. Diversion above station for irrigation of a few hay meadows.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	280	189	173	150	150	151	228	390	515	177	144	121
2	285	189	165	130	140	154	250	428	479	165	144	115
3	295	197	169	120	130	150	241	467	438	162	151	112
4	290	193	169	110	130	140	210	491	411	162	158	109
5	275	189	165	110	151	140	193	485	390	158	144	109
6	260	189	165	162	154	130	193	503	360	151	140	112
7	250	189	165	154	158	140	201	533	335	148	137	112
8	246	185	165	148	154	151	228	569	330	148	130	109
9	246	193	169	140	151	151	255	611	315	151	127	109
10	241	189	170	140	140	151	275	629	300	148	124	115
11	236	177	170	140	130	151	246	545	295	148	115	115
12	232	189	170	140	120	148	223	491	280	144	130	121
13	228	193	160	140	130	148	210	438	265	134	121	121
14	228	181	160	140	130	151	205	411	246	127	112	115
15	223	185	160	148	130	158	228	395	241	118	106	124
16	223	185	160	130	120	158	260	422	232	121	106	121
17	228	189	150	130	130	150	275	461	228	130	103	121
18	241	177	140	120	140	140	255	461	218	137	103	118
19	236	173	140	130	140	140	232	467	218	140	109	121
20	228	173	140	140	140	130	210	485	223	140	112	121
21	223	169	150	120	140	130	218	551	214	137	112	121
22	223	162	160	130	140	130	205	581	214	137	106	112
23	218	181	169	150	130	140	205	569	205	140	106	109
24	214	169	158	140	140	148	246	539	197	148	103	112
25	205	173	150	140	150	148	310	557	193	148	106	134
26	201	169	154	130	148	151	385	527	189	140	103	130
27	201	173	150	140	151	158	370	491	181	148	103	121
28	201	154	158	140	148	169	305	455	181	140	106	121
29	193	162	158	140	-	173	305	450	173	134	109	118
30	193	165	162	140	-----	185	340	467	177	130	112	112
31	189	-----	154	150	-----	197	-----	569	-----	140	124	-----
Total	7,232	5,401	4,948	4,242	3,915	4,661	7,507	15,438	8,243	4,451	3,706	3,511
Mean	233	180	160	137	140	150	250	498	275	144	120	117
Ac-ft	14,340	10,710	9,810	8,410	7,770	9,240	14,890	30,620	16,350	8,830	7,350	6,960

Calendar year 1965: Max 1,550 Min 109 Mean 350 Ac-ft 253,500  
 Water year 1965-66: Max 629 Min 103 Mean 201 Ac-ft 145,300

Peak discharge (base, 1,000 cfs).--No peak above base.

## 9-3030. White River at Buford, Colo.

Location.--Lat 39°59', long 107°37', in NW¼ sec.9, T.1 S., R.91 W., on right bank 600 ft east of Buford and 1½ miles upstream from South Fork White River.

Drainage area.--254 sq mi.

Records available.--May 1910 to December 1915, July 1919 to December 1920, October 1951 to September 1966. Monthly discharge only for some periods, published in WSP 1313. Published as North Fork White River near Buford prior to 1951. Records for July 1903 to December 1906 at site 6½ miles upstream not equivalent owing to inflow between sites.

Gage.--Water-stage recorder. Altitude of gage is 7,010 ft (from topographic map). May 24, 1910, to May 27, 1914, staff gage at site 1½ miles upstream at different datum. May 28, 1914, to Dec. 7, 1915, and July 1, 1919, to Oct. 9, 1920, staff gage at present site at different datum.

Average discharge.--21 years, 312 cfs (225,900 acre-ft per year).

Extremes.--Maximum discharge during year, 761 cfs May 9 (gage height, 5.17 ft); minimum daily, 120 cfs Jan. 4. 1910-15, 1919-20, 1951-66: Maximum daily discharge, 3,150 cfs May 30, 1912; maximum gage height, 7.22 ft Jan. 9, 1961 (backwater from ice); minimum daily discharge, 90 cfs Feb. 21, 1955.

Remarks.--Records good except those for winter periods, which are poor. Diversions above station for irrigation of about 900 acres above and 300 acres below station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	306	205	200	164	160	160	254	493	540	189	164	141
2	318	205	186	135	160	160	289	530	506	186	164	137
3	326	208	200	130	150	160	275	565	475	181	171	137
4	318	208	193	120	150	150	230	570	434	181	173	137
5	296	202	178	150	160	150	208	560	414	176	164	139
6	282	200	173	178	160	140	208	580	390	171	157	139
7	278	197	173	173	160	150	222	605	366	169	153	139
8	272	197	171	166	160	150	247	632	366	173	153	137
9	268	205	173	160	160	150	289	656	350	176	160	137
10	264	200	178	162	153	153	310	662	338	173	160	139
11	258	192	186	160	149	153	282	590	314	176	151	137
12	250	205	178	166	130	151	258	535	296	166	164	141
13	247	212	173	155	140	153	247	488	278	149	155	145
14	244	202	173	160	140	155	240	457	264	149	151	139
15	240	208	173	157	140	162	264	439	247	145	147	147
16	240	208	178	151	130	166	310	470	240	143	145	143
17	244	216	155	145	140	162	338	498	233	149	143	131
18	264	205	149	147	150	147	314	488	222	153	143	127
19	258	202	150	149	150	157	292	493	222	160	149	127
20	247	205	150	160	150	141	258	498	222	162	153	128
21	244	202	160	135	150	141	250	535	222	160	151	126
22	244	186	180	149	150	155	258	560	222	160	147	126
23	236	212	170	166	140	147	264	560	216	160	147	125
24	233	205	170	150	150	153	310	530	205	162	143	127
25	230	202	160	150	160	157	390	535	208	162	141	141
26	222	192	160	140	160	166	488	530	202	155	135	135
27	219	192	170	150	160	178	480	502	192	162	135	137
28	219	176	170	150	160	189	410	475	192	160	137	141
29	212	171	169	150	-	194	410	457	189	157	137	141
30	208	186	173	160	-----	205	430	488	189	157	141	141
31	208	-----	166	160	-----	222	-----	570	-----	157	147	-----
Total	7,895	6,006	5,328	4,748	4,222	4,977	9,025	16,551	8,754	5,079	4,681	4,087
Mean	255	200	172	153	151	161	301	534	292	164	151	136
Ac-ft	15,660	11,910	10,570	9,420	8,370	9,870	17,900	32,830	17,360	10,070	9,280	8,110

Calendar year 1965: Max 1,520 Min 127 Mean 366 Ac-ft 265,300  
 Water year 1965-66: Max 662 Min 120 Mean 223 Ac-ft 161,400

Peak discharge (base, 1,000 cfs).--No peak above base.

9-3040. South Fork White River at Buford, Colo.

Location.--Lat 39°58', long 107°38', in NE¼ sec.17, T.1 S., R.91 W., on left bank 300 ft downstream from highway bridge, three-quarters of a mile upstream from mouth, and 1 mile south of Buford.

Drainage area.--170 sq mi, approximately.

Records available.--July 1919 to December 1920 (monthly discharge only, published in WSP 1313), October 1951 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 6,970 ft (from topographic map). Prior to Nov. 30, 1920, staff gage at site 300 ft upstream at different datum.

Average discharge.--16 years, 256 cfs (185,300 acre-ft per year).

Extremes.--Maximum discharge during year, 1,270 cfs May 8 (gage height, 5.31 ft); minimum daily, 85 cfs Sept. 23.

1919-20, 1951-66: Maximum discharge, about 3,000 cfs June 30, 1957; maximum gage height, 7.07 ft June 30, 1957; minimum daily discharge, 60 cfs Feb. 21, 1955.

Remarks.--Records good except those for period of no gage-height record, which are poor. Diversions above station for irrigation of about 1,100 acres above station and a few acres below.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	200	143	149	100	130	100	147	303	711	151	113	110
2	198	141	151	95	130	100	155	360	641	149	118	105
3	198	139	157	95	120	95	153	435	584	139	124	103
4	198	137	147	100	110	90	141	566	524	134	128	100
5	198	137	137	100	100	90	132	690	480	128	120	102
6	198	139	130	130	100	100	137	816	435	120	114	100
7	192	137	125	140	100	110	137	1,020	386	118	112	100
8	188	136	130	140	110	120	139	1,150	391	116	107	100
9	185	141	128	130	120	110	147	1,060	364	110	106	95
10	182	137	132	130	120	110	157	1,040	351	108	103	90
11	178	132	134	120	120	112	157	792	343	113	99	89
12	175	141	130	120	110	105	153	620	327	112	106	90
13	173	141	128	120	95	112	149	512	299	112	107	93
14	171	139	125	110	95	113	139	455	279	108	107	93
15	168	139	103	100	95	116	145	420	267	102	107	96
16	168	139	122	100	100	119	155	410	263	102	103	97
17	171	139	100	100	110	113	166	460	247	106	104	92
18	175	139	95	110	100	105	166	480	232	107	102	89
19	173	136	90	120	100	119	159	560	214	112	104	88
20	166	137	100	120	110	118	149	676	205	113	105	88
21	162	137	110	110	95	116	149	824	205	112	105	87
22	162	125	120	110	95	110	153	993	200	120	100	86
23	159	143	120	120	100	105	147	921	188	116	99	85
24	157	139	110	120	110	113	151	832	180	119	97	86
25	155	141	110	110	110	118	162	948	168	126	95	93
26	151	131	110	110	100	120	195	876	164	120	93	98
27	151	128	110	110	95	126	239	704	162	116	93	96
28	151	113	120	110	100	128	229	620	157	119	94	96
29	147	112	120	110	-	132	226	596	151	116	94	96
30	145	131	120	120	-----	136	255	683	155	113	98	95
31	143	-----	110	130	-----	141	-----	792	-----	113	110	-----
Total	5,338	4,069	3,773	3,540	2,980	3,502	4,889	21,614	9,273	3,650	3,267	2,838
Mean	172	136	122	114	106	113	163	697	309	118	105	94.6
Ac-ft	10,590	8,070	7,480	7,020	5,910	6,950	9,700	42,870	18,390	7,240	6,480	5,630

Calendar year 1965: Max 1,960 Min 82 Mean 293 Ac-ft 212,300

Water year 1965-66: Max 1,150 Min 85 Mean 188 Ac-ft 136,300

Peak discharge (base, 1,300 cfs).--No peak above base.

Note.--No gage-height record Dec. 22 to Mar. 9.

## GREEN RIVER BASIN

9-3042. White River above Coal Creek, near Meeker, Colo.

Location.--Lat 40°00'20", long 107°49'30", on base line between sec.33, T.1 N., and sec.3, T.1 S., R.93 W., on right bank 16 ft upstream from county road bridge, 2 miles upstream from Coal Creek, and 5 miles southeast of Meeker.

Drainage area.--660 sq mi, approximately.

Records available.--October 1961 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 6,400 ft (from topographic map).

Average discharge.--5 years, 540 cfs (390,900 acre-ft per year).

Extremes.--Maximum discharge during year, 1,890 cfs May 8 (gage height, 3.87 ft, from recorded range in stage); minimum daily, 66 cfs Aug. 26.

1961-66: Maximum discharge, 3,580 cfs May 13, 1962 (gage height, 5.41 ft); minimum daily, that of Aug. 26, 1966.

Remarks.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 8,000 acres above station and about 4,000 acres below.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	572	416	416	260	340	280	452	862	1030	187	145	118
2	572	410	386	240	320	290	500	946	954	178	151	120
3	578	410	398	260	280	250	500	1060	900	142	157	125
4	572	404	392	280	260	240	440	1100	750	133	172	125
5	560	392	392	320	260	250	398	1200	700	130	178	128
6	536	398	370	360	260	300	404	1300	600	108	178	128
7	524	398	370	360	280	310	404	1400	550	93	172	130
8	512	392	375	340	300	295	422	1600	530	93	157	130
9	506	410	375	340	300	290	476	1500	512	93	160	139
10	500	398	380	320	285	295	524	1600	476	87	187	139
11	488	386	404	320	265	295	506	1400	446	89	175	139
12	482	404	380	320	245	280	470	1240	422	93	160	151
13	476	422	375	320	240	295	440	1070	360	84	163	157
14	470	404	370	300	240	310	410	946	305	82	163	154
15	458	404	335	280	250	325	440	890	260	74	169	160
16	464	410	365	260	240	345	512	890	250	72	122	163
17	482	416	340	240	295	330	566	978	240	74	148	148
18	506	404	280	260	300	270	548	970	222	74	110	128
19	506	398	260	260	265	320	524	1030	210	70	93	128
20	482	410	280	280	300	315	476	1170	202	69	99	130
21	470	416	320	260	280	315	464	1350	206	70	93	136
22	470	370	340	260	265	285	470	1510	202	120	87	142
23	458	428	340	300	260	270	458	1500	240	101	79	139
24	446	416	320	320	265	305	500	1360	206	103	72	151
25	440	422	320	300	295	315	590	1390	166	115	69	175
26	428	398	320	300	300	330	715	1320	163	105	66	184
27	416	380	340	280	285	350	813	1120	151	105	68	181
28	422	365	360	280	280	365	701	962	148	110	74	160
29	416	350	360	300	-	380	701	906	142	115	76	151
30	416	380	340	320	-----	392	736	1000	145	128	89	148
31	428	-----	280	340	-----	416	-----	1120	-----	136	118	-----
Total	15,056	12,011	10,883	9,180	7,755	9,608	15,560	36,690	11,688	3,233	3,950	4,307
Mean	486	400	351	296	277	310	519	1,184	390	104	127	144
Ac-ft	29,860	23,820	21,590	18,210	15,380	19,060	30,860	72,770	23,180	6,410	7,830	8,540

Calendar year 1965: Max 3,360 Min 240 Mean 707 Ac-ft 511,800  
 Water year 1965-66: Max 1,600 Min 66 Mean 383 Ac-ft 277,500

Peak discharge (base, 2,000 cfs).--No peak above base.

9-3043. Coal Creek near Meeker, Colo.

Location.--Lat 40°05'30", long 107°46'05", in NE¼ sec.1, T.1 N., R.93 W., on right bank 200 ft downstream from unnamed tributary, 300 ft above headgate of ditch, 1.3 miles below Ninemile Draw, and 8 miles northeast of Meeker.

Drainage area.--25 sq mi, approximately.

Records available.--October 1957 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 6,820 ft (from topographic map).

Average discharge.--9 years, 5.33 cfs (3,860 acre-ft per year).

Extremes.--Maximum discharge during year, 30 cfs May 10 (gage height, 3.33 ft); minimum daily, 0.6 cfs Aug. 10, 11.

1957-66: Maximum discharge, 102 cfs May 11, 1958 (gage height, 4.37 ft); minimum daily, 0.4 cfs Sept. 9, 10, Nov. 20-23, 1959, Aug. 24, 1961.

Remarks.--Records good except those for winter period, which are poor. Slight regulation by two small storage reservoirs above station. Diversions for irrigation of a few acres of hay meadows above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.5	1.8				2.6	1.1	14	9.0	3.7	1.7	1.1
2	2.7	1.8				2.6	1.1	15	6.4	3.2	1.6	1.0
3	2.7	1.7				2.4	1.0	16	6.0	2.5	1.7	.9
4	2.5	2.2				2.4	8.6	16	5.4	1.3	2.0	.8
5	2.3	2.2				2.4	7.8	17	4.8	1.3	1.5	.8
6	2.2	2.2				2.6	6.4	17	4.1	1.2	1.3	.8
7	2.2	2.2				2.8	6.4	18	3.7	1.2	1.2	1.1
8	2.0	2.0				2.8	6.8	19	4.3	1.2	1.1	1.1
9	1.7	2.2				2.8	7.4	20	3.9	1.0	.8	1.1
10	1.7	2.2				3.0	8.8	25	3.7	1.0	.6	1.1
11	1.7	2.2				3.0	9.3	23	3.2	1.0	.6	1.1
12	1.7	2.3				2.8	8.6	21	3.2	1.0	.7	1.2
13	1.7	2.4				2.8	8.3	18	3.0	1.1	.8	1.1
14	1.7	2.7				3.0	8.1	16	3.0	1.1	1.1	1.0
15	1.7	2.8				3.2	8.6	14	3.0	1.1	1.3	1.1
16	1.7	2.8	1.6	1.8	2.3	3.4	10	13	2.8	1.3	1.2	1.1
17	1.8	2.8				3.2	11	12	2.5	1.6	1.2	1.2
18	2.0	2.8				2.8	11	19	2.5	1.3	1.2	1.0
19	1.9	2.7				3.4	10	19	2.3	1.3	1.3	1.0
20	1.8	2.7				3.6	9.5	18	3.0	1.5	1.6	.9
21	1.8	2.8				3.6	9.0	16	5.0	1.3	1.5	.8
22	1.8	2.5				3.4	8.8	15	4.8	1.3	1.3	.8
23	1.8	4.8				3.2	9.0	12	4.3	1.6	1.2	.8
24	1.9	3.5				3.0	10	11	3.5	1.7	1.1	.8
25	1.9	3.4				3.6	12	12	3.2	1.8	1.0	1.0
26	1.8	3.2				5	14	12	3.7	2.0	1.5	1.0
27	1.8	2.2				7	15	9.8	3.7	2.2	1.5	1.0
28	1.8	2.0				9.3	13	8.6	3.5	1.9	1.6	1.0
29	1.8	1.8				10	13	8.3	3.5	1.7	1.6	.9
30	1.8	1.6				11	14	6.6	3.2	1.6	1.1	.8
31	1.8					11		9.5		1.7	1.4	
Total	60.2	74.5	49.6	55.8	64.4	127.7	296.4	470.8	118.2	48.7	39.3	29.4
Mean	1.94	2.48	1.6	1.8	2.3	4.12	9.88	15.2	3.94	1.57	1.27	0.98
Ac-ft	119	148	98	111	128	253	588	934	234	97	78	58

Calendar year 1965: Max 66 Min - Mean 6.74 Ac-ft 4,880  
 Water year 1965-66: Max 25 Min 0.6 Mean 3.93 Ac-ft 2,850

Peak discharge (base, 50 cfs).--No peak above base.

Note.--No gage-height record Nov. 27 to Mar. 15.

9-3045. White River near Meeker, Colo.

Location.--Lat 40°02'00", long 107°51'35", in NE¼ sec.30, T.1 N., R.93 W., on left bank 1 mile upstream from Curtis Creek and 2½ miles east of Meeker.

Drainage area.--762 sq mi.

Records available.--June 1901 to December 1906, October 1909 to September 1966. Monthly discharge only for some periods, published in WSP 1313. Published as "at Meeker" 1901-13.

Gage.--Water-stage recorder. Altitude of gage is 6,320 ft (from topographic map). Prior to Oct. 31, 1906, and May 7 to Aug. 13, 1910, staff gage and Aug. 14, 1910, to Oct. 19, 1913, water-stage recorder, at site 2½ miles downstream at different datum. Oct. 20, 1913, to Sept. 30, 1933, water-stage recorder at present site at datum 1.00 ft higher.

Average discharge.--62 years, 625 cfs (452,500 acre-ft per year).

Extremes.--Maximum discharge during year, 1,780 cfs May 8 (gage height, 2.49 ft); minimum daily, 124 cfs Aug. 27.

1901-6, 1909-66: Maximum discharge observed, 6,370 cfs June 16, 1921 (gage height, 5.60 ft, present datum), from rating curve extended above 4,700 cfs; minimum daily, 112 cfs July 17, 1934.

