

1968

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
1968

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
Denver Regional Council of Governments
City of Colorado Springs, Department of Public Utilities
City of Aurora, Director of Utilities
Bureau of Reclamation, U.S. Department of the Interior
National Park Service, 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, 1968, 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 1968

OCTOBER 1967

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				

NOVEMBER 1967

S	M	T	W	T	F	S
				1	2	3
				4	5	6
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		

DECEMBER 1967

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					

JANUARY 1968

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	

FEBRUARY 1968

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			

MARCH 1968

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					

APRIL 1968

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		

MAY 1968

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 1968

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 1968

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 1968

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 1968

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.....	3
Downstream order and station numbers.....	4
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>	
Grizzly Creek (head of Platte River):	
Little Grizzly Creek near Coalmont.....	10
North Platte River (continuation of Grizzly Creek):	
Michigan River:	
North Fork Michigan River near Gould.....	11
North Platte River near Northgate.....	12
Laramie River near Glendevey.....	13
Laramie River near Jelm, Wyo.....	14
South Platte River above Elevenmile Canyon Reservoir, near Hartsel.....	15
South Platte River near Lake George.....	16
Goose Creek above Cheesman Lake.....	17
South Platte River below Cheesman Lake.....	18
North Fork South Platte River below Geneva Creek, at Grant...	19
North Fork South Platte River at South Platte.....	20
South Platte River at South Platte.....	21
South Platte River at Waterton.....	22
Plum Creek near Louviers.....	23
South Platte River at Littleton.....	24
Bear Creek at Morrison.....	25
Bear Creek at mouth, at Sheridan.....	26
Cherry Creek near Franktown.....	27
Cherry Creek near Melvin.....	28
Cherry Creek below Cherry Creek Reservoir.....	29
Cherry Creek at Denver.....	30
South Platte River at Denver.....	31
Clear Creek near Lawson.....	32
Clear Creek near Golden.....	33
Clear Creek at mouth, near Derby.....	34
South Platte River at Henderson.....	35
North St. Vrain Creek (head of St. Vrain Creek):	
South St. Vrain Creek near Ward.....	36

Gaging-station records--Continued

Missouri River--Continued

Platte River basin--Continued

North Platte River--Continued

South Platte River--Continued

Page

St. Vrain Creek at Lyons.....	37
St. Vrain Creek near Longmont.....	38
Middle Boulder Creek (head of Boulder Creek) at Nederland..	39
Boulder Creek near Orodell.....	40
South Boulder Creek near Eldorado Springs.....	41
Coal Creek near Plainview.....	42
St. Vrain Creek at mouth, near Platteville.....	43
Big Thompson River:	
Glacier Creek:	
Boulder Brook near Estes Park.....	44
Glacier Creek near Estes Park.....	45
Beaver Brook near Estes Park.....	46
Big Thompson River at Estes Park.....	47
Big Thompson River near Estes Park.....	48
Big Thompson River at mouth of canyon, near Drake.....	49
Reservoirs in South Platte River basin.....	50
Big Thompson River at mouth, near La Salle.....	52
Cache la Poudre River near Rustic.....	53
South Fork Cache la Poudre River:	
Fall Creek near Rustic.....	54
Little Beaver Creek near Idylwilde.....	55
Little Beaver Creek near Rustic.....	56
South Fork Cache la Poudre River near Rustic.....	57
Transbasin diversions from North Platte River basin to	
Cache la Poudre River basin.....	58
Cache la Poudre River at mouth of canyon, near Fort Collins..	59
Cache la Poudre River near Greeley.....	60
South Platte River near Kersey.....	61
South Platte River near Weldona.....	62
South Platte River at Balzac.....	63
South Platte River at Julesburg.....	64

Kansas River basin

Arikaree River (head of Kansas River):

Republican River (continuation of Arikaree River):

South Fork Republican River near Idalia.....	65
Landsman Creek near Hale.....	66
Bonny Reservoir near Hale.....	67
South Fork Republican River near Hale.....	68

Gaging-station records--Continued

Lower Mississippi River basinMississippi River:Arkansas River basin

	Page
Arkansas River near Leadville.....	69
Lake Fork:	
Halfmoon Creek near Malta.....	70
Lake Creek above Twin Lakes Reservoir.....	72
Arkansas River at Granite.....	73
Clear Creek above Clear Creek Reservoir.....	74
Arkansas River at Buena Vista.....	75
Cottonwood Creek below Hot Springs, near Buena Vista.....	76
Arkansas River near Nathrop.....	77
Arkansas River at Salida.....	78
Arkansas River near Wellsville.....	79
Arkansas River at Parkdale.....	80
Grape Creek near Westcliffe.....	81
Arkansas River at Canon City.....	82
Arkansas River near Portland.....	83
Arkansas River above Pueblo.....	84
Arkansas River near Pueblo.....	85
Fountain Creek near Colorado Springs.....	86
Monument Creek:	
West Monument Creek near Pikeview.....	87
Templeton Gap Floodway at Colorado Springs.....	88
Fountain Creek at Security.....	89
Arkansas River near Avondale.....	90
Huerfano River at Manzanares Crossing, near Redwing.....	91
Cucharas River at Boyd Ranch, near La Veta.....	92
Arkansas River near Nepesta.....	93
Apishapa River near Fowler.....	94
Arkansas River at Catlin Dam, near Fowler.....	95
Arkansas River at La Junta.....	96
Arkansas River at Las Animas.....	97
Purgatoire River at Trinidad.....	98
Purgatoire River near Hoehne.....	99
Frijole Creek near Alfalfa.....	100
San Francisco Creek near Alfalfa.....	101
Purgatoire River near Alfalfa.....	102
Luning Arroyo near Model.....	103
Van Bremer Arroyo near Model.....	104
Purgatoire River near Thatcher.....	105
Purgatoire River at Ninemile Dam, near Higbee.....	106
Purgatoire River near Las Animas.....	107
John Martin Reservoir at Caddoa.....	108
Arkansas River below John Martin Reservoir.....	109

Gaging-station records--Continued

Lower Mississippi River basin--Continued

Mississippi River--Continued

Arkansas River basin--Continued

Page

Arkansas River at Lamar..... 110

Frontier ditch near Coolidge, Kans..... 111

Arkansas River near Coolidge, Kans..... 112

Western Gulf of Mexico:

Rio Grande basin

Rio Grande at Thirtymile Bridge, near Creede..... 113

North Clear Creek below Continental Reservoir..... 114

Willow Creek at Creede..... 115

Rio Grande at Wagonwheel Gap..... 116

Goose Creek at Wagonwheel Gap..... 117

South Fork Rio Grande at South Fork..... 118

Rio Grande near Del Norte..... 119

Pinos Creek near Del Norte..... 120

San Francisco Creek at upper station, near Del Norte..... 121

Rio Grande near Monte Vista..... 122

Rio Grande at Alamosa..... 123

Rock Creek near Monte Vista..... 124

Closed basin in San Luis Valley:

Raspberry Creek near Villa Grove..... 125

Kerber Creek at Ashley Ranch, near Villa Grove..... 126

Cotton Creek near Mineral Hot Springs..... 127

Saguache Creek near Saguache..... 128

North Crestone Creek near Crestone..... 129

Cottonwood Creek near Crestone..... 130

Carnero Creek near La Garita..... 131

La Garita Creek near La Garita..... 132

Mosca Creek near Mosca..... 133

Alamosa Creek above Terrace Reservoir..... 134

La Jara Creek at Gallegos Ranch, near Capulin..... 135

Rio Grande above mouth of Trinchera Creek, near Lasasues..... 136

Trinchera Creek above Turners Ranch, near Fort Garland..... 137

Sangre de Cristo Creek near Fort Garland..... 138

Ute Creek near Fort Garland..... 139

Trinchera Creek below Smith Reservoir, near Blanca..... 140

Conejos River:

Platoro Reservoir at Platoro..... 141

Conejos River below Platoro Reservoir..... 142

Conejos River near Mogote..... 143

San Antonio River at Ortiz..... 144

Los Pinos River near Ortiz..... 145

Gaging-station records--Continued

Western Gulf of Mexico--Continued

Rio Grande basin--Continued

Conejos River--Continued

San Antonio River--Continued

San Antonio River at mouth, near Manassa.....	Page 146
Conejos River near Lasauses.....	147
Culebra Creek near Chama.....	148
Culebra Creek at San Luis.....	150
Rio Grande near Lobatos.....	151
Rio Grande at Colorado-New Mexico State line.....	152

Colorado River basin

Colorado River below Baker Gulch, near Grand Lake.....	153
--	-----

Colorado River near Grand Lake.....	154
-------------------------------------	-----

Grand Lake Outlet basin

North Inlet (head of Grand Lake Outlet):

Grand Lake:

Alva B. Adams tunnel at east portal, near Estes Park.....	155
Shadow Mountain Lake near Grand Lake.....	156

Arapaho Creek basin

Arapaho Creek at Monarch Lake Outlet.....	157
Lake Granby near Granby.....	158
Colorado River below Lake Granby.....	159
Colorado River near Granby.....	160

Willow Creek basin

Willow Creek Reservoir near Granby.....	161
Willow Creek below Willow Creek Reservoir.....	162

Fraser River basin

Fraser River near Winter Park.....	163
Vasquez Creek near Winter Park.....	164
St. Louis Creek near Fraser.....	165
Ranch Creek near Fraser.....	166
Colorado River at Hot Sulphur Springs.....	167

Williams Fork basin

Bobtail Creek (head of Williams Fork) near Jones Pass.....	168
Williams Fork below Steelman Creek.....	170
Williams Fork above Darling Creek, near Leal.....	172
Darling Creek near Leal.....	173
South Fork of Williams Fork near Leal.....	174
Williams Fork near Leal.....	175
Williams Fork near Parshall.....	176
Williams Fork Reservoir near Parshall.....	177
Williams Fork below Williams Fork Reservoir.....	178

Gaging-station records--Continued

Colorado River--Continued

<u>Troublesome Creek basin</u>	Page
Troublesome Creek near Pearmont.....	179
East Fork Troublesome Creek near Troublesome.....	180
<u>Muddy Creek basin</u>	
Muddy Creek near Kremmling.....	181
Antelope Creek near Kremmling.....	182
Red Dirt Creek near Kremmling.....	183
Pass Creek near Kremmling.....	184
<u>Blue River basin</u>	
Monte Cristo Creek (head of Blue River):	
Monte Cristo diversion near Hoosier Pass.....	185
Hoosier Creek:	
Bemrose-Hoosier diversion near Hoosier Pass.....	186
Blue River:	
McCullough Creek:	
McCullough-Spruce-Crystal diversion near Hoosier Pass.....	187
Blue River near Dillon.....	188
Snake River near Montezuma.....	189
Keystone Gulch near Dillon.....	190
Tenmile Creek below North Fork, at Frisco.....	191
Dillon Reservoir at Dillon.....	192
Blue River below Dillon.....	193
Rock Creek near Dillon.....	194
Boulder Creek at upper station, near Dillon.....	196
Slate Creek at upper station, near Dillon.....	197
Blue River above Green Mountain Reservoir.....	198
Black Creek below Black Lake, near Dillon.....	199
Cataract Creek near Kremmling.....	200
Green Mountain Reservoir near Kremmling.....	201
Blue River below Green Mountain Reservoir.....	202
Colorado River near Kremmling.....	203
<u>Piney River basin</u>	
Piney River below Piney Lake, near Minturn.....	204
Dickson Creek near Minturn.....	205
Freeman Creek near Minturn.....	206
East Meadow Creek near Minturn.....	207
Piney River near State Bridge.....	208
<u>Rock Creek basin</u>	
Rock Creek near Toponas.....	209
Egeria Creek near Toponas.....	210
<u>Eagle River basin</u>	
Eagle River at Red Cliff.....	211

Gaging-station records--Continued

Colorado River--Continued

Eagle River basin--Continued

Turkey Creek:

	Page
Wearyman Creek near Red Cliff.....	212
Turkey Creek near Red Cliff.....	213
Homestake Creek near Red Cliff.....	214
Cross Creek near Minturn.....	215
Gore Creek at upper station, near Minturn.....	216
Black Gore Creek near Minturn.....	217
Bighorn Creek near Minturn.....	218
Pitkin Creek near Minturn.....	219
Booth Creek near Minturn.....	220
Middle Creek near Minturn.....	221
Red Sandstone Creek near Minturn.....	222

Brush Creek:

East Brush Creek at Yeoman Park, near Eagle.....	223
Brush Creek near Eagle.....	224
Gypsum Creek near Gypsum.....	225
Eagle River below Gypsum.....	226
Colorado River near Dotsero.....	227

Roaring Fork River basin

Roaring Fork River near Aspen.....	228
Hunter Creek above Midway Creek, near Aspen.....	229
Fryingpan River near Ivanhoe Lake.....	230
Ivanhoe Creek near Norrie.....	231
South Fork Fryingpan River at upper station, near Norrie.....	232
Chapman Gulch near Norrie.....	233
Fryingpan River at Norrie.....	234
North Fork Fryingpan River above Cunningham Creek, near Norrie.....	235
Cunningham Creek near Norrie.....	236
North Fork Fryingpan River below Cunningham Creek, near Norrie.....	237
North Fork Fryingpan River near Norrie.....	238
Lime Creek near Troutville.....	239
Fryingpan River at Meredith.....	240
Ruedi Reservoir near Basalt.....	241
Fryingpan River near Ruedi.....	242
Sopris Creek:	
West Sopris Creek near Basalt.....	243
Crystal River at Placita.....	244
Crystal River above Avalanche Creek, near Redstone.....	245
North Thompson Creek (head of Thompson Creek) near Carbondale.....	246

Gaging-station records--Continued

Colorado River--Continued

Roaring Fork River basin--Continued

Crystal River--Continued

Page

Thompson Creek near Carbondale..... 247

Prince Creek near Carbondale..... 248

Cattle Creek near Carbondale..... 249

Roaring Fork River at Glenwood Springs..... 250

Colorado River below Glenwood Springs..... 251

Colorado River at New Castle..... 252

Divide Creek basinWest Divide Creek (head of Divide Creek) below Willow Creek,
near Raven..... 253

West Divide Creek near Raven..... 254

Beaver Creek basin

Beaver Creek near Rifle..... 255

Parachute Creek basin

Parachute Creek near Grand Valley..... 256

Colorado River near De Beque..... 257

Roan Creek basin

Roan Creek above Clear Creek, near De Beque..... 258

Clear Creek near De Beque..... 259

Roan Creek near De Beque..... 260

Colorado River near Cameo..... 261

Plateau Creek basin

Plateau Creek:

Vega Reservoir near Collbran..... 262

Plateau Creek near Collbran..... 263

Buzzard Creek below Owens Creek, near Heiberger..... 264

Buzzard Creek near Collbran..... 265

Plateau Creek near Cameo..... 266

Gunnison River basin

Taylor River (head of Gunnison River):

Taylor Park Reservoir at Taylor Park..... 267

Taylor River below Taylor Park Reservoir..... 268

Taylor River at Almont..... 269

East River below Cement Creek, near Crested Butte..... 270

East River at Almont..... 271

Gunnison River:

Ohio Creek at Baldwin..... 272

Ohio Creek near Baldwin..... 273

Gunnison River near Gunnison..... 274

Tomichi Creek at Sargents..... 275

Tomichi Creek at Parlin..... 276

Gaging-station records--Continued

Colorado River--Continued

Gunnison River basin--Continued

Tomichi Creek--Continued

	Page
Quartz Creek near Ohio.....	277
Tomichi Creek at Gunnison.....	278
Lake Fork at Gateview.....	279
Blue Mesa Reservoir near Sapinero.....	280
Gunnison River below Blue Mesa Dam.....	281
Curecanti Creek near Sapinero.....	282
Morrow Point Reservoir near Cimarron.....	283
Cimarron River near Cimarron.....	284
Crystal Creek near Maher.....	285
Gunnison River below Gunnison tunnel.....	286
Smith Fork near Crawford.....	287
Clear Fork (head of North Fork Gunnison River) near Ragged Mountain.....	288
East Muddy Creek (continuation of Clear Fork) :	
West Muddy Creek near Somerset.....	289
North Fork Gunnison River near Somerset.....	290
Main Hubbard Creek near Paonia.....	291
Middle Hubbard Creek near Paonia.....	292
West Hubbard Creek near Paonia.....	293
Leroux Creek near Cedaredge.....	294
Cow Creek near Cedaredge.....	295
Gunnison River near Lazear.....	296
Dirty George Creek (head of Tongue Creek) near Grand Mesa.....	297
Ward Creek near Grand Mesa.....	298
Kiser Creek near Grand Mesa.....	299
Cottonwood Creek near Grand Mesa.....	300
Youngs Creek near Grand Mesa.....	301
Tongue Creek:	
Surface Creek near Cedaredge.....	302
Surface Creek at Cedaredge.....	303
Tongue Creek at Cory.....	304
Uncompahgre River near Ridgway.....	305
West Fork Dallas Creek near Ridgway.....	306
East Fork Dallas Creek near Ridgway.....	307
Beaver Creek near Ridgway.....	308
Dallas Creek near Ridgway.....	309
Cow Creek near Ridgway.....	310
Uncompahgre River at Colona.....	311
Uncompahgre River at Delta.....	312
Kannah Creek near Whitewater.....	313
Gunnison River near Grand Junction.....	314

Gaging-station records--Continued

Colorado River--Continued	Page
Colorado River near Colorado-Utah State line.....	315
<u>Dolores River basin</u>	
Dolores River below Rico.....	316
Dolores River at Dolores.....	317
Disappointment Creek near Dove Creek.....	318
San Miguel River near Placerville.....	319
San Miguel River at Naturita.....	320
Dry Creek near Naturita.....	321
<u>Green River basin</u>	
Green River:	
Yampa River near Toponas.....	322
Yampa River near Oak Creek.....	323
Service Creek near Oak Creek.....	324
Walton Creek near Steamboat Springs.....	326
Fish Creek at upper station, near Steamboat Springs.....	328
Spring Creek near Steamboat Springs.....	329
Yampa River at Steamboat Springs.....	330
Elk River:	
South Fork Elk River near Clark.....	331
Elk River at Clark.....	333
Trout Creek:	
Fish Creek near Milner.....	334
Yampa River near Hayden.....	335
Elkhhead Creek near Clark.....	336
Elkhhead Creek near Elkhhead.....	337
North Fork Elkhhead Creek near Elkhhead.....	338
East Fork of Williams Fork above Willow Creek.....	339
East Fork of Williams Fork near Pagoda.....	340
South Fork of Williams Fork near Pagoda.....	341
Milk Creek near Thornburg.....	342
Yampa River near Maybell.....	343
Little Snake River near Slater.....	344
Slater Fork near Slater.....	345
Willow Creek near Dixon, Wyo.....	346
Little Snake River near Baggs, Wyo.....	347
Little Snake River near Lily.....	348
North Fork White River above Ripple Creek, near Trapper's Lake.	349
Lost Creek near Buford.....	350
North Fork White River near Buford.....	351
North Fork White River at Buford.....	352
South Fork White River near Buford.....	353
South Fork White River at Buford.....	354

Gaging-station records--Continued

Colorado River--Continued

Green River basin--Continued

North Fork White River--Continued

	Page
White River above Coal Creek, near Meeker.....	355
Coal Creek near Meeker.....	356
White River near Meeker.....	357
White River below Meeker.....	358
Piceance Creek below Ryan Gulch, near Rio Blanco.....	359
White River near Watson, Utah.....	360

San Juan River basin

East Fork San Juan River above Sand Creek, near Pagosa Springs...	361
East Fork San Juan River near Pagosa Springs.....	362
San Juan River at Pagosa Springs.....	363
Rio Blanco near Pagosa Springs.....	364
Navajo River at Banded Peak Ranch, near Chromo.....	365
Navajo River above Chromo.....	366
Navajo River at Edith.....	367
San Juan River near Carracas.....	368
Piedra River near Piedra.....	369
Piedra River near Arboles.....	370
Los Pinos River:	
Vallecito Creek near Bayfield.....	371
Vallecito Reservoir near Bayfield.....	372
Los Pinos River near Bayfield.....	373
Los Pinos River at La Boca.....	374
Spring Creek at La Boca.....	375
Animas River at Howardsville.....	376
Hermosa Creek near Hermosa.....	377
Animas River at Durango.....	378
Florida River below Florida Farmers ditch, near Durango.....	379
Salt Creek near Oxford.....	380
Florida River at Bondad.....	381
Animas River near Cedar Hill, N. Mex.....	382
La Plata River at Hesperus.....	383
La Plata River at Colorado-New Mexico State line.....	384
Mancos River near Towaoc.....	385
McElmo Creek near Colorado-Utah State line.....	386

Transmountain diversions

Transmountain diversions from Arkansas River basin to South

Platte River basin in Colorado.....	387
Transmountain diversions from Colorado River basin in Colorado...	387
Discharge at partial-record stations and miscellaneous sites.....	390
Low-flow partial record stations.....	390
Crest-stage partial-record stations.....	391
Index.....	392

Water Resources Data for Colorado, 1968

Part 1: Surface Water Records

INTRODUCTION

The surface-water records for the 1968 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 E. A. Moulder, district chief.

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, succeeded by
 C. J. Kuiper.
 Southeastern Colorado Water Conservancy District,
 C. L. Thomson, general manager.
 Arkansas River Compact Administration, W. L. Heckler,
 chairman.
 Colorado River Water Conservation District, P.P. Smith,
 secretary-engineer, succeeded by Roland C. Fischer.
 City and County of Denver, Board of Water Commissioners,
 Gerald L. Stapp, president, succeeded by Leonard M. Campbell.
 Denver Regional Council of Governments, Justus K. Smith,
 Executive Director.
 City of Colorado Springs, Department of Public Utilities,
 R. D. Nixon, director.
 City of Aurora, C. A. Wemlinger, Director of Utilities.

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

The following records published in this report were furnished by the U.S. Geological Survey Districts indicated.

<u>Station</u>	<u>District</u>
6-6585 Laramie River near Jelm, Wyo.	Wyoming
9-3065 White River near Watson, Utah	Utah
9-3464 San Juan River near Carracas, Colo.	New Mexico
9-3498 Piedra River near Arboles, Colo.	New Mexico
9-3545 Los Pinos River at La Baca, Colo.	New Mexico
9-3550 Spring Creek at La Baca, Colo.	New Mexico
9-3635 Animas River near Cedar Hill, N. Mex.	New Mexico

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.

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimes will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

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 1968 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 records 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 non-recording 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 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"). The maximum and minimum daily discharges for each month are also given in the lines headed "Max" and "Min."

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 bases 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. A skeleton table of capacity at given stages is published each year for all reservoirs for which records are published on a daily basis, but it is not published for reservoirs for which only monthly data are 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.

The figures of mean daily discharge are shown to the nearest hundredth of a cfs for discharges less than 1 cfs. This has been done to maintain uniformity with computer-processed digital recorder data and should not be construed to indicate an accuracy greater than that used in the past.

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 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 at miscellaneous sites are given in a third 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.

Records of discharge were collected during the water year October 1967 to September 1968 on streams in the vicinity of Colorado Springs by the Colorado Springs Water Department. The records of these stations are not contained in this report.

PLATTE RIVER BASIN

6-6117. Little Grizzly Creek near Coalmont, Colo.

Location.--Lat 40°33'05", long 106°36'57", in SE¼NE¼ sec.29, T.7 N., R.82 W. (projected), on left bank a quarter of a mile downstream from Sawmill Creek, 2.7 miles upstream from Doran Creek, and 9.5 miles west of Coalmont.

Drainage area.--10.1 sq mi.