Remarks.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 12,000 acres above station and about 3,000 acres below.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	620	413	401	300	360	300	465	842	1050	241	212	169
2	614	413	385	260	340	300	519	920	971	235	220	169
3	626	409	401	280	320	280	524	1020	885	192	235	183
4	620	405	401	300	300	280	450	1120	801	179	262	181
5	596	397	385	320	300	300	401	1220	735	177	262	181
6	584	401	371	360	300	300	417	1330	669	163	253	181
7	572	401	368	380	320	320	405	1480	597	151	235	183
8	560	397	378	360	340	340	421	1660	573	149	222	179
9	554	409	371	340	336	350	465	1620	567	149	218	179
10	542	405	382	320	340	378	519	1670	525	151	238	175
11	530	397	380	320	326	425	508	1420	486	159	235	175
12	519	405	380	320	329	378	465	1220	442	163	210	192
13	514	425	360	320	346	382	440	1070	405	153	218	198
14	508	409	340	320	340	401	405	957	345	151	210	190
15	497	409	320	300	340	440	435	896	316	140	225	200
16	492	413	340	280	320	445	508	890	307	142	185	202
17	502	425	300	260	320	413	566	964	307	147	212	192
18	530	413	280	260	300	315	548	964	295	151	177	171
19	524	409	280	280	300	357	530	1010	286	157	151	175
20	502	417	300	300	320	357	470	1110	277	159	161	175
21	480	421	320	280	300	357	455	1280	280	157	159	179
22	480	385	360	300	280	318	465	1430	286	208	155	183
23	470	430	360	320	300	300	440	1440	310	179	145	179
24	455	425	340	340	320	326	480	1300	295	190	138	185
25	455	425	340	320	320	350	584	1330	247	215	132	212
26	440	413	340	300	320	354	716	1290	238	198	127	235
27	430	378	360	300	300	364	818	1090	215	192	124	228
28	435	360	380	300	300	382	710	978	205	205	130	210
29	425	343	400	320	-	401	692	920	198	195	130	188
30	417	368	400	340	-----	413	734	1010	200	205	142	185
31	417	-----	360	360	-----	430	-----	1110	-----	210	169	-----
Total	15,910	12,120	11,083	9,660	8,937	11,056	15,555	36,561	13,313	5,463	5,892	5,634
Mean	513	404	358	312	319	357	518	1,179	444	176	190	188
Ac-ft	31,560	24,040	21,980	19,160	17,730	21,930	30,850	72,520	26,410	10,840	11,690	11,170

Calendar year 1965: Max 3,770 Min 244 Mean 715 Ac-ft 517,300

Water year 1965-66: Max 1,670 Min 124 Mean 414 Ac-ft 299,900

Peak discharge (base, 2,100 cfs).--No peak above base.

9-3048. White River below Meeker, Colo.

Location.--40°00'30", long 108°06'00", in center of sec.31, T.1 N., R.95 W., on left bank 30 ft downstream from county bridge, 3½ miles downstream from Strawberry Creek, and 10 miles west of Meeker.

Drainage area.--1,040 sq mi, approximately.

Records available.--October 1961 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is about 5,900 ft (estimated from nearby level line).

Average discharge.--5 years, 601 cfs (435,100 acre-ft per year).

Extremes.--Maximum discharge during year, 1,790 cfs May 8 (gage height, 2.78 ft); maximum gage height, 3.47 ft Mar. 9 (backwater from ice); minimum daily discharge, 141 cfs July 8.

1961-66: Maximum discharge, 4,010 cfs June 15, 1965; minimum daily, that of July 8, 1966.

Remarks.--Records good except those for winter period, which are poor. Diversion above station for irrigation of about 22,000 acres above and a few acres below.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	669	478	440	360	380	320	478	830	1,070	298	265	231
2	662	478	420	300	380	320	514	926	982	340	290	234
3	669	478	440	320	360	300	514	1,020	894	269	312	242
4	662	478	420	340	340	300	472	1,140	795	242	340	238
5	641	466	400	360	340	320	430	1,230	718	214	335	245
6	634	466	400	380	350	360	436	1,330	662	165	340	257
7	613	466	400	400	350	400	420	1,440	585	151	308	261
8	592	460	400	400	350	500	436	1,640	544	141	290	261
9	585	466	400	380	350	800	466	1,610	571	143	261	257
10	578	466	400	340	350	660	520	1,690	557	149	281	253
11	564	460	420	340	350	634	520	1,500	514	158	290	257
12	557	472	420	340	350	532	496	1,310	466	175	253	273
13	550	502	400	340	350	502	472	1,090	436	172	285	277
14	544	484	380	340	340	571	454	990	370	162	261	273
15	538	478	360	320	340	634	454	902	340	147	277	281
16	532	490	380	320	340	606	544	878	335	149	234	269
17	550	496	340	280	340	526	606	926	350	189	217	261
18	557	490	320	300	320	345	620	950	326	189	210	224
19	585	484	320	320	320	375	599	999	312	175	180	224
20	550	490	340	320	340	400	538	1,090	303	178	198	231
21	538	502	360	300	340	395	526	1,230	303	175	198	228
22	532	466	380	320	320	345	520	1,380	312	224	186	234
23	526	496	400	340	340	303	496	1,430	312	242	178	220
24	514	514	360	360	340	335	514	1,340	335	294	170	228
25	508	502	360	360	340	365	592	1,330	253	326	170	253
26	502	502	360	340	340	375	690	1,310	245	285	165	273
27	496	442	380	340	320	385	846	1,130	238	281	153	269
28	496	400	400	340	320	395	725	990	238	285	160	261
29	496	380	420	340	-	405	711	894	261	261	165	234
30	484	400	420	360	-----	410	725	982	277	242	175	234
31	478	-----	400	380	-----	436	-----	1,100	-----	265	217	-----
Total	17,402	14,152	12,040	10,580	9,600	13,554	16,334	36,607	13,904	6,686	7,364	7,483
Mean	561	472	388	341	343	437	544	1,181	463	216	238	249
Ac-ft	34,520	28,070	23,880	20,990	19,040	26,880	32,400	72,610	27,580	13,260	14,610	14,840

Calendar year 1965: Max 3,660 Min 301 Mean 765 Ac-ft 553,900

Water year 1965-66: Max 1,690 Min 141 Mean 454 Ac-ft 328,700

Peak discharge (base, 2,000 cfs)--No peak above base.



9-3062. Piceance Creek below Ryan Gulch, near Rio Blanco, Colo.

Location.--Lat 39°55'16", long 108°17'49", in sec.32, T.1 S., R.97 W., on left bank at downstream side of bridge 40 ft below Ryan Gulch and 23 miles northwest of Rio Blanco.

Drainage area.--485 sq mi.

Records available.--October 1964 to September 1966.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 6,070 ft (from topographic map).

Extremes.--Maximum discharge during year, 400 cfs (estimated) Mar. 9 (gage height, 6.23 ft); minimum daily, 0.8 cfs Apr. 27, 28, May 3, 5, 6.

1964-66: Maximum discharge, that of Mar. 9, 1966; minimum daily, that of Apr. 27, 28, May 3, 5, 6, 1966.

Remarks.--Records good except those for winter period, which are poor. Diversions for irrigation above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	9.9	16	16	15	16	16	1.1	10	6.2	8.5	5.7
2	20	8.2	16	13	15	14	13	1.1	9.5	6.2	8.2	6.2
3	20	9.5	16	14	12	13	12	.8	8.5	6.0	9.5	6.5
4	19	8.8	20	15	13	12	12	1.1	7.8	6.2	13	6.5
5	18	8.8	20	16	14	13	10	.8	6.5	5.7	7.5	6.9
6	18	10	20	17	15	14	6.9	.8	7.5	5.5	6.2	6.9
7	19	9.9	20	16	16	17	4.8	1.5	7.2	5.5	6.0	6.5
8	19	10	20	14	14	21	5.7	1.6	6.2	5.0	5.7	7.5
9	19	11	20	14	13	140	7.8	2.2	6.2	4.8	5.5	7.5
10	19	12	20	14	12	200	8.5	4.0	7.2	4.0	6.2	7.2
11	20	12	21	14	12	150	9.5	13	5.5	4.3	7.2	7.8
12	19	12	20	13	13	70	7.8	9.9	5.5	5.2	9.9	7.5
13	15	12	20	13	12	90	6.5	3.8	5.5	4.5	9.5	5.0
14	12	12	20	13	11	90	6.0	4.0	5.7	4.8	8.5	3.4
15	12	13	20	12	14	140	6.2	6.5	5.5	5.2	8.8	3.4
16	14	14	19	11	12	160	6.2	6.5	5.5	6.5	9.5	3.3
17	13	14	16	10	14	110	7.8	5.5	8.5	8.2	7.2	3.1
18	14	14	15	11	15	35	7.8	6.9	8.5	14	6.2	3.8
19	14	13	15	12	17	30	6.9	6.5	7.8	5.7	7.8	3.3
20	13	13	15	13	20	34	6.2	6.0	7.5	5.7	7.8	3.1
21	14	14	17	11	20	36	6.2	6.5	6.9	6.0	6.0	2.7
22	12	14	18	12	18	25	6.0	8.8	7.2	6.9	5.5	2.9
23	9.5	14	17	14	18	21	5.5	8.5	7.2	7.5	4.8	2.7
24	12	15	15	12	18	22	5.5	9.9	7.2	10	4.8	2.7
25	12	16	15	11	19	22	4.3	9.2	6.9	10	4.8	2.9
26	12	16	17	11	19	24	1.5	9.5	6.2	11	5.0	2.7
27	12	15	15	12	18	25	.8	9.2	6.5	11	4.0	2.7
28	13	14	19	13	17	24	.8	8.5	6.5	11	4.3	2.9
29	13	14	24	14	-	22	.9	9.5	6.5	9.5	4.5	3.3
30	13	14	19	15	-----	20	1.2	9.5	6.5	8.8	4.5	3.3
31	12	-----	16	15	-----	19	-----	12	-----	8.8	4.8	-----
Total	471.5	373.1	561	411	426	1,619	200.3	184.7	209.7	219.7	211.7	139.9
Mean	15.2	12.4	18.1	13.3	15.2	52.2	6.68	5.96	6.99	7.09	6.83	4.66
Ac-ft	935	740	1,110	815	845	3,210	397	366	416	436	420	277

Calendar year 1965: Max 81 Min 1.5 Mean 17.1 Ac-ft 12,350  
 Water year 1965-66: Max 200 Min 0.8 Mean 13.8 Ac-ft 9,970

9-3065. White River near Watson, Utah

Location.--Lat 39°59', long 109°11', in sec.2, T.10 S., R.24 E., Salt Lake meridian, on right bank 350 ft downstream from bridge on State Highway 45, 1 mile downstream from Evacuation Creek, and 7 miles north of Watson.

Drainage area.--4,020 sq mi, approximately.

Records available.--April 1904 to October 1906 (no winter records), May to November 1918, April 1923 to September 1966. Monthly discharge only for some periods, published in WSP 1313. Published as "near Dragon" 1906 and as "near Rangely, Colo." 1904-5, 1918.

Gage.--Water-stage recorder. Datum of gage is 4,946.78 ft above mean sea level, datum of 1929. Apr. 15, 1904, to Oct. 31, 1905, and May 19 to Nov. 23, 1918, staff gage at site 25 miles upstream (half a mile northwest of Rangely, Colo.) at different datum. Apr. 1 to Oct. 31, 1906, staff or chain gages at site 350 ft upstream at different datum. Apr. 1, 1923, to Oct. 3, 1938, water-stage recorder at site 350 ft upstream at datum 4.48 ft higher; Oct. 4, 1938, to Apr. 17, 1939, at site 1,450 ft upstream at different datum; Apr. 18, 1939, to Sept. 6, 1956, at site 100 ft upstream at datum 3.00 ft higher; Sept. 7, 1956, to Oct. 26, 1959, at site 250 ft upstream at datum 3.00 ft higher.

Average discharge.--43 years (1923-66), 706 cfs (511,100 acre-ft per year).

Extremes.--Maximum discharge during year, 5,650 cfs Mar. 11 (gage height, 8.12 ft); minimum daily, 78 cfs July 11. 1904-6, 1918, 1923-66: Maximum daily discharge, 8,160 cfs July 15, 1929; maximum gage height, 13.1 ft Feb. 11, 1962, from floodmark in well (backwater from ice); minimum discharge, 52 cfs July 19, 20, 1934; minimum daily, 53 cfs July 19, 1934.

Remarks.--Records good except those for winter period, which are poor. Diversions for irrigation of about 30,000 acres above station. Records of chemical analyses and water temperatures for the water year 1966 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	646	438	380	900	370	460	501	700	1030	198	340	174
2	630	431	392	500	380	431	515	810	1020	210	230	220
3	646	417	438	280	390	410	536	920	900	238	226	245
4	630	424	431	240	410	392	574	1030	830	238	947	220
5	638	424	466	260	420	330	529	1160	746	194	547	210
6	638	424	473	300	400	325	480	1240	662	174	428	205
7	630	431	466	340	380	285	466	1330	614	143	380	210
8	598	424	445	420	370	452	445	1440	558	116	362	220
9	666	410	424	500	370	980	452	1660	494	95	332	235
10	550	417	452	490	360	1600	473	1660	508	82	314	230
11	550	431	473	440	350	3160	529	1770	480	78	296	240
12	536	417	508	420	350	3040	543	1670	452	82	308	280
13	536	424	487	400	350	2280	529	1380	392	98	308	270
14	529	452	466	380	350	2100	494	1140	368	122	290	290
15	501	459	410	400	350	2680	473	1010	330	119	296	344
16	480	459	392	400	330	2680	452	910	295	110	285	280
17	480	473	374	400	340	2200	494	860	270	108	265	285
18	654	480	386	360	360	1050	566	890	275	134	225	255
19	670	473	242	340	380	646	622	900	265	158	215	245
20	590	466	178	340	390	550	590	920	250	155	195	205
21	536	480	186	360	380	590	543	1020	246	131	182	210
22	515	508	260	380	370	558	508	1170	238	131	166	210
23	487	508	335	360	360	480	501	1340	242	128	154	200
24	473	501	508	380	350	445	494	1410	238	158	141	182
25	466	646	606	420	340	424	487	1340	234	206	132	186
26	459	686	452	420	350	459	543	1260	230	265	123	210
27	392	574	438	400	400	466	638	1260	202	238	118	225
28	452	508	459	380	480	480	791	1110	186	218	112	235
29	452	438	473	360	-	494	773	940	182	222	100	235
30	445	392	600	350	-----	494	700	880	170	222	102	200
31	445	-----	800	360	-----	487	-----	950	-----	230	115	-----
Total	16,920	14,015	13,400	12,270	10,430	31,438	16,241	36,080	12,907	5,001	8,234	6,956
Mean	546	467	432	396	372	1,014	541	1,164	430	161	266	232
Ac-Ft	33,560	27,800	26,580	24,340	20,690	62,360	32,210	71,560	25,600	9,920	16,330	13,800

Calendar year 1965: Max 4,010 Min 178 Mean 817 Ac-Ft 591,800  
 Water year 1965-66: Max 3,160 Min 78 Mean 504 Ac-Ft 364,800

Peak discharge (base, 2,900 cfs)---Mar. 11 (1515) 5,650 cfs (8.12 ft).

## 9-3399. East Fork San Juan River above Sand Creek, near Pagosa Springs, Colo.

Location.--Lat 37°23'25", long 106°50'25", in NE¼ sec.4, T.36 N., R.1 E., on right bank 0.3 mile upstream from Sand Creek, 4 miles upstream from West Fork San Juan River, and 13 miles northeast of Pagosa Springs.

Drainage area.--64.1 sq mi.

Records available.--October 1956 to September 1966. Prior to October 1959, published as San Juan River above Sand Creek, near Pagosa Springs.

Gage.--Water-stage recorder. Altitude of gage is 8,900 ft (from topographic map).

Average discharge.--10 years, 88.0 cfs (63,710 acre-ft per year).

Extremes.--Maximum discharge during year, 615 cfs May 10 (gage height, 4.73 ft); minimum daily, 13 cfs Mar. 4.

1956-66: Maximum discharge, 1,210 cfs June 6, 1957 (gage height, 6.32 ft); minimum daily determined, 3.4 cfs Dec. 26, 1958. Maximum flood known occurred Oct. 5, 1911.

Remarks.--Records good except those for winter period, which are poor. No diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	89	34	20	27	18	16	196	342	445	151	51	20
2	83	34	21	20	18	16	216	370	395	120	51	20
3	80	32	22	20	16	14	204	420	370	105	49	19
4	76	32	23	22	17	13	157	455	342	93	59	18
5	73	30	24	24	18	14	130	485	312	87	73	18
6	71	29	25	23	20	15	125	505	292	82	54	18
7	68	29	25	22	20	16	135	505	280	75	48	18
8	65	29	25	23	18	17	148	515	264	69	44	17
9	63	29	25	23	17	18	157	515	280	65	40	17
10	58	29	27	24	17	20	172	530	292	62	39	17
11	56	27	26	24	17	22	162	385	260	57	37	18
12	53	25	25	22	17	24	143	300	264	54	37	22
13	51	27	24	21	18	28	132	236	268	55	34	18
14	49	27	22	21	16	36	127	200	264	51	31	16
15	48	27	22	21	17	40	145	204	252	48	30	33
16	57	27	20	20	15	48	172	240	228	48	30	24
17	63	27	19	19	16	55	212	276	212	45	27	21
18	56	26	18	18	16	44	212	338	196	45	28	20
19	52	25	19	20	16	53	176	375	186	48	30	18
20	50	24	20	22	16	60	145	395	182	73	40	18
21	48	24	20	20	17	61	132	405	172	72	31	18
22	48	20	21	18	16	53	125	445	168	62	30	17
23	48	26	23	19	18	42	111	460	168	55	41	17
24	48	31	22	19	16	46	113	465	157	55	34	17
25	47	41	20	18	17	53	130	440	148	48	29	17
26	44	26	19	18	18	60	172	390	140	44	26	17
27	43	20	19	19	16	73	228	347	125	42	24	16
28	41	18	20	18	16	86	252	308	111	52	22	16
29	40	17	24	17	-	92	272	320	115	54	22	16
30	38	18	32	19	-----	105	304	370	146	54	22	16
31	37	-----	28	20	-----	145	-----	490	-----	61	21	-----
Total	1,743	810	700	641	477	1,385	5,095	12,031	7,034	2,032	1,134	557
Mean	56.2	27.0	22.6	20.7	17.0	44.7	170	388	234	65.5	36.6	18.6
Ac-ft	3,460	1,610	1,390	1,270	946	2,750	10,110	23,860	13,950	4,030	2,250	1,100

Calendar year 1965: Max 894 Min - Mean 143 Ac-ft 103,800

Water year 1965-66: Max 530 Min 13 Mean 92.2 Ac-ft 66,720

Peak discharge (base, 500 cfs)

Note.--No gage-height record Feb. 6 to Mar. 11.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-10	0700	4.73	615	5-31	1230	4.55	530
5-23	2130	4.59	545				

9-3400. East Fork San Juan River near Pagosa Springs, Colo.

Location.--Lat 37°22'00", long 106°53'30", in NW¼SW¼ sec.7, T.36 N., R.1 E., on right bank a quarter of a mile upstream from private highway bridge, half a mile upstream from West Fork, and 9.5 miles northeast of Pagosa Springs.

Drainage area.--86.9 sq mi.

Records available.--May 1935 to September 1966. Prior to October 1959, published as San Juan River near Pagosa Springs.

Gage.--Water-stage recorder. Datum of gage is 7,597.63 ft above mean sea level, datum of 1929. Prior to Sept. 8, 1938, at site a quarter of a mile downstream at different datum.

Average discharge.--31 years, 120 cfs (86,880 acre-ft per year).

Extremes.--Maximum discharge during year, 856 cfs May 10 (gage height, 3.76 ft); minimum daily, 17 cfs Mar. 4.

1935-66: Maximum discharge, 2,070 cfs May 12, 1941 (gage height, 4.84 ft), from rating curve extended above 1,300 cfs; minimum daily, 5.5 cfs Dec. 20, 1939.

Maximum flood known occurred Oct. 5, 1911.

Remarks.--Records good except those for winter period, which are poor. Diversions above station for irrigation of a few hundred acres of hay meadows below station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	130	48	32	40	22	20	308	480	550	201	66	28
2	121	46	32	30	20	19	364	515	510	156	64	28
3	113	44	32	24	19	18	352	570	500	138	62	26
4	106	42	32	22	19	17	276	600	432	124	69	26
5	102	40	34	26	22	19	228	650	405	117	92	25
6	96	38	32	28	24	20	210	705	360	106	68	25
7	92	36	32	30	22	22	231	722	348	96	57	25
8	86	35	34	30	22	22	256	749	324	90	53	23
9	83	36	36	30	22	24	262	766	344	84	48	23
10	79	35	38	30	20	28	292	744	364	81	47	23
11	74	32	35	30	20	36	273	535	332	76	44	25
12	72	30	34	28	20	44	231	405	336	74	42	32
13	66	31	33	28	22	55	210	320	332	74	42	25
14	64	31	32	28	18	60	193	284	328	68	37	23
15	60	32	30	28	20	80	242	296	316	64	36	60
16	83	32	28	26	18	98	308	336	284	62	35	32
17	92	33	26	24	19	104	356	382	262	62	34	27
18	81	30	26	24	19	75	352	455	259	62	34	26
19	76	30	26	26	20	92	300	510	238	63	51	24
20	76	30	28	28	20	104	248	535	238	103	63	23
21	74	30	28	26	20	100	214	560	220	100	44	23
22	72	26	30	24	20	86	201	585	214	81	38	22
23	71	33	32	24	20	65	183	595	207	76	51	22
24	69	41	30	24	19	76	199	605	189	72	47	23
25	68	60	28	24	20	84	220	555	177	62	37	22
26	64	40	26	26	22	96	284	490	169	53	34	22
27	62	30	26	24	20	124	360	460	156	50	32	21
28	60	30	28	22	20	140	382	432	138	60	31	20
29	57	28	34	20	-	150	400	414	148	66	30	20
30	53	28	44	24	-----	169	450	480	186	69	30	19
31	50	-----	42	26	-----	242	-----	610	-----	93	30	-----
Total	2,452	1,057	980	824	569	2,289	8,380	16,345	8,866	2,683	1,448	763
Mean	79.1	35.2	31.6	26.6	20.3	73.8	279	527	296	86.5	46.7	25.4
Ac-ft	4,860	2,100	1,940	1,630	1,130	4,540	16,620	32,420	17,590	5,320	2,870	1,510

Calendar year 1965: Max 1,080 Min 15 Mean 194 Ac-ft 140,600  
 Water year 1965-66: Max 766 Min 17 Mean 128 Ac-ft 92,540

Peak discharge (base, 600 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-10	0700	3.76	856	5-31	1930	3.43	656
5-23	2200	3.53	710				

## 9-3425. San Juan River at Pagosa Springs, Colo.

Location.--Lat 37°15'50", long 107°00'40", in S½ sec.13, T.35 N., R.2 W., on right bank at former bridge site in Pagosa Springs, 0.2 mile upstream from McCabe Creek, 0.6 mile downstream from bridge on U. S. Highway 160, and 2 miles upstream from Mill Creek.

Drainage area.--298 sq mi.

Records available.--October 1910 to December 1914, May 1935 to September 1966. Monthly discharge only for some periods, published in WSP 1313.

Gage.--Water-stage recorder. Datum of gage is 7,052.04 ft above mean sea level, datum of 1929. Jan. 29 to Mar. 6, 1911, staff gage at site half a mile upstream at different datum. Mar. 7 to Oct. 4, 1911, staff gage at present site at different datum. Nov. 23, 1911, to Nov. 14, 1914, staff gage at site 300 ft downstream at different datum.

Average discharge.--35 years, 374 cfs (270,800 acre-ft per year).

Extremes.--Maximum discharge during year, 2,100 cfs May 8 (gage height, 5.42 ft); minimum daily, 32 cfs Sept. 9, 22.

1910-14, 1935-66; Maximum discharge, about 25,000 cfs Oct. 5, 1911 (gage height, 17.8 ft, from floodmarks), from velocity-area study; minimum daily, 9.7 cfs Oct. 5, 6, 1956.

Maximum stage known, that of Oct. 5, 1911. Flood of June 29, 1927, reached a stage of 13.5 ft (discharge, about 16,000 cfs), from information by local residents.

Remarks.--Records fair. Diversions for irrigation of several thousand acres above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	345	145	118	118	75	73	934	1,280	1,500	493	141	57
2	321	143	110	96	75	73	1,040	1,380	1,400	349	143	55
3	309	139	108	84	65	66	981	1,500	1,300	294	162	50
4	294	132	116	87	72	60	736	1,570	1,150	263	150	44
5	280	128	118	90	76	65	575	1,680	1,100	238	246	43
6	266	124	116	94	76	65	529	1,770	1,000	216	171	43
7	252	122	116	92	82	76	590	1,840	950	196	145	43
8	232	118	120	92	78	78	640	1,880	900	179	126	38
9	223	120	118	96	73	87	655	1,810	871	162	120	32
10	210	114	145	94	73	108	748	1,860	995	150	110	35
11	198	108	139	94	75	134	709	1,460	841	152	103	37
12	187	103	124	90	72	164	580	1,200	835	150	96	56
13	176	108	116	90	79	196	534	947	823	132	105	43
14	171	106	108	90	65	216	511	811	793	130	94	34
15	164	106	103	89	70	284	570	799	764	120	92	24
16	207	106	101	97	60	373	720	934	687	120	87	69
17	263	110	79	87	65	377	823	1,060	635	120	94	50
18	232	108	92	84	72	291	829	1,320	610	120	84	43
19	198	106	78	94	72	305	720	1,450	570	140	97	39
20	207	103	84	90	73	365	610	1,530	556	240	122	36
21	198	105	84	89	75	361	520	1,540	524	200	103	36
22	201	86	105	84	72	298	524	1,600	484	182	89	32
23	196	120	94	80	78	242	475	1,580	470	152	97	37
24	196	143	101	80	70	252	493	1,700	426	145	108	37
25	187	238	96	85	76	305	565	1,600	381	132	82	46
26	182	159	90	85	79	385	726	1,460	353	128	73	39
27	174	118	89	80	72	498	902	1,320	341	116	69	37
28	166	110	94	75	73	560	954	1,230	291	118	68	37
29	159	99	94	75	-	605	1,010	1,150	309	126	62	36
30	154	97	118	80	-----	640	1,200	1,350	373	162	58	34
31	150	-----	130	80	-----	775	-----	1,600	-----	182	58	-----
Total	6,698	3,624	3,304	2,741	2,043	8,377	21,403	44,211	22,232	5,607	3,355	1,312
Mean	216	121	107	88.4	73.0	270	713	1,426	741	181	108	43.7
Ac-ft	13,290	7,190	6,550	5,440	4,050	16,620	42,450	87,690	44,100	11,120	6,650	2,600

Calendar year 1965: Max 2,890 Min 45 Mean 584 Ac-ft 422,600  
 Water year 1965-66: Max 1,880 Min 32 Mean 342 Ac-ft 247,700

Peak discharge (base, 1,500 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-8	0030	5.42	2,100	5-31	-	5.08	1,830
5-24	0200	5.08	1,850				

9-3430. Rio Blanco near Pagosa Springs, Colo.

Location.--Lat 37°12'46", long 106°47'38", in center of sec.1, T.34 N., R.1 E., on right bank 40 ft downstream from highway bridge, 0.4 mile upstream from Leche Creek, 1½ miles downstream from Fish Creek, and 12.5 miles southeast of Pagosa Springs.

Drainage area.--58.0 sq mi.

Records available.--May 1935 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 7,950 ft (from topographic map).

Average discharge.--31 years, 85.4 cfs (61,830 acre-ft per year).

Extremes.--Maximum discharge during year, 682 cfs May 7 (gage height, 2.59 ft); minimum daily, 11 cfs Sept. 26, 29, 30.

1935-66: Maximum discharge, about 1,600 cfs July 26 or 27, 1957; maximum gage height, 4.12 ft June 18, 1949; minimum daily discharge, 3.0 cfs Oct. 10, 1956.

Maximum flood known occurred Oct. 5, 1911.

Remarks.--Records fair except those for winter period, which are poor. Diversions for irrigation of about 350 acres above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	69	30	30	30	18	18	258	306	394	119	42	14
2	64	31	32	26	18	18	251	338	354	89	78	14
3	64	31	32	20	17	16	195	434	330	73	63	14
4	62	30	32	22	17	14	151	474	290	66	45	13
5	62	30	32	22	18	18	130	482	258	63	37	13
6	59	29	32	22	20	20	139	498	220	61	32	13
7	54	28	32	24	22	22	151	546	195	57	28	13
8	50	28	32	22	22	22	163	530	190	55	24	13
9	49	28	27	22	22	24	171	530	215	50	24	12
10	46	28	27	24	20	28	180	482	244	50	21	13
11	42	28	26	24	19	36	155	346	195	50	19	14
12	42	27	24	22	18	46	129	277	195	45	21	18
13	38	28	23	22	18	55	117	220	195	40	22	13
14	34	28	22	20	17	60	126	190	195	32	20	12
15	33	28	22	20	18	85	151	220	175	35	19	40
16	47	28	21	22	17	100	190	232	155	32	24	15
17	52	29	20	22	16	95	205	277	147	31	20	13
18	47	28	22	20	16	80	180	322	139	31	18	12
19	54	28	20	20	17	85	151	354	132	38	19	12
20	57	28	20	20	17	100	129	346	138	45	25	12
21	54	26	18	20	18	90	120	338	130	46	18	12
22	50	26	22	20	19	75	120	330	130	43	16	12
23	47	44	28	19	19	65	120	362	123	48	40	12
24	46	46	26	18	18	70	129	402	116	46	24	13
25	42	47	24	18	19	85	155	354	101	38	18	13
26	38	44	24	19	20	100	185	306	101	37	18	11
27	36	40	26	18	18	110	210	277	94	35	15	12
28	35	32	28	17	18	130	215	251	89	42	15	12
29	34	28	30	18	-	143	251	277	97	48	14	11
30	33	28	34	18	-----	159	284	330	123	50	14	11
31	31	-----	32	19	-----	205	-----	490	-----	63	15	-----
Total	1,471	934	820	650	516	2,174	5,111	11,121	5,460	1,558	808	412
Mean	47.5	31.1	26.5	21.0	18.4	70.1	170	359	182	50.3	26.1	13.7
Ac-ft	2,920	1,850	1,630	1,290	1,020	4,310	10,140	22,060	10,830	3,090	1,600	817

Calendar year 1965: Max 780 Min 13 Mean 132 Ac-ft 95,620  
 Water year 1965-66: Max 546 Min 11 Mean 85.0 Ac-ft 61,560

Peak discharge (base, 800 cfs).--No peak above base.

Note.--No gage-height record Dec. 19 to Mar. 28.

9-3440. Navajo River at Banded Peak Ranch, near Chromo, Colo.

Location.--Lat 37°05'07", long 106°41'20", in NW¼ sec. 24, T.33 N., R.2 E., on left bank at downstream side of private bridge on Banded Peak Ranch, half a mile downstream from Aspen Creek, 4 miles downstream from East Fork, and 9 miles northeast of Chromo.

Drainage area.--69.8 sq mi.

Records available.--October 1936 to September 1966. Monthly discharge only for some periods, published in WSP 1313.

Gage.--Water-stage recorder. Datum of gage is 7,940.6 ft above mean sea level (river-profile survey). Prior to Oct. 1, 1949, at datum 3.00 ft higher.

Average discharge.--30 years, 104 cfs (75,290 acre-ft per year).

Extremes.--Maximum discharge during year, 630 cfs May 31 (gage height, 3.08 ft); minimum daily, 26 cfs Mar. 4.  
1936-66: Maximum discharge, 1,340 cfs May 13, 1941 (gage height, 7.02 ft, present datum); minimum daily, 8.4 cfs Sept. 29, 1960, result of temporary blockage by channel alteration upstream.  
Maximum flood known occurred Oct. 5, 1911.

Remarks.--Records good except those for winter period, which are poor. Diversions for irrigation of about 430 acres above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	93	57	38	46	36	30	194	308	420	135	53	32
2	88	56	41	43	35	30	210	344	394	118	55	32
3	85	55	41	36	30	28	188	380	376	105	64	32
4	83	54	43	36	32	26	155	425	352	95	63	34
5	83	53	47	38	32	30	140	455	324	90	58	34
6	81	52	48	38	32	32	130	445	300	86	49	34
7	79	52	47	38	34	35	148	455	284	83	44	34
8	76	50	45	38	35	36	171	505	272	78	43	33
9	74	51	45	38	32	38	189	510	280	74	42	33
10	72	49	49	40	32	38	204	475	300	73	41	33
11	70	48	47	40	30	41	189	352	264	72	39	34
12	68	46	44	39	30	45	165	288	276	70	43	36
13	66	45	44	38	34	48	155	225	276	70	42	31
14	65	45	43	36	30	53	140	204	276	66	42	32
15	63	46	41	38	34	60	158	219	256	63	41	43
16	75	46	38	37	28	67	195	250	232	63	41	33
17	88	47	36	37	30	64	232	280	213	62	40	32
18	77	45	34	34	30	50	225	352	210	67	38	30
19	76	44	34	37	30	62	192	384	198	73	40	28
20	76	43	32	37	30	67	160	394	198	76	67	28
21	75	44	30	37	30	66	142	394	210	88	53	30
22	74	41	34	36	30	60	135	412	192	79	48	30
23	72	68	38	34	33	50	125	430	183	74	72	30
24	70	62	36	34	30	61	128	440	165	68	61	32
25	68	78	34	35	30	70	145	407	165	61	47	31
26	66	51	34	34	33	78	201	344	158	55	42	30
27	64	44	36	34	30	92	246	320	152	56	36	32
28	62	40	38	32	30	111	253	316	142	54	36	32
29	60	38	45	34	-	110	268	344	142	54	33	32
30	59	34	49	34	-----	117	300	384	145	55	32	32
31	57	-----	47	36	-----	151	-----	515	-----	82	32	-----
Total	2,265	1,484	1,258	1,144	882	1,846	5,483	11,556	7,345	2,345	1,437	969
Mean	73.1	49.5	40.6	36.9	31.5	59.5	183	373	245	75.6	46.4	32.3
Ac-ft	4,490	2,940	2,500	2,270	1,750	3,660	10,880	22,920	14,570	4,650	2,850	1,920

Calendar year 1965: Max 840 Min 19 Mean 143 Ac-ft 103,500  
Water year 1965-66: Max 515 Min 26 Mean 104 Ac-ft 75,400

Peak discharge (base, 500 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-7	2130	2.99	570	5-31	1300	3.08	630
5-23	2030	2.88	515				

9-3443. Navajo River above Chromo, Colo.

Location.--Lat 37°01'55", long 106°43'56", in NW¼ sec.9, T.32 N., R.2 E., on right bank 5 ft downstream from private road bridge, 6 miles east of Chromo, and 7 miles upstream from Little Navajo River.

Drainage area.--96.4 sq mi.

Records available.--October 1956 to September 1966. Published as "near Chromo" 1956-58.

Gage.--Water-stage recorder. Altitude of gage is 7,700 ft (from topographic map).

Average discharge.--10 years, 117 cfs (84,700 acre-ft per year).

Extremes.--Maximum discharge during year, 602 cfs May 31 (gage height, 5.00 ft); maximum gage height, 5.49 Mar. 6 (backwater from ice); minimum daily discharge, 29 cfs Sept. 11, 22-24.  
1956-66: Maximum discharge, 1,340 cfs June 7, 1957 (gage height, 5.95 ft); maximum gage height, 6.13 ft during period Feb. 1-8, 1957 (ice jam); minimum daily discharge, 6.4 cfs Sept. 2, 1962.  
Maximum flood known occurred Oct. 5, 1911.

Remarks.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 750 acres above station and about 250 acres below.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	102	54	42	48	42	32	374	326	440	152	59	35
2	95	52	45	46	40	34	398	356	398	134	64	32
3	88	51	46	40	38	32	344	398	392	125	73	32
4	90	50	48	40	34	30	260	434	374	110	70	32
5	90	48	51	42	36	32	200	452	338	105	62	33
6	85	47	51	42	38	36	192	464	305	92	58	33
7	82	46	51	42	40	40	208	470	290	80	52	34
8	78	46	51	42	38	44	230	500	290	76	48	32
9	75	46	50	42	36	50	240	506	295	82	47	33
10	73	45	56	44	34	55	260	488	315	83	47	32
11	67	44	54	44	34	60	230	396	275	82	44	29
12	65	42	51	42	34	70	196	326	295	78	39	32
13	64	43	50	42	36	80	190	265	305	76	40	32
14	63	43	50	40	34	95	160	240	305	71	37	33
15	62	44	50	42	36	110	192	250	305	67	43	42
16	71	43	46	40	34	140	235	290	275	65	43	36
17	90	44	43	40	34	140	280	300	245	64	42	34
18	78	43	40	38	36	110	270	356	230	68	41	33
19	73	42	40	40	40	134	230	392	216	71	42	31
20	73	41	36	40	38	131	204	398	212	78	59	30
21	73	42	34	40	38	122	180	392	212	90	47	30
22	71	39	38	40	36	102	172	422	196	85	44	29
23	70	63	44	38	38	90	164	428	168	78	54	29
24	68	62	42	38	36	102	168	458	168	73	51	29
25	65	85	40	38	38	131	192	428	168	65	41	31
26	64	59	40	38	40	160	235	374	152	59	40	30
27	63	46	42	38	36	204	295	368	148	56	37	31
28	60	42	44	36	32	216	300	344	134	56	35	32
29	58	40	48	38	-	212	305	368	152	62	34	30
30	56	38	51	38	-----	235	326	410	164	64	33	31
31	55	-----	48	40	-----	310	-----	524	-----	91	35	-----
Total	2,267	1,430	1,422	1,258	1,026	3,339	7,210	12,103	7,742	2,538	1,461	962
Mean	73.1	47.7	45.9	40.6	36.6	108	240	390	258	81.9	47.1	32.1
Ac-ft	4,500	2,840	2,820	2,500	2,040	6,620	14,300	24,010	15,360	5,030	2,900	1,910

Calendar year 1965: Max 870 Min 22 Mean 163 Ac-ft 117,700  
Water year 1965-66: Max 524 Min 29 Mean 117 Ac-ft 84,810

Peak discharge (base, 550 cfs).--May 31 (1430) 602 cfs (5.00 ft).



## SAN JUAN RIVER BASIN

9-3460, Navajo River at Edith, Colo.

Location.--Lat 37°00'10", long 106°54'25", in NW¼ sec.24, T.32 N., R.1 W., on right bank 290 ft downstream from highway bridge, 0.15 mile southeast of Edith, 0.5 mile upstream from Colorado-New Mexico State line, and 1.3 miles upstream from Coyote Creek.

Drainage area.--172 sq mi.

Records available.--September 1912 to September 1966. Monthly or yearly discharge only for some periods, published in WSP 1313.

Gage.--Water-stage recorder. Datum of gage is 7,033.00 ft above mean sea level (Bureau of Reclamation bench mark). Prior to Jan. 1, 1929, staff gage at site 240 ft upstream at different datum. June 2, 1935, to June 27, 1941, water-stage recorder at sites 210 and 240 ft upstream at datum 2.0 ft higher. June 28, 1941, to June 20, 1961, at site 50 ft downstream at same datum.

Average discharge.--54 years, 158 cfs (114,400 acre-ft per year).

Extremes.--Maximum discharge during year, 718 cfs May 31 (gage height, 4.84 ft); maximum gage height, 5.35 ft Mar. 15 (backwater from ice); minimum daily discharge, 26 cfs Sept. 23.

1935-66: Maximum discharge, 2,840 cfs Apr. 23, 1942 (gage height, 6.55 ft), from rating curve extended above 1,100 cfs; minimum daily, 8 cfs Sept. 25, 1953.

Maximum flood known occurred Oct. 5, 1911.

Remarks.--Records good except those for winter period, which are poor. Diversions for irrigation of about 1,700 acres above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	117	66	51	55	46	42	440	362	494	161	73	32
2	106	64	52	50	46	42	500	380	430	145	82	32
3	103	63	54	46	42	42	430	405	415	128	82	33
4	101	61	55	46	40	36	326	470	375	115	85	33
5	99	60	57	48	42	40	254	488	358	106	70	34
6	97	59	60	48	42	44	240	494	330	97	63	35
7	94	57	60	48	46	48	258	518	290	88	56	37
8	90	57	59	48	44	50	290	544	278	85	51	34
9	88	56	57	48	44	55	306	572	294	92	47	35
10	84	56	55	50	42	65	334	572	346	80	43	35
11	80	54	73	50	40	80	310	435	294	84	43	34
12	77	52	64	48	40	100	266	366	298	76	33	36
13	76	52	60	48	44	120	250	298	302	74	42	37
14	74	52	60	46	40	160	222	258	290	76	40	34
15	73	54	60	48	42	200	240	254	298	68	44	45
16	82	55	55	46	40	280	298	298	278	70	46	39
17	115	54	48	46	40	262	334	302	250	66	45	32
18	103	54	51	44	42	218	330	370	240	68	42	32
19	94	52	47	46	46	232	294	410	222	71	47	29
20	95	50	42	46	44	246	254	430	226	88	57	31
21	94	51	40	46	44	229	218	430	232	97	51	35
22	92	45	44	46	42	188	229	450	215	97	50	32
23	90	82	50	44	44	148	203	465	197	88	51	26
24	87	85	50	44	42	176	203	494	167	84	68	30
25	84	152	46	44	42	229	222	460	173	76	48	31
26	80	88	46	44	44	282	266	390	173	61	46	31
27	77	55	48	44	42	310	326	380	164	64	42	32
28	74	50	50	42	42	330	338	358	150	60	40	32
29	71	46	55	44	-	306	334	370	150	67	36	31
30	70	44	60	44	-----	322	366	435	167	67	35	31
31	67	-----	60	46	-----	390	-----	593	-----	90	38	-----
Total	2,734	1,826	1,699	1,443	1,194	5,272	8,881	13,051	8,096	2,679	1,596	1,000
Mean	88.2	60.9	54.8	46.5	42.6	170	296	421	270	86.4	51.5	33.3
Ac-ft	5,420	3,620	3,370	2,860	2,370	10,460	17,620	25,890	16,060	5,310	3,170	1,980

Calendar year 1965: Max 939 Min 26 Mean 195 Ac-ft 141,500  
 Water year 1965-66: Max 593 Min 26 Mean 136 Ac-ft 98,120

Peak discharge (base, 600 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
4- 1	2130	4.66	600	5-31	1615	4.84	718
5-10	0100	4.77	635				

9-3464. San Juan River near Carracas, Colo.