Records available.--October 1967 to September 1968.

Gage.--Water-stage recorder. Altitude of gage is 8,625 ft (from topographic map).

Extremes.--Maximum discharge during year, 275 cfs June 5 (gage height, 2.50 ft); minimum daily, 1.7 cfs Feb. 2.

Remarks.--Records good except those for winter period, which are fair. No diversions above station.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.4	2.4	2.3	2.1	2.0	1.8	3.1	7.4	150	46	8.0	3.4
2	2.4	2.4	2.2	2.0	1.7	1.8	3.1	9.2	166	44	6.8	3.1
3	2.4	2.2	2.2	2.0	1.9	1.8	2.8	11	195	44	8.5	4.2
4	2.4	2.2	2.1	1.9	2.0	1.8	2.6	13	207	43	7.6	5.8
5	2.5	2.0	2.2	1.8	2.0	1.8	2.6	16	214	42	6.6	4.6
6	3.4	1.9	2.1	2.0	1.9	1.8	2.8	18	218	38	6.2	3.9
7	3.1	1.9	2.1	1.9	1.9	1.9	2.6	17	195	36	5.6	3.6
8	2.6	2.0	2.2	1.9	1.9	1.9	2.6	16	163	34	5.3	3.2
9	2.5	2.0	2.1	1.9	1.9	1.9	2.6	18	116	32	6.2	3.1
10	2.4	2.2	2.1	2.1	1.9	1.9	2.6	20	118	31	7.2	2.9
11	2.4	2.2	2.1	2.1	1.9	1.9	2.9	21	122	29	6.4	2.8
12	2.4	2.3	2.1	2.1	1.9	1.9	3.6	24	130	25	6.6	2.8
13	2.3	2.3	2.1	2.1	1.9	1.9	3.6	24	160	23	6.0	2.8
14	2.3	2.3	2.0	2.0	1.9	1.9	3.4	21	160	20	9.4	2.9
15	2.3	2.3	2.0	2.0	2.0	1.9	3.2	18	150	18	9.2	3.9
16	2.3	2.3	2.1	2.0	2.0	1.9	3.7	17	150	16	7.0	3.9
17	2.3	2.1	2.2	2.0	2.0	1.9	3.9	15	136	14	6.0	4.4
18	2.3	2.1	2.1	2.0	2.0	1.9	3.7	15	139	13	7.0	4.0
19	2.3	2.0	2.2	1.9	2.0	1.8	3.6	17	156	12	5.5	3.7
20	2.2	2.0	2.2	1.9	2.0	1.8	3.4	19	160	11	5.1	3.4
21	2.2	2.2	2.1	1.9	2.0	1.8	3.2	25	150	10	4.7	3.9
22	2.2	2.4	2.1	1.9	2.0	1.8	3.2	38	139	9.9	4.6	3.9
23	2.2	2.4	2.1	1.9	2.0	1.8	2.8	32	122	9.9	4.2	3.9
24	2.2	2.4	2.1	1.9	2.0	1.8	2.8	25	100	9.7	4.4	3.7
25	2.3	2.3	2.1	1.9	2.0	1.9	3.2	22	80	8.7	3.6	3.6
26	2.4	2.3	2.2	1.9	1.9	1.9	3.2	22	72	8.2	3.4	3.2
27	2.4	2.5	2.2	1.9	1.9	1.8	3.1	24	80	8.0	3.4	3.1
28	2.5	2.2	2.2	1.9	1.9	2.0	2.8	36	85	7.6	3.7	2.9
29	2.2	2.2	2.2	2.0	1.9	2.3	4.2	56	79	7.0	4.2	2.9
30	2.2	2.2	2.1	2.0	-----	2.5	5.6	86	62	8.0	4.0	2.9
31	2.4	-----	2.1	2.0	-----	2.8	-----	122	-----	9.2	3.7	-----
Total	74.4	66.2	66.2	60.9	56.3	59.6	96.5	824.6	4,174	667.2	180.1	106.4
Mean	2.40	2.21	2.14	1.96	1.94	1.92	3.22	26.6	139	21.5	5.81	3.55
Max	3.4	2.5	2.3	2.1	2.0	2.8	5.6	122	218	46	9.4	5.8
Min	2.2	1.9	2.0	1.7	1.7	1.8	2.6	7.4	62	7.0	3.4	2.8
Ac-ft	148	131	131	121	112	118	191	1,640	8,280	1,320	357	211

Cal yr 1967: Total - Mean - Max - Min - Ac-ft -
 1968: Total 6,432.4 Mean 17.6 Max 218 Min 1.7 Ac-ft 12,760

Peak discharge (base, 200 cfs).--June 5 (2200) 275 cfs (2.50 ft); June 13 (2230) 210 cfs (2.35 ft).

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 1968.

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.--18 years, 17.2 cfs (12,450 acre-ft per year).

Extremes.--Maximum discharge during year, 217 cfs June 3 (gage height, 4.53 ft); minimum daily, 3.1 cfs Jan. 29-31, Feb. 1, 6, 7. 1950-68: 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; 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.4	5.4	4.3	3.6	3.1	3.6	5.4	11	183	37	14	9.0
2	6.4	5.4	4.2	3.4	3.3	3.7	4.6	15	187	33	15	8.4
3	6.1	5.0	4.2	3.3	3.3	3.8	5.2	22	190	30	14	8.0
4	6.4	5.0	4.1	3.4	3.3	3.8	5.0	35	178	28	13	8.6
5	7.6	4.6	4.0	3.7	3.3	3.9	4.5	50	181	29	12	9.4
6	7.6	4.6	4.0	3.9	3.1	3.9	3.7	52	184	26	11	9.8
7	7.9	4.3	4.1	4.1	3.1	3.8	4.4	44	169	25	11	9.6
8	7.3	4.3	4.1	4.3	3.4	3.4	5.2	35	154	23	11	9.2
9	7.0	4.3	4.0	4.1	3.4	3.6	5.4	31	146	22	12	8.0
10	6.7	4.6	3.9	4.1	3.4	4.1	5.4	33	133	21	13	7.6
11	6.4	4.6	3.9	3.9	3.6	4.0	5.6	37	119	21	11	7.4
12	6.1	4.6	3.9	3.7	3.6	3.9	5.6	43	113	23	10	7.2
13	5.9	4.6	4.0	3.7	3.6	3.8	5.4	46	124	21	9.0	6.7
14	5.7	4.8	4.0	3.7	3.6	3.7	5.2	38	128	19	10	7.0
15	5.7	5.0	4.1	3.7	3.6	3.5	5.2	43	119	17	11	7.0
16	5.4	5.0	3.6	3.9	3.6	3.4	5.0	35	118	17	14	7.6
17	5.4	5.0	3.7	4.1	3.4	3.4	5.4	29	109	16	13	8.5
18	5.4	4.8	3.6	3.9	3.4	3.4	5.0	27	103	15	12	8.5
19	5.2	4.8	3.6	3.7	3.4	3.5	5.4	26	99	14	12	9.5
20	5.2	4.8	3.7	3.6	3.4	3.5	5.4	27	95	14	11	8.5
21	5.2	5.2	3.5	3.6	3.6	3.5	5.2	42	94	13	11	7.6
22	5.2	5.2	3.4	3.6	3.7	3.7	5.2	84	88	13	11	7.3
23	5.2	5.0	3.3	3.6	3.7	3.6	5.0	88	79	13	12	7.0
24	5.2	5.0	3.3	3.6	3.7	3.6	5.0	71	70	13	11	6.7
25	5.2	5.0	3.4	3.7	3.6	3.6	4.8	58	63	12	11	6.4
26	5.2	4.8	3.5	3.8	3.5	3.7	4.6	59	54	12	10	6.1
27	4.8	4.2	3.5	3.6	3.5	3.7	4.6	67	49	14	9.0	6.1
28	5.4	4.2	3.5	3.3	3.6	3.9	5.0	102	46	13	9.0	6.1
29	6.1	4.1	3.5	3.1	3.6	4.1	7.0	150	43	12	9.2	5.9
30	5.9	4.1	3.6	3.1	---	4.5	8.0	158	41	14	9.8	5.7
31	5.7	---	3.6	3.1	---	5.2	---	177	---	16	10	---
Total	184.9	142.3	117.1	113.9	100.4	116.8	156.4	1,735	3,459	596	352.0	230.4
Mean	5.96	4.74	3.78	3.67	3.46	3.77	5.21	56.0	115	19.2	11.4	7.68
Max	7.9	5.4	4.3	4.3	3.7	5.2	8.0	177	190	37	15	9.8
Min	4.8	4.1	3.3	3.1	3.1	3.4	3.7	11	41	12	9.0	5.7
Ac-ft	367	282	232	226	199	232	310	3,440	6,860	1,180	698	457

Cal yr 1967: Total 6,804.2 Mean 18.6 Max 147 Min 2.3 Ac-ft 13,500
 Wtr yr 1968: Total 7,304.2 Mean 20.0 Max 190 Min 3.1 Ac-ft 14,490

Peak discharge (base, 100 cfs).--June 3 (0100) 217 cfs (4.53 ft); June 14 (0300) 132 cfs (3.82 ft).

Note.--No gage-height record July 24 to Sept. 12.

PLATTE RIVER BASIN

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

Location.--Lat 40°56'10", long 106°20'21", in SW¼SE¼ 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 1968. 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.--53 years, 430 cfs (311,300 acre-ft per year).

Extremes.--Maximum discharge during year, 2,180 cfs June 8 (gage height, 4.96 ft); maximum gage height, 7.28 ft Apr. 18 (backwater from ice); minimum daily discharge, 63 cfs Feb. 26.
1904, 1915-68: 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 for the water year 1968 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	164	143	110	95	72	80	300	973	1,050	870	499	170
2	151	153	100	96	74	80	370	1,250	1,210	710	474	159
3	146	118	92	96	75	80	350	1,470	1,310	614	433	156
4	143	110	92	95	74	82	350	1,550	1,480	600	400	197
5	164	110	90	92	72	86	400	1,630	1,810	628	370	230
6	183	110	98	98	70	88	370	1,710	1,970	838	346	217
7	197	120	98	98	71	89	360	1,580	2,120	798	328	183
8	195	125	96	92	72	90	350	1,310	2,170	726	311	162
9	183	130	93	88	72	90	350	1,120	2,050	734	375	148
10	175	120	92	84	72	96	400	1,060	1,810	742	439	133
11	167	125	94	80	72	93	500	1,080	1,560	734	468	128
12	162	140	96	80	72	92	600	1,060	1,450	830	427	123
13	140	130	94	80	73	92	780	1,140	1,350	798	370	116
14	133	120	95	80	73	92	800	1,160	1,220	663	390	118
15	128	110	96	83	74	90	820	1,000	1,300	572	422	123
16	126	110	95	86	76	92	840	946	1,330	579	439	133
17	126	110	98	86	76	90	860	955	1,380	558	385	146
18	128	110	100	84	70	90	900	846	1,410	505	315	151
19	126	115	100	80	70	94	1,000	766	1,420	474	283	143
20	123	120	100	80	70	90	900	710	1,540	439	260	133
21	116	100	94	80	70	88	800	718	1,580	416	237	126
22	112	90	95	80	74	92	718	734	1,710	427	223	123
23	112	100	99	84	74	98	586	878	1,690	405	210	128
24	112	100	110	86	74	100	530	1,070	1,650	451	206	128
25	118	90	110	86	69	100	493	1,110	1,600	462	203	123
26	121	90	106	88	63	104	474	964	1,400	416	192	118
27	121	100	90	83	68	107	445	838	1,190	390	178	114
28	126	100	90	79	79	120	433	726	1,040	370	175	109
29	128	110	90	74	80	150	480	635	1,060	356	178	112
30	126	110	95	72	---	250	670	694	1,070	375	183	118
31	128	---	95	70	---	250	---	910	---	480	178	---
Total	4,380	3,419	3,003	2,635	2,101	3,235	17,229	32,593	44,930	17,960	9,897	4,268
Mean	141	114	96.9	85.0	72.4	104	574	1,051	1,498	579	315	142
Max	197	153	110	98	80	250	1,000	1,710	2,170	870	495	230
Min	112	90	90	70	63	80	300	635	1,040	356	175	109
Ac-ft	8,690	6,780	5,960	5,230	4,170	6,420	34,170	64,650	89,120	35,620	19,630	8,470
Cal yr 1967: Total	141,530		Mean	388	Max	2,370	Min	50	Ac-ft	280,700		
Wtr yr 1968: Total	145,650		Mean	398	Max	2,170	Min	63	Ac-ft	288,900		

6-6575. Laramie River near Glendevy, 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 Glendevy Post Office.

Drainage area.--101 sq mi.

Records available.--June 1904 to October 1905, August 1910 to September 1968. Monthly discharge only for some periods, published in WSP 1310. Published as "at Glendevy" 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.--59 years, 73.0 cfs (52,850 acre-ft per year).

Extremes.--Maximum discharge during year, 712 cfs June 21 (gage height, 3.67 ft); minimum daily, 14 cfs Feb. 26. 1904-5, 1910-68: 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. 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	47	33	20	21	15	15	26	55	306	130	54	60
2	47	33	18	21	16	15	27	63	367	114	45	56
3	46	34	21	21	16	15	22	65	441	106	45	65
4	45	30	20	21	16	16	31	77	522	102	51	74
5	59	25	19	22	16	16	29	77	540	140	38	70
6	54	18	20	22	15	17	24	80	572	120	36	65
7	54	20	20	22	16	16	23	72	547	99	34	56
8	51	20	20	21	16	16	23	63	547	94	34	51
9	50	24	21	20	17	16	21	60	504	94	47	47
10	47	23	22	19	17	16	22	58	444	84	56	46
11	46	23	22	19	17	17	24	55	376	83	52	45
12	44	23	22	19	18	15	31	62	359	86	46	44
13	40	24	20	19	18	17	33	73	405	87	42	45
14	40	24	18	19	18	16	29	66	438	80	66	46
15	40	23	18	20	18	16	27	66	429	70	70	62
16	37	24	18	21	18	18	29	63	456	67	105	59
17	40	22	18	21	17	17	26	59	438	62	93	59
18	40	20	20	17	17	18	24	62	444	56	88	56
19	37	22	20	17	17	18	23	59	569	52	83	56
20	34	22	19	17	17	17	22	65	608	50	80	50
21	33	18	17	17	16	16	21	66	644	46	77	45
22	31	18	18	17	16	18	20	70	594	42	74	44
23	30	18	19	18	16	20	19	81	576	46	80	42
24	29	18	20	18	16	17	20	87	536	41	76	42
25	32	16	21	18	15	17	20	74	362	42	69	38
26	32	18	21	18	14	17	20	69	241	41	65	38
27	27	17	21	15	15	17	19	65	232	46	67	36
28	31	18	18	15	16	18	18	77	285	41	74	35
29	32	20	19	15	16	20	23	130	232	38	73	35
30	31	20	20	15	15	24	36	183	179	55	70	34
31	33	---	20	15	---	27	---	239	---	87	65	---
Total	1,239	668	610	580	475	538	732	2,441	13,193	2,301	1,955	1,501
Mean	40.0	22.3	19.7	18.7	16.4	17.4	24.4	78.7	440	74.2	63.1	50.0
Max	59	34	22	22	18	27	36	239	644	140	105	74
Min	27	16	17	15	14	15	18	55	179	38	34	34
Ac-ft	2,460	1,320	1,210	1,150	942	1,070	1,450	4,840	26,170	4,560	3,880	2,980
Cal yr 1967: Total	29,646		Mean	81.2	Max	644	Min	12	Ac-ft	58,800		
Wtr yr 1968: Total	26,233		Mean	71.7	Max	644	Min	14	Ac-ft	52,030		

PLATTE RIVER BASIN

6-6585. Laramie River near Jelm, Wyo.

Location.--Lat 41°00'08", long 106°00'51", in SE½SE½ 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.

Drainage area.--294 sq mi.

Records available.--June 1904 to October 1905, October 1910 to September 1968. 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.--59 years, 159 cfs (115,100 acre-ft per year).

Extremes.--Maximum discharge during year, about 1,600 cfs June 6 (gage height, not determined); minimum daily, 24 cfs Nov. 27. 1904-5, 1910-68: 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 period of no gage-height record and those for winter months, 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).

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	50	37	29	34	38	84	113	900	305	136	78
2	53	40	35	32	35	33	85	133	1,100	269	119	73
3	52	36	37	31	38	31	66	137	1,200	250	108	76
4	53	40	38	33	37	34	100	151	1,350	229	119	105
5	64	38	40	36	35	37	90	161	1,500	317	103	104
6	70	40	39	37	36	42	74	160	1,600	364	94	93
7	64	45	40	37	34	39	70	146	1,500	270	88	79
8	65	48	38	37	35	37	68	135	1,450	250	88	69
9	61	50	35	36	34	35	66	133	1,300	235	119	65
10	60	48	36	35	32	32	68	137	1,100	207	138	64
11	58	50	33	35	35	31	72	138	1,000	196	124	62
12	56	53	31	34	38	30	74	156	940	189	113	60
13	50	56	30	35	37	35	76	185	1,030	177	100	61
14	48	54	31	38	35	39	74	180	1,100	158	133	61
15	55	51	30	39	33	38	72	174	1,060	135	176	72
16	52	50	31	43	36	33	78	174	1,120	127	138	79
17	54	49	32	40	38	38	80	165	1,050	117	140	80
18	54	45	33	39	40	42	66	172	1,040	96	123	80
19	53	47	35	41	43	37	65	161	1,080	88	115	75
20	51	50	31	42	45	34	54	166	1,200	88	106	70
21	49	48	25	40	43	31	65	175	1,260	83	100	65
22	48	37	30	41	44	33	56	225	1,200	77	98	63
23	48	33	35	40	43	38	48	266	1,100	80	102	64
24	48	33	33	43	44	37	56	300	982	79	108	61
25	47	26	32	45	41	38	56	277	817	83	96	59
26	48	25	29	41	39	39	56	261	547	85	87	58
27	45	24	28	41	40	44	56	260	492	96	84	56
28	44	26	27	38	41	60	54	283	516	91	97	56
29	50	30	27	36	42	80	65	368	486	82	95	65
30	56	35	27	37	-----	90	87	500	395	93	96	67
31	58	-----	27	35	-----	86	-----	650	-----	163	86	-----
Total	1,668	1,257	1,012	1,166	1,107	1,291	2,081	6,642	31,415	5,079	3,429	2,120
Mean	53.8	41.9	32.6	37.6	38.2	41.6	69.4	214	1,047	164	111	70.7
Max	70	56	40	45	45	90	100	650	1,600	364	176	105
Min	44	24	25	29	32	30	48	113	395	77	84	56
Ac-ft	3,310	2,490	2,010	2,310	2,200	2,560	4,130	13,170	62,310	10,070	6,800	4,200

Cal yr 1967: Total 56,202 Mean 154 Max 1,150 Min 23 Ac-ft 111,500
 Wtr yr 1968: Total 58,267 Mean 159 Max 1,600 Min 24 Ac-ft 115,600

Note.--No gage-height record May 30 to June 14.

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 1968 (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, 1937, to Nov. 4, 1961, at datum 0.46 ft lower.

Average discharge.--29 years (1939-68), 78.3 cfs (56,690 acre-ft per year).

Extremes.--Maximum discharge during year, 676 cfs Aug. 12 (gage height, 3.25 ft); minimum not determined.

1933-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	27						41	26	41	399	111
2	41	23						44	32	40	355	92
3	40	14						41	27	39	355	64
4	40	23						43	40	39	298	68
5	60	22						53	87	64	216	74
6	64	20						59	105	109	168	72
7	52	20						42	111	102	209	75
8	38	24					40	47	107	100	251	78
9	35	26						42	87	154	376	76
10	41	29						39	62	174	435	72
11	39	30						38	43	132	545	59
12	35	31						38	38	156	657	48
13	28	35						40	28	141	551	44
14	24	35						38	26	104	386	53
15	25	35	10	3.0	5.0	20		30	34	87	360	55
16	25						45	28	50	104	296	56
17	23						50	25	44	89	216	60
18	23						55	24	46	75	170	60
19	22						72	21	53	78	145	59
20	20						118	21	69	94	132	57
21	22						134	22	100	89	125	53
22	23						100	20	109	86	120	52
23	23	25					97	19	116	107	107	55
24	19						74	19	111	132	94	46
25	20						59	20	98	127	89	40
26	20						52	23	84	134	87	38
27	16						46	19	60	231	86	36
28	17						43	16	55	352	104	35
29	21						48	13	51	368	129	41
30	16						43	12	47	386	136	48
31	19	- - - -			- - - -		- - - -	14	- - - -	425	125	- - - -
Total	934	769	310	930	1450	620	1,636	951	1,946	4,359	7,722	1,777
Mean	30.1	25.6	10	3.0	5.0	20	54.5	30.7	64.9	141	249	59.2
Max	64	-	-	-	-	-	134	59	116	425	657	111
Min	16	-	-	-	-	-	-	12	26	39	86	35
Ac-ft	1,850	1,530	615	184	288	1,230	3,240	1,890	3,860	8,650	15,320	3,520

Cal yr 1967: Total 13,807.4 Mean 37.8 Max 249 Min - Ac-ft 27,390
Wtr yr 1968: Total 21,262.0 Mean 58.1 Max 657 Min - Ac-ft 42,170

Note.--No gage-height record Dec. 15 to Apr. 18.

PLATTE RIVER BASIN

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 1968. 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.--39 years, 68.4 cfs (49,520 acre-ft per year).

Extremes.--Maximum discharge during year, 518 cfs Aug. 13 (gage height, 3.94 ft); minimum daily, 6.8 cfs Mar. 15-19, 31, Apr. 1. 1929-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	11	18	10	12	17	6.8	53	15	40	368	128
2	47	11	18	10	12	17	31	53	15	25	368	127
3	47	11	18	10	12	17	95	53	15	25	367	109
4	47	11	18	11	12	17	134	53	15	25	339	61
5	47	11	18	11	11	17	134	53	28	40	279	62
6	47	11	18	11	12	17	134	70	68	113	179	61
7	47	15	18	11	12	17	134	82	104	150	143	62
8	47	18	17	12	16	17	134	55	96	150	254	61
9	47	18	17	12	18	17	134	27	79	150	303	62
10	47	18	17	12	18	17	100	28	79	167	339	62
11	48	18	17	12	18	17	83	28	50	195	390	56
12	37	15	12	12	18	17	83	27	36	187	401	46
13	27	15	10	12	18	17	92	26	36	153	431	46
14	20	15	10	12	18	11	108	27	36	121	449	46
15	20	15	10	12	18	6.8	108	26	36	86	449	46
16	20	15	10	12	18	6.8	107	26	36	69	449	46
17	14	15	10	12	18	6.8	89	26	36	78	282	32
18	10	16	10	12	18	6.8	63	26	32	78	205	25
19	10	18	10	12	20	6.8	53	19	28	93	128	25
20	10	18	10	12	22	7.2	68	15	70	119	80	25
21	10	18	10	12	23	7.2	107	16	125	110	79	25
22	10	18	10	12	23	7.2	107	16	140	58	79	25
23	10	18	10	12	23	7.2	107	16	151	80	79	25
24	10	18	10	12	23	7.2	107	16	153	116	69	25
25	10	18	10	12	22	7.2	94	16	153	141	52	25
26	10	18	10	12	25	7.2	64	16	122	151	52	25
27	10	18	10	12	26	7.2	54	15	95	218	56	25
28	10	18	10	12	26	7.2	36	15	60	305	78	25
29	11	18	10	12	22	7.2	26	15	52	335	99	25
30	11	18	10	12	-----	7.2	33	15	53	346	99	33
31	11	-----	10	12	-----	6.8	-----	15	-----	367	116	-----
Total	798	475	396	362	534	352.0	2,625.8	944	2,014	4,291	7,061	1,446
Mean	25.7	15.8	12.8	11.7	18.4	11.4	87.5	30.5	67.1	138	228	48.2
Max	48	18	18	12	26	17	134	82	153	367	449	128
Min	10	11	10	10	11	6.8	6.8	15	15	25	52	25
Ac-ft	1,580	942	785	718	1,060	698	5,210	1,870	3,990	8,510	14,010	2,870
Cal yr 1967: Total	11,480.1		Mean	31.5	Max	258	Min	7.2	Ac-ft	22,770		
Wtr yr 1968: Total	21,298.8		Mean	58.2	Max	449	Min	6.8	Ac-ft	42,250		

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 1968 (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.--31 years (1924-30, 1935-36, 1939-41, 1943-47, 1950-68), 26.4 cfs (19,110 acre-ft per year).