Location.--Lat 37°00'47", long 107°18'39", in SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec.17, T.32 N., R.4 W., on right bank just above flow line of Navajo Reservoir and 3 miles northwest of Carracas, 7.2 miles upstream from Piedra River, and at mile 178.8.

Drainage area.--1,230 sq mi, approximately.

Records available.--October 1961 to September 1966.

Gage.--Digital water-stage recorder. Altitude of gage is 6,090 ft (from river-profile map). Prior to May 16, 1963, graphic water-stage recorder at same site and datum.

Average discharge.--5 years, 648 cfs (469,100 acre-ft per year).

Extremes.--Maximum discharge during year, 3,650 cfs May 8 (gage height, 5.42 ft); minimum, 56 cfs Sept. 26.

1961-66: Maximum discharge, 6,120 cfs May 22, 1965 (gage height, 6.85 ft); minimum, about 5 cfs Dec. 10, 1961, result of freezeup.

Maximum flood known occurred Oct. 5, 1911. Major floods occurred Sept. 5 or 6, 1909, and June 29, 1927.

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

Cooperation.--Records furnished by New Mexico district.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	634	297	222	465	150	140	2,230	2,190	2,750	853	321	108
2	576	264	224	342	145	140	2,500	2,330	2,380	658	334	101
3	546	278	210	214	145	130	2,380	2,580	2,260	552	432	100
4	520	265	218	167	150	125	1,790	2,720	2,070	492	360	95
5	496	259	235	167	160	130	1,380	2,900	1,930	449	348	84
6	486	250	232	168	165	170	1,250	3,130	1,750	404	311	84
7	461	244	238	169	165	250	1,300	3,160	1,620	367	255	88
8	435	234	242	170	160	350	1,420	3,350	1,480	347	216	87
9	416	232	246	172	155	450	1,430	3,190	1,450	320	204	79
10	395	232	336	170	150	600	1,610	3,280	1,740	294	185	77
11	379	224	460	168	140	800	1,560	2,640	1,530	304	173	88
12	361	203	318	162	135	1,100	1,340	2,170	1,430	297	157	83
13	349	198	263	155	135	1,400	1,220	1,760	1,450	267	163	114
14	328	199	235	150	140	1,700	1,120	1,540	1,370	267	170	98
15	320	199	228	150	140	2,060	1,150	1,280	1,370	239	156	105
16	386	209	221	155	140	2,240	1,400	1,620	1,230	273	144	204
17	635	211	182	155	140	2,120	1,620	1,680	1,170	237	206	140
18	614	215	194	155	140	1,460	1,680	2,060	1,100	215	162	109
19	489	204	191	155	145	1,480	1,490	2,280	1,040	246	154	96
20	455	197	159	145	150	1,750	1,330	2,480	995	290	173	90
21	446	192	123	135	150	1,800	1,130	2,490	992	360	226	92
22	437	187	176	130	155	1,430	1,170	2,590	951	347	174	94
23	422	238	210	130	155	940	1,080	2,530	879	319	195	82
24	408	374	207	135	155	1,010	1,050	2,720	795	286	214	82
25	394	1,270	210	140	155	1,300	1,110	2,630	729	267	188	90
26	379	764	191	150	150	1,580	1,330	2,290	678	237	150	84
27	363	310	173	155	145	1,740	1,660	2,170	673	231	134	86
28	351	266	179	160	140	1,860	1,800	1,970	627	210	123	86
29	332	232	191	170	-	1,790	1,780	1,900	603	237	117	86
30	319	207	354	170	-----	1,660	2,090	2,180	699	321	105	78
31	315	-----	495	160	-----	1,930	-----	2,700	-----	381	114	-----
Total	13,447	8,654	7,363	5,389	4,155	35,635	45,400	74,510	39,741	10,567	6,364	2,890
Mean	434	288	238	174	148	1,150	1,513	2,404	1,325	341	205	96.3
Ac-ft	26,670	17,160	14,600	10,690	8,240	70,680	90,050	147,800	78,830	20,960	12,620	5,730

Calendar year 1965: Max 5,370 Min 80 Mean 1,095 Ac-ft 792,400  
 Water year 1965-66: Max 3,350 Min 77 Mean 696 Ac-ft 504,000

Peak discharge (base 2,000 cfs, revised).--Nov. 25 (1930) 2,210 cfs (4.53 ft); May 8 (0530) 3,650 cfs (5.42 ft).

## 9-3495. Piedra River near Piedra, Colo.

Location.--Lat 37°13'20", long 107°20'30", in NW¼ sec. 17, T.34 N., R.4 W., on right bank 0.1 mile downstream from bridge on U. S. Highway 160, 0.4 mile upstream from Yellow Jacket Creek, and 1½ miles northwest of Piedra.

Drainage area.--371 sq mi.

Records available.--October 1911 to September 1912, October 1938 to September 1966. Monthly discharge only for some periods, published in WSP 1313. Published as "at Piedra" 1912.

Gage.--Water-stage recorder. Altitude of gage is 6,510 ft (from topographic map). Nov. 26, 1911, to July 22, 1912, staff gages near present site at different datums. Jan. 11, 1939, to Mar. 19, 1940, chain gage 0.3 mile upstream at different datum. Mar. 20, 1940, to May 9, 1941, water-stage recorder at site 2 miles upstream at different datum. May 10 to Sept. 27, 1941, chain gage and Sept. 28, 1941, to Sept. 18, 1962, water-stage recorder, 0.3 mile upstream at different datum.

Average discharge.--29 years, 317 cfs (229,500 acre-ft per year).

Extremes.--Maximum discharge during year, 2,150 cfs May 8 (gage height, 4.37 ft); minimum daily, 50 cfs Sept. 30.

1911-12, 1938-66: Maximum discharge not determined, occurred Oct. 5, 1911. Maximum discharge determined, 6,870 cfs July 26, 1957 (gage height, 8.60 ft, site and datum then in use), from rating curve extended above 2,800 cfs; minimum daily, 17 cfs Nov. 11, 1950.

Maximum flood known, that of Oct. 5, 1911. Another major flood occurred June 29, 1927.

Remarks.--Records good except those for winter period, which are poor. Diversions for irrigation of about 2,220 acres above station. Also two small ditches divert water above station for irrigation below. Piedra Pass and Squaw Pass ditches (see elsewhere in this report) export small amount of water above station to Rio Grande basin. Slight regulation at times by Williams Creek Reservoir (capacity, 1,080 acre-ft).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	254	128	91	109	67	60	914	1,070	1,260	375	248	76
2	242	128	85	95	65	60	1,040	1,190	1,110	277	254	70
3	236	125	78	79	63	63	992	1,300	1,050	240	318	67
4	227	123	84	82	67	55	791	1,360	1,000	212	248	64
5	218	119	89	91	65	60	664	1,510	928	192	277	61
6	209	119	82	80	65	60	646	1,710	864	178	237	61
7	257	117	91	80	68	69	670	1,840	770	158	190	62
8	236	107	95	80	69	69	728	1,910	688	145	170	67
9	224	109	109	80	68	72	749	1,800	698	132	160	60
10	212	105	113	85	66	79	819	1,710	694	121	138	58
11	206	101	109	84	67	91	798	1,260	658	148	125	62
12	198	93	113	80	66	101	694	1,120	652	145	130	97
13	192	101	101	79	65	115	652	936	640	121	152	99
14	190	97	89	87	64	130	640	812	622	132	121	78
15	185	99	91	82	65	155	694	742	604	115	111	164
16	162	101	85	84	55	192	826	888	544	113	107	148
17	221	107	79	73	60	224	912	968	532	113	111	109
18	180	101	75	78	66	190	880	1,110	502	101	101	93
19	155	99	70	85	64	236	777	1,280	478	103	91	87
20	162	93	70	78	64	260	670	1,330	454	148	117	80
21	162	95	65	76	60	274	592	1,290	460	165	113	79
22	162	78	75	69	60	274	634	1,280	430	172	97	73
23	160	101	85	75	60	239	628	1,180	395	168	93	72
24	162	115	90	80	62	251	652	1,320	355	160	97	66
25	160	175	90	74	60	278	682	1,230	314	152	84	64
26	158	138	90	73	60	320	770	1,120	297	148	78	60
27	158	85	91	75	63	429	904	1,010	370	172	76	55
28	145	80	93	65	63	515	936	904	318	150	76	55
29	135	72	95	70	-	600	960	880	273	150	68	53
30	132	79	107	75	-----	649	1,050	1,040	318	221	66	50
31	132	-----	115	70	-----	768	-----	1,490	-----	360	85	-----
Total	5,832	3,190	2,795	2,473	1,787	6,938	23,364	38,590	18,268	5,287	4,339	2,290
Mean	188	106	90.2	79.8	63.8	224	779	1,245	609	171	140	76.3
Ac-ft	11,570	6,330	5,540	4,910	3,540	13,760	46,340	76,540	36,230	10,490	8,610	4,540

Calendar year 1965: Max 2,460 Min 44 Mean 459 Ac-ft 332,300  
 Water year 1965-66: Max 1,910 Min 50 Mean 315 Ac-ft 228,400

Peak discharge (base, 1,300 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
4-2	2200	3.80	1,450	5-24	0100	3.83	1,520
5-8	0245	4.37	2,150	5-31	0530	3.99	1,720

9-3498. Piedra River near Arboles, Colo.

Location.--Lat 37°05'17", long 107°23'52", in NE¼SW¼ sec.21, T.33 N., R.5 W., on left bank 3 miles downstream from Ignacio Creek, 5.2 miles northeast of Arboles Post Office, 8 miles upstream from mouth.

Drainage area.--629 sq mi.

Records available.--August 1962 to September 1966. Gage operated 1895-1899, 1910-1927 at a site 7½ miles downstream at altitude 6,000 ft. Low-flow records probably not equivalent.

Gage.--Digital water-stage recorder. Datum of gage is 6,147.52 ft above mean sea level (from Colorado State Highway Department bench mark). Prior to May 16, 1963, graphic water-stage recorder at same site and datum.

Extremes.--Maximum discharge during year, 2,260 cfs Apr. 3 (gage height, 4.03 ft); minimum, 50 cfs Sept. 30.  
1962-66: Maximum discharge, 4,000 cfs Apr. 23, 1965 (gage height, 5.20 ft); minimum, 11 cfs Dec. 9, 1963.  
Maximum flood known occurred Oct. 5, 1911. A major flood occurred Sept. 5 or 6, 1909.

Remarks.--Records good except those for winter period, which are poor. Diversions for irrigation of about 2,800 acres above station.

Cooperation.--Records furnished by New Mexico district.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	264	141	99	120	75	92	1,670	1,260	1,380	385	257	85
2	249	140	102	100	75	98	1,840	1,360	1,230	310	238	77
3	238	136	92	90	75	94	1,740	1,430	1,170	264	337	74
4	232	134	95	90	75	88	1,280	1,430	1,070	233	246	71
5	222	133	102	90	75	94	1,020	1,580	1,010	207	270	68
6	209	132	98	100	80	98	953	1,720	931	153	236	67
7	248	130	101	100	80	100	1,050	1,780	850	168	192	64
8	240	124	110	100	80	117	1,140	1,870	743	151	168	70
9	226	121	113	90	80	160	1,120	1,790	702	136	164	66
10	218	123	142	90	75	215	1,200	1,790	730	126	144	63
11	211	117	153	90	70	290	1,110	1,480	674	140	131	63
12	199	111	142	90	70	360	927	1,290	667	142	129	73
13	195	111	129	90	70	408	832	1,070	653	122	145	85
14	191	112	118	85	70	558	785	935	625	127	126	71
15	186	111	117	85	90	702	828	853	597	116	113	110
16	179	115	113	80	70	777	961	973	534	112	106	133
17	233	116	109	80	70	771	1,070	1,030	527	112	114	100
18	207	121	109	80	80	584	1,060	1,220	502	105	105	88
19	175	114	107	85	80	611	953	1,350	478	101	99	80
20	173	112	100	85	80	731	845	1,410	466	118	119	80
21	169	110	90	70	90	767	722	1,390	472	159	122	76
22	168	105	80	75	90	714	772	1,380	460	153	103	73
23	166	122	80	75	100	533	810	1,350	418	147	96	70
24	167	127	90	70	106	534	801	1,390	380	139	99	67
25	168	282	90	70	92	617	806	1,310	340	135	90	63
26	166	195	90	70	92	774	919	1,170	310	131	84	59
27	161	122	95	75	85	1,020	1,070	1,040	370	150	80	57
28	157	110	95	70	84	1,190	1,100	959	335	140	83	56
29	150	100	100	80	-	1,330	1,120	915	300	145	76	54
30	146	102	110	80	-	1,300	1,240	1,080	325	192	73	53
31	144	-----	120	80	-----	1,470	-----	1,430	-----	359	83	-----
Total	6,058	3,829	3,291	2,635	2,259	17,197	31,744	41,035	19,249	5,178	4,428	2,216
Mean	195	128	106	85.0	80.7	555	1,058	1,324	642	167	143	73.9
Ac-ft	12,020	7,590	6,530	5,230	4,480	34,110	62,960	81,390	38,180	10,270	8,780	4,400

Calendar year 1965 : Max 3,090 Min 50 Mean 569 Ac-ft 412,000  
Water year 1965-66: Max 1,870 Min 53 Mean 381 Ac-ft 275,900

Peak discharge (base, 1,000 cfs, revised).--Apr. 3 (0130) 2,260 cfs (4.03 ft).

## 9-3529. Vallecito Creek near Bayfield, Colo.

Location.--Lat 37°28'45", long 107°32'35", in NW¼ sec.16, T.37 N., R.6 W. (projected), on right bank 60 ft upstream from Fall Creek, 0.7 mile downstream from Bear Creek, 7 miles north of Vallecito Dam, and 18 miles north of Bayfield.

Drainage area.--72.1 sq mi.

Records available.--October 1962 to September 1966.

Gage.--Water-stage recorder and concrete control. Datum of gage is 7,906.08 ft above mean sea level, datum of 1929.

Extremes.--Maximum discharge during year, 1,010 cfs May 7 (gage height, 2.84 ft), from rating curve extended above 550 cfs; minimum daily, 17 cfs Mar. 4.

1962-66: Maximum discharge, 1,530 cfs June 19, 1965 (gage height, 3.43 ft); minimum daily, 11 cfs for several days in January, February, March, 1964.

Major floods occurred in October 1911 and June 1927.

Remarks.--Records good except those for winter period, which are poor. No diversion above station. Records of chemical analyses, water temperatures, and suspended sediment loads for the water year 1966 are published in Part 2 of this report.

## Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	164	83	46	39	20	20	154	270	608	350	172	68
2	164	82	41	30	20	19	180	338	610	275	288	62
3	172	76	42	30	19	18	172	398	620	245	326	60
4	172	70	42	30	20	17	142	466	608	228	208	54
5	172	67	41	32	20	18	122	592	584	224	157	52
6	154	64	40	30	20	20	110	704	528	196	130	53
7	148	62	40	30	20	22	112	792	459	176	112	51
8	139	60	40	30	20	21	120	784	410	172	99	45
9	133	60	40	30	20	22	125	704	417	164	91	42
10	128	56	40	30	20	23	136	576	424	160	82	42
11	122	53	42	30	20	24	130	392	392	184	75	51
12	115	52	40	28	22	25	120	296	459	160	73	88
13	108	51	40	26	20	29	110	236	520	160	76	82
14	101	50	39	28	19	30	108	208	528	160	70	77
15	97	49	39	28	20	35	120	208	459	148	68	220
16	112	49	37	26	18	40	154	280	392	160	65	134
17	110	49	33	26	20	40	184	338	392	188	64	104
18	108	46	35	26	20	39	180	480	392	172	63	90
19	103	45	35	26	21	40	157	576	392	157	63	79
20	101	43	30	26	21	43	136	648	431	201	78	74
21	101	44	32	26	21	43	120	624	386	232	75	69
22	103	35	34	24	21	40	120	568	424	188	64	61
23	103	43	36	26	21	36	110	632	392	154	102	58
24	110	46	34	22	21	36	115	672	350	145	89	57
25	112	47	34	20	21	41	130	640	314	130	73	53
26	110	41	34	22	22	43	168	552	296	122	68	50
27	108	40	34	22	22	52	196	459	260	122	63	50
28	101	41	34	20	20	65	208	417	224	125	60	51
29	93	41	35	22	-	82	212	576	250	136	58	45
30	91	44	31	22	-----	95	240	704	356	210	53	43
31	85	-----	37	22	-----	122	-----	768	-----	240	76	-----
Total	3,740	1,589	1,157	829	569	1,200	4,391	15,898	12,877	5,684	3,141	2,065
Mean	121	53.0	37.3	26.7	20.3	38.7	146	513	429	183	101	68.8
Ac-ft	7,420	3,150	2,290	1,640	1,130	2,380	8,710	31,530	25,540	11,270	6,230	4,100

Calendar year 1965: Max 1,110 Min 17 Mean 206 Ac-ft 149,200

Water year 1965-66: Max 792 Min 17 Mean 146 Ac-ft 105,400

Peak discharge (base, 1,000 cfs).--May 7 (2030) 1,010 cfs (2.84 ft).

9-3530. Vallecito Reservoir near Bayfield, Colo.

Location.--Lat 37°23'00", long 107°34'30", in SW¼SW¼ sec.18, T.36 N., R.6 W., in gatehouse above outlet gates at Vallecito Dam on Los Pinos (Pine) River, 300 ft left of spillway, a quarter of a mile upstream from Little Red Creek, and 11 miles northeast of Bayfield.

Records available.--April 1941 to September 1966.

Gage.--Float gage read once a day. Datum of gage is 7,580 ft above mean sea level (Bureau of Reclamation bench mark); gage readings have been reduced to elevations above mean sea level.

Extremes.--Maximum contents observed during year, 122,700 acre-ft June 15 (elevation, 7,663.68 ft); minimum observed, 53,850 acre-ft Sept. 30 (elevation, 7,634.46 ft).

1941-66: Maximum contents observed, 128,200 acre-ft July 27, 1957 (elevation, 7,665.72 ft); minimum observed, 1,520 acre-ft Oct. 24, 25, 1944 (elevation, 7,584.10 ft). No usable storage prior to April 1941.

Remarks.--Reservoir is formed by an earth- and rock-fill dam; dam completed in March 1941. Capacity of reservoir, 126,300 acre-ft between elevations 7,580 (sill of outlet gate) and 7,665 ft (top of spillway gates). Dead storage, 3,395 acre-ft. Figures given herein represent usable contents. Reservoir is used to store water for irrigation in Los Pinos (Pine) River basin.

Cooperation.--Records furnished by Bureau of Reclamation.

Month-end elevation and contents, water year October 1965 to September 1966

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	7,648.77	84,840	-
Oct. 31.....	7,643.22	72,090	-12,750
Nov. 30.....	7,641.61	68,560	-3,530
Dec. 31.....	7,643.14	71,910	+3,350
Calendar year 1965.....	-	-	+40,710
Jan. 31.....	7,644.02	73,880	+1,970
Feb. 28.....	7,644.44	74,820	+940
Mar. 31.....	7,644.12	74,100	-720
Apr. 30.....	7,649.70	87,060	+12,960
May 31.....	7,663.00	120,900	+33,840
June 30.....	7,662.88	120,600	-300
July 31.....	7,654.09	97,800	-22,800
Aug. 31.....	7,644.17	74,210	-23,590
Sept. 30.....	7,634.46	53,850	-20,360
Water year 1965-66.....	-	-	-30,990

† Elevation at 0800.

9-3535. Los Pinos River near Bayfield, Colo.  
(Locally known as Pine River)

Location.--Lat 37°23'00", long 107°34'30", in SW¼ sec.18, T.36 N., R.6 W., on left side of outlet flume from Vallecito Reservoir, a quarter of a mile upstream from Little Red Creek, 2 miles upstream from Red Creek, and 11 miles north of Bayfield.

Drainage area.--270 sq mi, approximately.

Records available.--October 1927 to September 1966. Monthly discharge only for some periods, published in WSP 1313.

Gage.--Water-stage recorder and concrete weir. Datum of gage is 7,582.54 ft above mean sea level (Bureau of Reclamation bench mark). Oct. 26, 1927, to Aug. 17, 1956, at sites 2½ miles downstream with datum of gage at 7,415.58 ft above mean sea level, adjustment of 1912, prior to July 8, 1934, and at 7,415.08 ft above mean sea level July 9, 1934, to Aug. 17, 1956. Since Aug. 18, 1956, supplementary water-stage recorder at former site 2½ miles downstream for use when upper spillway at Vallecito Reservoir is operating.

Average discharge.--39 years, 349 cfs (252,700 acre-ft per year).

Extremes.--Maximum discharge during year, 2,010 cfs May 31 and June 1 (gage height, 4.06 ft); minimum daily, 62 cfs Nov. 24 to Feb. 6, 1927-66: Maximum discharge, 13,800 cfs July 27, 1957 (gage height, 12.2 ft, from floodmarks at supplementary gage), from rating curve extended above 2,500 cfs on basis of slope-area measurement of peak flow (result of automatic spillway gates releasing from Vallecito Reservoir); minimum daily, 3.2 cfs Feb. 11, 1951 (result of storage in Vallecito Reservoir); minimum daily prior to construction of Vallecito Reservoir, 38 cfs Dec. 21, 22, 1937.

Maximum flood known prior to construction of Vallecito Reservoir occurred Oct. 5, 1911.

Remarks.--Records good. Flow regulated by storage in Vallecito Reservoir (see preceding page). Transmountain diversions above station by Raber-Lohr and Fuchs ditches (see elsewhere in this report).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	580	322	62	62	62	64	361	254	1,450	705	674	570
2	575	353	62	62	62	64	361	254	1,190	705	674	570
3	584	353	62	62	62	64	361	254	1,190	705	674	570
4	584	353	62	62	62	64	361	310	1,190	705	669	570
5	584	353	62	62	62	64	361	405	1,190	705	633	565
6	584	353	62	62	62	64	280	443	1,060	705	613	560
7	580	353	62	62	64	64	118	469	993	705	613	560
8	580	353	62	62	64	79	118	604	993	705	613	556
9	580	353	62	62	64	105	88	932	867	705	613	556
10	580	349	62	62	64	105	72	1,070	804	700	613	556
11	580	219	62	62	64	105	72	1,070	804	700	613	556
12	580	145	62	62	64	102	72	980	804	700	608	522
13	474	145	62	62	64	102	72	608	844	700	608	509
14	527	145	62	62	64	102	72	944	861	694	608	509
15	527	145	62	62	64	102	72	649	938	694	608	452
16	522	145	62	62	64	126	72	551	1,000	694	604	401
17	522	145	62	62	64	139	72	604	855	694	604	401
18	522	145	62	62	64	139	72	633	700	694	599	401
19	518	145	62	62	64	139	72	654	659	694	599	401
20	518	145	62	62	64	139	126	664	726	689	594	401
21	469	145	62	62	64	139	202	861	726	689	594	434
22	522	131	62	62	64	139	202	968	710	689	594	452
23	522	120	62	62	64	151	202	1,080	710	684	594	452
24	522	62	62	62	64	161	202	1,220	710	684	589	452
25	434	62	62	62	64	161	202	1,210	710	684	513	452
26	266	62	62	62	64	179	202	1,210	710	684	496	447
27	83	62	62	62	64	189	202	993	710	679	532	418
28	83	62	62	62	64	208	202	890	705	679	541	452
29	83	62	62	62	-	172	219	890	705	679	560	478
30	199	62	62	62	-----	214	254	1,040	705	679	565	478
31	268	-----	62	62	-----	334	-----	1,710	-----	674	575	-----
Total	14,552	5,849	1,922	1,922	1,780	3,979	5,344	24,424	26,219	21,502	18,587	14,701
Mean	469	195	62.0	62.0	63.6	128	178	788	874	694	600	490
Ac-ft	28,860	11,600	3,810	3,810	3,530	7,890	10,600	48,440	52,000	42,650	36,870	29,160

Calendar year 1965: Max 1,810 Min 33 Mean 469 Ac-Ft 339,400  
Water year 1965-66: Max 1,710 Min 62 Mean 386 Ac-Ft 279,200

9-3545. Los Pinos River at La Boca, Colo.  
(Locally known as Pine River)

Location.--Lat 37°00'40", long 107°35'55", in S½, sec.15, T.32 N., R.7 W., on downstream end of right abutment of the Denver & Rio Grande Western Railroad Co. bridge at southeast edge of La Boca, 0.1 mile upstream from Spring Creek and 13 miles upstream from mouth.

Drainage area.--510 sq mi, approximately.

Records available.--October 1950 to September 1966. Monthly discharge only for some periods published in WSP 1733.

Gage.--Digital water-stage recorder. Datum of gage is 6,143.58 ft above mean sea level, datum of 1929. Prior to Sept. 14, 1966, graphic water-stage recorder at same site and datum.

Average discharge.--16 years, 194 cfs (140,500 acre-ft per year).

Extremes.--Maximum discharge during year, 1,760 cfs Mar. 14 (gage height, 6.05 ft); minimum, 58 cfs Oct. 30.

1950-66: Maximum discharge, 6,400 cfs July 27, 1957 (gage height, 8.95 ft); minimum determined, 13 cfs Apr. 23, 1951 (may have been lower during periods of freezeup).

Maximum flood known occurred Oct. 5, 1911.

Remarks.--Records good except those for winter period, which are poor. Flow regulated by Vallecito Reservoir (see station 9-3530). Diversions for irrigation of about 33,000 acres above station.

Cooperation.--Records furnished by New Mexico district.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	358	200	97	90	90	105	607	173	1,420	240	200	161
2	342	258	93	70	80	102	628	161	836	208	220	155
3	354	286	93	70	80	98	628	138	772	212	326	161
4	338	290	93	70	75	85	564	80	756	212	308	149
5	330	286	88	75	75	80	522	105	804	212	224	149
6	330	282	88	75	80	80	504	98	884	179	182	149
7	314	286	86	75	85	130	304	115	656	176	167	158
8	310	302	81	80	90	273	268	130	510	179	170	155
9	294	298	81	80	90	344	264	314	444	173	179	155
10	294	298	157	80	80	467	228	740	316	173	167	155
11	286	277	171	80	80	664	212	719	292	182	185	167
12	286	147	114	80	70	734	194	733	288	164	197	191
13	252	130	102	75	75	699	185	298	304	158	197	167
14	222	123	97	70	65	845	170	628	312	149	170	141
15	240	132	99	70	70	895	170	408	330	146	179	249
16	322	160	100	70	70	736	155	146	438	143	173	137
17	362	160	108	70	65	526	167	105	401	154	161	109
18	461	160	102	75	65	335	140	130	244	154	155	101
19	498	147	97	80	70	330	98	130	173	167	204	99
20	468	147	97	80	70	350	98	149	185	197	212	94
21	400	147	90	70	65	335	149	202	224	204	212	98
22	444	147	90	65	80	304	244	405	216	228	252	111
23	450	274	80	80	90	260	256	490	204	212	228	114
24	462	171	80	80	100	272	236	726	200	208	200	117
25	403	385	90	75	110	280	212	712	191	212	155	121
26	396	276	90	75	115	320	197	764	185	208	108	125
27	112	134	90	80	105	370	182	684	197	208	112	132
28	82	117	90	75	108	395	164	456	179	204	122	137
29	76	108	100	75	-	438	146	438	194	212	128	146
30	67	104	100	85	-----	345	167	474	240	224	132	147
31	174	-----	100	90	-----	534	-----	1,110	-----	200	155	-----
Total	9,727	6,232	3,044	2,365	2,298	11,731	8,059	11,961	12,395	5,898	5,780	4,250
Mean	314	208	98.2	76.3	82.1	378	269	386	413	190	186	142
Ac-ft	19,290	12,360	6,040	4,690	4,560	23,270	15,980	23,720	24,590	11,700	11,460	8,430
Calendar year 1965: Max	1,790	Min	44	Mean	371	Ac-ft	268,600					
Water year 1965-66: Max	1,420	Min	65	Mean	229	Ac-ft	166,100					



9-3550. Spring Creek at La Boca, Colo.

Location.--Lat 37°00'50", long 107°35'40", in S½ sec.15, T.32 N., R.7 W., on right bank in an excavated channel, a quarter of a mile upstream from mouth and a quarter of a mile east of La Boca.

Drainage area.--58 sq mi, approximately.

Records available.--October 1950 to September 1966. Monthly discharge only for some periods, published in WSP 1733.

Gage.--Digital water-stage recorder. Altitude of gage is 6,160 ft (from topographic map). Prior to September 14, 1966, graphic water-stage recorder at same site and datum.

Average discharge.--16 years, 27.7 cfs (20,050 acre-ft per year).

Extremes.--Maximum discharge determined during year, 220 cfs Nov. 25 (gage height, 2.60 ft); maximum gage height, 3.15 ft Mar. 11 (backwater from ice; discharge not determined but may have exceeded flow of 220 cfs); minimum discharge, 2.5 cfs Apr. 16-18. 1951-66: Maximum discharge, 580 cfs Aug. 12, 1964 (gage height, 4.35 ft), from rating curve extended above 260 cfs by logarithmic plotting; maximum gage height, 5.98 ft Mar. 9, 1960 (ice jam); minimum discharge, 0.6 cfs Nov. 27, 1960.

Remarks.--Records good except those for winter periods, which are poor. Part of flow is return waste from irrigation.

Cooperation.--Records furnished by New Mexico district.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	10	3.0	4.0	4.0	10	10	12	58	58	54	49
2	50	10	3.0	3.0	4.0	6.0	10	12	53	58	57	47
3	44	10	3.0	3.0	4.0	4.0	10	10	53	56	55	47
4	44	9.8	3.0	3.0	4.0	4.0	7.8	20	75	59	56	46
5	40	10	3.0	3.0	4.0	6.0	6.3	23	80	55	52	46
6	35	9.8	3.0	3.0	4.0	8.0	5.8	35	50	54	50	46
7	35	8.5	3.0	3.0	4.0	10	5.0	28	24	52	50	46
8	31	7.8	4.0	3.0	4.0	25	4.5	25	36	52	49	46
9	29	8.8	6.0	4.0	3.0	35	4.5	36	40	52	49	43
10	31	10	2.5	4.0	3.0	45	4.5	32	44	52	49	42
11	31	12	6.0	4.0	3.0	60	4.3	26	42	57	46	43
12	34	12	5.0	4.0	3.0	80	4.1	31	40	54	47	50
13	36	12	5.0	4.0	3.0	80	3.7	38	41	54	48	46
14	34	12	5.0	4.0	3.0	70	3.3	31	39	54	49	46
15	32	12	5.0	4.0	3.0	60	3.1	46	38	55	50	65
16	54	9.1	5.0	4.0	3.0	126	2.9	42	40	55	54	49
17	60	5.0	4.0	4.0	3.0	84	2.7	31	40	55	57	46
18	70	4.5	4.0	4.0	3.0	48	2.7	34	38	55	53	45
19	32	4.1	4.0	4.0	3.0	20	2.9	33	39	53	59	47
20	20	3.9	4.0	4.0	3.0	10	9.1	36	41	57	65	46
21	18	4.1	4.0	3.0	4.0	10	6.6	45	46	55	61	42
22	17	3.9	4.0	3.0	4.0	10	18	49	46	60	60	41
23	17	30	4.0	3.0	4.0	7.1	22	53	47	57	59	41
24	17	17	4.0	3.0	6.0	6.3	23	51	47	54	61	42
25	16	104	4.0	3.0	8.0	7.1	20	54	47	52	60	43
26	16	30	6.0	3.0	8.0	10	9.1	56	51	53	40	43
27	16	20	6.0	3.0	10	12	10	66	54	53	35	42
28	14	10	6.0	3.0	10	12	10	56	52	56	35	40
29	13	4.0	6.0	3.0	-	12	12	57	53	54	40	40
30	11	30	6.0	3.0	-----	10	12	56	61	60	43	42
31	10	-----	6.0	3.0	-----	10	-----	76	-----	55	47	-----
Total	957	407.3	159.0	106.0	122.0	897.5	276.0	1,200	1,415	1,706	1,620	1,357
Mean	30.9	13.6	5.13	3.42	4.36	29.0	9.20	38.7	47.2	55.0	52.3	45.2
Ac-ft	1,900	808	315	210	242	1,780	547	2,380	2,810	3,380	3,210	2,690

Calendar year 1965: Max 124 Min 1.5 Mean 32.1 Ac-ft 23,270  
 Water year 1965-66: Max 126 Min 3.0 Mean 28.0 Ac-ft 20,270

Peak discharge (base, 180 cfs, revised).--Nov. 25 (1900) 220 cfs (2.60 ft); Mar. 11 (2000) discharge not determined (3.15 ft).

9-3575. Animas River at Howardsville, Colo.

Location.--Lat 37°50'00", long 107°36'00", in sec.12, T.41 N., R.7 W., on right bank 1,000 ft downstream from bridge on State Highway 110, 0.4 mile southwest of Howardsville, and half a mile downstream from Cunningham Creek.

Drainage area.--55.9 sq mi.

Records available.--October 1935 to September 1966. Monthly discharge only for some periods, published in WSP 1313.

Gage.--Water-stage recorder. Datum of gage is 9,616.98 ft above mean sea level, adjustment of 1912. Prior to Aug. 18, 1939, at datum 1.00 ft higher.

Average discharge.--31 years, 105 cfs (76,020 acre-ft per year).

Extremes.--Maximum discharge during year, 700 cfs May 7 (gage height, 2.98 ft); minimum daily, 14 cfs Mar. 4.

1935-66: Maximum discharge, 1,980 cfs June 18, 1949 (gage height, 4.36 ft), from rating curve extended above 950 cfs; maximum gage height, 5.24 ft Feb. 18, 1958 (backwater from snowslide); minimum daily discharge, 9 cfs Jan. 10, 1957, Feb. 15, Mar. 9, 1964, Feb. 13, 1965.

Maximum flood known occurred Oct. 5, 1911.

Remarks.--Records good except those for winter period, which are poor. No diversion above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	120	66	29	23	19	18	41	150	410	223	81	32
2	120	63	30	20	19	18	63	190	425	205	83	33
3	124	60	29	19	19	18	60	247	430	193	83	32
4	128	56	29	20	19	14	47	305	420	182	74	31
5	128	52	28	20	19	16	36	378	396	175	66	31
6	122	50	30	20	18	17	34	445	374	160	58	32
7	118	49	30	22	19	18	36	500	349	148	54	30
8	112	46	28	22	17	18	38	516	321	138	52	29
9	110	46	29	22	18	19	44	475	305	130	50	29
10	106	43	28	22	18	19	50	401	309	134	45	30
11	100	39	28	22	18	18	49	317	329	138	43	31
12	97	39	27	22	18	17	38	268	378	128	51	35
13	90	39	27	20	18	18	41	232	396	118	45	31
14	85	37	28	20	17	18	44	217	406	108	49	31
15	81	38	27	21	17	19	58	205	370	102	47	40
16	86	37	26	20	16	19	74	217	337	110	45	35
17	86	37	24	19	17	19	83	241	317	136	41	33
18	80	33	24	18	17	18	80	285	337	128	39	33
19	71	32	22	20	17	19	66	333	345	122	38	32
20	69	30	22	20	17	19	63	378	337	112	45	31
21	68	30	20	19	18	19	50	388	313	106	39	30
22	68	30	25	17	18	17	54	378	329	104	37	29
23	73	29	24	19	18	17	44	420	329	106	37	29
24	80	30	24	20	17	18	50	460	305	108	35	30
25	81	27	24	19	17	19	63	440	285	98	33	30
26	83	32	22	18	18	18	80	406	264	92	32	29
27	80	30	22	19	18	20	90	370	238	85	32	32
28	76	30	24	18	18	23	93	333	217	86	31	30
29	73	28	23	19	-	26	100	353	229	81	30	29
30	71	28	24	18	-----	29	118	410	235	90	33	29
31	68	-----	24	19	-----	33	-----	406	-----	97	34	-----
Total	2,854	1,186	801	617	499	598	1,787	10,664	10,035	3,943	1,462	938
Mean	92.1	39.5	25.8	19.9	17.8	19.3	59.6	344	334	127	47.2	31.3
Ac-ft	5,660	2,350	1,590	1,220	990	1,190	3,540	21,150	19,900	7,820	2,900	1,860

Calendar year 1965: Max 896 Min 9 Mean 146 Ac-ft 105,500  
 Water year 1965-66: Max 516 Min 14 Mean 96.9 Ac-ft 70,180

Peak discharge (base, 700 cfs).--May 7 (2100) 700 cfs (2.98 ft).

9-3610. Hermosa Creek near Hermosa, Colo.

Location.--Lat 37°25'20", long 107°50'40", in NW¼ sec.3, T.36 N., R.9 W., on right bank 20 ft downstream from private bridge, 1 mile northwest of Hermosa, and 2 miles upstream from mouth.

Drainage area.--172 sq mi.

Records available.--November and December 1911 (gage heights and discharge measurements only), January 1912 to September 1914, October 1919 to September 1928, October 1939 to September 1966. Monthly discharge only for some periods, published in WSP 1313.

Gage.--Water-stage recorder. Datum of gage is 6,705.88 ft above mean sea level, datum of 1929. Prior to September 1914, staff gage and April 1920 to September 1928, water-stage recorder (staff or chain gages for short periods), within half a mile at different datums.

Average discharge.--38 years, 140 cfs (101,400 acre-ft per year).

Extremes.--Maximum discharge during year, 930 cfs May 7 (gage height, 3.10 ft, from floodmarks); minimum daily, 20 cfs Mar. 4. 1912-14, 1919-28, 1939-66: Maximum discharge, 2,980 cfs May 12, 1941 (gage height, 6.02 ft); maximum gage height, 8.50 ft Sept. 12, 1927, from floodmarks, site and datum then in use; minimum daily discharge, 4.0 cfs Dec. 9, 1956.

Remarks.--Records good except those for winter period, which are poor. Diversions for irrigation of a few acres above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	93	54	40	42	34	30	458	570	398	108	49	38
2	85	54	38	36	32	28	505	625	352	84	70	35
3	80	51	38	34	30	26	468	684	324	74	72	35
4	78	50	40	34	32	20	368	739	296	69	56	32
5	75	49	40	36	34	26	316	798	276	64	49	31
6	70	49	40	38	30	28	288	860	248	60	44	31
7	69	48	38	36	30	30	296	880	228	58	41	31
8	66	46	39	36	30	32	324	900	224	56	39	30
9	64	47	42	38	28	36	344	880	204	52	41	27
10	63	43	46	36	30	42	368	850	198	52	43	27
11	60	43	43	36	28	51	352	695	186	54	42	31
12	59	42	41	36	30	66	316	600	177	51	44	39
13	58	45	42	36	30	91	288	495	168	49	41	31
14	58	41	38	36	28	105	270	432	156	50	41	29
15	56	43	38	36	28	147	288	409	150	47	40	36
16	70	42	38	38	24	189	340	468	144	54	39	29
17	75	43	34	36	26	195	376	476	139	48	40	25
18	69	41	36	34	26	165	376	550	133	49	38	24
19	67	39	34	36	28	168	352	600	125	50	39	24
20	64	36	34	36	32	186	320	580	125	56	44	24
21	66	39	30	36	32	195	288	555	125	64	40	24
22	66	31	36	32	38	180	276	565	125	69	36	23
23	66	42	42	34	30	150	252	570	105	64	42	23
24	69	40	40	36	30	153	259	530	94	52	39	24
25	69	43	40	34	30	159	296	490	87	45	35	24
26	67	36	38	34	34	162	364	468	82	44	33	23
27	64	36	38	36	30	198	422	422	84	42	32	23
28	62	38	38	34	30	256	440	372	82	48	31	26
29	58	36	40	34	-	288	472	344	91	52	31	23
30	57	36	42	36	-----	328	535	368	133	58	31	22
31	56	-----	42	36	-----	404	-----	409	-----	70	41	-----
Total	2,079	1,283	1,205	1,108	844	4,134	10,617	18,184	5,249	1,793	1,303	844
Mean	67.1	42.8	38.9	35.7	30.1	133	354	587	175	57.8	42.0	28.1
Ac-ft	4,120	2,540	2,390	2,200	1,670	8,200	21,060	36,070	10,410	3,560	2,580	1,670

Calendar year 1965: Max 1,430 Min 13 Mean 199 Ac-ft 144,000  
 Water year 1965-66: Max 900 Min 20 Mean 133 Ac-ft 96,480

Peak discharge (base, 800 cfs).--May 7 (time unknown) 930 cfs (3.10 ft).