Extremes.--Maximum discharge during year, 93 cfs Aug. 10 (gage height, 1.87 ft); minimum not determined.

1924-68: 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 good except those for winter period, which are poor. Small diversions above station for irrigation of about 100 acres.

Note.--The figures of peak discharge for water years 1966 and 1967, which were inadvertently omitted from the 1966 and 1967 reports, are given herewith:

Peak discharge (base, 110 cfs).--1966: No peak above base.

1967: Aug. 30 (1230) 117 cfs (2.10 ft).

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	22						41	62	19	42	24
2	23	23						51	62	19	33	23
3	21	19						58	80	20	32	25
4	21	18						66	77	19	35	42
5	48	18						59	75	23	32	40
6	40	18						68	72	37	30	28
7	28	18						55	69	28	32	24
8	25	18					22	42	68	22	38	21
9	24	18						50	70	25	39	31
10	24	18						53	65	23	71	19
11	27	17						46	61	28	63	21
12	25	17						62	55	37	58	20
13	22	17						62	50	32	46	20
14	21	17						50	46	24	64	20
15	25	17						60	46	23	67	19
16	25	16	9.0	8.0	7.5	12		62	44	21	45	19
17	30	13					28	46	40	20	38	19
18	30	14					20	53	38	21	34	18
19	25	13					17	60	36	42	34	17
20	23	12					13	62	35	36	32	17
21	21	8.9					18	58	32	27	31	15
22	21						17	72	30	23	30	15
23	20						14	70	30	34	28	17
24	19						18	62	30	36	28	18
25	17						19	58	35	31	27	15
26	19	9.5					18	57	31	26	26	15
27	16						17	58	27	40	25	13
28	16						16	56	25	65	26	13
29	20						19	60	23	36	28	16
30	15						23	60	20	31	30	17
31	21							62		50	26	
Total	735	437.4	279.0	248.0	217.5	372	609	1,779	1,434	918	1,170	611
Mean	23.7	14.6	9.0	8.0	7.5	12	20.3	57.4	47.8	29.6	37.7	20.4
Max	48	23	-	-	-	-	28	72	80	65	71	42
Min	15	-	-	-	-	-	13	41	20	19	25	13
Ac-ft	1,460	868	553	492	431	738	1,210	3,530	2,840	1,820	2,320	1,210

Cal yr 1967: Total 6,229.6 Mean 17.1 Max 81 Min - Ac-ft 12,360

Wtr yr 1968: Total 8,809.9 Mean 24.1 Max 80 Min - Ac-ft 17,470

Peak discharge (base, 110 cfs).--No peak above base.

Note.--No gage-height record Nov. 25 to Apr. 17.

PLATTE RIVER BASIN

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

Location.--Lat 39°12'33", long 105°16'02", in SE¼NW¼ 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 1968. 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.--44 years, 151 cfs (109,300 acre-ft per year).

Extremes.--Maximum discharge during year, 772 cfs July 29 (gage height, 3.32 ft); minimum daily, 7.8 cfs Mar. 27.

1924-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	27	10	12	12	15	10	24	52	242	588	189
2	44	27	11	12	12	13	11	42	54	298	551	221
3	44	27	12	12	12	12	11	140	81	319	509	231
4	36	27	12	12	12	12	12	179	144	311	459	196
5	24	27	12	12	12	12	12	166	130	282	500	151
6	24	27	12	12	12	13	11	166	151	252	490	134
7	24	25	12	12	12	12	11	146	176	285	484	134
8	25	24	12	12	12	12	12	101	176	298	493	134
9	24	22	12	12	12	11	12	101	189	420	496	134
10	25	17	12	12	12	12	12	94	198	394	472	130
11	25	11	12	12	12	12	12	73	187	385	506	113
12	25	12	12	12	12	11	11	73	156	423	632	106
13	25	11	12	12	12	11	11	73	108	399	706	106
14	24	11	12	12	12	10	12	73	62	349	670	106
15	24	11	12	12	12	11	12	73	57	324	509	106
16	24	9.7	12	12	12	12	12	73	58	349	512	151
17	22	10	13	12	12	12	12	74	74	282	512	203
18	22	10	13	12	12	11	12	74	162	300	447	201
19	22	10	12	12	12	10	12	74	279	343	254	196
20	21	9.7	12	12	12	10	12	74	264	321	151	183
21	21	10	12	12	12	10	10	74	254	319	92	172
22	21	11	12	12	12	10	11	74	313	346	82	226
23	21	11	12	12	12	9.7	10	74	340	343	192	388
24	22	10	12	12	12	9.7	10	76	332	343	245	327
25	24	10	12	12	12	9.0	10	77	212	324	245	327
26	24	10	12	12	12	8.4	10	77	303	327	238	327
27	25	10	12	12	16	7.8	10	58	374	308	212	324
28	26	10	12	12	10	9.7	10	51	319	405	207	282
29	26	10	12	12	12	10	10	51	235	728	212	168
30	27	10	12	12	-----	9.7	17	51	214	768	223	168
31	27	-----	12	12	-----	10	-----	52	-----	663	192	-----
Total	812	457.4	371	372	350	338.0	340	2,608	5,654	11,450	12,081	5,834
Mean	26.2	15.2	12.0	12.0	12.1	10.9	11.3	84.1	188	369	390	194
Max	44	27	13	12	16	15	17	179	374	768	706	388
Min	21	9.7	10	12	10	7.8	10	24	52	242	82	106
Ac-ft	1,610	907	736	738	694	670	674	5,170	11,210	22,710	23,960	11,570
Cal yr 1967: Total	24,115.6		Mean	66.1	Max	459	Min	7.8	Ac-ft	47,830		
Wtr yr 1968: Total	40,667.4		Mean	111	Max	768	Min	7.8	Ac-ft	80,660		

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 1968. 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.--31 years, 71.5 cfs (51,760 acre-ft per year), adjusted for inflow from Harold D. Roberts tunnel since 1964.

Extremes.--Maximum discharge during year, 338 cfs July 8 (gage height, 3.73 ft); minimum daily, 30 cfs Apr. 27, 28.

1908-13, 1942-68: 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. 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	173	51	52	64	51	71	89	54	226	254	257	203
2	170	48	52	64	52	71	81	79	236	257	243	200
3	170	44	54	64	52	71	74	130	264	254	236	209
4	173	49	55	58	52	71	71	138	257	254	226	215
5	200	48	54	56	52	71	72	135	250	268	229	209
6	182	47	61	56	52	71	74	135	257	260	254	206
7	176	48	64	56	52	72	71	125	243	246	282	203
8	173	51	66	56	54	72	43	118	222	264	254	170
9	173	56	66	56	54	72	31	125	194	278	271	194
10	173	58	66	56	52	72	36	125	188	268	260	194
11	170	56	66	56	52	72	43	122	185	257	257	194
12	167	56	66	54	54	71	60	125	206	254	260	194
13	167	56	66	52	54	72	69	128	229	246	264	197
14	167	55	66	52	54	72	67	130	226	243	278	167
15	167	38	66	55	54	72	71	135	206	236	274	128
16	152	31	67	55	52	72	72	135	215	229	246	60
17	118	35	69	55	52	74	67	128	222	226	240	60
18	115	49	67	54	52	74	64	132	226	222	236	58
19	101	49	64	52	52	74	62	132	232	229	229	58
20	64	49	64	52	54	76	62	140	236	218	222	56
21	64	51	64	54	54	72	64	142	260	209	218	54
22	64	49	64	54	54	72	64	167	282	218	215	52
23	58	49	64	54	54	72	44	188	274	236	212	54
24	52	48	64	54	54	74	35	188	274	236	212	52
25	52	52	64	54	55	74	37	167	274	240	209	51
26	52	49	64	54	62	74	35	167	260	209	209	51
27	48	42	62	54	71	74	30	167	278	197	209	49
28	51	43	64	54	71	74	30	185	278	150	209	47
29	51	47	64	54	71	80	37	209	274	148	206	51
30	46	48	64	51	- - - -	83	48	206	260	203	209	51
31	52	- - - -	64	51	- - - -	89	- - - -	206	- - - -	260	203	- - - -
Total	3,741	1,452	1,953	1,711	1,599	2,281	1,703	4,463	7,234	7,269	7,329	3,687
Mean	121	48.4	63.0	55.2	55.1	73.6	56.8	144	241	234	236	123
Max	200	58	69	64	71	89	89	209	282	278	282	215
Min	46	31	52	51	51	71	30	54	185	148	203	47
Ac-ft	7,420	2,880	3,870	3,390	3,170	4,520	3,380	8,850	14,350	14,420	14,540	7,310

Cal yr 1967: Total 45,855 Mean 126 Max 243 Min 31 Ac-ft 90,950
Wtr yr 1968: Total 44,422 Mean 121 Max 282 Min 30 Ac-ft 88,110

PLATTE RIVER BASIN

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 1968. 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.--56 years, 152 cfs (110,000 acre-ft per year), adjusted for inflow from Harold D. Roberts tunnel since 1964.

Extremes.--Maximum discharge during year, 529 cfs June 3 (gage height, 3.37 ft); minimum daily, 59 cfs Nov. 27.

1909-10, 1913-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	234	112	84				147	125	376	318	376	268
2	230	112	86				144	134	395	326	344	264
3	230	72	82				132	186	435	326	336	259
4	230	84	82				118	214	445	322	331	295
5	295	84	77				122	226	395	349	313	286
6	268	80	75				125	234	435	390	322	264
7	242	75	74				118	218	390	344	362	250
8	226	86	74				114	206	367	326	349	242
9	226	90	77				84	203	318	376	354	206
10	230	95	75				91	214	282	367	405	226
11	230	103	75				93	222	259	354	425	226
12	218	107	75				99	226	272	354	372	226
13	210	105	75				110	214	295	331	376	230
14	210	105	78				112	214	300	318	415	222
15	222	103				132	114	218	282	304	425	172
16	218	90		82	84	130	118	218	282	300	362	130
17	178	86				137	120	214	286	290	344	103
18	160	88				134	112	214	286	282	331	99
19	156	97				125	114	214	282	300	318	97
20	122	97				127	107	214	286	295	309	95
21	112	99				122	120	218	295	277	304	90
22	110	88	85			122	120	259	331	268	295	91
23	107	97				122	112	300	349	300	290	95
24	101	90				125	103	313	344	313	286	93
25	103	97				127	105	268	395	304	282	90
26	103	69				132	101	250	349	313	272	88
27	97	59				132	97	250	354	304	272	88
28	103	63				130	95	259	354	254	286	84
29	110	69				139	97	326	344	203	277	97
30	91	82				142	112	340	331	210	286	97
31	107					142		358		362	272	
Total	5,479	2,684	2,534	2,542	2,436	3,858	3,356	7,269	10,114	9,680	10,297	5,073
Mean	177	89.5	81.7	82.0	84.0	124	112	234	337	312	332	169
Max	295	112	-	-	-	142	147	358	445	390	425	295
Min	91	59	-	-	-	-	84	125	259	203	272	84
Ac-ft	10,870	5,320	5,030	5,040	4,830	7,650	6,660	14,420	20,060	19,200	20,410	10,060
Cal yr 1967: Total	64,119		Mean	176	Max	395	Min	33	Ac-ft	127,200		
Wtr yr 1968: Total	65,315		Mean	178	Max	445	Min	59	Ac-ft	129,600		

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

Location.--Lat 39°24'20", 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 1968. 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, 1,280 cfs Aug. 14 (gage height, 4.25 ft); minimum daily, not determined.

1887-92, 1895-97, 1898-1968: 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 poor. 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	287	156	120				235	187	445	560	1,050	488
2	284	156	117				244	200	478	620	1,050	488
3	284	117	111				220	308	510	655	946	540
4	290	136					184	453	575	640	908	535
5	340	138				140	176	441	590	640	880	478
6	308	134					176	445	585	650	941	425
7	277	136					171	433	595	615	919	429
8	268	147					159	374	560	580	958	405
9	265	147					115	360	525	787	924	371
10	268	147				156	120	371	501	782	1,020	385
11	265	134				152	124	364	483	705	990	374
12	253	130				147	138	354	461	787	1,090	354
13	244	128				164	159	346	449	732	1,160	360
14	247	134				166	164	354	397	690	1,150	354
15	268	130				152	169	354	364	615	1,020	304
16	256	109		115	117	149	171	350	364	655	960	271
17	226	104	115			164	174	346	360	600	940	318
18	209	108				161	169	343	393	555	860	318
19	203	117				149	171	346	545	645	700	312
20	166	122				156	156	346	585	630	550	290
21	149	122				144	174	354	560	585	474	271
22	149	109				147	176	389	670	620	425	271
23	147	118				144	159	425	726	660	465	483
24	138	111				152	152	433	765	685	570	437
25	140	122				154	152	409	670	680	565	425
26	136	104				161	142	385	670	645	560	417
27	128	98				156	140	385	743	690	530	417
28	138	99				161	138	371	754	635	530	413
29	152	113				176	140	425	625	941	525	298
30	128	122				189	159	429	570	1,070	555	277
31	154	- - - -				200	- - - -	437	- - - -	1,170	501	- - - -
Total	6,767	3,748	3,568	3,565	3,393	4,760	4,927	11,517	16,518	21,524	24,716	11,508
Mean	218	125	115	115	117	154	164	372	551	694	797	384
Max	340	156	-	-	-	200	244	453	765	1,170	1,160	540
Min	128	98	-	-	-	-	115	187	360	555	425	271
Ac-ft	13,420	7,430	7,080	7,070	6,730	9,440	9,770	22,840	32,760	42,690	49,020	22,830

Cal yr 1967: Total 98,195 Mean 269 Max 798 Min - Ac-ft 194,800
Wtr yr 1968: Total 116,511 Mean 318 Max 1,170 Min - Ac-ft 231,100

PLATTE RIVER BASIN

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 1968. 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.--42 years, 168 cfs (121,600 acre-ft per year).

Extremes.--Maximum discharge during year, 916 cfs Aug. 14 (gage height, 2.46 ft); minimum daily, 6.5 cfs Feb. 25, 26.

1926-68: 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 good except those for winter period, which are 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	78	23	13	12	9.3	9.3	26	139	158	531	208
2	44	81	21	13	13	8.6	9.3	63	142	178	512	208
3	42	52	17	12	14	7.9	10	186	146	199	453	271
4	44	62	16	11	17	7.2	10	236	142	195	505	327
5	69	75	13	10	19	7.2	10	178	165	208	518	271
6	56	95	8.6	8.5	17	7.9	9.3	208	139	241	538	186
7	42	75	11	7.5	19	8.6	9.3	195	146	195	492	169
8	42	62	14	8.0	20	7.9	8.6	255	124	282	544	165
9	42	62	14	8.5	20	8.6	10.6	276	105	414	492	158
10	42	59	14	9.0	19	8.6	7.0	276	108	420	564	150
11	44	59	14	9.5	19	8.6	11	246	105	420	544	139
12	42	49	13	10	20	7.9	13	231	108	486	672	124
13	42	40	12	10	20	8.6	13	231	178	466	776	131
14	44	105	13	10	20	8.6	11	226	195	414	889	131
15	46	83	14	9.5	20	7.9	28	222	165	339	688	128
16	38	23	13	9.3	20	8.6	28	226	158	276	605	135
17	40	20	13	9.3	20	8.6	30	226	131	222	570	124
18	40	20	11	11	17	9.3	26	217	108	150	538	124
19	42	20	11	11	17	8.6	24	217	166	236	339	118
20	42	21	11	11	17	8.6	23	212	293	217	276	101
21	40	23	11	13	20	9.3	26	226	178	173	298	81
22	40	23	10	14	16	13	26	250	182	208	241	81
23	46	23	10	14	21	12	23	288	139	241	199	105
24	52	23	10	14	10	8.6	28	222	271	266	226	92
25	52	23	10	13	6.5	8.6	28	92	310	271	231	84
26	56	26	11	12	6.5	8.6	28	95	208	345	226	75
27	49	30	13	11	7.2	8.6	28	92	310	498	203	72
28	52	28	13	11	9.3	8.6	28	95	246	479	186	69
29	64	30	13	12	9.3	7.9	26	101	190	577	186	105
30	54	24	14	12	-----	8.6	26	105	142	680	222	95
31	69	-----	13	12	-----	9.3	-----	124	-----	633	222	-----
Total	1,461	1,394	404.6	339.1	465.8	270.2	725.8	5,843	5,139	10,087	13,486	4,227
Mean	47.1	46.5	13.1	10.9	16.1	8.72	24.2	188	171	325	435	141
Max	69	105	23	14	21	13	106	288	310	680	889	327
Min	38	20	8.6	7.5	6.5	7.2	8.6	26	105	150	186	69
Ac-ft	2,900	2,760	803	673	924	536	1,440	11,590	10,190	20,010	26,750	8,380
Cal yr 1967 : Total	29,977.4		Mean	82.1	Max	524	Min	4.8	Ac-ft	59,460		
Wtr yr 1968 : Total	43,842.5		Mean	120	Max	889	Min	6.5	Ac-ft	86,960		

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.

Drainage area.--302 sq mi.

Records available.--October 1947 to September 1968.

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 2¼ miles downstream at different datums. Feb. 12, 1957, to Nov. 6, 1965, at present site at about present datum.

Average discharge.--21 years, 22.3 cfs (16,140 acre-ft per year).

Extremes.--Maximum discharge during year, 137 cfs May 11; maximum gage height, 2.16 ft Nov. 2; minimum daily discharge, 0.43 cfs Sept. 15, 18-30.

1947-68: Maximum discharge, 154,000 cfs June 16, 1965 (gage height, 22.4 ft, from floodmarks), by slope-area measurement of peak flow; no flow at times in 1952-52, 1956-60, 1963-64.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.3	11	9.0	9.0	20	20	23	74	24	0.70	4.3	4.3
2	4.3	17	9.0	9.5	17	19	26	70	20	.62	3.0	4.3
3	4.3	16	9.0	9.2	19	21	37	74	19	.62	2.8	4.5
4	5.2	16	9.0	9.0	19	19	40	89	18	.62	2.8	5.7
5	8.0	15	10	9.5	19	20	42	96	19	.73	2.8	4.7
6	6.7	14	10	9.2	17	20	47	96	15	1.1	2.7	3.5
7	5.7	13	9.2	9.0	15	20	45	80	16	.73	3.8	2.0
8	4.7	12	9.0	9.0	15	18	34	72	8.0	.57	3.8	2.0
9	4.5	13	9.0	9.5	15	19	32	80	6.0	.57	4.0	1.5
10	5.0	12	8.2	9.5	16	18	32	91	6.0	.57	1.2	1.1
11	5.5	10	8.8	9.8	17	20	30	106	5.7	.57	7.7	.95
12	4.5	11	9.0	9.6	13	24	30	108	5.5	.57	6.7	.95
13	3.8	11	9.0	9.2	11	23	30	101	5.0	.57	7.4	.95
14	4.3	11	9.0	9.2	10	22	30	94	4.7	.57	9.5	.57
15	1.4	11	8.6	9.8	12	18	34	89	5.2	.57	5.2	.43
16	11	10	8.4	10	14	18	41	94	5.5	.57	4.3	.48
17	10	8.7	7.6	11	15	19	54	91	4.5	.57	4.0	.45
18	8.3	9.5	7.6	11	17	17	59	76	3.5	.53	4.0	.43
19	8.0	10	7.2	11	20	15	53	76	3.5	.53	4.0	.43
20	8.0	9.5	7.4	12	19	18	44	62	3.3	.53	4.0	.43
21	8.7	8.3	8.0	12	21	24	41	53	3.0	.53	3.8	.43
22	8.7	9.5	9.0	12	21	24	42	52	2.7	.53	3.8	.43
23	8.7	8.7	10	12	20	20	38	50	2.7	.53	3.8	.43
24	8.0	7.0	9.5	14	20	18	38	51	2.8	.57	3.8	.43
25	8.7	6.4	9.0	18	20	16	40	53	3.1	.53	3.8	.43
26	8.7	6.4	9.0	22	18	15	45	48	2.3	.57	3.8	.43
27	8.7	6.6	8.6	21	18	15	58	45	1.6	.73	3.8	.43
28	10	7.6	8.5	19	23	16	56	35	1.3	.73	3.8	.43
29	14	8.6	8.5	18	22	17	56	30	1.1	.53	4.0	.43
30	12	9.0	8.8	18	-----	19	62	28	.80	.48	4.0	.43
31	11	-----	9.5	19	-----	21	-----	25	-----	3.0	4.0	-----
Total	237.3	318.8	272.4	380.0	503	593	1,239	2,189	218.80	211.4	141.2	43.97
Mean	7.65	10.6	8.79	12.3	17.3	19.1	41.3	70.6	7.29	0.68	4.55	1.47
Max	14	17	10	22	23	24	62	108	24	3.0	12	5.7
Min	3.8	6.4	7.2	9.0	10	15	23	25	0.80	0.48	2.7	0.43
Ac-ft	471	632	540	754	998	1,180	2,460	4,340	434	42	280	87

Cal yr 1967: Total 6,238.78 Mean 17.1 Max 125 Min 0.73 Ac-ft 12,370
Wtr yr 1968: Total 6,157.61 Mean 16.8 Max 108 Min 0.43 Ac-ft 12,210

Peak discharge (base, 220 cfs).--No peak above base.

Note.--No gage-height record Nov. 27 to Jan. 31.

PLATTE RIVER BASIN

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 1968.

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--27 years, 212 cfs (153,500 acre-ft per year).

Extremes--Maximum discharge during year, 905 cfs Aug. 14 (gage height, 4.32 ft); minimum daily, 22 cfs Oct. 2.

1941-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	98	51	40	54	37	37	90	121	90	536	191
2	22	109	44	40	46	36	45	96	125	144	522	191
3	24	101	45	42	48	35	60	226	140	173	444	247
4	26	81	50	43	48	35	59	340	127	166	504	317
5	59	96	49	33	45	35	66	270	140	171	494	278
6	57	122	41	30	46	35	65	310	119	237	550	208
7	40	130	39	34	44	37	65	300	116	171	469	175
8	51	96	38	32	44	35	61	360	107	234	528	166
9	51	107	38	34	45	39	114	360	91	374	476	150
10	50	101	35	37	44	45	127	350	88	396	584	136
11	53	99	40	37	44	40	62	350	90	388	504	125
12	46	87	41	37	44	41	51	310	81	452	609	111
13	46	85	36	45	42	48	54	310	118	430	702	112
14	46	122	35	40	40	50	51	310	175	396	860	118
15	77	147	40	38	42	46	55	310	151	311	712	111
16	61	69	40	36	42	45	56	310	132	263	550	127
17	54	62	40	36	41	47	77	308	130	224	514	118
18	49	62	40	38	46	44	84	269	85	136	494	116
19	51	62	40	38	47	41	73	255	84	206	321	109
20	53	62	42	48	53	47	68	239	250	218	202	104
21	49	68	40	55	51	46	68	250	134	169	247	87
22	50	70	42	51	55	49	78	252	138	177	199	78
23	48	69	37	49	48	51	71	284	85	218	166	93
24	64	64	39	80	51	44	73	269	157	274	186	94
25	64	62	40	90	38	45	70	132	330	260	194	84
26	65	60	40	68	34	40	75	109	114	311	194	78
27	61	55	40	57	34	37	87	109	257	490	177	71
28	59	56	38	64	38	39	90	106	293	480	162	68
29	80	57	38	66	42	40	81	112	185	550	173	87
30	84	57	39	53	---	34	84	107	99	654	194	90
31	80	---	45	53	---	35	---	123	---	653	201	---
Total	1,655	2,516	1,262	1,444	1,296	1,278	2,107	7,526	4,262	9,416	12,672	4,040
Mean	53.4	83.9	40.7	46.6	44.7	41.2	70.2	243	142	304	409	135
Max	84	147	51	90	55	51	127	360	330	654	860	317
Min	22	55	35	30	34	34	37	90	81	90	162	68
Ac-ft	3,280	4,990	2,500	2,860	2,570	2,530	4,180	14,930	8,450	18,680	25,130	8,010
Cal yr 1967 : Total	37,708		Mean	103	Max	462	Min	15	Ac-ft	74,780		
Wtr yr 1968 : Total	49,474		Mean	135	Max	860	Min	22	Ac-ft	98,110		

6-7105. Bear Creek at Morrison, Colo.

Location.--Lat 39°39'11", long 105°11'43", in SE¼SW¼ 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 1968. 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.--53 years (1890-91, 1896-97, 1898-99, 1900-1901, 1919-68), 52.3 cfs (37,860 acre-ft per year).

Extremes.--Maximum discharge during year, 131 cfs June 2 (gage height, 4.19 ft); minimum daily, 10 cfs Feb. 5.

1887-91, 1895-1901, 1919-68: 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 fair. Small diversions for irrigation of about 1,000 acres above station.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	33	15	14	15	17	30	45	114	40	48	34
2	31	34	15	13	14	18	31	52	118	41	48	32
3	31	20	16	14	14	18	28	62	118	41	45	35
4	31	26	18	15	14	20	23	68	118	41	52	46
5	51	33	18	14	10	20	24	71	109	45	42	41
6	42	31	17	14	12	20	27	72	111	60	42	38
7	36	30	16	14	13	21	25	63	97	50	40	34
8	34	29	17	15	13	18	21	59	100	46	50	30
9	34	30	19	14	13	20	20	58	96	44	51	31
10	34	29	20	14	13	17	24	69	85	46	84	29
11	35	29	23	13	13	18	28	68	81	45	86	28
12	34	28	22	13	12	18	28	69	78	45	72	27
13	30	28	20	13	11	21	28	67	81	44	65	27
14	31	28	20	13	11	22	25	63	79	41	67	28
15	35	26	20	13	12	17	28	64	79	42	67	27
16	31	27	21	14	14	17	29	67	75	41	58	25
17	34	26	21	14	15	21	33	65	75	35	52	25
18	31	24	21	14	16	21	28	65	71	31	48	24
19	31	25	20	14	17	16	30	62	69	38	46	23
20	29	24	20	14	18	19	27	65	65	36	43	23
21	29	27	19	14	20	16	32	65	62	32	41	22
22	29	23	19	14	18	18	32	76	60	32	41	22
23	28	24	20	15	18	18	28	85	59	33	39	25
24	27	23	18	15	18	21	32	97	64	33	36	26
25	28	25	17	15	18	21	36	94	85	32	35	24
26	27	22	16	14	18	23	34	88	65	31	35	24
27	24	17	15	15	18	24	33	88	56	32	34	23
28	30	13	15	15	18	24	32	90	50	48	36	22
29	30	12	14	15	17	30	35	94	46	38	36	32
30	22	14	14	15	---	31	39	102	42	37	41	34
31	30	---	14	15	---	32	---	116	---	42	38	---
Total	981	760	560	438	433	637	870	2,269	2,408	1,242	1,518	861
Mean	31.6	25.3	18.1	14.1	14.9	20.5	29.0	73.2	80.3	40.1	49.0	28.7
Max	51	34	23	15	20	32	39	116	118	60	86	46
Min	22	12	14	13	10	16	20	45	42	31	34	22
Ac-ft	1,950	1,510	1,110	869	859	1,260	1,730	4,500	4,780	2,460	3,010	1,710

Cal yr 1967: Total 12,227.8 Mean 33.5 Max 112 Min - Ac-ft 24,250
Wtr yr 1968: Total 12,977 Mean 35.5 Max 118 Min 10 Ac-ft 25,740

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

PLATTE RIVER BASIN

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 1968. 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.--41 years (1927-68), 33.1 cfs (23,960 acre-ft per year).

Extremes.--Maximum discharge during year, 98 cfs May 25 (gage height, 3.87 ft); minimum daily, 1.1 cfs July 17.

1914, 1927-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	26	32	32	31	28	34	27	85	8.6	12	12
2	18	27	28	35	28	30	31	85	85	9.4	12	12
3	18	23	28	38	30	30	34	35	75	9.0	12	17
4	14	20	32	30	28	29	28	54	85	8.2	13	14
5	19	19	32	30	26	31	28	51	83	14	14	11
6	27	18	31	31	28	33	28	52	74	18	12	9.8
7	28	19	29	32	26	34	26	48	72	14	12	9.8
8	26	19	30	30	28	31	26	43	65	9.8	13	10
9	26	18	30	29	28	33	23	43	60	9.0	15	10
10	26	16	31	30	27	33	26	54	45	5.5	37	9.8
11	23	16	35	28	27	34	21	63	40	4.6	45	7.4
12	21	16	35	28	31	27	24	74	39	4.6	40	7.0
13	25	16	30	28	28	34	25	79	38	3.4	37	7.0
14	26	16	29	28	27	34	23	77	28	1.7	40	7.4
15	33	16	30	31	29	30	24	68	25	1.5	30	8.2
16	31	16	35	30	29	29	25	58	24	1.3	23	7.8
17	31	16	35	31	28	31	39	58	30	1.1	20	8.2
18	31	16	33	29	30	32	32	58	21	1.4	17	8.2
19	32	16	35	32	30	29	29	54	13	2.0	15	8.6
20	33	18	37	34	33	29	28	48	7.4	3.4	14	9.8
21	32	28	31	34	34	29	30	44	4.9	4.6	13	10
22	32	29	34	45	35	29	31	48	6.1	5.2	14	15
23	30	28	35	41	31	29	28	57	6.4	5.1	13	13
24	28	29	35	41	31	32	28	72	14	8.8	13	12
25	29	28	35	43	31	32	30	88	25	13	13	12
26	30	26	37	41	31	34	32	77	17	9.8	12	11
27	30	20	38	37	32	35	32	68	12	9.8	10	11
28	30	21	33	37	30	35	28	60	11	9.8	11	12
29	33	23	32	35	29	44	26	45	10	9.8	11	12
30	30	30	31	30	-----	44	26	65	9.0	11	11	15
31	28	-----	28	31	-----	40	-----	74	-----	14	11	-----
Total	838	629	1,006	1,031	856	1,004	845	1,770	1,109.8	231.4	565	318.0
Mean	27.0	21.0	32.5	33.3	29.5	32.4	28.2	57.1	37.0	7.46	18.2	10.6
Max	33	30	38	45	35	44	39	88	85	18	45	17
Min	14	16	28	28	26	27	21	27	4.9	1.1	10	7.0
Ac-ft	1,660	1,250	2,000	2,040	1,700	1,990	1,680	3,510	2,200	459	1,120	631
Cal yr 1967: Total	8,384.4		Mean	23.0	Max	162	Min	0.40	Ac-ft	16,630		
Wtr yr 1968: Total	10,203.2		Mean	27.9	Max	88	Min	1.1	Ac-ft	20,240		

6-7120. Cherry Creek near Franktown, Colo.

Location.--Lat 39°21'21", long 104°45'46", in NE¼ sec.15, T.8 S., R.66 W., on right bank 1½ miles upstream from Russellville Gulch and 2¼ miles south of Franktown.

Drainage area.--169 sq mi.

Records available.--November 1939 to September 1968.

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.--28 years (1940-68), 8.80 cfs (6,370 acre-ft per year).

Extremes.--Maximum discharge during year, 149 cfs Aug. 11 (gage height, 3.98 ft); minimum daily, 0.90 cfs Sept. 20.

1939-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	1.8	2.0	2.1	4.5	6.2	4.7	7.6	2.6	1.1	1.8	1.6
2	1.4	2.2	2.1	2.0	4.5	6.0	4.8	6.2	2.4	1.2	1.6	1.6
3	1.4	2.6	2.2	2.0	4.2	6.4	5.1	5.1	2.3	1.2	5.7	3.2
4	1.6	2.0	2.2	2.1	4.2	6.8	4.9	4.4	2.4	1.3	6.2	3.4
5	1.6	2.0	2.1	2.1	4.3	7.2	6.6	4.0	2.2	3.2	2.2	1.7
6	1.4	2.0	2.1	2.0	4.1	7.0	11	4.0	2.1	1.8	1.8	2.0
7	1.4	2.0	2.1	2.1	3.9	6.8	11	2.7	2.0	1.4	1.8	1.8
8	1.4	2.2	2.1	2.1	3.9	6.5	8.1	2.5	2.0	1.3	1.8	1.6
9	1.4	2.2	2.2	2.2	3.7	6.2	7.5	2.4	1.9	1.4	1.5	1.4
10	1.4	2.2	2.3	2.1	3.9	6.0	7.1	2.9	1.9	4.5	1.6	1.3
11	1.4	2.2	2.3	2.0	4.1	6.0	6.4	3.0	1.8	2.0	1.4	1.1
12	1.4	2.2	2.0	2.0	3.7	6.4	5.3	2.9	1.8	1.5	1.5	1.1
13	1.5	2.2	1.8	2.1	3.8	6.6	4.7	2.4	1.6	1.6	4.1	1.1
14	1.6	2.6	1.9	2.2	5.2	7.2	3.6	2.4	1.6	1.5	3.0	1.0
15	2.4	2.0	2.0	2.2	4.7	7.2	3.2	2.2	1.6	1.5	2.5	1.0
16	1.9	2.0	2.0	2.3	4.1	7.0	3.9	2.2	1.6	1.4	2.2	1.0
17	1.8	2.0	2.0	2.6	3.6	7.0	3.2	2.2	1.5	1.3	2.0	1.0
18	1.6	2.0	2.1	2.6	4.0	7.6	4.0	2.4	1.4	1.4	2.1	.98
19	1.6	2.0	2.1	2.5	4.7	7.2	4.0	2.4	1.4	1.4	2.0	.94
20	1.8	2.2	2.0	3.0	5.7	6.0	4.0	2.2	1.3	1.2	2.0	.90
21	1.8	2.1	2.0	3.2	5.9	4.7	3.9	2.2	1.3	1.2	1.9	.94
22	1.8	2.2	2.0	3.1	6.6	5.5	4.4	2.2	1.3	1.3	1.8	.98
23	1.7	2.6	1.8	3.1	5.3	5.2	4.9	2.7	1.3	1.4	1.6	1.1
24	1.6	2.2	1.8	3.5	6.3	5.6	4.7	5.8	1.7	1.4	1.6	1.0
25	1.6	2.4	1.8	4.0	6.2	5.7	4.4	4.7	1.9	1.3	1.6	.98
26	1.7	2.0	1.8	4.2	6.0	6.2	5.9	3.9	1.4	1.2	1.6	.98
27	1.7	2.0	1.8	5.3	5.8	6.0	12	3.6	1.3	1.3	1.9	.98
28	1.7	2.2	1.8	7.2	6.2	5.8	14	3.0	1.3	1.3	1.8	1.0
29	2.0	2.2	1.8	5.8	6.4	5.6	12	2.9	1.2	1.3	1.9	1.1
30	1.9	2.2	1.8	4.4	-----	5.1	10	2.8	1.1	1.4	1.8	1.1
31	1.9	-----	1.8	4.1	-----	4.7	-----	2.6	-----	4.5	1.8	-----
Total	50.8	64.7	61.8	92.2	139.5	193.4	189.3	102.5	51.2	50.8	122.1	39.88
Mean	1.64	2.16	1.99	2.97	4.81	6.24	6.31	3.31	1.71	1.64	3.94	1.33
Max	2.4	2.6	2.3	7.2	6.6	7.6	14	7.6	2.6	4.5	16	3.4
Min	1.4	1.8	1.8	2.0	3.6	4.7	3.2	2.2	1.1	1.1	1.6	0.90
Ac-ft	101	128	123	183	277	384	376	203	102	101	242	79

Cal yr 1967: Total 1,763.9 Mean 4.83 Max 58 Min 1.3 Ac-ft 3,500

Wtr yr 1968: Total 1,158.18 Mean 3.16 Max 16 Min 0.90 Ac-ft 2,300

Peak discharge (base, 200 cfs).--No peak above base.

PLATTE RIVER BASIN

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, ½ miles upstream from Cherry Creek Dam, and 6.0 miles northwest of Parker.

Drainage area.--336 sq mi.

Records available.--October 1939 to September 1968.

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.--29 years, 12.1 cfs (8,760 acre-ft per year).

Extremes.--Maximum discharge during year, 142 cfs Jan. 21 (gage height, 1.25 ft); no flow for many days.

1939-68: Maximum discharge, 39,900 cfs June 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 Castiewood Dam.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0	18	11	3.2	3.2		0	0	
2				0	5.1	4.2	2.8	2.5		0	0	
3				0	8.8	7.0	2.5	2.5		0	0	
4				0	12	10	3.2	2.2		0	0	
5				0	13	8.8	4.8	2.2		0	0	
6				0	14	7.9	4.8	1.7		0	0	
7				0	13	10	4.8	1.1		0	0	
8				0	12	7.9	7.9	.61		0	0	
9				0	12	8.8	5.4	.61		0	.14	
10				0	11	7.0	4.2	.52		0	.10	
11				0	11	8.8	4.2	.52		0	0	
12				0	10	5.4	4.2	.26		0	0	
13				0	8.0	3.7	3.7	.26		0	0	
14				0	6.0	2.5	3.7	.26		0	0	
15				0	8.0	2.5	4.2	.17		0	0	
16				0	11	2.8	3.7	.17		0	0	
17				0	9.0	3.2	4.2	.13		0	0	
18				0	9.0	3.2	5.4	.10		0	0	
19				0	11	3.2	4.8	.10		0	0	
20				12	7.9	4.8	3.2	.06		0	0	
21				11	21	6.2	3.2	.06		0	0	
22				0	15	7.4	5.4	.06		0	0	
23				0	21	7.0	5.4	.05		0	0	
24				25	20	3.2	3.2	.06		.45	0	
25				55	14	4.2	1.7	.06		0	0	
26				14	12	2.8	2.2	.06		0	0	
27				25	20	3.2	2.5	.05		0	0	
28				15	17	3.2	6.2	.05		0	2.9	
29				7.5	17	3.2	4.8	.05		0	.20	
30				16	-----	3.2	3.7	.02		0	0	
31		-----		15	-----	2.0	-----	0	-----	.16	0	-----
Total	0	0	0	195.5	366.8	168.8	123.2	19.69	0	0.61	3.34	0
Mean	0	0	0	6.31	12.6	5.45	4.11	0.64	0	0.02	0.11	0
Max	0	0	0	55	21	11	7.9	3.2	0	0.45	2.9	0
Min	0	0	0	0	5.1	2.0	1.7	0	0	0	0	0
Ac-ft	0	0	0	388	728	335	244	39	0	1.2	6.6	0

Cal yr 1967: Total 994.14 Mean 2.72 Max 85 Min 0 Ac-ft 1,970

Wtr yr 1968: Total 877.94 Mean 2.40 Max 55 Min 0 Ac-ft 1,740

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

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 1968.

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.--18 years, 3.77 cfs (2,730 acre-ft per year), unadjusted.

Extremes.--No flow during the water year.

1950-68: Maximum discharge, 1,440 cfs July 31, 1956 (gage height, 6.07 ft); no flow for many days in 1957-68.

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

Remarks.--No flow since Apr. 27, 1966. 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.

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

Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
13,640	13,620	13,640	13,790	13,940	14,090	14,280	14,160	13,770	13,380	13,190	12,870

Note.--Records furnished by Corps of Engineers. Contents on Sept. 30, 1967 13,820 acre-ft.

PLATTE RIVER BASIN

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 1968.

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.--26 years, 16.2 cfs (11,730 acre-ft per year).

Extremes.--Maximum discharge during year, 1,700 cfs June 7 (gage height, 6.38 ft); minimum daily, 5.1 cfs Mar. 17.

1942-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	7.8	5.7	5.7	6.0	8.1	5.7	7.2	8.5	7.5	14	12
2	12	17	6.1	5.5	6.0	7.4	5.7	9.9	11	8.7	16	11
3	10	10	5.4	5.9	6.0	6.2	16	10	10	9.4	15	21
4	35	7.3	6.1	6.3	6.0	5.8	6.6	12	8.1	7.2	15	18
5	10	6.1	6.0	6.7	6.2	6.2	5.5	11	8.6	14	14	12
6	12	6.1	5.7	5.6	6.2	10	5.4	11	9.7	9.0	9.9	11
7	11	6.1	5.8	5.6	6.2	13	5.7	13	60	10	10	9.9
8	9.7	5.8	6.3	6.8	6.4	12	5.4	11	8.5	14	11	8.0
9	9.3	5.8	6.3	6.2	6.4	15	5.9	10	10	9.0	32	9.8
10	11	5.8	6.0	6.3	6.6	14	6.7	11	8.7	8.9	33	7.9
11	9.2	5.8	6.2	6.1	6.2	17	6.7	15	6.2	8.3	10	11
12	12	6.2	6.7	5.9	6.0	8.7	6.3	17	8.6	10	10	9.3
13	14	6.5	6.5	6.8	5.8	8.5	6.4	15	9.3	8.8	45	7.6
14	43	6.5	7.2	7.2	6.0	7.7	6.0	15	7.7	8.1	54	8.8
15	38	6.6	7.8	7.0	7.0	6.2	6.0	13	7.8	11	16	8.3
16	11	6.7	7.4	6.8	6.8	5.5	6.9	15	8.5	7.4	16	9.2
17	15	6.6	7.2	6.6	6.0	5.1	38	14	7.9	7.9	16	7.4
18	13	6.4	7.0	6.5	6.1	8.4	15	22	7.3	8.4	16	7.9
19	11	6.2	7.0	6.7	6.4	5.7	16	11	8.9	39	18	8.7
20	12	6.4	7.2	7.2	9.5	5.9	10	10	8.2	9.7	15	8.0
21	16	6.4	6.2	7.4	9.1	5.4	21	7.7	7.2	12	13	7.2
22	14	6.0	7.0	7.0	9.1	5.8	15	9.4	7.4	11	11	21
23	14	6.0	8.5	6.8	6.9	9.3	7.3	13	7.4	8.6	11	9.5
24	10	6.2	6.6	7.2	6.0	8.2	6.5	15	16	60	13	8.5
25	12	6.3	6.3	7.6	5.7	7.7	7.2	11	9.1	18	15	8.3
26	11	5.6	6.4	7.2	6.1	5.4	14	15	8.9	9.3	15	9.4
27	16	6.0	6.9	5.6	7.3	6.3	19	12	6.4	11	12	9.7
28	14	6.3	7.0	5.6	6.6	8.0	7.5	9.9	8.3	11	12	9.6
29	19	5.7	6.2	5.8	7.9	6.0	6.4	7.3	6.9	13	11	11
30	6.1	5.9	5.8	5.8	5.5	6.8	8.3	6.5	15	13	13	14
31	7.1	---	5.6	6.0	---	5.5	---	15	---	13	12	---
Total	447.4	202.1	202.1	199.4	192.5	249.5	296.6	376.7	307.6	398.2	523.9	315.0
Mean	14.4	6.74	6.52	6.43	6.64	8.05	9.89	12.2	10.3	12.8	16.9	10.5
Max	43	17	8.5	7.6	9.5	17	38	22	60	60	54	21
Min	6.1	5.6	5.4	5.5	5.7	5.1	5.4	7.2	6.2	7.2	9.9	7.2
Ac-ft	887	401	401	396	382	495	588	747	610	790	1,040	625

Cal yr 1967: Total 4,674.5 Mean 12.8 Max 180 Min 3.8 Ac-ft 9,270
 Wtr yr 1968: Total 3,711.0 Mean 10.1 Max 60 Min 5.1 Ac-ft 7,360

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.

Drainage area.--3,804 sq mi.

Records available.--May to October 1889, June to October 1890, July 1895 to September 1968. 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.--73 years, 332 cfs (240,400 acre-ft per year).

Extremes.--Maximum discharge during year, 2,780 cfs Aug. 13 (gage height, 5.25 ft), from rating curve extended above 520 cfs; minimum daily, 71 cfs Jan. 7.

1889-90, 1895-1968: 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 good. 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	106	153	123	85	106	91	88	141	227	126	607	251
2	85	227	116	82	96	79	79	145	217	153	581	231
3	85	199	113	77	102	82	161	213	208	191	529	305
4	79	145	113	82	99	91	137	342	213	191	536	376
5	123	145	116	85	93	93	130	300	217	246	536	337
6	119	149	109	79	91	96	130	332	213	270	568	270
7	106	186	93	71	88	102	130	342	321	246	510	227
8	99	149	96	82	88	96	116	332	199	251	522	213
9	106	153	96	88	93	113	96	376	177	332	555	204
10	106	153	96	85	93	130	169	394	149	382	728	195
11	106	141	99	88	93	157	123	442	145	376	581	182
12	99	133	106	79	130	119	82	424	116	418	627	157
13	99	130	93	79	109	119	88	430	116	430	875	153
14	116	133	79	93	91	119	91	388	145	394	854	153
15	265	182	85	109	99	113	88	364	180	342	758	149
16	141	137	123	109	99	88	93	376	165	290	600	161
17	123	113	113	99	99	91	315	406	150	251	542	161
18	119	109	96	91	99	106	217	406	140	191	529	153
19	116	106	96	93	109	99	161	337	130	246	436	141
20	123	102	102	109	126	99	133	310	160	236	265	133
21	126	123	91	116	141	102	173	310	200	208	305	126
22	123	173	88	199	137	109	195	310	153	191	260	145
23	126	141	109	137	123	113	145	364	141	227	213	145
24	130	133	93	157	109	106	130	418	165	404	227	137
25	133	130	96	186	96	102	130	310	400	412	236	123
26	133	126	96	165	93	99	173	227	217	310	231	119
27	137	113	88	123	93	99	208	199	241	442	213	109
28	130	109	99	109	102	99	165	186	290	496	208	106
29	195	116	88	123	96	99	141	161	255	503	231	116
30	157	119	85	109	- - - -	99	130	186	153	641	236	137
31	133	- - - -	77	106	- - - -	91	- - - -	217	- - - -	712	255	- - - -
Total	3,844	4,228	3,073	3,295	2,993	3,201	4,217	9,688	5,803	10,108	14,354	5,415
Mean	124	141	99.1	106	103	103	141	313	193	326	463	180
Max	265	227	123	199	141	157	315	442	400	712	875	376
Min	79	102	77	71	88	79	79	141	116	126	208	106
Ac-ft	7,620	8,390	6,100	6,540	5,940	6,350	8,360	19,220	11,510	20,050	28,470	10,740

Cal yr 1967: Total 61,852 Mean 169 Max 1,140 Min 38 Ac-ft 122,700
Wtr yr 1968: Total 70,219 Mean 192 Max 875 Min 71 Ac-ft 139,300

PLATTE RIVER BASIN

6-7165. Clear Creek near Lawson, Colo.