Note.--No gage-height record May 6-10.

9-3615. Animas River at Durango, Colo.

Location.--Lat 37°16'45", long 107°52'47", in SW¼ sec.20, T.35 N., R.9 W., on left bank at Western Colorado Power Co.'s plant at Durango, three-quarters of a mile upstream from Lightner Creek.

Drainage area.--692 sq mi.

Records available.--June to December 1895, April 1896 to December 1898, April 1899 to December 1900, March to May 1901, April to November 1902, March to April 1902 (gage heights only, erroneously stated as discredited in WSP 1563), May to October 1903, July 1904 to December 1905, January to December 1910 (gage heights only), January to September 1911, January 1912 to September 1966. Monthly or yearly discharge only for some periods, published in WSP 1313.

Gage.--Water-stage recorder. Datum of gage is 6,501.57 ft above mean sea level, datum of 1929. Prior to Dec. 31, 1905, staff gages at several sites three-quarters of a mile downstream at various datums. Jan. 1, 1910, to Aug. 12, 1911, staff gage at present site at different datum. Jan. 1, 1912, to Mar. 2, 1921, staff gage or water-stage recorder at present site and datum.

Average discharge.--61 years (1896-1900, 1904-5, 1910-66), 853 cfs (617,500 acre-ft per year).

Extremes.--Maximum discharge during year, 3,640 cfs May 8 (gage height, 5.51 ft); minimum daily, 212 cfs Sept. 30.

1895-1905, 1910-66: Maximum discharge, 25,000 cfs Oct. 5, 1911 (gage height, 11 ft, present site and datum), from rating curve extended above 13,000 cfs; minimum daily, 94 cfs Mar. 2, 1913.  
Maximum flood known, that of Oct. 5, 1911.

Remarks.--Records good. Diversions for irrigation of about 4,000 acres above station, Natural regulation by many lakes and regulation for power above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	940	516	340	295	281	271	1,150	1,420	2,640	1,400	644	280
2	890	509	345	270	281	273	1,280	1,630	2,500	1,220	620	275
3	870	488	335	220	271	250	1,300	1,900	2,550	1,100	756	280
4	860	467	335	270	276	240	1,050	2,190	2,490	1,020	700	270
5	830	442	340	290	286	250	836	2,500	2,340	960	604	244
6	830	442	335	292	284	271	730	2,940	2,170	920	532	244
7	800	436	335	306	286	281	700	3,180	1,920	870	479	232
8	736	424	335	309	286	273	750	3,350	1,750	796	430	228
9	709	424	345	312	284	276	760	3,260	1,640	756	400	216
10	682	412	378	300	271	286	848	3,250	1,720	716	382	220
11	664	394	362	306	261	300	860	2,560	1,630	740	340	232
12	637	384	350	303	273	322	770	2,140	1,750	740	334	248
13	619	394	345	303	286	352	676	1,810	1,940	676	346	270
14	594	384	345	295	271	378	620	1,640	1,970	636	328	252
15	578	372	362	306	281	427	636	1,510	1,990	596	340	285
16	602	378	350	298	273	501	790	1,600	1,670	596	322	346
17	664	367	335	289	271	533	980	1,670	1,580	652	334	310
18	655	372	320	254	281	492	1,000	1,970	1,560	636	340	285
19	637	362	305	322	271	492	920	2,320	1,570	628	322	260
20	602	345	305	316	273	511	780	2,530	1,660	596	328	248
21	602	345	270	298	271	533	676	2,660	1,540	612	346	248
22	602	340	310	271	273	517	700	2,460	1,520	620	316	232
23	602	356	340	286	266	468	652	2,520	1,560	604	316	224
24	602	367	280	300	261	477	636	2,740	1,460	580	334	228
25	610	418	260	278	271	477	692	2,770	1,360	556	310	228
26	610	394	250	284	273	492	836	2,490	1,300	493	295	224
27	602	345	260	295	271	533	1,050	2,250	1,200	479	275	228
28	594	330	270	292	266	628	1,150	1,930	1,120	458	252	232
29	570	330	285	289	-	740	1,160	1,820	1,100	500	236	224
30	554	330	340	292	-----	824	1,320	2,340	1,340	556	220	212
31	523	-----	295	289	-----	920	-----	2,630	-----	700	244	-----
Total	20,870	11,867	9,962	9,030	7,699	13,648	26,308	71,990	52,540	22,412	12,025	7,505
Mean	673	396	321	291	275	440	877	2,322	1,751	723	388	250
Ac-ft	41,400	23,540	19,760	17,910	15,270	27,070	52,180	142,800	104,200	44,450	23,850	14,890

Calendar year 1965: Max 5,290 Min 150 Mean 1,158 Ac-ft 838,700

Water year 1965-66: Max 3,360 Min 212 Mean 728 Ac-ft 527,300

Peak discharge (base, 4,000 cfs).--No peak above base.

9-3635. Animas River near Cedar Hill, N. Mex.

Location.--Lat 37°02'15", long 107°52'25", in sec.7, T.32 N., R.9 W., on right bank three-quarters of a mile downstream from Florida River, 2.5 miles upstream from Colorado-New Mexico State line, and 8.5 miles north of Cedar Hill, N. Mex.

Drainage area.--1,090 sq mi, approximately.

Records available.--October 1933 to September 1966. Monthly discharge only for October and November 1933, published in WSP 1313.

Gage.--Digital water-stage recorder. Altitude of gage is 5,960 ft (from topographic map). Prior to Sept. 14, 1937, at datum between 1.52 and 1.36 ft higher. Sept. 15, 1937, to Sept. 30, 1946, at datum 1.36 ft higher. Prior to Sept. 12, 1966, graphic water-stage recorder at same site and datum.

Average discharge.--33 years, 900 cfs (651,600 acre-ft per year).

Extremes.--Maximum discharge during year, 4,140 cfs May 8 (gage height, 7.02 ft); minimum, 210 cfs Mar. 4.

1933-66: Maximum discharge, 13,100 cfs June 19, 1949 (gage height, 11.45 ft); minimum, 63 cfs Jan. 21, 1935.

Maximum flood known occurred Oct. 5 or 6, 1911.

Remarks.--Records good except those for September, which are fair. Diversions for irrigation of about 20,000 acres above station. During water years 1944-49, Twin Rocks Canal diverted above station for irrigation below. Possible regulation by Lemon Dam on Florida River (capacity, 40,100 acre-ft), storage started in November 1963.

Cooperation.--Records furnished by New Mexico district.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	998	620	395	386	326	290	1350	1600	3160	1540	698	290
2	924	600	400	350	310	294	1500	1780	3010	1360	670	295
3	900	580	386	250	302	278	1570	2020	2920	1260	908	292
4	868	560	386	280	302	249	1410	2260	2950	1170	804	288
5	836	500	382	320	302	230	1180	2520	2760	1080	631	282
6	812	500	382	360	298	270	1050	3020	2490	1030	563	275
7	788	500	386	390	302	374	998	3480	2100	940	490	270
8	733	490	382	404	302	437	1050	3820	1940	876	460	262
9	698	480	386	395	294	489	1070	3860	1800	836	426	265
10	677	470	512	372	278	506	1150	3840	1830	788	404	268
11	670	450	480	368	263	592	1170	3130	1770	772	372	295
12	644	422	413	359	286	635	1090	2470	1830	796	350	308
13	618	418	404	350	298	657	964	2060	2000	726	354	305
14	599	422	395	350	270	829	884	1830	2060	698	354	308
15	581	418	395	354	290	956	884	1710	2080	670	350	401
16	599	426	390	330	256	930	1020	1740	1860	644	372	386
17	677	408	360	300	278	836	1240	1800	1710	691	350	356
18	726	422	350	290	286	691	1260	2060	1650	705	364	329
19	698	404	320	346	278	698	1240	2430	1670	698	395	305
20	664	400	320	408	278	726	1100	2780	1740	677	368	298
21	657	395	280	342	282	740	972	3100	1670	677	386	292
22	605	395	360	290	286	705	998	2960	1650	712	368	280
23	670	490	418	260	290	618	972	2880	1660	691	359	265
24	700	470	382	340	278	618	916	3080	1590	650	372	262
25	720	763	359	338	298	650	932	3130	1490	624	350	258
26	720	584	338	346	298	684	1050	2840	1430	551	322	252
27	677	436	342	364	290	756	1230	2530	1370	523	306	250
28	644	390	364	382	298	844	1340	2240	1270	512	282	255
29	660	390	372	395	-	964	1340	2040	1250	512	261	255
30	660	382	465	395	-----	1030	1460	2400	1500	557	245	245
31	660	-----	431	359	-----	1140	-----	2940	-----	670	250	-----
Total	22083	14185	11935	10773	8119	19716	34390	80350	58210	24636	13184	8692
Mean	712	473	385	348	290	636	1,146	2,592	1,940	795	425	290
Ac-ft	43,800	28,140	23,670	21,370	16,100	39,110	68,210	159,400	115,500	48,860	26,150	17,240

Calendar year 1965: Max 6,460 Min 180 Mean 1,329 Ac-ft 961,900

Water year 1965-66: Max 3,860 Min 245 Mean 839 Ac-ft 607,500

Peak discharge (base, 1,200 cfs).--Nov. 25 (1540) 1,220 cfs (4.83 ft); May 8 (1100) 4,140 cfs (7.02 ft).

9-3655. La Plata River at Hesperus, Colo.

Location.--Lat 37°17'20", long 108°02'05", in sec.14, T.35 N., R.11 W., on right bank at Hesperus 700 ft downstream from U. S. Highway 160.

Drainage area.--37 sq mi, approximately.

Records available.--June to August 1904, May 1905 to September 1906, August to November 1910, June 1917 to September 1966. Monthly discharge only for some periods, published in WSP 1313. Records for Nov. 11 to Dec. 31, 1910, published in WSP 289, have been found to be unreliable and should not be used.

Gage.--Water-stage recorder. Datum of gage is 8,104.71 ft above mean sea level, datum of 1929. Prior to May 1, 1920, staff gage and May 1, 1920, to May 24, 1927, water-stage recorder, at several sites about 600 ft downstream at different datums. May 25, 1927, to Sept. 30, 1938, water-stage recorder at site 60 ft downstream and Oct. 1, 1938, to Sept. 30, 1941, at present site at datum 1.00 ft higher.

Average discharge.--50 years (1905-6, 1917-66), 45.6 cfs (33,010 acre-ft per year).

Extremes.--Maximum discharge during year, 344 cfs May 5 (gage height, 4.08 ft); minimum daily, 4.8 cfs Aug. 28, 29.

1904-6, 1910, 1917-66: Maximum discharge, 1,880 cfs Sept. 22, 1941 (gage height, 4.30 ft, present datum), from rating curve extended above 620 cfs on basis of slope-area measurement of peak flow; minimum not determined.  
Maximum flood known occurred Oct. 5, 1911.

Remarks.--Records fair except those for winter period, which are poor. One diversion above station for irrigation of about 2,000 acres along Cherry Creek below station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	19					135	160	114	40	18	13
2	34	18					191	205	98	35	19	12
3	32	18					174	240	91	28	22	10
4	31	18					120	260	82	24	15	9.0
5	29	17					108	284	73	20	15	8.4
6		16					98	300	62	23	16	8.4
7	28	15					98	288	54	20	13	8.6
8	24	15					105	272	48	17	13	9.7
9	22	14					108	248	48	16	12	8.4
10	22	14				13	117	222	64	15	12	8.4
11	20	14					111	170	80	15	9.7	11
12	20	14					100	132	87	15	12	18
13	20	13					87	108	87	15	10	15
14	18	13					78	98	84	15	9.7	13
15	18	13	15	11	10		84	96	80	14	9.0	12
16	18	13					114	114	77	14	10	15
17	19	13					149	129	62	14	11	12
18	18	13					142	163	49	14	11	12
19	18	13					123	177	45	16	10	9.7
20	18	12					100	180	45	19	11	11
21	18	13				25	87	170	46	22	9.0	9.7
22	18	16				32	80	163	43	18	9.0	8.4
23	19	17				36	73	163	43	15	9.0	7.2
24	20	20				42	68	160	41	14	9.0	7.2
25	20	19				44	69	149	44	13	8.4	7.8
26	20	21				51	80	132	44	12	7.2	7.2
27	20	20				58	94	108	41	16	5.4	7.2
28	20	21				69	100	94	38	16	4.8	7.2
29	19	18				69	108	96	53	18	4.8	6.6
30	19	17				77	138	114	37	22	7.8	6.6
31	19					105		120		22	18	
Total	683	477	465	341	280	868	3,239	5,315	1,860	577	350.8	306.7
Mean	22.0	15.9	15	11	10	28.0	108	171	62.0	18.6	11.3	10.2
Ac-ft	1,350	946	922	676	555	1,720	6,420	10,540	3,690	1,140	696	608

Calendar year 1965: Max 478 Min - Mean 67.6 Ac-ft 48,930

Water year 1965-66: Max 300 Min 4.8 Mean 40.4 Ac-ft 29,280

Peak discharge (base, 230 cfs)--May 5 (2345) 344 cfs (4.08 ft).

Note.--No gage-height record Nov. 29 to Mar. 23.

## 9-3665. La Plata River at Colorado-New Mexico State line

Location.--Lat 36°59'59", long 108°11'17", in NE¼SE¼ sec.10, T.32 N., R.13 W., on right bank at Colorado-New Mexico State line, 0.2 mile downstream from Ponds Arroyo and 4.8 miles north of La Plata, N. Mex.

Drainage area.--331 sq mi.

Records available.--January 1920 to September 1966. Monthly discharge only for some periods, published in WSP 1313.

Gage.--Water-stage recorder. Datum of gage is 5,975.15 ft above mean sea level, datum of 1929. Prior to Apr. 30, 1920, staff gage at site 2 miles upstream at different datum. May 1 to June 18, 1920, staff gage and June 19, 1920, to Sept. 30, 1924, water-stage recorder, at present site at datum 1.26 ft higher. Oct. 1, 1924, to Mar. 16, 1934, water-stage recorder at present site at datum 0.26 ft higher.

Average discharge.--46 years, 33.8 cfs (24,470 acre-ft per year).

Extremes.--Maximum discharge during year, 506 cfs Aug. 3 (gage height, 3.52 ft); no flow July 18, 19.

1920-66: Maximum discharge, 4,750 cfs Aug. 24, 1927 (gage height, 11.36 ft, present datum), from rating curve extended above 750 cfs on basis of slope-area measurement of peak flow; no flow at times in many years.

Remarks.--Records fair except those for winter period, which are poor. Diversions above station for irrigation of about 15,000 acres, mostly above station.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	12	22	38	22	23	186	74	85	26	1.3	2.2
2	11	12	20	32	21	21	184	98	60	23	1.9	1.9
3	9.2	12	20	30	21	18	178	98	15	17	109	1.7
4	8.0	11	20	30	23	20	168	74	3.2	12	3.8	1.6
5	7.1	11	20	50	24	25	147	74	1.2	8.0	2.7	1.6
6	6.8	12	20	69	27	26	135	76	1.0	5.9	2.3	1.6
7	5.3	11	20	60	27	52	124	80	.9	4.6	2.0	2.0
8	5.3	11	20	52	27	68	125	94	.8	3.6	1.5	1.7
9	3.8	10	20	31	26	151	128	92	.7	1.9	1.2	1.5
10	5.6	10	30	28	26	66	132	79	.9	1.2	1.0	1.4
11	7.1	10	38	27	21	73	135	80	62	1.6	.9	10
12	7.4	10	32	26	19	127	114	91	83	1.4	1.0	11
13	8.4	9.6	29	26	18	91	97	68	85	1.9	1.6	6.8
14	8.4	8.8	29	28	18	83	77	61	78	1.6	2.0	5.3
15	6.8	9.6	30	26	19	78	52	46	76	.8	1.7	2.6
16	14	10	30	24	19	111	47	44	73	.1	1.9	3.6
17	20	12	30	23	20	109	60	49	70	.2	2.3	2.9
18	28	12	31	24	20	89	59	75	36	0	2.2	2.9
19	26	11	29	27	21	78	62	85	26	0	2.6	2.9
20	23	10	30	27	23	85	57	83	22	1.1	2.2	3.0
21	19	10	33	24	21	88	56	75	24	7.1	2.2	2.2
22	17	10	39	22	21	86	62	82	24	5.0	2.3	1.7
23	16	18	38	23	21	83	50	82	21	2.2	2.3	1.7
24	15	20	38	22	21	77	43	80	19	1.7	2.2	1.9
25	13	26	40	24	21	78	39	88	16	1.9	2.2	1.7
26	14	43	39	21	22	88	29	80	15	1.5	1.7	1.7
27	10	30	38	22	22	98	29	68	17	1.3	1.4	1.9
28	11	23	38	23	25	110	39	73	17	2.0	1.4	1.9
29	11	22	32	25	-	116	48	58	19	2.0	1.4	1.9
30	10	26	45	25	-----	116	65	68	42	2.4	1.4	1.7
31	11	-----	40	26	-----	137	-----	84	-----	1.6	1.9	-----
Total	370.2	443	940	935	616	2,471	2,727	2,359	993.7	140.6	165.5	109.9
Mean	11.9	14.8	30.3	30.2	22.0	79.7	90.9	76.1	33.1	4.54	5.34	3.66
Ac-ft	734	879	1,860	1,850	1,220	4,900	5,410	4,680	1,970	279	328	218

Calendar year 1965: Max 334 Min - Mean 43.2 Ac-ft 31,280  
 Water year 1965-66: Max 186 Min 0 Mean 33.6 Ac-ft 24,340

9-3710. Mancos River near Towaoc, Colo.

Location.--Lat 37°02', long 108°43', in NW¼ sec.18, T.32 N., R.17 W., on left bank 750 ft upstream from bridge on U. S. Highway 666, 6 miles upstream from Aztec Creek, and 12 miles south of Towaoc.

Drainage area.--550 sq mi, approximately.

Records available.--October 1920 to September 1943, February 1951 to September 1966. Monthly discharge only for some periods published in WSP 1313.

Gage.--Water-stage recorder at present site Oct. 13, 1941, to Sept. 30, 1943, and since Mar. 11, 1954. Datum of gage is 5,055.98 ft above mean sea level, datum of 1929. Prior to Mar. 15, 1940, staff gage or water-stage recorder 2½ miles downstream at different datum, Mar. 15, 1940, to Oct. 12, 1941, and Feb. 16, 1951, to Mar. 10, 1954, water-stage recorder at site 600 ft downstream at datum 4.95 ft lower.

Average discharge.--38 years, 52.0 cfs (37,650 acre-ft per year).

Extremes.--Maximum discharge during year, 456 cfs Mar. 9 (gage height, 3.44 ft); no flow July 12-21, 28, 29. 1920-43, 1951-66: Maximum discharge, 5,300 cfs Oct. 14, 1941 (gage height, 7.30 ft, present site and datum), from rating curve extended above 200 cfs on basis of slope-area measurement of peak flow; no flow at times in most years.

Remarks.--Records good except those for winter period, which are poor. Diversions for irrigation of about 10,000 acres above station. One diversion above station for irrigation of about 100 acres below. Flow regulated by Jackson Gulch Reservoir (capacity, 10,000 acre-ft) since March 1949.