Location.--Lat 39°45'57", long 105°37'32", in NW¼NW¼ sec.25, T.3 S., R.74 W., on left bank at east edge of Lawson, 30 ft downstream from private bridge and 2.0 miles downstream from West Fork Clear Creek. Prior to Oct. 1, 1967, at site 1.5 miles upstream.

Drainage area.--147 sq mi.

Records available.--March 1946 to September 1968. Records prior to 1959 include inflow from August P. Gumlick Tunnel (formerly Jones Pass tunnel).

Gage.--Water-stage recorder. Altitude of gage is 8,080 ft (from topographic map). Mar. 29, 1946, to Sept. 30, 1967, at site 1.5 miles upstream at different datum.

Average discharge.--22 years, 134 cfs (97,010 acre-ft per year), adjusted for inflow from August P. Gumlick Tunnel prior to 1959.

Extremes.--Maximum discharge during year, 822 cfs June 20 (gage height, 5.22 ft); minimum daily, 23 cfs Jan. 5.

1946-68: Maximum discharge, 6,130 cfs June 4, 1956 (gage height, 7.41 ft, site and datum then in use), 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	48	34	24	25	28	39	40	284	451	202	98
2	54	47	36	24	29	27	35	47	343	424	187	100
3	52	38	42	25	32	27	33	56	424	417	178	114
4	58	52	42	24	30	29	30	64	468	407	165	126
5	85	50	38	23	30	29	32	69	502	393	167	109
6	74	44	33	24	29	29	33	72	563	361	198	105
7	69	48	33	24	27	28	30	68	580	349	189	95
8	64	48	32	24	29	27	30	58	536	343	180	93
9	64	47	37	24	28	27	29	58	502	334	224	87
10	68	46	36	26	29	26	31	62	468	346	256	85
11	67	46	33	28	30	27	33	60	434	346	251	85
12	65	44	31	28	30	26	36	60	461	337	213	85
13	59	46	33	28	30	28	35	62	540	337	206	88
14	58	48	29	28	30	27	33	58	560	325	222	84
15	59	44	30	26	29	27	35	67	534	311	215	85
16	54	44	32	27	32	26	36	65	557	303	191	87
17	58	44	30	28	32	29	36	62	580	290	182	87
18	59	42	31	28	30	28	35	60	601	271	169	88
19	53	48	31	29	30	27	36	58	628	266	160	93
20	51	47	31	29	30	27	33	67	675	264	154	82
21	51	47	30	29	30	25	35	71	725	243	151	76
22	49	38	28	29	29	28	35	93	710	238	138	76
23	46	40	28	29	30	29	32	122	700	241	126	74
24	47	35	30	28	30	29	33	126	675	253	116	72
25	51	40	30	28	28	30	34	112	630	217	112	71
26	53	37	28	27	27	30	32	116	567	204	116	68
27	40	30	27	27	29	30	32	114	570	217	122	65
28	51	29	27	27	30	29	31	112	574	211	147	67
29	48	31	26	25	29	32	31	158	557	204	128	74
30	40	36	26	24	- - - - -	38	35	200	506	213	114	71
31	51	- - - - -	26	27	- - - - -	37	- - - - -	234	- - - - -	215	107	- - - - -
Total	1,756	1,284	980	821	853	886	1,000	2,671	16,454	9,331	5,286	2,590
Mean	56.6	42.8	31.6	26.5	29.4	28.6	33.3	86.2	548	301	171	86.3
Max	85	52	42	29	32	38	39	234	725	451	256	126
Min	40	29	26	23	25	25	29	40	284	204	107	65
Ac-ft	3,480	2,550	1,940	1,630	1,690	1,760	1,980	5,300	32,640	18,510	10,480	5,140

Cal yr 1967: Total 40,302 Mean 110 Max 608 Min 21 Ac-ft 79,940

Wtr yr 1968: Total 43,912 Mean 120 Max 725 Min 23 Ac-ft 87,100

Peak discharge (base, 600 cfs).--June 7 (0030) 628 cfs (4.71 ft); June 20 (2300) 822 cfs (5.22 ft).

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 1968. 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.--58 years, 226 cfs (163,600 acre-ft per year), adjusted for inflow from August P. Gumlick Tunnel and Berthoud Pass ditch 1940-58.

Extremes.--Maximum discharge during year, 1,240 cfs June 21 (gage height, 5.24 ft); minimum not determined.

1908-9, 1911-68: 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 stations 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	85	68	69	56	39	43	78	87	475	582	257	123
2	80	76	54	50	44	44	80	106	566	558	241	126
3	76	58	57	58	52	42	68	120	702	542	244	141
4	78	76	72	70	50	43	54	141	797	528	220	177
5	151	76	62	80	48	49	63	148	830	528	208	156
6	109	69	63	74	47	50	69	159	962	520	247	146
7	100	72		66	47	50	60	151	962	463	240	126
8	87	80		76	48	42	50	128	902	451	230	118
9	87	78		76	47	48	54	128	775	433	290	113
10	89	72		70	42	40	60	138	702	451	335	106
					42							
11	89	69		70	42	42	68	136	639	451	330	106
12	87	69		44	44	37	72	141	666	445	296	106
13	83	68		49	42	52	69	146	830	427	278	120
14	78	69		55	45	49	56	146	902	410	296	111
15	83	69		63	48	43	68	164	808	390	296	111
16	78	66		70	52	40	72	167	866	380	244	118
17	80	64		60	52	52	76	156	926	365	232	120
18	83	62		49	50	48	69	154	926	347	208	120
19	80	66	50	48	49	43	76	148	1010	338	199	128
20	76	68		48	53	52	69	161	1020	329	187	106
21	76	68		49	52	42	76	174	1070	306	182	100
22	76	60		47	48	48	74	205	1010	296	172	98
23	74	57		48	45	50	68	257	998	296	159	98
24	68	52		50	50	58	69	278	986	292	141	93
25	76	64		52	43	54	72	250	902	268	133	93
26	78	52		49	41	58	68	241	753	257	133	89
27	64	37		45	45	54	63	238	731	264	136	87
28	74	38		43	45	57	63	238	764	268	172	85
29	78	49		38	45	64	64	278	731	244	156	116
30	57	72		40	-----	74	72	334	666	257	154	102
31	69	-----		40	-----	80	-----	400	-----	274	136	-----
Total	2,549	1,944	1,627	1,733	1,355	1,548	2,020	5,718	24,877	11,960	6,752	3,439
Mean	82.2	64.8	52.5	55.9	46.7	49.9	67.3	184	829	386	218	115
Max	151	80	-	80	53	80	80	400	1,070	582	335	177
Min	57	37	-	38	39	37	50	87	475	244	133	85
Ac-ft	5,060	3,860	3,230	3,440	2,690	3,070	4,010	11,340	49,340	23,720	13,390	6,820

Cal yr 1967: Total 56,739 Mean 155 Max 742 Min - Ac-ft 112,500

Wtr yr 1968: Total 65,522 Mean 179 Max 1,070 Min - Ac-ft 130,000

Peak discharge (base, 1,100 cfs).--June 21 (0200) 1,240 cfs (5.24 ft).

PLATTE RIVER BASIN

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

Location.--Lat 39°49'42", long 104°57'30", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ 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 2 $\frac{1}{2}$ miles west of Derby.

Drainage area.--575 sq mi.

Records available.--April to November 1914, March 1927 to September 1968. 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.--41 years (1927-68), 89.1 cfs (64,510 acre-ft per year).

Extremes.--Maximum discharge during year, 870 cfs June 21 (gage height, 5.00 ft), from rating curve extended above 430 cfs; minimum daily, 7.2 cfs Apr. 15.
1914, 1927-68: 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 except those for winter period, which are poor. 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	21	32	26	24	21	28	13	67	306	65	21
2	13	49	30	28	23	24	25	11	101	123	38	19
3	13	54	25	30	22	25	38	20	163	136	32	22
4	13	36	28	40	19	24	42	33	363	279	27	42
5	26	30	28	42	19	25	33	37	358	327	19	31
6	18	29	30	41	20	21	24	37	482	394	18	21
7	15	28	30	38	24	24	18	14	510	296	18	18
8	18	31	28	39	24	25	10	16	482	273	27	18
9	17	28	26	39	26	28	11	13	299	252	58	18
10	17	31	22	35	21	34	11	11	208	240	351	17
11	16	31	24	35	18	40	10	13	154	246	58	14
12	16	25	23	25	26	32	9.6	13	126	187	28	14
13	15	27	30	26	27	35	9.0	14	271	92	30	14
14	16	30	32	26	27	37	7.8	10	414	60	43	15
15	26	32	30	27	24	30	7.2	9.0	372	36	69	18
16	20	27	29	28	24	26	10	16	386	59	28	17
17	18	27	28	27	23	24	53	23	402	98	27	18
18	16	24	28	26	21	27	60	25	292	65	31	18
19	14	24	28	23	22	28	46	13	366	56	25	16
20	14	26	28	23	28	28	39	14	502	51	24	18
21	13	30	28	24	32	30	38	38	658	35	21	15
22	11	35	28	48	27	29	50	45	627	32	26	18
23	9.6	32	29	38	27	29	41	80	537	49	24	30
24	10	26	29	23	23	25	36	146	524	36	21	14
25	12	28	25	28	21	54	36	39	654	51	21	16
26	13	24	28	29	21	70	39	12	454	166	21	14
27	12	27	29	25	22	42	48	9.6	390	64	21	13
28	12	24	30	24	23	34	38	11	470	54	21	13
29	28	23	30	25	21	34	31	24	450	50	21	15
30	30	23	28	25	- - - -	30	19	69	402	27	27	16
31	21	- - - -	25	24	- - - -	32	- - - -	101	- - - -	84	21	- - - -
Total	505.6	882	868	937	679	967	867.6	929.6	11,484	4,224	1,261	553
Mean	16.3	29.4	28.0	30.2	23.4	31.2	28.9	30.0	383	136	40.7	18.4
Max	30	54	32	48	32	70	60	146	658	394	351	42
Min	9.6	21	22	23	18	21	7.2	9.0	67	27	18	13
Ac-ft	1,000	1,750	1,720	1,860	1,350	1,920	1,720	1,840	22,780	8,380	2,501	1,100
Cal yr 1967: Total	21,021.5			Mean 57.6	Max 645	Min 3.7	Ac-ft 41,700					
Wtr yr 1968: Total	24,157.8			Mean 66.0	Max 658	Min 7.2	Ac-ft 47,920					

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 1968. 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.--42 years, 321 cfs (232,400 acre-ft per year).

Extremes.--Maximum discharge during year, 3,350 cfs Aug. 10 (gage height, 5.42 ft); minimum daily, 86 cfs Nov. 12.

1926-68: Maximum discharge, 29,600 cfs June 17, 1963 (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 1968 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	155	95	104	120	118	140	138	169	249	440	610	312
2	152	150	104	114	116	133	124	182	233	351	505	294
3	164	164	104	110	108	133	220	266	283	351	458	359
4	134	124	116	112	98	166	269	375	453	435	462	458
5	263	114	127	116	110	190	245	363	444	477	486	435
6	186	112	102	112	116	159	229	384	491	556	515	384
7	174	102	104	112	118	149	217	431	685	477	520	316
8	164	104	104	114	118	154	217	413	550	458	550	280
9	179	97	102	112	116	159	223	413	427	545	600	491
10	176	93	102	114	116	190	229	431	367	550	1,570	276
11	176	90	104	114	112	233	188	491	297	550	515	255
12	171	86	104	110	131	196	180	472	252	550	453	242
13	159	95	102	104	131	190	147	520	351	520	508	233
14	179	91	106	108	147	185	159	467	535	458	744	226
15	526	90	116	120	161	169	129	427	510	427	696	217
16	186	90	122	120	166	154	138	462	472	380	444	211
17	164	90	127	135	154	135	436	505	500	367	405	214
18	162	90	116	118	142	147	363	535	462	316	396	208
19	176	90	114	112	161	140	249	427	440	329	359	220
20	159	90	114	114	177	140	229	409	572	347	297	223
21	134	90	114	114	188	142	220	440	762	258	359	223
22	122	116	112	229	164	147	328	431	649	236	427	208
23	150	108	131	208	164	133	208	520	561	305	339	361
24	152	98	142	180	140	122	208	605	561	427	301	262
25	169	98	118	182	120	159	211	297	924	594	308	249
26	171	98	114	152	124	177	214	177	638	444	323	217
27	171	106	112	133	133	169	290	161	550	449	312	220
28	169	106	114	124	156	166	220	161	684	530	294	217
29	213	104	114	131	154	164	182	138	644	515	331	223
30	203	104	122	124	-----	154	169	164	495	594	327	258
31	164	-----	116	122	-----	140	-----	297	-----	768	327	-----
Total	5,423	3,085	3,503	3,990	3,959	4,935	6,579	11,533	15,041	14,004	14,741	8,292
Mean	175	103	113	129	137	159	219	372	501	452	476	276
Max	326	164	142	229	188	233	436	605	924	768	1,570	491
Min	122	86	102	104	98	122	124	138	233	236	294	208
Ac-ft	10,760	6,120	6,950	7,910	7,850	9,790	13,050	22,880	29,830	27,780	29,240	16,450
Cal yr 1967: Total	99,671		Mean 273		Max 1,520	Min 86	Ac-ft 197,700					
Wtr yr 1968: Total	95,085		Mean 260		Max 1,570	Min 86	Ac-ft 188,600					

PLATTE RIVER BASIN

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 1968. 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.--19 years, 27.7 cfs (20,050 acre-ft per year).

Extremes.--Maximum discharge during year, 198 cfs June 20 (gage height, 3.54 ft); minimum daily, 2.4 cfs Mar. 15.

1925-27, 1928-31, 1954-68: 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.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	6.1	5.2	3.5	2.7	2.6	3.0	6.2	6.3	76	42	17
2	13	5.6	5.4	3.5	2.6	2.5	3.0	7.7	74	66	39	15
3	13	5.2	5.1	3.3	2.6	2.5	2.8	9.3	85	68	37	18
4	13	5.8	4.6	3.1	2.7	2.6	2.7	12	95	76	36	22
5	20	5.6	4.5	3.0	2.7	2.6	2.6	12	107	85	39	22
6	20	5.8	4.5	2.9	2.7	2.6	2.6	13	117	77	51	21
7	17	6.0	4.5	2.9	2.6	2.7	2.6	12	124	76	54	19
8	14	6.2	4.5	2.9	2.6	2.8	2.6	10	120	72	51	17
9	14	6.2	4.5	2.9	2.6	2.8	2.6	8.2	96	72	57	16
10	14	6.2	4.0	2.8	2.6	2.8	2.6	7.9	79	72	70	15
11	13	6.2	3.8	2.7	2.7	2.8	2.8	8.2	70	81	58	15
12	12	6.0	3.7	2.7	2.8	2.7	3.1	11	77	77	51	15
13	10	6.0	3.6	2.7	2.8	2.6	3.4	11	113	79	43	15
14	10	6.0	3.5	2.7	2.8	2.5	3.2	9.3	124	76	42	15
15	11	5.8	3.5	2.7	2.8	2.4	3.5	11	128	68	44	15
16	11	6.0	3.5	2.7	2.9	2.5	3.8	9.3	135	62	36	17
17	11	5.8	3.6	2.8	2.9	2.6	4.1	9.3	139	63	32	17
18	10	5.6	3.8	2.9	2.9	2.7	4.0	8.2	139	61	30	16
19	9.3	5.4	3.8	2.9	2.9	2.8	4.2	8.4	154	60	27	17
20	8.2	5.4	3.8	2.9	2.9	2.8	3.9	10	163	57	25	16
21	8.2	5.4	3.8	2.8	2.8	2.8	3.9	14	172	54	24	15
22	7.4	5.4	3.8	2.6	2.7	2.8	4.1	20	167	52	24	15
23	6.2	5.2	3.8	2.5	2.7	2.7	3.8	24	163	51	23	15
24	6.8	5.2	3.8	2.5	2.7	2.7	3.6	22	143	50	20	14
25	7.0	5.2	4.0	2.6	2.7	2.7	3.8	18	128	46	18	13
26	6.8	5.6	3.8	2.6	2.7	2.7	3.9	18	99	49	17	12
27	7.2	5.4	3.7	2.6	2.7	2.7	3.9	18	99	44	17	12
28	7.6	5.2	3.5	2.6	2.7	2.7	3.9	23	124	40	18	11
29	7.0	5.2	3.5	2.6	2.7	2.7	4.2	29	128	38	20	15
30	7.0	5.2	3.5	2.7	-----	2.7	5.1	34	105	39	20	17
31	6.4	-----	3.5	2.7	-----	2.8	-----	52	-----	42	18	-----
Total	336.1	169.9	124.1	87.3	79.2	82.9	103.3	466.0	3,530	1,929	1,087	479
Mean	10.8	5.66	4.00	2.82	2.73	2.67	3.44	15.0	118	62.2	34.9	16.0
Max	20	6.2	5.4	3.5	2.9	2.8	5.1	52	172	85	70	22
Min	6.2	5.2	3.5	2.5	2.6	2.4	2.6	6.2	63	38	17	11
Ac-ft	667	337	246	173	157	164	205	924	7,000	3,830	2,150	950

Cal yr 1967: Total 8,224.4 Mean 22.5 Max 167 Min 1.2 Ac-ft 16,310
Wtr yr 1968: Total 8,469.8 Mean 23.1 Max 172 Min 2.4 Ac-ft 16,800

Peak discharge (base, 170 cfs).--June 20 (2300) 198 cfs (3.54 ft).

Note.--No gage-height record Dec. 4 to Apr. 10.

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

Location.--Lat 40°13'05", long 105°15'34", in NW¼NW¼ 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 1968. 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.--77 years, 129 cfs (93,390 acre-ft per year).

Extremes.--Maximum discharge during year, 636 cfs June 21 (gage height, 4.01 ft); minimum daily, 7.7 cfs Feb. 9-13.

1887-91, 1895-1968: 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, 1950.

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 poor prior to Apr. 25 and fair thereafter. 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	32	22	15	10	14	59	72	312	248	158	63
2	48	30	15	15	12	14	57	89	322	245	140	55
3	40	12	19	15	12	12	48	94	386	266	132	61
4	40	19	24	14	9.0	12	38	108	465	269	135	79
5	79	17	22	15	8.0	14	50	118	485	280	125	72
6	77	20	16	16	9.0	14	50	130	455	284	132	57
7	72	28	13	16	8.0	16	44	125	505	262	127	46
8	63	32	17	15	8.0	14	32	120	500	245	115	38
9	59	34	16	15	7.7	16	32	115	430	238	137	40
10	63	34	17	16	7.7	15	36	110	358	242	205	36
11	61	32	18	16	7.7	14	24	108	354	245	179	34
12	53	34	15	16	7.7	12	24	113	382	242	142	30
13	46	32	14	15	7.7	17	34	120	415	248	120	32
14	42	30	13	15	8.0	16	34	101	485	234	127	34
15	53	32	13	15	8.5	14	48	96	470	214	153	34
16	50	28	13	15	8.5	14	38	108	485	200	127	40
17	46	26	13	15	8.5	16	57	108	475	197	113	44
18	38	22	14	15	9.0	16	46	118	465	187	103	42
19	36	24	14	15	10	14	44	101	490	181	94	40
20	36	24	14	16	12	18	38	103	505	168	94	36
21	28	26	15	16	17	14	53	108	546	166	89	36
22	28	14	15	15	16	19	53	140	510	166	89	36
23	26	17	16	14	17	14	40	197	490	161	86	38
24	30	22	19	15	17	16	50	228	520	161	82	32
25	26	30	20	16	16	16	50	220	480	145	75	30
26	30	22	19	16	14	18	50	197	405	150	63	20
27	24	16	18	14	15	17	50	205	386	142	59	19
28	20	18	19	13	15	18	42	214	410	132	66	16
29	24	26	17	11	16	30	55	224	386	132	84	32
30	17	28	16	11	-----	46	57	234	322	137	98	30
31	24	-----	16	12	-----	72	-----	290	-----	150	75	-----
Total	1,292	761	512	458	322.0	572	1,333	4,414	13,199	6,337	3,524	1,202
Mean	41.7	25.4	16.5	14.8	11.1	18.5	44.4	142	440	204	114	40.1
Max	79	34	24	16	17	72	59	290	546	284	205	79
Min	13	12	13	11	7.7	12	24	72	312	132	59	16
Ac-ft	2,560	1,510	1,020	908	639	1,130	2,640	8,760	26,180	12,570	6,590	2,380
Cal yr 1967: Total	40,675.2											
Wtr yr 1968: Total	33,926.0											
	Mean	111	Max	875	Min	1.8	Ac-ft	80,680				
	Mean	92.7	Max	546	Min	7.7	Ac-ft	67,290				

PLATTE RIVER BASIN

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 right 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 1968 (discontinued).

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

Extremes.--Maximum discharge during year, 158 cfs Aug. 10 (gage height, 1.62 ft); minimum daily, 18 cfs Apr. 10.
1964-68: Maximum discharge, 1,810 cfs June 17, 1965 (gage height, 4.90 ft); minimum daily, 12 cfs Apr. 8, 1967.

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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	38	43	49	52	31	22	38	35	64	82	43
2	31	46	40	46	43	31	20	31	47	59	74	45
3	32	43	42	45	49	32	29	30	59	45	60	51
4	35	42	43	51	46	31	26	39	71	52	68	48
5	39	40	42	52	43	30	26	38	66	54	62	51
6	36	42	39	45	35	30	25	43	112	70	60	51
7	35	43	39	38	35	29	22	48	100	68	46	54
8	36	42	36	43	33	26	20	49	98	66	43	49
9	38	39	36	48	35	26	19	43	108	64	69	51
10	38	39	36	48	32	30	18	35	76	57	133	49
11	39	42	33	49	32	29	19	36	70	59	100	48
12	38	39	32	43	35	28	20	35	70	62	80	45
13	35	40	33	43	32	31	25	38	70	68	72	43
14	36	39	40	49	35	28	28	31	78	64	82	33
15	45	43	49	51	35	26	28	30	80	64	84	29
16	45	40	48	49	35	25	28	35	82	51	76	33
17	39	38	48	51	33	28	43	39	84	49	76	33
18	38	38	46	48	33	28	46	39	51	49	68	33
19	36	38	46	48	32	28	46	32	46	51	60	35
20	35	40	48	51	36	29	45	31	40	40	51	39
21	38	43	45	52	36	26	43	32	48	48	46	40
22	39	45	42	59	36	25	45	33	39	54	42	48
23	40	43	48	56	38	25	42	60	38	56	31	54
24	38	43	49	63	35	24	43	62	66	60	35	52
25	40	42	51	66	30	25	43	62	110	52	31	46
26	39	39	49	66	30	24	43	76	91	51	32	43
27	38	39	45	60	31	24	31	54	76	52	33	44
28	38	38	54	59	33	23	30	52	72	49	36	38
29	39	38	50	57	33	23	31	43	62	49	46	36
30	38	40	42	52	- - - -	22	33	35	70	65	43	40
31	38	- - - -	40	52	- - - -	22	- - - -	36	- - - -	78	42	- - - -
Total	1,164	1,221	1,334	1,589	1,043	839	939	1,285	2,115	1,770	1,863	1,304
Mean	37.5	40.7	43.0	51.3	36.0	27.1	31.3	41.5	70.5	57.1	60.1	43.5
Max	45	46	54	66	52	32	46	76	112	78	133	54
Min	31	38	32	38	30	22	18	30	35	40	31	29
Ac-ft	2,310	2,420	2,650	3,150	2,070	1,660	1,860	2,550	4,200	3,510	3,700	2,590
Cal yr 1967: Total	32,037		Mean	87.8	Max	1,170	Min	12	Ac-ft	63,540		
Wtr yr 1968: Total	16,466		Mean	45.0	Max	133	Min	18	Ac-ft	32,660		

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 1968. 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.--61 years, 53.6 cfs (38,800 acre-ft per year).