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	34	32	77	24	38	144	192	34	20	0.1	4.4
2	31	34	28	50	22	37	159	210	34	20	17	1.6
3	26	32	26	28	18	27	164	224	27	18	117	8.6
4	25	32	28	28	19	20	136	233	24	8.0	43	5.0
5	22	30	30	28	20	22	106	233	20	4.4	19	6.8
6	19	30	28	28	24	23	90	215	17	3.2	12	9.2
7	19	30	28	28	30	31	83	210	15	1.7	6.8	7.4
8	17	30	30	30	30	155	90	198	13	.8	5.0	5.0
9	16	30	29	30	28	207	90	186	13	.1	4.4	3.8
10	17	30	36	28	24	213	88	198	15	.1	2.9	2.9
11	16	29	69	30	20	168	90	159	17	.1	1.8	2.6
12	16	27	53	28	20	181	83	142	15	0	1.7	6.8
13	15	27	43	24	24	172	69	122	11	0	1.6	9.8
14	14	27	38	26	17	172	62	97	7.4	0	1.3	7.4
15	14	27	36	28	22	202	66	74	4.6	0	1.2	35
16	90	28	30	24	15	198	86	59	.8	0	2.3	1.0
17	76	29	29	22	18	170	115	50	.6	0	1.5	12
18	101	32	28	20	20	101	128	53	.5	0	15	11
19	81	30	26	24	19	88	130	61	.4	0	7.4	9.8
20	56	29	24	24	24	99	138	59	.3	0	2.9	9.8
21	45	28	24	16	26	97	124	58	.2	0	5.8	15
22	41	28	34	19	31	79	140	55	.2	.3	1.9	9.8
23	40	36	46	20	30	58	138	56	.3	4.9	1.8	9.8
24	42	69	50	20	36	52	134	55	.1	2.9	4.7	8.6
25	41	86	36	20	37	50	146	50	.1	1.7	3.2	8.0
26	41	140	32	20	45	55	157	46	.1	.4	1.9	8.0
27	38	55	32	20	34	62	159	43	.1	.1	1.1	8.0
28	37	34	32	22	37	88	164	43	.1	0	.5	8.6
29	37	32	38	24	-	117	166	36	.1	0	.3	4.7
30	36	32	73	24	-----	124	183	28	.6	25	.3	3.2
31	35	-----	162	26	-----	130	-----	29	-----	.6	-----	-----
Total	1,139	1,137	1,230	836	714	3,236	3,628	3,474	271.5	112.3	286.0	267.0
Mean	36.7	37.9	39.7	27.0	25.5	104	121	112	9.05	3.62	9.23	8.90
Ac-ft	2,260	2,260	2,440	1,660	1,420	6,420	7,200	6,890	539	223	567	530

Calendar year 1965: Max 360 Min 9.8 Mean 62.9 Ac-ft 45,520  
 Water year 1965-66: Max 233 Min 0 Mean 44.7 Ac-ft 32,390

Peak discharge (base, 700 cfs).--No peak above base.



## SAN JUAN RIVER BASIN

9-3720. McElmo Creek near Colorado-Utah State line

Location.--Lat 37°19'27", long 109°00'54", in NE¼ sec.2, T.35 N., R.20 W., on right bank 1½ miles upstream from Colorado-Utah State line, 2 miles upstream from Yellowjacket Creek, and 2 miles west of former town of McElmo.

Drainage area.--350 sq mi, approximately.

Records available.--March 1951 to September 1966.

Gage.--Water-stage recorder. Altitude of gage is 4,890 ft (from topographic map).

Average discharge.--15 years, 40.9 cfs (29,610 acre-ft per year).

Extremes.--Maximum discharge during year, 1,320 cfs Oct. 17 (gage height, 6.54 ft), from rating curve extended above 420 cfs;

minimum daily, 3.0 cfs Aug. 22, 23.

1951-66: Maximum discharge, 1,700 cfs Aug. 29, 1951, July 27, 1957 (gage height, 7.05 ft), from rating curve extended above 320 cfs on basis of slope-area measurements at gage heights 4.78 and 7.05 ft; minimum daily, 0.1 cfs for several days in 1951, 1956.

Remarks.--Records fair. Diversions for irrigation of about 1,000 acres above station. One diversion above station for irrigation of about 60 acres below. Part of flow is return water from irrigated lands of Montezuma irrigation district (water imported from Dolores River basin).

Discharge, in cubic feet per second, water year October 1965 to September 1966

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	95	79	71	129	49	73	30	45	68	87	54	129
2	84	92	62	76	49	65	33	45	65	78	39	87
3	76	81	56	65	36	50	43	50	53	62	94	52
4	75	73	62	62	40	40	40	55	54	56	89	30
5	65	75	76	60	44	37	40	55	58	52	43	26
6	64	73	73	62	50	47	45	54	58	49	30	24
7	60	75	70	62	58	62	55	52	54	42	32	17
8	59	71	62	64	65	189	62	50	60	46	29	14
9	56	65	68	67	52	182	59	56	65	54	23	15
10	53	64	136	64	44	174	56	58	87	49	20	15
11	52	62	173	65	40	136	52	58	86	35	17	13
12	50	62	102	64	40	140	52	134	86	30	12	17
13	56	62	84	54	46	117	52	121	83	33	9.0	21
14	58	62	92	59	39	102	52	81	78	33	8.0	19
15	56	60	89	64	44	99	50	81	76	28	8.5	20
16	377	60	81	56	35	92	54	67	71	29	6.5	29
17	385	64	65	50	42	81	52	60	68	35	3.6	27
18	448	70	68	46	44	67	44	56	64	40	3.4	27
19	282	59	56	53	42	59	68	62	67	34	3.8	26
20	202	59	50	53	50	53	100	68	70	46	4.5	27
21	134	54	50	40	65	49	100	65	87	40	3.8	27
22	102	54	73	42	73	43	79	73	78	40	3.0	26
23	87	84	155	44	75	39	70	62	70	43	3.0	23
24	79	164	109	44	73	36	60	54	62	47	4.5	22
25	76	290	75	43	73	37	60	59	53	50	7.0	23
26	70	378	70	43	75	37	65	54	50	33	6.5	22
27	70	128	68	44	84	37	70	58	71	27	7.0	21
28	68	92	70	46	75	36	60	62	62	30	6.5	22
29	70	73	87	47	-	36	55	54	70	67	5.0	24
30	76	68	304	56	-----	35	50	49	73	49	5.0	26
31	79	-----	301	58	-----	33	-----	62	-----	52	13	-----
Total	3,564	2,753	2,958	1,782	1,502	2,283	1,708	1,960	2,047	1,396	593.6	871
Mean	115	91.8	95.4	57.5	53.6	73.6	56.9	63.2	68.2	45.0	19.1	29.0
Ac-ft	7,070	5,460	5,870	3,530	2,980	4,530	3,390	3,890	4,060	2,770	1,180	1,730

Calendar year 1965: Max 448 Min 22 Mean 83.1 Ac-ft 60,140  
 Water year 1965-66: Max 448 Min 3.0 Mean 64.2 Ac-ft 46,450

Peak discharge (base, 500 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
10-17	2330	6.54	1,320	12-31	0330	5.19	576
11-26	0130	5.51	715				

## Transmountain diversions from Colorado River basin in Colorado

There are 22 tunnels or ditches, all of which are equipped with water-stage recorders and Parshall flumes or sharp-crested weirs. Records furnished by State engineer. The locations of these diversions are given in the following list.

9-0100. Grand River ditch diverts water from tributaries of Colorado River to La Poudre Pass Creek (tributary to Cache la Poudre River) in NW $\frac{1}{4}$  sec.21, T.6 N., R.75 W., in Platte River basin. Two collection ditches beginning at headgates located in sec.28, T.5 N., R.76 W., and sec.29, T.6 N., R.75 W., intercept all tributaries upstream on each side of the Colorado River and converge at La Poudre Pass.

9-0120. Eureka ditch diverts water from tributaries of Tonahutu Creek between headgate in sec.7, T.4 N., R.74 W., and Sprague Pass, in Colorado River basin, to Spruce Creek (tributary to Big Thompson River) in sec.16, T.4 N., R.74 W., in Platte River basin.

9-0130. Alva B. Adams tunnel diverts water from Grand Lake and Shadow Mountain Lake in NW $\frac{1}{4}$  sec.9, T.3 N., R.75 W., in Colorado River basin, to Lake Estes (Big Thompson River) in sec.30, T.5 N., R.72 W., in Platte River basin. For daily discharge, see elsewhere in this report.

9-0215. Berthoud Pass ditch diverts water from tributaries of Fraser River between headgate in sec.33, T.2 S., R.75 W., and Berthoud Pass, in Colorado River basin, to Hoop Creek (tributary to West Fork Clear Creek) in sec.10, T.3 S., R.75 W., in Platte River basin.

9-0225. Moffat water tunnel diverts water from tributaries of Williams Fork (via August P. Gumlick and Vasquez tunnels, beginning in 1959) between headgates (in secs.20 and 29, T.3 S., R.76 W.) and west portal of August P. Gumlick tunnel (in sec.28, T.3 S., R.76 W.) and from the main stem and tributaries of Fraser River between headgates (in sec.8, T.2 S., R.76 W., and sec.24, T.1 S., R.75 W.) and west portal of Moffat tunnel (in sec.11, T.2 S., R.75 W.), to South Boulder Creek, in sec.2, T.2 S., R.74 W., in Platte River basin. (See sta. 9-0360 for diversions by August P. Gumlick tunnel.)

9-0420. Hoosier Pass tunnel diverts water from tributaries of Blue River in Colorado River basin to Montgomery Reservoir (Middle Fork South Platte River) in sec.14, T.8 S., R.78 W., in Platte River basin; this water is again diverted to South Catamount Creek (tributary to Catamount Creek) in SE $\frac{1}{4}$  sec.14, T.13 S., R.69 W., in the Arkansas River basin. Collection conduits extending from the right bank of Crystal Creek (tributary to Spruce Creek) in sec.14, T.7 S., R.78 W., right bank of Spruce Creek in sec.23, T.7 S., R.78 W., right bank of McCullough Gulch in sec.26, T.7 S., R.78 W., right bank of Monte Cristo Creek in SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec.2, T.8 S., R.78 W., left bank of Bemrose Creek in SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.6, T.8 S., R.77 W., and intercepting intermediate tributaries, transport diversions to north portal of the tunnel.

9-0460. Boreas Pass ditch diverts water from tributaries of Blue River between headgate in sec.26, T.7 S., R.77 W., and Boreas Pass, in Colorado River basin, to Tarryall Creek in sec.26, T.7 S., R.77 W., in Platte River basin.

9-0485. Fremont Pass ditch diverts water from tributaries of Tenmile Creek in secs.2 and 3, T.8 S., R.79 W., in Blue River basin, to East Fork Arkansas River in sec.11, T.8 S., R.79 W., in Arkansas River basin.

9-0505.9. Harold D. Roberts tunnel diverts water from Dillon Reservoir (Blue River) in sec.18, T.5 S., R.77 W., in Blue River basin, to North Fork South Platte River (tributary to South Platte River), in SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.4, T.7 S., R.74 W., in Platte River basin. Figures include a small amount of ground-water inflow between Dillon Reservoir and east portal of tunnel.

9-0615. Columbine ditch diverts water from tributaries of Eagle River in sec.5, T.8 S., R.79 W., in Colorado River basin, to Chalk Creek (tributary to East Fork Arkansas River) in NW $\frac{1}{4}$  sec.9, T.8 S., R.79 W., in Arkansas River basin.

9-0620. Ewing ditch diverts water from Piney Creek in sec.11, T.8 S., R.80 W., in Eagle River basin, to Thayer Gulch (tributary to Tennessee Creek) in sec.11, T.8 S., R.80 W., in Arkansas River basin.

9-0625. Wurtz ditch diverts water from tributaries of Eagle River between headgate in sec.32, T.7 S., R.80 W., and Tennessee Pass, in Colorado River basin, to West Tennessee Creek (tributary to Tennessee Creek) in sec.17, T.8 S., R.80 W., in Arkansas River basin.

9-0730. Twin Lakes tunnel diverts water from tributaries of Roaring Fork River between headgates (in sec.21, T.11 S., R.83 W., and sec.11, T.11 S., R.82 W.), and west portal of Twin Lakes tunnel (in sec.24, T.11 S., R.83 W.), in Colorado River basin, to North Fork Lake Creek in sec.22, T.11 S., R.82 W., in Arkansas River basin.

9-0775. Busk-Ivanhoe tunnel diverts water from Ivanhoe Lake (Ivanhoe Creek), tributary to Fryingpan River in sec.13, T.9 S., R.82 W., in Roaring Fork River basin, to Busk Creek (tributary to Lake Fork) in sec.20, T.9 S., R.81 W., in Arkansas River basin.

9-1150. Larkspur ditch diverts water from tributaries of Tomichi Creek between headgates (in sec.11, T.48 N., R.6 E., and sec.1, T.47 N., R.6 E.), and Marshall Pass, in Gunnison River basin, to Poncha Creek (tributary to South Arkansas River) in SE $\frac{1}{4}$  sec.24, T.48 N., R.6 E., in Arkansas River basin.

9-1182. Tarbell ditch diverts water from Lake Fork Cochetopa Creek (tributary to Cochetopa Creek), in NW $\frac{1}{4}$  sec.18, T.43 N., R.2 E., in Gunnison River basin, to Lake Fork Saguache Creek (tributary to Middle Fork Saguache Creek) in NE $\frac{1}{4}$  sec.18, T.43 N., R.2 E., in Rio Grande basin. All records available prior to October 1960 published in WSP 1733.

## TRANSMOUNTAIN DIVERSIONS

## Transmountain diversions from Colorado River basin in Colorado--Continued

9-1210. Tabor ditch diverts water from tributaries of Cebolla Creek in secs.29 and 36, T.43 N., R.3 W., in Gunnison River basin, to Big Spring Creek, tributary to North Clear Creek in sec.35, T.43 N., R.3 W., in Rio Grande basin.

9-3410. Treasure Pass ditch diverts water from tributaries of Wolf Creek between headgates (in sec.31, T.38 N., R.2 E., and sec.6, T.37 N., R.2 E.), and Wolf Creek Pass, in San Juan River basin, to tributary of South Fork Rio Grande in sec.31, T.38 N., R.2 E., in Rio Grande basin.

9-3470. Piedra Pass ditch (Harley Fuchs ditches 1 and 2) diverts water from tributaries of Piedra River between headgates (in NW $\frac{1}{4}$  sec.4, T.38 N., R.1 W., and SW $\frac{1}{4}$  sec.33, T.39 N., R.1 W.), and Piedra Pass, in San Juan River basin, to South River in sec.4, T.38 N., R.1 W., in Rio Grande basin.

9-3480. Squaw Pass ditch diverts water from Williams Creek (tributary to Piedra River) in sec.13, T.39 N., R.3 W., in San Juan River basin, to Squaw Creek in sec.10, T.39 N., R.3 W., in Rio Grande basin.

9-3510. Fuchs ditch diverts water from North Fork Los Pinos River (tributary to Los Pinos River) in sec.4, T.39 N., R.4 W., in San Juan River basin, to Weminuche Creek in sec.33, T.40 N., R.4 W., in Rio Grande basin.

9-3515. Raber-Loehr ditch diverts water from left bank of Rincon la Vaca Creek (tributary to Los Pinos River) in sec.5, T.39 N., R.4 W., in San Juan River basin, to Weminuche Creek in sec.33, T.40 N., R.4 W., in Rio Grande basin.

## Transmountain diversions from Colorado River basin in Colorado

Diversions, in acre-feet, water year October 1965 to September 1966

Diversion	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Water year
<b>TO PLATTE RIVER BASIN</b>													
9-0100. Grand River ditch.....	0	0	0	0	0	0	0	2,610	7,020	3,450	1,090	70	14,240
9-0120. Eureka ditch.....	0	0	0	0	0	0	0	0	40	43	29	1.8	114
9-0130. Alva B. Adams tunnel.....	13,070	17,910	22,240	24,650	19,460	18,240	10,150	18,850	17,500	27,340	23,430	22,530	235,400
9-0215. Berthoud Pass ditch.....	0	0	0	0	0	0	0	45	316	181	49	0	591
9-0225. Moffat water tunnel.....	567	770	887	680	19	350	1,040	13,000	17,350	7,010	3,480	2,540	47,690
9-0460. Boreas Pass ditch.....	0	0	0	0	0	0	0	0	0	0	0	0	0
9-0505.9. Harold D. Roberts tunnel.	0	0	0	0	0	0	0	449	1,970	6,090	9,000	8,280	25,790
Total.....	13,640	18,680	23,130	25,330	19,480	18,590	11,190	34,950	44,200	44,110	37,080	33,420	323,800
<b>TO ARKANSAS RIVER BASIN</b>													
9-0420. Hoosier Pass tunnel.....	325	41	0	0	0	0	5.2	1,340	2,410	2,730	1,010	0	7,860
9-0485. Fremont Pass ditch.....	0	0	0	0	0	0	0	0	0	0	0	0	0
9-0615. Columbine ditch.....	0	0	0	0	0	0	0	528	369	85	2.4	0	984
9-0620. Ewing ditch.....	0	0	0	0	0	0	0	243	185	93	7.9	0	529
9-0625. Wurtz ditch.....	0	0	0	0	0	0	15	819	428	100	7.5	0	1,370
9-0730. Twin Lakes tunnel.....	1,530	604	364	242	180	234	576	13,540	14,230	5,780	1,210	0	38,490
9-0775. Busk-Ivanhoe tunnel.....	272	0	0	0	0	0	0	1,420	1,510	399	274	0	3,880
9-1150. Larkepur ditch.....	0	0	0	0	0	0	0	16	3.4	0	0	0	19
Total.....	2,130	645	364	242	180	234	596	17,910	19,140	9,190	2,510	0	53,130
<b>TO RIO GRANDE BASIN</b>													
9-1182. Tarbell ditch.....	0	0	0	0	0	0	0	4.8	193	234	156	127	715
9-1210. Tabor ditch.....	0	0	0	0	0	0	0	184	168	55	0	0	407
9-3410. Treasure Pass ditch.....	0	0	0	0	0	0	0	43	190	.6	0	0	234
9-3470. Piedra Pass ditch.....	0	0	0	0	0	0	0	0	0	0	0	0	0
9-3480. Squaw Pass ditch.....	0	0	0	0	0	0	0	0	112	33	0	0	145
9-3510. Fuchs ditch.....	0	0	0	0	0	0	0	116	339	100	32	0	587
9-3515. Raber-Lohr ditch.....	0	0	0	0	0	0	0	370	1,380	547	308	0	2,600
Total.....	0	0	0	0	0	0	0	718	2,380	970	496	127	4,690
Grand Total.....	15,760	19,320	23,490	25,570	19,660	18,820	11,790	53,580	65,710	54,270	40,090	33,550	381,600

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or flood-flow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

## Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow, partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1966

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
Piney River basin						
*9-0589	Moniger Creek near Minturn, Colo.	Lat 39°43'37", long 106°28'50, on left bank 1½ miles upstream from mouth and 7½ miles north of Minturn.	0.76	1965-66	10- 6-65 11- 9-65 12- 8-65 1- 4-66 2- 2-66 3- 2-66 4-28-66 5-16-66 5-26-66 6-13-66 6-23-66 7-12-66 8- 2-66 8-30-66	0.34 .09 .08 .03 .06 .06 .52 2.28 2.95 .88 .56 .12 .06 .04
Eagle River basin						
*a9-0661.5	Pitkin Creek near Minturn, Colo.	Lat 39°38'35", long 106°18'10", near crossing of U. S. Highway 6, 900 ft above mouth and 8 miles northeast of Minturn.	5.39	1964-66	10- 6-65 11-16-65 12- 8-65 1- 4-66 2- 1-66 3- 1-66 3-29-66 4-25-66 5- 4-66 5-18-66 5-26-66 6- 8-66 6-22-66 7-12-66 8- 3-66 8-31-66	7.26 2.83 1.92 1.68 1.27 .99 2.25 3.56 19.4 16.1 28.2 14.4 18.1 10.0 5.06 1.52

\* Also a crest-stage station.

a Discontinued as a low-flow partial-record station. Established as a continuous-record station 10-1-66.

## Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum at crest-stage partial-record stations							
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (cfs)
Piney River basin							
*9-0589	Moniger Creek near Minturn, Colo.	Lat 39°43'37", long 106°28'50", on left bank 1½ miles upstream from mouth and 7½ miles north of Minturn.	0.76	1965-66	5- 9-66	(a)	b9
Eagle River basin							
*c9-0661.5	Pitkin Creek near Minturn, Colo.	Lat 39°38'35", long 106°18'10", near crossing of U. S. Highway 6, 900 ft above mouth and 8 miles northeast of Minturn.	5.39	1965-66	5-25-66	0.81	38

\* Also a low-flow partial-record station.

a Gage height not determined. Maximum gage height, 1.56 ft (backwater from ice).

b Estimated.

c Discontinued as a crest-stage station. Established as a continuous-record station 10-1-66.

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## Measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table. Those that are measurements of base flow are designated by an asterisk (\*); measurements of peak flow by a dagger (†).