Extremes.--Maximum discharge during year, 392 cfs June 21 (gage height, 2.98 ft); minimum daily, 5.1 cfs Mar. 4.

1907-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	14	8.1	6.1	7.5	6.1	17	26	241	162	89	28
2	19	10	9.3	5.7	7.1	5.7	15	33	262	158	81	26
3	18	11	9.5	5.7	7.1	5.5	14	44	290	164	80	29
4	19	17	8.1	5.7	7.1	5.1	15	56	299	166	75	33
5	30	14	7.7	5.7	7.1	5.5	16	64	304	156	74	30
6												
7	26	13	7.7	5.7	7.1	5.7	13	64	307	156	85	30
8	26	12	7.1	5.3	7.1	5.7	12	52	304	160	81	27
9	24	12	7.3	5.3	7.1	5.7	11	44	299	158	81	25
10	23	13	7.1	5.3	6.7	5.7	13	45	252	154	182	23
11	21	12	6.9	5.5	6.7	5.5	15	46	210	162	156	22
12												
13	19	12	6.9	5.7	6.5	5.3	14	45	186	166	124	20
14	18	12	7.1	5.7	6.7	6.1	17	57	214	158	105	21
15	16	12	6.9	5.7	6.5	6.1	16	56	271	152	89	21
16	17	12	6.5	6.1	6.5	6.1	14	50	280	140	96	20
17	18	12	6.5	6.7	6.3	5.9	17	54	255	128	88	22
18												
19	16	12	6.5	6.9	6.3	6.7	18	49	273	124	70	24
20	17	12	6.1	7.1	6.3	6.9	17	45	275	128	64	24
21	17	11	6.1	6.9	5.9	6.5	15	45	268	124	57	26
22	16	10	6.1	7.1	5.9	6.9	14	44	287	130	53	28
23	14	10	6.1	7.3	6.1	6.7	15	50	319	118	50	26
24												
25	14	9.5	5.9	7.7	5.9	7.3	14	57	335	110	49	26
26	13	7.1	5.7	7.9	5.9	7.3	13	81	328	106	50	25
27	13	10	5.7	8.3	6.3	7.7	13	110	314	106	46	25
28	11	8.5	5.7	8.3	6.5	8.1	12	100	280	100	40	24
29	16	11	5.7	8.5	6.1	9.1	13	83	250	98	34	22
30												
31	16	9.3	5.9	8.3	6.3	10	13	81	210	105	33	22
32	11	8.3	5.9	8.3	6.1	11	13	80	230	103	34	21
33	15	8.5	6.3	7.7	6.1	10	13	91	259	96	36	21
34	14	8.5	6.7	7.5	6.1	12	15	124	252	89	39	25
35	12	8.5	6.5	7.5	7.5	15	22	162	210	91	35	26
36	15	-----	5.9	7.5	-----	18	-----	216	-----	98	30	-----
Total	544	332.2	209.5	208.7	188.9	234.9	439	2154	8,064	4,066	2,206	742
Mean	17.5	11.1	6.76	6.73	6.51	7.58	14.6	69.5	269	131	71.2	24.7
Max	30	17	9.5	8.5	7.5	18	22	216	335	166	182	33
Min	11	7.1	5.7	5.3	5.9	5.1	11	26	186	89	30	20
Ac-ft	1,080	659	416	414	375	466	871	4,270	15,990	8,060	4,380	1,470

Cal yr 1967: Total 17,663.0 Mean 48.4 Max 285 Min 2.0 Ac-ft 35,030

Wtr yr 1968: Total 19,389.2 Mean 53.0 Max 335 Min 5.1 Ac-ft 38,460

Peak discharge (base, 280 cfs).--June 21 (2200) 392 cfs (2.98 ft).

PLATTE RIVER BASIN

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 1968. 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.--60 years (1906-14, 1916-68), 90.2 cfs (65,300 acre-ft per year).

Extremes.--Maximum discharge during year, 406 cfs June 23 (gage height, 3.21 ft); minimum daily, 3.2 cfs Dec. 11. 1887-88, 1906-13, 1916-68: 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. Outstanding floods are known to have occurred in June 1864, May 1876, June 1894 and June 1914, stages and discharges unknown.

Remarks.--Records good. 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	24	36	9.0	42	38	51	51	269	226	130	45
2	24	28	35	24	53	44	54	66	252	150	140	41
3	20	18	36	4.0	51	45	57	63	241	135	118	33
4	18	23	34	8.0	51	54	59	75	290	182	105	44
5	25	24	35	13	49	54	62	72	341	237	97	56
6	29	25	37	12	49	53	50	70	336	230	103	50
7	27	22	36	12	51	53	54	70	336	212	99	44
8	26	27	34	13	47	47	12	64	350	226	107	42
9	25	27	32	13	58	40	7.9	50	312	260	159	35
10	22	26	31	13	51	53	7.6	60	286	230	241	29
11	21	28	3.2	13	46	52	9.0	53	273	215	222	25
12	21	25	13	13	53	50	12	60	273	230	195	22
13	20	21	14	13	47	48	9.0	68	294	212	167	20
14	21	17	10	13	55	48	6.5	64	303	185	153	26
15	24	16	13	13	39	50	42	68	290	161	142	26
16	23	15	10	13	52	46	50	62	273	142	114	22
17	22	21	11	12	50	47	57	60	264	140	87	24
18	23	19	12	14	50	47	55	60	249	137	72	33
19	21	20	13	18	53	45	35	60	233	140	56	33
20	18	16	13	12	51	50	64	63	294	140	66	33
21	17	16	13	15	47	41	62	64	375	127	57	34
22	16	16	13	27	38	47	61	68	395	118	46	32
23	24	16	12	71	40	48	31	75	385	105	46	27
24	13	20	11	53	46	53	27	86	341	105	44	28
25	17	40	13	47	45	52	29	80	294	114	42	28
26	36	35	12	51	39	53	28	82	264	118	35	24
27	20	38	11	49	42	55	27	93	249	127	30	19
28	22	37	11	50	43	52	25	116	294	137	28	18
29	26	37	12	44	34	65	32	132	341	135	36	26
30	24	38	12	50	-----	61	34	179	308	116	57	25
31	24	-----	12	51	-----	65	-----	252	-----	101	47	-----
Total	695	735	590.2	763.0	1,372	1,556	1,110.0	2,486	9,005	5,093	3,040	944
Mean	22.4	24.5	19.0	24.6	47.3	50.2	37.0	80.2	300	164	98.1	31.5
Max	36	40	37	71	58	65	64	252	395	260	241	56
Min	13	15	3.2	4.0	34	38	6.5	50	233	101	28	18
Ac-ft	1,380	1,460	1,170	1,510	2,720	3,090	2,200	4,930	17,860	10,100	6,030	1,870
Cal yr 1967 : Total	22,800.9		Mean	62.5	Max	562	Min	1.1	Ac-ft	45,220		
Wtr yr 1968 : Total	27,389.2		Mean	74.8	Max	395	Min	3.2	Ac-ft	54,330		

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 downstream from South Boulder diversion canal, 5 miles south of Boulder, and 6.7 miles 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 1968. 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.--62 years (1895-99, 1908-9, 1911-68), 75.4 cfs (54,590 acre-ft per year), adjusted for storage and diversions.

Extremes.--Maximum discharge during year, 468 cfs June 7 (gage height, 4.35 ft); minimum daily, 10 cfs Feb. 26, Mar. 1, 27.

1888-92, 1895-1901, 1904-68: 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 good except those for winter period, which are 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 1.8 miles above station.

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

Correction.--In the 1967 report, the daily discharges for Feb. 27, 28, 1967, were inadvertently listed in error; they should be 3.5 and 3.5 cfs, respectively. Monthly and yearly figures are correct as listed in the 1967 report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	14	12	13	12	10	13	28	219	278	26	28
2	22	15	12	13	12	11	22	48	227	257	25	28
3	22	14	12	13	12	11	28	61	238	206	25	28
4	23	14	12	13	12	11	27	61	311	181	25	28
5	24	14	12	13	12	11	27	61	353	152	24	28
6	23	14	12	13	12	12	27	91	377	143	32	29
7	23	14	12	13	12	12	26	136	425	143	38	31
8	23	14	12	13	12	12	26	150	445	126	4	31
9	23	14	12	13	12	12	26	146	429	111	50	31
10	23	14	12	13	12	11	25	105	425	113	51	31
11	24	14	12	13	12	12	24	69	409	113	51	29
12	26	14	12	13	12	13	23	58	329	132	47	31
13	25	14	12	13	12	11	23	58	304	150	72	22
14	25	14	12	13	12	12	23	58	281	150	91	18
15	26	14	12	13	12	11	22	58	275	148	95	17
16	26	13	13	13	11	12	22	60	275	148	95	17
17	25	13	13	13	11	12	24	55	275	139	95	17
18	25	13	13	13	11	12	24	57	278	117	95	16
19	24	13	13	13	11	12	28	55	281	111	97	17
20	24	13	13	13	11	12	28	71	269	113	58	24
21	24	13	14	12	11	17	28	76	260	115	34	36
22	24	12	14	12	11	14	28	76	263	117	33	34
23	26	12	14	12	11	16	26	101	266	82	32	34
24	16	12	14	12	11	16	27	117	266	63	31	34
25	12	12	14	12	11	17	27	121	252	63	23	33
26	13	12	14	12	10	16	28	121	252	63	18	33
27	13	12	14	12	11	10	27	150	272	63	18	33
28	13	12	14	12	11	12	27	164	275	63	19	33
29	14	12	14	12	10	14	27	167	278	63	18	33
30	14	12	14	12	- - - -	14	27	164	278	48	19	32
31	14	- - - -	14	12	- - - -	14	- - - -	198	- - - -	30	27	- - - -
Total	661	397	399	392	332	392	760	2,941	9,087	3,801	1,408	836
Mean	21.3	13.2	12.9	12.6	11.4	12.6	25.3	94.9	303	123	45.4	27.9
Max	26	15	14	13	12	17	28	198	445	278	97	36
Min	12	12	12	12	10	10	13	28	219	30	18	16
Ac-ft	1,310	787	791	778	659	778	1,510	5,830	18,020	7,540	2,790	1,660

Adjusted for storage in Gross Reservoir, diversions to City of Denver and imports by Moffat tunnel.

	Mean	20.0	13.5	12.5	10.3	10.0	14.4	26.6	96.6	288	111	52.2	25.4
Ac-ft		1,230	806	769	634	578	891	1,590	5,930	17,110	6,790	3,210	1,510

Observed										Adjusted			
Cal year 1967: Total	19,544.8	Mean	53.5	Max	460	Min	0.80	Ac-ft	38,770	Mean	56.1	Ac-ft	40,640
Wtr year 1968: Total	21,406	Mean	58.5	Max	445	Min	10	Ac-ft	42,460	Mean	56.6	Ac-ft	41,060

Note.--No gage-height record Dec. 2 to Feb. 20.

PLATTE RIVER BASIN

6-7303. Coal Creek near Plainview, Colo.

Location.--Lat 39°52'40", long 105°16'36", in SE¼ sec.13, T.2 S., R.71 W., on left bank 100 ft upstream from culvert on State Highway 72, 1½ 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 1968.

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.--9 years, 3.34 cfs (2,420 acre-ft per year).

Extremes.--Maximum discharge during year, 37 cfs May 24 (gage height, 1.27 ft), from rating curve extended above 24 cfs; no flow for many days in September.

1959-68: 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 except those for winter period, which are poor. No diversion above station.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.80	1.1	.38	.85	1.3	1.4	4.8	15	14	1.5	0.55	0.01
2	.70	1.1	.50	.80	1.2	1.4	5.0	17	11	1.5	.38	.01
3	.65	1.2	.44	.80	1.1	1.5	5.0	19	9.3	1.4	.32	.02
4	.85	1.7	.38	.80	.95	1.5	4.5	19	8.8	1.3	.38	.16
5	3.0	1.7	.32	.70	1.2	1.3	4.6	19	8.2	1.5	.20	.09
6	1.8	1.8	.50	.70	.95	1.6	4.5	18	7.2	1.5	.17	.04
7	1.5	1.8	.75	.70	1.0	1.6	4.1	15	6.6	1.1	.14	.02
8	1.3	1.8	.85	.75	.95	1.5	3.6	14	7.8	.95	.14	.01
9	1.2	1.8	.95	.70	.90	1.6	4.1	12	7.2	1.0	.78	.01
10	1.1	1.8	.75	.70	1.0	1.5	4.1	12	5.6	1.1	3.0	0
11	1.1	1.6	.70	.70	.95	1.4	4.1	12	5.0	.90	2.0	0
12	.95	1.6	.90	.70	.90	1.6	4.3	10	4.6	1.0	1.4	0
13	.90	1.6	1.1	.80	1.0	2.0	4.8	9.8	3.9	.75	1.1	0
14	.95	1.6	.95	.75	1.0	2.1	4.3	8.8	3.5	.75	1.2	0
15	1.1	1.5	.95	.80	1.1	2.0	4.8	8.5	3.3	.60	1.2	0
16	1.1	1.5	.85	.85	1.2	2.0	5.0	9.3	3.1	.55	.55	0
17	.95	1.5	.85	.85	1.4	2.0	5.4	9.3	2.9	.44	.41	0
18	.85	1.3	.90	.90	1.1	2.1	5.2	8.8	2.5	.32	.26	0
19	.80	1.2	1.0	.90	1.0	1.9	5.6	8.2	2.4	.35	.20	0
20	.75	1.2	.95	.90	1.1	1.6	6.2	8.2	2.2	.19	.17	0
21	.70	1.2	.90	.90	1.2	1.8	7.8	7.8	2.0	.13	.10	0
22	.60	1.0	.95	.95	1.2	2.0	7.5	7.5	1.9	.12	.09	.01
23	.65	1.1	.80	.90	1.2	2.3	6.6	13	1.6	.14	.05	0
24	.80	.85	.70	1.0	1.2	2.6	8.5	32	5.4	.26	.04	0
25	.75	.60	.70	1.3	1.2	2.7	8.5	34	5.0	.17	.03	0
26	.75	.47	.60	1.4	1.2	2.9	8.5	31	3.3	.12	.02	0
27	.70	.47	1.0	1.3	1.2	3.0	8.8	27	2.7	.09	.02	0
28	.65	.47	1.0	1.2	1.2	3.1	9.8	23	2.2	.09	.01	0
29	.90	.38	.85	1.0	1.3	3.7	12	20	2.0	.05	.02	.02
30	.90	.41	.80	1.1	---	4.8	14	18	1.7	.14	.05	.01
31	.95	---	.80	1.3	---	5.0	---	18	---	.65	.02	---
Total	30.70	37.35	24.07	28.00	32.20	67.5	186.0	484.2	146.9	20.66	15.00	0.41
Mean	0.99	1.24	0.78	0.90	1.11	2.18	6.20	15.6	4.90	0.67	0.48	0.014
Max	3.0	1.8	1.1	1.4	1.4	5.0	14	34	14	1.5	3.0	0.16
Min	0.60	0.38	0.32	0.70	0.90	1.3	3.6	7.5	1.6	0.05	0.01	0
Ac-ft	61	74	48	56	64	134	369	960	291	41	30	0.8

Cal yr 1967: Total 1,264.12 Mean 3.46 Max 44 Min 0.10 Ac-ft 2,510

Wtr yr 1968: Total 1,072.99 Mean 2.93 Max 34 Min 0 Ac-ft 2,130

Peak discharge (base, 25 cfs).--May 24 (1800) 37 cfs (1.27 ft).

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 1968. 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--43 years (1904-6, 1927-68), 192 cfs (139,000 acre-ft per year).

Extremes--Maximum discharge during year, 590 cfs Aug. 10; minimum daily, 68 cfs Apr. 15, 16.

1904-6, 1915, 1927-68: 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 poor. 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 1968 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	186	116	156	98	198	195	91	102	172	192	220	159
2	164	116	141	93	170	203	91	107	175	154	212	203
3	154	114	143	85	195	198	96	102	161	133	198	214
4	146	109	151	98	189	192	98	100	143	128	200	235
5	167	107	146	114	178	184	98	105	136	146	186	229
6	181	107	146	102	175	170	100	105	186	189	170	229
7	167	109	131	105	170	146	96	102	203	200	156	223
8	151	128	136	109	167	146	91	91	235	186	154	212
9	146	148	124	143	164	136	80	87	358	172	154	200
10	143	148	116	124	172	138	78	87	277	178	389	200
11	148	146	116	116	161	143	76	85	186	181	428	200
12	141	143	96	114	164	141	74	89	159	198	319	192
13	116	141	87	107	167	138	72	83	143	206	250	192
14	131	138	89	107	161	133	70	78	167	200	247	192
15	141	138	93	112	175	148	68	76	206	175	259	178
16	154	138	100	112	161	148	68	76	206	154	206	161
17	154	136	102	114	164	146	78	89	214	138	175	154
18	151	133	100	109	161	143	109	96	181	136	151	156
19	154	131	100	107	161	121	109	100	148	133	136	154
20	159	133	102	114	172	121	105	89	114	128	126	156
21	141	151	98	109	189	119	102	87	112	126	131	170
22	136	170	91	138	189	112	114	85	128	131	146	186
23	124	167	100	172	195	105	102	107	119	136	143	189
24	112	167	109	223	184	105	93	209	126	195	141	186
25	114	167	112	238	181	98	96	241	350	184	151	189
26	105	181	112	253	172	100	102	175	368	244	154	186
27	107	175	98	229	175	93	100	146	289	214	151	178
28	107	164	107	212	184	91	98	128	206	212	126	172
29	107	151	109	206	195	91	98	131	223	200	133	175
30	109	151	105	192	-----	93	96	133	223	209	148	198
31	109	-----	93	195	-----	91	-----	133	-----	241	146	-----
Total	4,325	4,223	3,509	4,350	5,089	4,188	2,749	3,424	5,914	5,419	5,906	5,668
Mean	140	141	113	140	175	135	91.6	110	197	175	191	189
Max	186	181	156	253	198	203	114	241	368	244	428	235
Min	105	107	87	85	161	91	68	76	112	126	126	154
Ac-ft	8,580	8,380	6,960	8,630	10,090	8,310	5,450	6,790	11,730	10,750	11,710	11,240

Cal yr 1967: Total 88,754 Mean 243 Max 1,930 Min 36 Ac-ft 176,000
 Wtr yr 1968: Total 54,764 Mean 150 Max 428 Min 68 Ac-ft 108,600

PLATTE RIVER BASIN

6-7318. Boulder Brook near Estes Park, Colo.

Location.--Lat 40°18'57", long 105°36'55", in NW¼NW¼ sec.38, T.4 N., R.73 W., on right bank 300 ft upstream from Glacier Creek trail crossing, ¾ mile upstream from mouth, and 6½ miles southwest of Estes Park.

Drainage area.--3.83 sq mi.

Records available.--June to September 1968.

Gage.--Digital water-stage recorder. Altitude of gage is 8,850 ft (from topographic map).

Extremes.--Maximum discharge during period June to September, 8.8 cfs June 8 (gage height, 1.66 ft); minimum daily, 3.0 cfs Aug. 14, 15, Sept. 27-30.

Remarks.--Records fair.

Discharge, in cfs, June to September 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									4.0	4.6	3.2	3.5
2									5.0	4.4	3.2	3.5
3									6.0	4.4	3.2	3.5
4									5.0	4.4	3.2	3.5
5									4.5	4.3	3.2	3.5
6									4.8	4.3	3.2	3.4
7									5.2	4.3	3.2	3.4
8									5.5	4.3	3.2	3.4
9									4.4	4.3	3.2	3.4
10									4.1	4.3	3.2	3.4
11									4.3	4.3	3.2	3.4
12									4.3	4.3	3.2	3.4
13									5.0	4.1	3.1	3.4
14									5.4	4.0	3.0	3.0
15									5.4	4.0	3.0	3.2
16									5.2	4.0	3.1	3.2
17									5.2	4.0	3.1	3.2
18									5.0	4.0	3.2	3.2
19									5.0	4.0	3.2	3.2
20									4.9	4.0	3.2	3.2
21									4.9	3.7	3.4	3.1
22									4.7	3.7	3.4	3.1
23									4.7	3.7	3.5	3.1
24									4.7	3.6	3.5	3.1
25									4.7	3.2	3.6	3.1
26									4.7	3.2	3.6	3.1
27									4.7	3.2	3.6	3.0
28									4.7	3.2	3.6	3.0
29									4.7	3.2	3.6	3.0
30									4.7	3.2	3.5	3.0
31		-----			-----		-----		-----	3.2	3.5	-----
TOTAL									145.4	121.4	102.1	97.7
MEAN									4.85	3.92	3.29	3.26
MAX									6.0	4.6	3.6	3.5
MIN									4.0	3.2	3.0	3.0
AC-FT									288	241	273	194

6-7320. Glacier Creek near Estes Park, Colo.

Location (revised).--Lat 40°20'41", long 105°35'00", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.5, T.4 N., R.73 W., on right bank 30 ft downstream from trail bridge, a quarter of a mile downstream from Mill Creek, 0.8 mile upstream from mouth, and 4 miles southwest of Estes Park.

Drainage area.--24.4 sq mi.

Records available.--October 1941 to September 1957, May to September 1968. Monthly discharges only for some periods, published in WSP 1310.

Gage.--Digital water-stage recorder. Altitude of gage is 7,980 ft (from topographic map). Oct. 1, 1941, to Sept. 30, 1957, graphic water-stage recorder at present site and datum.

Average discharge.--16 years, 29.9 cfs (21,650 acre-ft per year).

Extremes.--Maximum discharge during period May to September, 176 cfs June 5 (gage height, 2.53 ft); minimum daily, 11 cfs, Sept. 28. 1941-57: Maximum discharge, 352 cfs June 29, 1957 (gage height, 3.48 ft); minimum daily determined, 1.5 cfs Mar. 2-6, 1948.

Remarks.--Records good. City of Estes Park pipeline diverts water above station.

Discharge, in cfs, May to September 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								12	110	60	50	26
2								15	120	53	45	22
3								17	140	54	39	24
4								22	147	58	36	26
5								23	149	57	35	25
6								24	142	59	33	22
7								18	146	61	34	20
8								14	153	60	37	17
9								14	128	66	41	16
10								15	96	69	65	16
11								15	75	69	68	15
12								21	77	69	60	18
13								25	104	68	48	15
14								20	109	66	48	14
15								19	100	60	57	15
16								18	103	56	43	18
17								16	102	56	35	18
18								16	104	53	32	17
19								16	118	50	28	17
20								18	122	47	25	17
21								30	131	45	24	16
22							4.9	51	121	45	23	16
23							5.9	56	116	44	25	15
24							4.7	54	115	44	21	13
25							4.6	43	110	41	18	13
26							4.6	37	80	37	16	12
27							4.4	37	77	38	17	12
28							4.4	44	90	37	20	11
29							5.1	66	83	41	26	13
30							8.3	95	77	43	35	12
31		-----			-----		-----	113	-----	52	31	-----
TOTAL								984	3,345	1,658	1,115	511
MEAN								31.7	112	53.5	36.0	17.0
MAX								113	153	69	68	26
MIN								12	75	37	16	11
ACFT								1,950	6,630	3,290	2,210	1,010

Peak discharge (base, 170 cfs)--June 5 (0100) 176 cfs (2.53 ft).

PLATTE RIVER BASIN

6-7323. Beaver Brook near Estes Park, Colo.

Location.--Lat 40°22'28", long 105°37'14", in SE¼NW¼ sec.30, T.5 N., R.73 W., in Rocky Mountain National Park, on left bank ¼ mile upstream from filtration plant, 4½ miles upstream from mouth, and 5½ miles west of Estes Park.

Drainage area.--1.49 sq mi.

Records available.--April to September 1968.

Gage.--Digital water-stage recorder. Datum of gage is 8,590 ft (from topographic map).

Extremes.--Maximum discharge during period April to September, 14 cfs June 4 (gage height, 1.46 ft); minimum daily, 0.12 cfs Sept. 12-14, 19-21, 25-28, 30.

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

Discharge, in cfs, April to September 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							.22	.41	5.3	1.6	.41	.17
2							.22	.44	8.1	1.5	.39	.17
3							.22	.49	12	1.4	.39	.21
4							.21	.52	10	1.4	.35	.21
5							.20	.52	8.6	1.3	.35	.19
6							.20	.52	8.6	1.2	.33	.17
7							.20	.49	8.9	1.2	.33	.14
8							.20	.52	9.3	1.1	.35	.17
9							.20	.52	8.0	1.1	.41	.14
10							.20	.55	7.0	.99	.41	.14
11							.24	.58	6.5	.95	.33	.14
12							.24	.61	5.3	.92	.30	.12
13							.23	.61	4.1	.85	.30	.12
14							.23	.64	4.4	.81	.33	.12
15							.23	.64	4.9	.78	.28	.14
16							.23	.67	4.4	.71	.28	.14
17							.23	.67	4.1	.67	.28	.17
18							.21	.67	3.8	.64	.26	.14
19							.21	.67	3.5	.61	.26	.12
20							.21	.71	3.3	.58	.23	.12
21							.21	.81	3.1	.55	.23	.12
22							.21	.92	2.8	.55	.23	.14
23							.21	1.1	2.7	.52	.23	.14
24							.21	1.2	2.6	.49	.21	.14
25							.23	1.2	2.4	.47	.21	.12
26							.23	1.4	2.2	.47	.21	.12
27							.23	1.7	2.1	.49	.21	.12
28							.26	1.9	2.0	.47	.19	.12
29							.28	2.4	1.8	.44	.23	.14
30							.33	3.1	1.8	.44	.21	.12
31		-----			-----		-----	3.9	-----	.47	.19	-----
TOTAL							6.73	31.08	153.6	25.67	8.90	4.32
MEAN							.22	1.00	5.12	.83	.20	.14
MAX							.33	3.9	12	1.6	.41	.21
MIN							.20	.41	1.8	.44	.10	.12
AC-FT							13	62	305	51	18	8.6

Peak discharge (base, 14 cfs).--June 4 (0245) 14 cfs (1.46 ft).

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 1968. 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.--22 years, 125 cfs (90,500 acre-ft per year), adjusted for inflow from Alva B. Adams tunnel Aug. 10, 1947, to Aug. 2, 1950.

Extremes.--Maximum discharge during year, 942 cfs June 21 (gage height, 5.53 ft); minimum daily, 13 cfs Jan. 30, Feb. 1, 2, 7-14, 16-19. 1946-68: 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. Diversions above station from Wind River to Lake Estes (bypassing this station) were 162 acre-ft during water year 1968.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	69	40	26	16	13	16	29	42	415	328	230	79
2	66	42	24	15	13	17	30	58	465	300	200	70
3	64	37	25	15	14	17	26	67	577	309	178	79
4	64	42	24	15	14	20	27	85	660	319	170	91
5	99	40	23	15	14	20	25	96	695	307	159	84
6	90	39	21	15	14	20	24	101	709	292	148	75
7	86	39	20	15	13	17	23	87	721	307	149	65
8	77	40	20	16	13	16	22	75	685	304	155	59
9	74	39	20	16	13	15	23	70	555	318	182	54
10	76	35	20	16	13	16	21	72	469	318	272	53
11	73	34	19	15	13	16	22	72	385	328	250	51
12	67	34	18	15	13	18	24	82	413	342	209	51
13	61	34	18	15	13	17	26	95	577	323	179	51
14	60	34	17	15	13	17	24	83	610	307	175	49
15	61	33	16	14	14	16	24	76	574	282	200	51
16	56	33	16	14	13	16	26	73	594	262	155	62
17	56	30	17	14	13	17	30	69	585	254	136	61
18	54	30	18	14	13	16	28	67	599	241	125	56
19	54	30	18	14	13	16	28	64	641	238	111	60
20	49	29	18	14	14	16	28	64	697	219	102	57
21	48	29	18	14	14	16	28	76	764	216	98	54
22	46	27	17	14	14	16	26	128	698	207	95	53
23	44	30	17	15	14	19	24	171	681	204	97	52
24	44	28	18	15	14	17	24	177	623	212	88	46
25	45	29	18	15	14	18	26	144	555	194	77	44
26	46	27	18	15	14	20	26	129	429	194	73	42
27	38	27	18	14	16	22	25	125	463	187	78	40
28	44	29	17	14	16	21	25	136	519	182	92	39
29	44	37	18	14	14	23	26	201	485	172	95	46
30	45	27	17	13	- - - -	28	30	307	435	207	104	44
31	43	- - - -	17	14	- - - -	29	- - - -	387	- - - -	254	89	- - - -
Total	1,843	1,004	591	455	396	568	770	3,479	17,278	8,127	4,471	1,718
Mean	59.5	33.5	19.1	14.7	13.7	18.3	25.7	112	576	262	144	57.3
Max	99	42	26	16	16	29	30	387	764	342	272	91
Min	38	27	16	13	13	15	21	42	385	172	73	39
Ac-ft	3,660	1,990	1,170	902	785	1,130	1,530	6,900	34,270	16,120	8,870	3,410

Cal yr 1967: Total 41,784.7 Mean 114 Max 698 Min 7.0 Ac-ft 82,880
Wtr yr 1968: Total 40,700 Mean 111 Max 764 Min 13 Ac-ft 80,730

Peak discharge (base, 600 cfs).--June 21 (0230) 942 cfs (5.53 ft).

PLATTE RIVER BASIN

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

Location.--Lat 40°22'35", long 105°29'06", in NE¼ 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 1968. 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, 443 cfs June 21 (gage height, 3.57 ft); minimum daily, 14 cfs Jan. 19-24, Feb. 2, 7-12, 15-19. 1930-68: 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 1968); 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 (37,270 acre-ft in 1968) 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	71	41	26	18	16	18	28	42	139	96	123	82
2	68	43	26	18	14	18	29	60	174	131	104	73
3	66	43	26	18	16	18	25	68	221	152	102	82
4	66	42	26	17	16	20	26	88	219	146	100	95
5	101	40	24	16	16	22	26	98	222	129	104	86
6	92	39	24	16	16	24	26	104	202	113	105	78
7	88	39	24	16	14	22	24	90	193	128	108	68
8	80	39	22	16	14	21	24	78	187	126	113	62
9	77	39	20	16	14	16	24	73	121	130	130	56
10	80	35	20	16	14	17	22	74	126	128	171	56
11	74	33	20	16	14	18	23	75	115	140	130	54
12	68	33	19	16	14	24	25	86	150	148	106	54
13	62	33	18	16	15	23	27	97	241	125	102	52
14	61	33	18	16	15	20	26	86	192	123	113	50
15	64	32	18	16	14	24	26	81	172	118	128	52
16	59	33	18	16	14	23	27	77	184	111	90	64
17	57	31	18	16	14	23	31	73	169	113	89	62
18	55	30	18	16	14	22	28	72	189	111	90	58
19	52	30	18	14	14	22	28	67	212	118	87	61
20	49	29	18	14	16	17	28	69	216	108	88	58
21	48	29	18	14	17	19	28	81	234	109	87	56
22	45	28	18	14	16	18	26	134	177	111	84	55
23	44	30	18	14	16	21	26	177	204	113	84	54
24	43	28	18	14	16	20	26	160	175	121	77	48
25	44	30	18	15	17	20	26	119	141	109	77	46
26	45	28	18	17	16	22	26	104	95	113	75	44
27	37	28	18	17	19	24	26	99	138	112	81	42
28	42	30	18	17	18	20	26	113	166	111	97	41
29	43	36	18	17	16	23	27	151	156	101	97	48
30	44	28	18	17	---	27	31	179	152	129	106	46
31	44	---	18	17	---	28	---	157	---	157	92	---
Total	1,869	1,012	619	496	445	654	791	3,032	5,282	3,780	3,140	1,783
Mean	60.3	33.7	20.0	16.0	15.3	21.1	26.4	97.8	176	122	101	59.4
Max	101	43	26	18	19	28	31	179	241	157	171	95
Min	37	28	18	14	14	16	22	42	95	96	75	41
Ac-ft	3,710	2,010	1,230	984	883	1,300	1,570	6,010	10,480	7,500	6,230	3,540

Cal yr 1967 : Total 22,925.9 Mean 62.8 Max 236 Min 8.4 Ac-ft 45,470
 Wtr yr 1968 : Total 22,903 Mean 62.6 Max 241 Min 14 Ac-ft 45,430

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 1968. 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, 517 cfs June 21 (gage height, 2.98 ft); minimum not determined.

1887-92, 1895-1903, 1926-33, 1938-49, 1951-68: 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 poor. 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 sts. 9-0130 for diversion for water year 1968); 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 (37,270 acre-ft in 1968), and Dille tunnel since Apr. 20, 1959 (6,220 acre-ft in 1968), and returned to the river just below this station.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	95	61	30	25	20	26	35	54	192	151	174	106
2	90	61			23	26	35	74	200	168	134	95
3	86	51			25	25	36	95	245	192	119	97
4	78	60			24	28	26	112	311	192	121	121
5	112	58			20	29	36	128	333	179	112	114
6	101	56	30	25	26	32	35	136	333	166	117	106
7	86	64			23	29	32	126	326	158	108	95
8	77	61			27	28	30	117	315	158	106	86
9	72	60			27	26	26	108	257	166	144	80
10	72	58			26	23	35	106	221	168	179	75
11	72	51	30	25	29	24	34	108	189	176	124	75
12	66	50			25	26	33	110	184	194	90	74
13	67	50			21	34	35	126	283	171	86	74
14	78	49			25	28	33	119	293	154	97	69
15	84	49			28	25	35	112	245	144	124	67
16	78	46	30	25	24	28	37	110	293	141	84	78
17	75	46			23	33	46	108	267	131	74	80
18	72	44			29	28	46	108	273	124	77	78
19	72	45			23	26	42	101	297	126	70	78
20	69	43			26	27	42	99	318	128	69	77
21	67	45	30	25	28	22	48	108	345	117	77	72
22	66	36			26	24	45	164	270	114	80	72
23	64	44			26	26	38	239	297	146	78	72
24	64	43			26	27	44	239	273	166	77	66
25	51	45			22	26	44	194	267	161	69	61
26	64	38	30	25	28	26	43	171	189	168	70	58
27	61	20			26	26	43	158	189	164	70	57
28	60	30			28	29	42	164	224	161	90	54
29	63	36			26	27	43	174	208	151	106	58
30	58	40			---	32	45	205	210	154	128	61
31	66	---	---	---	---	35	---	202	---	197	117	---
Total	2,286	1,440	930	775	730	851	1,144	4,175	7,847	4,886	3,171	2,356
Mean	73.7	48.0	30	25	25.2	27.5	38.1	135	262	158	102	78.5
Max	112	64	-	-	29	35	48	239	345	197	179	121
Min	51	20	-	-	20	22	26	54	184	114	69	54
Ac-ft	4,530	2,860	1,840	1,540	1,450	1,690	2,270	8,280	15,560	9,690	6,290	4,670

Cal yr 1967 : Total 25,348

Mean 69.4

Max 364

Min -

Ac-ft 50,280

Wtr yr 1968 : Total 30,591

Mean 83.6

Max 345

Min -

Ac-ft 60,680

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 1968. 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, 95,090 acre-ft July 31, Aug. 1 (elevation, 8,596.20 ft); minimum observed, 91,620 acre-ft Jan. 2-6 (elevation, 8,595.14 ft). Maximum contents observed during period 1932-68, 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 1968. 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, 54,820 acre-ft June 17 (gage height, 181.12 ft); minimum observed, 31,350 acre-ft Oct. 1 (gage height, 141.98 ft). Maximum contents observed during 1900-1901, 1902-68, 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 1968. 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, 129,000 acre-ft May 20 (elevation, 5,422.12 ft); minimum contents, 54,640 acre-ft Oct. 27 (elevation, 5,371.92 ft). Maximum contents observed during period 1951-68, 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 1968. 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, 99,070 acre-ft Mar. 31 to Apr. 2 (elevation, 5,750.25 ft); minimum observed, 49,560 acre-ft Sept. 30 (elevation, 5,700.75 ft). Maximum contents observed during period 1954-68, 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.

Month-end elevation and contents, water year October 1967 to September 1968

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.....	8,595.37	92,370	-	141.74	31,230	-
Oct. 31.....	8,595.27	92,050	-320	147.68	34,290	+3,060
Nov. 30.....	8,595.30	92,140	+90	151.36	36,280	+1,990
Dec. 31.....	8,595.26	92,010	-130	153.46	37,440	+1,160
Calendar year 1967...	-	-	+1,480	-	-	+5,820
Jan. 31.....	8,595.16	91,690	-320	155.26	38,460	+1,020
Feb. 29.....	8,595.18	91,750	+60	157.34	39,650	+1,190
Mar. 31.....	8,595.59	93,090	+1,340	161.00	41,790	+2,140
Apr. 30.....	8,595.85	93,940	+850	176.80	51,850	+10,060
May 31.....	8,595.98	94,360	+420	180.42	54,330	+2,480
June 30.....	8,596.11	94,790	+430	177.30	52,190	-2,140
July 31.....	8,596.20	95,090	+300	165.26	44,380	-7,810
Aug. 31.....	8,596.15	94,930	-160	166.38	45,070	+690
Sept. 30.....	8,596.11	94,790	-140	157.92	39,980	-5,090
Water year 1967-68...	-	-	+2,420	-	-	+8,750
Horsetooth Reservoir			Carter Lake			
Sept. 30.....		a59,280	-		a65,910	-
Oct. 31.....	5,372.15	54,920	-4,360	5,708.40	56,430	-9,480
Nov. 30.....	5,375.35	58,790	+3,870	5,717.90	65,420	+8,990
Dec. 31.....	5,385.75	72,170	+13,380	5,725.85	73,240	+7,820
Calendar year 1967...	-	-	+14,180	-	-	+20,580
Jan. 31.....	5,395.10	85,260	+13,090	5,736.99	84,690	+11,450
Feb. 29.....	5,403.48	97,880	+12,620	5,744.21	92,450	+7,760
Mar. 31.....		a112,300	+14,420		a99,070	+6,620
Apr. 30.....	5,419.49	124,300	+12,000	5,750.02	98,810	-260
May 31.....	5,422.00	128,800	+4,500	5,749.65	98,410	-400
June 30.....		a125,900	-2,900		a96,390	-2,020
July 31.....	5,410.27	108,700	-17,200	5,726.73	74,150	-22,240
Aug. 31.....		a85,930	-22,770		a59,640	-14,510
Sept. 30.....	5,383.68	69,410	-16,520	5,700.75	49,560	-10,080
Water year 1967-68...	-	-	+10,130	-	-	-16,350

† Elevation or gage height at 1700.

a No elevation record; contents estimated.

Location.--Lat 40°21'00", long 104°47'04", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ 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.

Records available.--April 1914 to October 1915, March 1927 to September 1968. Prior to October 1933 monthly discharge only, published in WSP 1310. Published as Thompson River at mouth, near La Salle 1934-47.

Extremes.--Maximum discharge during year, 504 cfs May 24 (gage height, 3.43 ft); minimum daily, 2.3 cfs May 9.

1914-15, 1927-68: 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.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	67	85	78	61	54	56	45	19	32	33	46	19
2	63	84	72	64	56	57	45	15	33	36	46	23
3	63	87	78	58	56	56	50	6.5	30	36	44	26
4	64	87	78	63	56	57	48	3.2	48	32	48	114
5	67	87	75	66	56	56	53	3.8	43	40	48	139
6	67	87	72	64	56	56	51	4.1	27	48	44	151
7	69	89	66	60	53	54	50	6.0	31	43	46	149
8	64	89	70	61	56	53	46	5.0	82	40	53	149
9	60	89	67	63	53	53	36	2.3	220	34	60	111
10	54	87	69	63	54	57	30	54	153	37	75	96
11	50	85	72	63	53	56	30	77	111	38	67	94
12	48	84	67	61	54	54	27	77	102	43	50	78
13	44	85	58	61	54	56	25	74	107	46	34	87
14	49	85	60	63	50	56	23	46	94	46	27	66
15	56	85	69	63	56	53	15	25	77	43	32	51
16	64	85	72	61	54	53	16	21	129	43	25	49
17	74	87	72	61	54	53	23	21	197	42	24	49
18	75	85	66	57	54	51	38	16	153	43	25	51
19	75	85	63	56	54	51	36	16	133	45	24	46
20	70	85	70	57	57	51	36	16	167	49	17	43
21	74	85	64	58	58	51	33	13	157	48	13	50
22	72	89	60	61	58	53	34	11	98	48	12	53
23	74	87	66	61	60	51	31	37	48	48	13	51
24	75	85	70	60	60	51	23	168	43	46	14	48
25	80	93	69	63	58	49	23	179	67	48	15	46
26	85	84	69	67	58	49	23	64	48	49	14	46
27	87	78	66	64	58	48	23	43	43	47	15	48
28	89	78	70	61	57	46	27	33	24	45	14	46
29	89	80	69	61	56	46	24	20	28	43	15	46
30	87	78	66	60	---	44	21	20	33	44	20	46
31	87	---	50	61	---	45	---	19	---	44	20	---
Total	2,142	2,559	2,113	1,903	1,613	1,622	985	1,114.9	2,558	1,327	1,000	2,071
Mean	69.1	85.3	68.2	61.4	55.6	52.3	32.8	36.0	85.3	42.8	32.3	69.0
Max	89	93	78	67	60	57	53	179	220	49	75	151
Min	44	78	50	56	50	44	15	2.3	24	32	12	19
Ac-ft	4,250	5,080	4,190	3,770	3,200	3,220	1,950	2,210	5,070	2,630	1,980	4,110
Cal yr	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
Total	23,060.30	21,007.9	20,060.30	19,030.30	18,030.30	17,030.30	16,030.30	15,030.30	14,030.30	13,030.30	12,030.30	11,030.30
Mean	63.2	57.4	55.6	52.3	50.0	47.7	45.4	43.1	40.8	38.5	36.2	33.9
Max	279	220										

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 1968 (discontinued).

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

Average discharge.--12 years, 248 cfs (179,500 acre-ft per year).

Extremes.--Maximum discharge during year, 2,090 cfs June 21 (gage height, 5.56 ft); minimum daily, 13 cfs Feb. 26.
1956-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	80	86	29	18	15	15	21	123	1,090	1,030	490	129
2	69	64	26	18	16	15	22	136	1,240	978	525	114
3	58	62	26	18	16	15	17	145	1,380	923	550	118
4	59	60	26	18	16	15	19	155	1,360	874	490	157
5	105	60	26	18	16	16	22	167	1,500	895	442	174
6	80	61	25	19	17	16	20	167	1,540	790	411	174
7	112	62	24	18	18	16	18	160	1,370	754	393	112
8	107	62	24	17	17	16	18	152	1,290	784	411	103
9	105	56	25	16	17	16	18	148	1,120	742	515	112
10	114	52	26	16	17	16	18	150	938	754	626	141
11	192	52	26	16	17	15	21	143	930	754	505	141
12	187	41	23	16	17	15	22	155	1,210	778	434	107
13	172	37	23	16	17	16	22	164	1,550	712	452	123
14	177	36	24	17	17	16	19	160	1,640	654	485	141
15	177	34	24	17	17	17	22	172	1,690	670	485	148
16	162	35	24	17	17	17	24	164	1,700	659	375	143
17	174	33	24	16	16	17	22	143	1,600	585	300	141
18	155	29	24	15	16	17	20	94	1,600	520	250	120
19	104	32	24	15	16	17	22	73	1,610	570	218	150
20	96	31	23	15	16	17	22	83	1,730	510	212	138
21	94	29	22	15	15	17	21	99	1,780	525	212	127
22	94	29	22	15	15	19	20	218	1,760	402	215	141
23	94	34	23	15	15	18	17	304	1,720	420	203	138
24	92	33	24	15	15	17	19	330	1,590	530	179	132
25	90	32	22	17	14	17	22	286	1,520	590	167	123
26	90	30	20	17	13	17	19	268	1,270	585	160	116
27	90	29	19	16	14	17	19	271	1,210	550	160	92
28	90	29	20	16	15	18	17	337	1,300	560	172	55
29	88	29	20	15	15	21	20	485	1,260	535	179	48
30	88	29	19	15	- - - -	23	35	682	1,170	500	169	47
31	87	- - - -	18	15	- - - -	24	- - - -	867	- - - -	535	148	- - - -
Total	3,482	1,288	725	507	462	528	618	7,001	42,668	20,668	10,533	3,705
Mean	112	42.9	23.4	16.4	15.9	17.0	20.6	226	1,422	667	340	124
Max	192	86	29	19	18	24	35	867	1,780	1,030	626	174
Min	58	29	18	15	13	15	17	73	930	402	148	47
Ac-ft	6,910	2,550	1,440	1,010	916	1,050	1,230	13,890	84,630	40,990	20,890	7,350
Cal yr 1967: Total	84,309		Mean	231	Max	1,560	Min	10	Ac-ft	167,200		
Wtr yr 1968: Total	92,185		Mean	252	Max	1,780	Min	13	Ac-ft	182,800		

Note.--No gage-height record Dec. 5 to Mar. 26.

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 1968.

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

Average discharge.--8 years, 5.98 cfs (4,330 acre-ft per year).