Discharge measurements made at miscellaneous sites during water year 1966

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Platte River basin						
Sunshine Gulch.....	Boulder Creek...	NE¼ sec.26, T.1 N., R.71 W., at county road crossing, 1.8 miles northwest of Boulder, Colo.	0.79		9- 1-66	†110
Arkansas River basin						
Bernard Creek.....	Arkansas River..	NW¼ sec.30, T.48 N., R.12 E., 1½ miles above mouth and 1½ miles north of Cotopaxi, Colo.	9.48		8- 1-66	†11,300
Roaring Fork River basin						
Rocky Fork Creek...	Fryingpan River.	NW¼ sec.18, T.8 S., R.84 W., at mouth near private bridge, 1½ miles west of Ruedi, Colo.	a13	1959-65	11- 9-65 12- 7-65 1- 4-66 2- 1-66 3- 2-66 3-31-66 4-26-66 5-10-66 5-23-66 6- 7-66 6-21-66 7-11-66 8- 1-66 8-29-66	*.63 *1.10 *.62 *.73 *.54 *.31 *.24 22.4 24.9 7.51 6.98 *2.18 *1.84 *1.62
Colorado River Main Stem						
Colorado River.....	Gulf of California....	Sec.10, T.6 S., R.91 W., at county road bridge half a mile southeast of Silt, Colo.	a6,600	1965	11-22-65 12-21-65	2,760 1,740
Do.....	....do.....	Sec.27, T.8 S., R.97 W., at county road bridge at east edge of De Beque, Colo.	a7,400	1965	11-22-65 12-21-65 1-19-66 2-18-66	2,500 1,770 1,330 1,760
Do.....	....do.....	Sec.23, T.1 S., R.1 E., Ute Meridian, at county road bridge 2 miles south of Clifton, Colo.	a8,000	1965	11-22-65 12-22-65	2,410 2,110
Gunnison River basin						
West Muddy Creek...	Gunnison River..	NW¼ sec.5, T.11 S., R.91 W., 100 ft upstream from Gold Creek, 9½ miles northwest of Ragged Mountain, Colo.	7.52	1955-64†	6-28-66	2.64
Uncompahgre River..	....do.....	Sec.31, T.44 N., R.7 W., at 7th Avenue bridge below Oak Creek in Ouray, Colo.	a72	1965	11- 4-65	66.4
Dolores River basin						
Dolores River.....	Colorado River..	SW¼ sec.20, T.47 N., R.18 W., at highway bridge 2,000 ft southeast of Bedrock, Colo.	a1,910	1918-22† 1958, 1965	11- 3-65	103
San Miguel River...	Dolores River...	SW¼NE¼ sec.2, T.47 N., R.17 W., 20 ft below bridge on State Highway 141, 1½ miles southeast of Uravan, Colo.	a1,550	1954-62† 1965	11- 3-65	194
Dolores River.....	Colorado River..	Sec.11, T.48 N., R.18 W., at highway bridge 4½ miles below San Miguel River, 6½ miles northwest of Uravan, Colo.	3,497	1956, 1962 1965	11- 3-65	310
Green River basin						
Yampa River.....	Green River.....	S½ sec.1, T.6 N., R.91 W., at bridge on State Highway 13, 0.9 mile south of Craig, Colo.	a1,730	1898 1901-2† 1903 1904-7† 1910-17† 1958, 1965	11-11-65 12-20-65	291 202

† Peak flow.

a Approximately.

\* Base flow.

† Operated as a continuous-record gaging station.

	Page		Page
Alamosa Creek above Terrace Reservoir.....	126	Clear Creek (Platte River basin), at mouth, near Derby.....	33
Alva B. Adams tunnel at east portal, near Estes Park.....	145	near Golden.....	32
diversion by.....	359,361	near Lawson.....	31
Animas River, at Durango.....	353	Clear Fork ditch, diversion by.....	267
at Howardsville.....	351	Clear Fork near Ragged Mountain.....	267
near Cedar Hill, N. Mex.....	354	Coal Creek (Green River basin) near Meeker.....	331
Antelope Creek near Kremmling.....	170	Coal Creek (Platte River basin) near Plainview.....	41
Apishapa River near Fowler.....	92	Colorado River, at Glenwood Springs.....	208
Arapaho Creek at Monarch Lake Outlet.....	147	at Hot Sulphur Springs.....	157
Arkansas River, above Pueblo.....	81	below Baker Gulch, near Grand Lake.....	143
at Buena Vista.....	72	below Lake Granby.....	149
at Canon City.....	79	near Cameo.....	238
at Catlin Dam, near Fowler.....	93	near Colorado-Utah State line.....	295
at Granite.....	70	near Dotsero.....	207
at La Junta.....	94	near Granby.....	150
at Lamar.....	108	near Grand Lake.....	144
at Las Animas.....	95	near Kremmling.....	185
at Parkdale.....	77	Columbine ditch at Deadman Hill, diversion by.....	54
at Salida.....	75	Columbine ditch near Fremont Pass, diversion by.....	359,361
below John Martin Reservoir.....	107	Conejos River, below Platoro Reservoir.....	134
near Avondale.....	87	near La Sauses.....	139
near Coolidge, Kans.....	110	near Mogote.....	135
near Malta.....	68	Cottonwood Creek (Arkansas River basin) below Hot Springs,	
near Nathrop.....	74	near Buena Vista.....	73
near Nepesta.....	91	Cottonwood Creek (Gunnison River basin) near Grand Mesa.....	279
near Portland.....	80	Cow Creek (tributary to Leroux Creek) near Cedaredge.....	274
near Pueblo.....	82	Cow Creek (tributary to Uncompahgre River) near Ridgway.....	290
near Wellsville.....	76	Crest-stage partial-record stations.....	363
August P. Gumlick Tunnel, diversion by.....	163	Crystal Creek near Maher.....	264
		Crystal River, above Avalanche Creek, near Redstone.....	225
Bear Creek, at Morrison.....	24	at Placita.....	224
at mouth, at Sheridan.....	25	Cucharas River at Boyd Ranch, near La Veta.....	89
Beaver Creek (tributary to Colorado River) near Rifle.....	233	Culebra Creek at San Luis.....	140
Beaver Creek (tributary to East Fork Dallas Creek) near		Cunningham Creek near Norrie.....	218
Ridgway.....	287	Curecanti Creek near Sapinero.....	261
Beaver Creek (tributary to San Miguel River) near Norwood...	300		
Bemrose-Hoosier diversion near Hoosier Pass.....	174	Dallas Creek, near Ridgway.....	289
Berthoud Pass ditch at Berthoud Pass, diversion by.....	359,361	East Fork, near Ridgway.....	286
Big Thompson River, at Estes Park.....	43	West Fork, near Ridgway.....	285
at mouth, near La Salle.....	48	Darling Creek near Leal.....	161
at mouth of canyon, near Drake.....	45	Dickson Creek near Minturn.....	187
near Estes Park.....	44	Dillon Reservoir at Dillon.....	180
Bighorn Creek near Minturn.....	199	Dirty George Creek near Grand Mesa.....	276
Black Gore Creek near Minturn.....	198	Disappointment Creek near Dove Creek.....	298
Blue Mesa Reservoir near Sapinero.....	259	Dolores River, at Dolores.....	297
Blue River, above Green Mountain Reservoir.....	182	below Rico.....	296
below Dillon.....	181		
below Green Mountain Reservoir.....	184	Eagle River, at Red Cliff.....	193
near Dillon.....	176	below Gypsum.....	206
Bob Creek ditch near Glendevey, diversion by.....	54	East Brush Creek at Yeoman Park, near Eagle.....	203
Bobtail Creek near Jones Pass.....	158	East Meadow Creek near Minturn.....	189
Bonny Reservoir near Hale.....	64	East River, at Almont.....	249
Booth Creek near Minturn.....	200	below Cement Creek, near Crested Butte.....	248
Boreas Pass ditch at Boreas Pass, diversion by.....	359,361	Egeria Creek near Toponas.....	192
Boulder Creek near Orodell.....	39	Elevenmile Canyon Reservoir near Lake George, contents of.....	46,47
Brush Creek (Eagle River basin) near Eagle.....	204	Elk River at Clark.....	308
Brush Creek (Plateau Creek basin) near Collbran.....	243	Elkhead Creek, near Clark.....	311
Busk-Ivanhoe tunnel at east portal, near Malta, diversion		near Elkhead.....	312
by.....	359,361	North Fork, near Elkhead.....	313
Buzzard Creek, below Owens Creek, near Heiberger.....	241	Eureka ditch near Flattop Mountain, diversion by.....	359,361
near Collbran.....	242	Ewing ditch at Tennessee Pass, diversion by.....	359,361
Cache la Poudre River, at mouth of canyon, near Fort Collins	55	Fall Creek near Rustic.....	50
near Greeley.....	56	Fish Creek near Milner.....	309
near Rustic.....	49	Fountain Creek, at Security.....	86
South Fork, near Rustic.....	53	near Colorado Springs.....	83
Cameron Pass ditch at Cameron Pass, diversion by.....	54	Fraser River near Winter Park.....	153
Carnero Creek near La Garita.....	124	Freeman Creek near Minturn.....	188
Carter Lake near Berthoud, contents of.....	46,47	Fremont Pass ditch at Fremont Pass, diversion by.....	359,361
Cattle Creek near Carbondale.....	229	Frijole Creek near Alfalfa.....	100
Cheesman Lake near Deckers, contents of.....	46,47	Frontier ditch near Coolidge, Kans.....	109
Cherry Creek, at Denver.....	29	Fryingpan River, at Norrie.....	216
below Cherry Creek Reservoir.....	28	near Ivanhoe Lake.....	211
near Franktown.....	26	near Norrie.....	212
near Melvin.....	27	near Ruedi.....	222
Cimarron River at Cimarron.....	263	North Fork, above Cunningham Creek, near Norrie.....	217
near Cimarron.....	262	North Fork, below Cunningham Creek, near Norrie.....	219
Cimarron ditch, diversion by.....	262	North Fork, near Norrie.....	220
Clear Creek (Arkansas River basin) above Clear Creek		South Fork, at upper station, near Norrie.....	214
Reservoir.....	71	South Fork, near Norrie.....	215
		Fuchs ditch at Weminuche Pass, diversion by.....	360,361



	Page		Page
Goose Creek (Platte River basin) above Cheesman Lake.....	16	Navajo River, above Chromo.....	341
Goose Creek (Rio Grande basin) at Wagonwheel Gap.....	115	at Banded Peak Ranch, near Chromo.....	340
Gore Creek at upper station, near Minturn.....	197	at Edith.....	342
Grand River ditch at La Poudre Pass, diversion by.....	359,361	North Clear Creek below Continental Reservoir.....	112
Grape Creek near Westcliffe.....	78	North Crestone Creek near Crestone.....	123
Grassy Creek near Mount Harris.....	310	North Platte River near Northgate.....	11
Green Mountain Reservoir near Kremmling.....	183	North Thompson Creek near Carbondale.....	226
Gunnison River, below Blue Mesa Dam.....	260		
below Gunnison tunnel.....	265	Ohio Creek, at Baldwin.....	250
near Grand Junction.....	294	near Baldwin.....	251
near Gunnison.....	252	Owens Creek ditch, diversion by.....	241
near Lazear.....	275		
North Fork, near Somerset.....	269	Paonia Reservoir, contents of.....	269
Gunnison tunnel, diversion by.....	265	Parachute Creek near Grand Valley.....	234,235
Gypsum Creek near Gypsum.....	205	Pass Creek near Kremmling.....	172
		Piceance Creek below Ryan Gulch, near Rio Blanco.....	334
Halfmoon Creek near Malta.....	67	Piedra Pass ditch at Piedra Pass, diversion by.....	360,361
Harold D. Roberts tunnel at Grant, diversion by.....	359,361	Piedra River, near Arboles.....	345
Hermosa Creek near Hermosa.....	352	near Piedra.....	344
Homestake Creek near Red Cliff.....	196	Piney River, below Piney Lake, near Minturn.....	186
Hoosier Pass tunnel at Hoosier Pass, diversion by.....	359,361	near State Bridge.....	190
Horsetooth Reservoir near Fort Collins, contents of.....	46,47	Pinos Creek near Del Norte.....	118
Hubbard ditch, diversion by.....	302	Plateau Creek, near Cameo.....	244
Huerfano River, at Manzanares Crossing, near Redwing.....	88	near Collbran.....	240
below Huerfano Valley Dam, near Undercliffe.....	90	Platoro Reservoir at Platoro.....	133
Hunter Creek above Midway Creek, near Aspen.....	210	Pleasant Valley Creek near Noel.....	288
		Plum Creek near Louviers.....	22
Ivanhoe Creek near Norrie.....	213	Prince Creek near Carbondale.....	228
		Purgatoire River, at Ninemile Dam, near Higbee.....	104
John Martin Reservoir at Caddoa.....	106	at Trinidad.....	96-98
Jones Pass tunnel (see August P. Gumlick Tunnel)		near Alfalfa.....	102
		near Hoehne.....	99
Kannah Creek near Whitewater.....	293	near Las Animas.....	105
Kerber Creek at Ashley Ranch, near Villa Grove.....	121	near Thatcher.....	103
Keystone Gulch near Dillon.....	178		
Kiser Creek near Grand Mesa.....	278	Quartz Creek near Ohio City.....	255
La Garita Creek near La Garita.....	125	Raber-Loehr ditch at Weminuche Pass, diversion by.....	360,361
La Jara Creek at Gallegos Ranch, near Capulin.....	127	Ranch Creek near Fraser.....	156
La Plata River, at Colorado-New Mexico State line.....	356	Red Dirt Creek near Kremmling.....	171
at Hesperus.....	355	Red Sandstone Creek near Minturn.....	202
Lake Creek above Twin Lakes Reservoir.....	69	Republican River, South Fork, near Hale.....	65
Lake Fork (Arkansas River basin) above Sugar Loaf Reservoir.....	66	South Fork, near Idalia.....	62
Lake Fork (Gunnison River basin) at Gateview.....	258	Rio Blanco near Pagosa Springs.....	339
Lake Granby near Granby.....	148	Rio Grande, above mouth of Trinchera Creek, near La Sauses..	128
Landsman Creek near Hale.....	63	at Alamosa.....	120
Laramie River, near Glendevy.....	12	at Colorado-New Mexico State line.....	142
near Jelm, Wyo.....	13	at Thirtymile Bridge, near Creede.....	111
Laramie-Poudre tunnel near Chambers Lake, diversion by.....	54	at Wagonwheel Gap.....	114
Larkspur ditch at Marshall Pass, diversion by.....	359,361	near Del Norte.....	117
Leroux Creek near Cedaredge.....	273	near Lobatos.....	141
Lime Creek near Troutville.....	221	near Monte Vista.....	119
Little Beaver Creek, near Idylwilde.....	51	South Fork, at South Fork.....	116
near Rustic.....	52	Roan Creek, above Clear Creek, near De Beque.....	236
Little Snake River, near Baggs, Wyo.....	323	near De Beque.....	237
near Lily.....	324	Roaring Fork River, at Glenwood Springs.....	230
near Slater.....	320	near Aspen.....	209
Los Pinos River (Rio Grande basin) near Ortiz.....	137	Rock Creek near Toponas.....	191
Los Pinos River (San Juan River basin), at La Boca.....	349		
near Bayfield.....	348	Saguache Creek near Saguache.....	122
Lost Creek near Buford.....	326	St. Louis Creek near Fraser.....	155
Low-flow partial-record stations, discharge measurements at.....	362	St. Vrain Creek, at Lyons.....	36
		at mouth, near Platteville.....	42
McCullough-Spruce-Crystal diversion near Hoosier Pass.....	175	near Longmont.....	37
McElmo Creek near Colorado-Utah State line.....	358	San Antonio River, at mouth, near Manassa.....	138
Main Hubbard Creek near Paonia.....	270	at Ortiz.....	136
Mancos River near Towaoc.....	357	San Francisco Creek near Alfalfa.....	101
Michigan ditch at Cameron Pass, diversion by.....	54	San Juan River, at Pagosa Springs.....	338
Michigan River, North Fork, near Gould.....	10	East Fork, above Sand Creek, near Pagosa Springs.....	336
Middle Boulder Creek at Nederland.....	38	East Fork, near Pagosa Springs.....	337
Middle Creek near Minturn.....	201	near Carracas.....	343
Middle Hubbard Creek near Paonia.....	271	San Miguel River, at Naturita.....	301
Milk Creek near Thornburg.....	318	near Placerville.....	299
Miscellaneous sites, discharge measurements at.....	364	Sangre de Cristo Creek near Fort Garland.....	130
Moffat water tunnel at east portal, diversion by.....	359,361	Service Creek near Oak Creek.....	304
Monte Cristo diversion near Hoosier Pass.....	173	Shadow Mountain Lake near Grand Lake.....	146
Morapos Creek near Hamilton.....	317	Skyline ditch at Chambers Lake, diversion by.....	54
Muddy Creek near Kremmling.....	169	Slater Fork near Slater.....	321

	Page		Page
Smith Fork near Crawford.....	266	Uncompahgre River, at Colona.....	291
Snake River near Montezuma.....	177	at Delta.....	292
Soap Creek near Sapinero.....	257	near Ridgway.....	284
South Boulder Creek near Eldorado Springs.....	40	Ute Creek near Fort Garland.....	131
South Platte River, above Elevenmile Canyon Reservoir, near Hartsel.....	14	Vallecito Creek near Bayfield.....	346
at Balzac.....	59,60	Vallecito Reservoir near Bayfield.....	347
at Denver.....	30	Vasquez Creek near Winter Park.....	154
at Henderson.....	34	Vega Reservoir near Collbran.....	239
at Julesburg.....	61		
at Littleton.....	23	Ward Creek near Grand Mesa.....	277
at South Platte.....	20	Walton Creek near Steamboat Springs.....	305
at Waterton.....	21	Wearyman Creek near Red Cliff.....	194
below Cheesman Lake.....	17	West Divide Creek, below Willow Creek, near Raven.....	231
near Kersey.....	57	near Raven.....	232
near Lake George.....	15	West Hubbard Creek near Paonia.....	272
near Weldona.....	58	West Monument Creek near Pikeview.....	84
North Fork, at South Platte.....	19	West Muddy Creek near Somerset.....	268
North Fork, below Geneva Creek, at Grant.....	18	West Sopris Creek near Basalt.....	223
South St. Vrain Creek near Ward.....	35	White River, above Coal Creek, near Meeker.....	330
Spring Creek (Green River basin) near Steamboat Springs.....	306	above Ripple Creek, near Trapper's Lake.....	325
Spring Creek (San Juan River basin) at La Boca.....	350	at Buford.....	328
Squaw Pass ditch at Squaw Pass, diversion by.....	360,361	below Meeker.....	333
Surface Creek, at Cedaredge.....	282	near Buford.....	327
near Cedaredge.....	281	near Meeker.....	332
		near Watson, Utah.....	335
Tabor ditch at Spring Creek Pass, diversion by.....	360,361	South Fork, at Buford.....	329
Tarbell ditch near Cochetopa Pass, diversion by.....	359,361	Williams Fork (tributary to Colorado River), above Darling Creek, near Leal.....	160
Taylor Creek near Gateway.....	302	below Steelman Creek.....	159
Taylor Park Reservoir at Taylor Park.....	245	below Williams Fork Reservoir.....	166
Taylor River, at Almont.....	247	near Leal.....	163
below Taylor Park Reservoir.....	246	near Parshall.....	164
Templeton Gap Floodway at Colorado Springs.....	85	South Fork of, near Leal.....	162
Tenmile Creek below North Fork, at Frisco.....	179	Williams Fork (tributary to Yampa River), East Fork of, above Willow Creek.....	314
Thompson Creek feeder ditch, diversion by.....	226	East Fork of, near Pagoda.....	315
Thompson Creek near Carbondale.....	227	South Fork of, near Pagoda.....	316
Tomichi Creek, at Gunnison.....	256	Williams Fork Reservoir near Parshall.....	165
at Parlin.....	254	Willow Creek (tributary to Colorado River) below Willow Creek Reservoir.....	152
at Sargents.....	253	Willow Creek (tributary to Little Snake River) near Dixon, Wyo.....	322
Tongue Creek at Cory.....	283	Willow Creek (tributary to Rio Grande) at Creede.....	113
Transbasin diversions from North Platte River basin to Cache la Poudre River basin in Colorado.....	54	Willow Creek Pump Canal, diversion by.....	152
Transmountain diversions from Colorado River basin in Colorado.....	359-361	Willow Creek Reservoir near Granby.....	151
Treasure Pass ditch at Wolf Creek Pass, diversion by.....	360,361	Wilson supply ditch near Eaton Reservoir, diversion by.....	54
Trinchera Creek, above Turners Ranch, near Fort Garland.....	129	Wurtz ditch near Tennessee Pass, diversion by.....	359,361
below Smith Reservoir, near Blanca.....	132		
Troublesome Creek, East Fork, near Troublesome.....	168	Yampa River, at Steamboat Springs.....	307
near Pearmont.....	167	near Maybell.....	319
Turkey Creek near Red Cliff.....	195	near Oak Creek.....	303
Twin Lakes tunnel at east portal, near Twin Lakes, diversion by.....	359,361	Youngs Creek near Grand Mesa.....	280