Extremes.--Maximum discharge during year, 53 cfs June 20 (gage height, 2.46 ft); minimum daily, 0.34 cfs Feb. 17-20.
1960-68: Maximum discharge, 108 cfs June 16, 1965 (gage height, 3.41 ft), from rating curve extended above 59 cfs; minimum daily, 0.10 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.8	2.3	1.3	0.66	0.44	0.40	0.47	0.80	18	19	13	4.7
2	3.8	2.3	1.3	.66	.44	.40	.47	1.0	23	18	12	4.4
3	3.8	2.2	1.3	.66	.44	.38	.48	1.2	27	18	11	5.0
4	5.1	2.1	1.3	.66	.44	.38	.48	1.4	30	18	10	5.2
5	5.4	2.0	1.2	.66	.44	.38	.44	1.6	32	18	9.9	4.7
6	4.8	2.0	1.2	.66	.44	.37	.44	1.3	32	18	9.6	4.4
7	4.6	1.9	.92	.66	.44	.37	.40	1.3	32	17	9.2	3.8
8	4.4	1.9	.86	.64	.44	.37	.40	1.1	32	17	9.9	3.6
9	4.3	1.9	.86	.64	.40	.37	.40	1.1	27	19	14	3.5
10	4.2	1.8	.80	.64	.40	.37	.44	1.2	23	20	15	3.3
11	4.0	1.7	.80	.64	.40	.37	.60	1.5	23	20	13	3.2
12	3.8	1.7	.75	.64	.40	.37	.60	2.0	27	20	12	3.2
13	3.4	1.6	.75	.64	.40	.37	.60	2.5	32	19	11	3.2
14	3.5	1.6	.75	.60	.37	.37	.60	2.1	32	18	12	3.2
15	3.5	1.7	.75	.60	.37	.37	.60	2.0	33	17	11	3.4
16	3.6	1.6	.70	.60	.37	.37	.60	1.9	32	16	9.3	3.6
17	3.6	1.6	.70	.60	.34	.37	.60	1.9	32	15	8.5	3.5
18	3.5	1.5	.70	.51	.34	.37	.60	1.9	34	15	8.2	3.4
19	3.3	1.5	.70	.51	.34	.44	.55	2.0	37	15	7.4	3.2
20	3.1	1.5	.70	.51	.34	.51	.51	2.1	41	15	7.1	3.0
21	2.9	1.5	.70	.51	.37	.51	.51	2.9	40	14	6.8	2.9
22	3.0	1.5	.70	.51	.37	.44	.44	5.5	37	14	6.7	2.7
23	2.9	1.5	.66	.48	.37	.42	.40	5.9	34	14	7.0	2.7
24	2.9	1.5	.66	.48	.37	.40	.40	5.1	30	13	6.4	2.6
25	3.0	1.5	.66	.48	.40	.40	.40	4.3	26	13	6.0	2.4
26	2.7	1.5	.66	.48	.40	.40	.40	4.2	24	13	5.5	2.4
27	3.4	1.4	.66	.48	.40	.40	.40	4.4	26	12	5.6	2.4
28	2.6	1.3	.66	.48	.40	.45	.40	5.2	26	11	5.4	2.4
29	2.6	1.4	.66	.51	.40	.47	.45	9.7	26	11	5.9	2.5
30	2.4	1.3	.66	.48	- - - -	.47	.60	15	23	13	5.4	2.3
31	2.4	- - - -	.66	.48	- - - -	.47	- - - -	17	- - - -	13	5.0	- - - -
Total	110.3	50.8	25.68	17.76	11.47	12.53	14.68	111.10	891	493	278.8	100.8
Mean	3.56	1.69	0.83	0.57	0.40	0.40	0.49	3.58	29.7	15.9	8.98	3.36
Max	5.4	2.3	1.3	0.66	0.44	0.51	0.60	17	41	20	15	5.2
Min	2.4	1.3	0.66	0.48	0.34	0.37	0.40	0.80	18	11	5.0	2.3
Ac-ft	219	101	51	35	23	25	29	220	1,770	978	553	200

Cal yr 1967: Total 2,177.62 Mean 5.97 Max 36 Min 0.14 Ac-ft 4,320

Wtr yr 1968: Total 2,117.92 Mean 5.79 Max 41 Min 0.34 Ac-ft 4,200

Peak discharge (base, 30 cfs).--June 4 (1830) 41 cfs (2.32 ft); June 20 (1830) 53 cfs (2.46 ft).

Note.--No gage-height record Dec. 13 to Jan. 15.

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 1968.

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.--8 years, 1.01 cfs (731 acre-ft per year).

Extremes.--Maximum discharge during year, 20 cfs June 20 (gage height, 1.87 ft); minimum daily, 0.08 cfs Apr. 26 to May 14.

1960-68: Maximum discharge, that of June 20, 1968; maximum gage height, 1.92 ft, June 17, 1965; minimum daily discharge, 0.01 cfs Apr. 25 to May 14, 1961.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.38	0.28	0.24	0.17	0.13	0.11	0.11	0.08	0.93	4.8	1.2	0.53
2	.38	.28	.22	.17	.13	.11	.09	.08	1.5	4.8	1.1	.53
3	.40	.28	.22	.17	.12	.11	.09	.08	2.6	4.6	1.3	.56
4	.55	.28	.22	.17	.12	.11	.09	.08	3.6	4.4	1.2	.56
5	.38	.28	.22	.17	.12	.11	.09	.08	4.9	4.6	1.1	.56
6	.38	.28	.22	.16	.12	.11	.09	.08	5.5	3.9	.98	.53
7	.38	.26	.22	.16	.12	.11	.09	.08	5.6	3.6	.93	.53
8	.35	.28	.22	.16	.12	.11	.09	.08	5.2	3.9	.93	.50
9	.35	.28	.22	.16	.12	.11	.09	.08	4.7	3.6	1.2	.50
10	.35	.28	.21	.16	.12	.11	.09	.08	4.8	3.3	1.1	.47
11	.35	.28	.19	.16	.12	.11	.09	.08	5.8	3.3	1.0	.47
12	.35	.28	.19	.16	.11	.11	.09	.08	8.5	3.1	.93	.47
13	.33	.28	.19	.16	.11	.11	.09	.08	10	2.8	.88	.44
14	.33	.28	.18	.16	.11	.11	.09	.08	10	2.6	.88	.44
15	.33	.28	.18	.16	.11	.11	.09	.09	10	2.5	.88	.44
16	.33	.28	.18	.15	.11	.11	.09	.09	9.9	2.3	.84	.47
17	.33	.28	.18	.15	.11	.11	.09	.09	10	2.2	.80	.47
18	.33	.28	.18	.15	.11	.11	.09	.09	11	2.0	.80	.50
19	.33	.28	.18	.15	.11	.11	.09	.11	11	1.9	.75	.47
20	.30	.28	.18	.15	.11	.11	.09	.11	13	1.9	.71	.47
21	.30	.26	.18	.15	.11	.11	.09	.12	11	1.7	.71	.41
22	.30	.26	.18	.15	.11	.11	.09	.15	10	1.6	.67	.41
23	.30	.26	.18	.13	.11	.11	.09	.15	9.0	1.6	.67	.41
24	.30	.24	.17	.13	.11	.11	.09	.13	8.0	1.5	.64	.41
25	.30	.24	.17	.13	.11	.11	.09	.12	7.0	1.5	.60	.41
26	.30	.24	.17	.13	.11	.11	.08	.15	6.7	1.5	.60	.38
27	.30	.24	.17	.12	.11	.11	.08	.16	7.3	1.5	.60	.38
28	.30	.24	.17	.12	.11	.11	.08	.22	7.3	1.4	.60	.38
29	.30	.24	.17	.12	.11	.11	.08	.33	6.7	1.3	.60	.38
30	.30	.24	.17	.12	-----	.11	.08	.38	5.4	1.4	.60	.35
31	.28	-----	.17	.12	-----	.11	-----	.60	-----	1.4	.56	-----
Total	10.49	8.04	5.94	4.62	3.32	3.41	2.67	4.21	216.93	82.5	26.36	13.83
Mean	0.34	0.27	0.19	0.15	0.11	0.11	0.089	0.14	7.23	2.66	0.85	0.46
Max	0.55	0.28	0.24	0.17	0.13	0.11	0.11	0.60	13	4.8	1.3	0.56
Min	0.28	0.24	0.17	0.12	0.11	0.11	0.08	0.08	0.93	1.3	0.56	0.35
Ac-ft	21	16	12	9.2	6.6	6.8	5.3	8.4	430	164	52	27

Cal yr 1967: Total 359.98 Mean 0.99 Max 10 Min 0.06 Ac-ft 714

Wtr yr 1968: Total 382.32 Mean 1.04 Max 13 Min 0.08 Ac-ft 758

Peak discharge (base, 10 cfs).--June 20 (1650) 20 cfs (1.87 ft).

Note.--No gage-height record Dec. 5 to Jan. 19.

PLATTE RIVER BASIN

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.--12.3 sq mi (revised).

Records available.--October 1960 to September 1968.

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

Average discharge.--8 years, 6.86 cfs (4,970 acre-ft per year).

Extremes.--Maximum discharge during year, 103 cfs June 15 (gage height, 1.55 ft); minimum daily, 1.3 cfs Apr. 7.

1960-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.7	2.7	2.0	1.6	1.5	1.5	1.8	2.8	22	26	6.9	2.8
2	2.7	2.1	2.0	1.6	1.5	1.5	1.5	3.2	24	22	6.0	2.8
3	2.6	2.2	1.8	1.6	1.5	1.5	1.5	3.9	28	20	6.9	3.2
4	3.2	2.7	1.8	1.6	1.5	1.5	1.6	4.3	36	19	7.2	3.4
5	4.3	2.2	1.8	1.6	1.5	1.5	1.4	4.1	40	20	6.0	3.4
6	3.0	2.2	1.8	1.6	1.5	1.5	1.4	3.9	41	18	5.5	3.0
7	3.0	2.2	1.8	1.5	1.5	1.5	1.3	3.7	48	16	5.2	2.7
8	3.0	2.2	1.8	1.5	1.5	1.5	1.4	3.7	52	16	5.0	2.7
9	2.8	2.2	1.8	1.5	1.5	1.5	1.5	3.7	46	16	7.7	2.7
10	2.8	2.4	1.8	1.5	1.5	1.5	1.6	3.9	42	14	1.0	2.8
11	2.8	2.4	1.6	1.5	1.5	1.6	2.1	3.9	43	14	7.4	2.7
12	2.8	2.2	1.6	1.5	1.5	1.6	2.0	4.5	53	15	6.0	2.7
13	2.7	2.2	1.5	1.5	1.5	1.6	1.8	4.5	62	12	5.8	2.6
14	2.7	2.2	1.5	1.5	1.5	1.6	1.8	4.3	55	12	6.3	2.6
15	3.0	2.2	1.6	1.6	1.5	1.6	2.0	4.5	67	11	5.2	2.6
16	2.7	2.4	1.6	1.6	1.5	1.6	1.8	4.8	57	10	4.5	2.8
17	2.8	2.2	1.5	1.6	1.5	1.6	1.4	4.5	52	9.6	4.3	2.8
18	2.8	2.0	1.5	1.5	1.5	1.6	1.6	4.5	57	9.2	4.1	2.8
19	2.7	2.1	1.5	1.5	1.5	1.5	1.5	4.5	58	9.2	3.9	2.8
20	2.7	2.1	1.5	1.5	1.5	1.5	1.5	4.5	52	8.4	3.7	2.6
21	2.6	1.5	1.5	1.5	1.5	1.4	1.5	5.5	59	8.0	3.7	2.6
22	2.7	1.8	1.5	1.5	1.5	1.4	1.4	8.0	57	8.0	3.4	2.4
23	2.7	2.1	1.5	1.5	1.5	1.4	1.4	9.2	54	8.0	3.4	2.4
24	2.6	2.0	1.5	1.5	1.5	1.5	1.5	9.6	53	8.0	3.2	2.4
25	2.6	2.0	1.5	1.5	1.5	1.5	1.5	8.4	42	7.4	3.0	2.4
26	2.6	2.0	1.5	1.5	1.5	1.5	1.5	9.6	33	9.2	2.8	2.4
27	2.2	2.0	1.5	1.5	1.5	1.4	1.4	10	35	9.2	3.0	2.4
28	2.8	2.0	1.5	1.5	1.5	1.5	1.4	12	35	7.4	3.0	2.4
29	2.4	2.0	1.6	1.5	1.5	2.0	1.8	14	34	6.9	3.2	2.8
30	2.6	2.0	1.6	1.5	2.2	2.2	2.4	18	31	7.4	3.2	2.6
31	2.8	- - - -	1.6	1.5	- - - -	2.1	- - - -	20	- - - -	8.4	3.0	- - - -
Total	86.4	64.5	50.6	47.4	43.5	48.7	48.3	206.0	1,368	385.3	152.5	81.3
Mean	2.79	2.15	1.63	1.53	1.50	1.57	1.61	6.65	45.6	12.4	4.92	2.71
Max	4.3	2.7	2.0	1.6	1.5	2.2	2.4	20	67	26	10	3.4
Min	2.2	1.5	1.5	1.5	1.5	1.4	1.3	2.8	22	6.9	2.8	2.4
Ac-ft	171	128	100	94	86	97	96	409	2,710	764	372	161

Cal yr 1967: Total 2,217.74 Mean 6.08 Max 54 Min 0.96 Ac-ft 4,400
 Wtr yr 1968: Total 2,582.5 Mean 7.06 Max 67 Min 1.3 Ac-ft 5,120

Peak discharge (base, 40 cfs).--June 15 (2030) 103 cfs (1.55 ft).

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 1968.

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

Average discharge.--12 years, 60.4 cfs (43,730 acre-ft per year).

Extremes.--Maximum discharge during year, 415 cfs June 21 (gage height, 3.60 ft); minimum daily, 7.2 cfs Feb. 26.

1956-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	21	14	9.5	9.4	7.8	12	18	152	227	83	30
2	30	27	13	9.5	9.4	7.8	12	22	167	221	73	30
3	29	25	12	9.5	9.4	7.8	12	24	200	221	66	33
4	31	25	12	9.5	9.4	7.8	12	29	230	203	69	36
5	51	23	12	9.5	9.2	7.8	12	30	251	194	67	34
6	37	24	12	9.5	9.2	7.8	11	31	265	200	58	32
7	34	27	12	9.2	9.2	7.8	11	28	279	206	56	29
8	32	27	12	9.2	9.4	7.8	10	28	279	212	55	26
9	31	28	12	9.2	9.0	7.8	11	26	248	224	91	25
10	31	28	12	9.2	8.6	8.0	11	25	221	237	117	25
11	30	30	12	9.0	8.4	8.0	12	25	224	230	91	25
12	29	32	11	9.0	8.2	8.0	14	27	227	230	78	25
13	25	27	10	9.0	8.0	8.0	16	30	268	209	69	25
14	27	24	10	9.0	7.8	7.8	13	26	272	200	73	25
15	28	21	10	9.0	7.6	7.8	15	28	262	185	69	26
16	25	20	11	9.0	7.5	8.0	16	29	275	182	56	28
17	26	19	11	9.0	7.4	8.0	14	25	279	191	51	28
18	26	25	11	9.0	7.4	8.2	15	29	293	194	49	27
19	24	24	11	9.0	7.4	8.6	14	27	310	185	45	28
20	23	19	10	9.0	7.4	9.5	14	27	321	140	42	25
21	22	18	9.0	9.0	7.4	10	14	29	359	100	41	23
22	22	15	10	9.2	7.4	10	11	43	332	91	41	20
23	21	15	11	9.2	7.4	10	12	60	293	87	41	19
24	21	16	11	9.4	7.5	9.5	14	64	272	81	37	18
25	22	15	11	9.4	7.4	9.5	11	55	227	75	34	17
26	22	14	10	9.2	7.2	9.8	11	58	176	78	34	16
27	18	13	10	9.2	7.4	10	10	55	188	80	35	16
28	20	13	10	9.2	7.6	11	12	55	200	77	37	16
29	21	14	10	9.2	7.8	11	12	78	209	66	38	18
30	23	14	9.8	9.2	- - - -	11	15	115	227	72	37	18
31	22	- - - -	9.7	9.4	- - - -	12	- - - -	133	- - - -	98	32	- - - -
Total	834	643	341.5	285.4	236.4	273.9	379	1,279	7,506	4,996	1,765	743
Mean	26.9	21.4	11.0	9.21	8.15	8.84	12.6	41.3	250	161	56.9	24.8
Max	51	32	14	9.5	9.4	12	16	133	359	237	117	36
Min	18	13	9.0	9.0	7.2	7.8	10	18	152	66	32	16
Ac-ft	1,650	1,280	677	566	469	543	752	2,540	14,890	9,910	3,500	1,470
Cal yr 1967: Total	18,121.7		Mean	49.6	Max	318	Min	3.6	Ac-ft	35,940		
Wtr yr 1968: Total	19,282.2		Mean	52.7	Max	359	Min	7.2	Ac-ft	38,250		

Peak discharge (base, 250 cfs)

Note.--No gage-height record Dec. 1 to Apr. 12.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
6-7	0230	3.35	318	7-10	0010	3.17	254
6-21	0100	3.60	415				

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 James 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 1967 to September 1968

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	00	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	1,330	0	0	332	1,660
June.....	53	749	301	6,880	0	0	3,840	11,740
July.....	50	689	1,840	6,610	0	0	157	9,350
August.....	0	0	0	2,290	0	0	0	2,290
September.....	0	0	0	0	0	0	0	0
Water year 1967-68.....	103	1,440	2,140	17,030	0	0	4,330	25,040

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 1968. 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, 2,630 cfs June 21 (gage height, 4.96 ft); minimum not determined.

1881, 1883-1968: Maximum discharge not determined, occurred May 20, 1904; maximum discharge determined, 21,070 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 (92,640 acre-ft in water year 1968), and diversions for municipal use (8,740 acre-ft in water year 1968).

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	88	105				32	37	178	1,360	1,260	486	171
2	71	105				33	37	295	1,500	1,150	460	198
3	40	88				28	40	462	1,670	1,090	498	198
4	17	64				25	18	591	1,760	960	472	226
5	24	55				33	24	591	1,930	944	392	266
6	24	37				40	45	591	2,070	912	364	194
7	22	38				48	50	584	2,000	792	315	133
8	20	48				39	43	445	2,000	848	325	96
9	19	57				29	40	262	1,670	816	453	80
10	18	60				29	42	266	1,520	808	656	105
11	17	58			45	26	42	270	1,320	808	584	122
12	18	57				25	51	262	1,530	880	422	120
13	18	57				36	105	285	1,760	800	422	94
14	17	60				37	105	295	1,950	704	440	110
15	17	63				29	103	315	1,850	688	486	125
16	20	60	46	36		30	100	330	1,930	648	369	117
17	22	58				27	110	342	1,730	591	300	98
18	19	57				36	100	352	1,630	498	248	92
19	18	50				30	38	310	1,840	531	185	84
20	17	55				32	40	290	1,920	460	142	94
21	18	58				25	34	257	2,130	410	133	82
22	19	43			28	29	28	280	1,950	305	136	76
23	19	39			30	33	26	434	2,000	270	157	88
24	19	45			50	29	23	524	1,750	325	266	80
25	19	55			55	32	22	564	1,750	440	285	68
26	21	54			57	30	25	633	1,560	479	270	45
27	21	29			44	32	27	648	1,390	472	234	44
28	20	14			32	27	25	680	1,500	440	252	63
29	20	28			34	29	23	816	1,510	410	174	61
30	52	55			-----	34	103	1,100	1,360	380	174	57
31	94	-----			-----	34	-----	1,290	-----	512	128	-----
Total	848	1,652	1,426	1,116	1,275	978	1,506	14,542	51,840	20,631	10,228	3,387
Mean	27.4	55.1	46	36	44.0	31.5	50.2	469	1,728	666	330	113
Max	94	105	-	-	-	48	110	1,290	2,130	1,260	656	266
Min	17	14	-	-	-	25	18	178	1,320	270	128	44
Ac-ft	1,680	3,280	2,830	2,210	2,530	1,940	2,990	28,840	102,800	40,920	20,290	6,720

Cal yr 1967: Total 85,170.4 Mean 233 Max 1,930 Min 8.4 Ac-ft 168,900
Wtr yr 1968: Total 109,429 Mean 299 Max 2,130 Min - Ac-ft 217,000

Note.--No gage-height record Dec. 13 to Feb. 21.

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 1968. 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.--49 years (1914-19, 1924-68), 96.2 cfs (69,650 acre-ft per year).

Extremes.--Maximum discharge during year, 700 cfs June 14 (gage height, 4.75 ft); minimum daily, 7.6 cfs May 4. 1903-4, 1914-19, 1924-68: 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.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	85	110	100	80	80	85	38	9.8	37	25	35	36
2	77	122	94	78	79	86	79	8.5	35	24	36	36
3	74	114	101	70	81	84	83	9.0	34	22	40	39
4	72	111	106	75	82	85	85	7.6	34	23	32	43
5	80	107	103	82	80	83	88	8.0	35	36	28	41
6	75	106	103	78	82	80	87	9.0	43	79	30	36
7	76	106	96	70	81	78	86	11	68	43	30	33
8	77	106	107	70	82	77	85	11	125	31	31	33
9	77	106	97	78	81	80	82	10	540	29	47	36
10	79	107	101	76	81	86	85	9.4	334	31	52	34
11	82	108	108	77	82	87	90	13	375	32	43	31
12	85	100	99	75	87	82	85	14	378	34	39	30
13	82	103	95	75	83	83	76	12	608	34	36	28
14	82	103	96	78	86	94	70	12	434	31	39	29
15	83	106	100	80	89	94	70	16	308	28	39	31
16	86	104	101	78	92	95	68	24	332	28	37	29
17	81	103	101	80	90	94	72	23	345	29	39	30
18	80	97	96	73	91	95	47	20	308	28	36	32
19	72	95	94	77	94	92	29	20	81	25	29	33
20	65	95	99	79	92	62	28	25	179	23	26	31
21	96	97	88	79	92	45	32	23	79	20	23	36
22	99	99	86	83	94	46	34	18	172	19	23	53
23	99	95	91	82	94	36	32	26	37	25	28	53
24	96	95	92	83	95	34	32	39	39	27	26	29
25	99	94	92	77	90	31	28	164	48	28	26	27
26	99	92	94	87	90	55	23	81	47	31	26	28
27	99	92	85	82	90	43	24	61	39	36	23	27
28	106	92	92	82	86	26	24	53	32	32	27	30
29	101	94	87	81	85	25	16	44	26	29	33	30
30	106	96	86	80	---	26	11	36	22	31	35	31
31	110	---	70	81	---	23	---	36	---	33	34	---
Total	2,680	3,055	2,960	2,426	2,511	2,092	1,689	853.3	5,174	946	1,028	1,015
Mean	86.5	102	95.5	78.3	86.6	67.5	56.3	27.5	172	30.5	33.2	33.8
Max	110	122	108	87	95	95	90	164	608	79	52	53
Min	65	92	70	70	79	23	11	7.6	22	19	23	27
Ac-ft	5,320	6,060	5,870	4,810	4,980	4,150	3,350	1,690	10,260	1,880	2,040	2,010
Cal yr 1967: Total	43,802		Mean 120		Max 1,950	Min 10		Ac-ft 86,880				
Wtr yr 1968: Total	26,429.3		Mean 72.2		Max 608	Min 7.6		Ac-ft 52,420				

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 1968. 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.--65 years, 722 cfs (522,700 acre-ft per year).

Extremes.--Maximum discharge during year, 2,280 cfs June 9 (gage height, 4.80 ft); minimum daily, 86 cfs May 4.

1901-3, 1905-68: 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 for the water year 1968 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	385	477	609	550	596	558	466	140	286	162	325	219
2	365	488	596	530	570	540	460	110	286	150	330	235
3	340	482	602	510	564	540	482	94	255	145	273	291
4	340	482	616	500	576	546	482	86	243	142	243	416
5	370	460	590	540	564	546	570	110	187	174	247	482
6	400	455	570	530	564	576	576	92	180	305	215	466
7	422	460	534	520	564	570	564	125	450	215	198	460
8	455	460	546	510	558	602	546	110	756	184	194	444
9	455	472	516	510	552	622	534	96	1,860	171	223	438
10	455	477	504	520	546	635	522	90	1,360	177	255	395
11	472	472	522	520	540	654	522	96	1,110	174	1,380	390
12	482	499	499	525	552	654	494	100	958	184	895	365
13	482	540	510	530	540	642	466	98	1,030	190	534	365
14	488	546	520	540	558	642	416	88	794	190	455	365
15	510	558	540	534	534	616	360	90	714	177	749	340
16	642	558	560	534	546	583	345	110	763	168	763	335
17	635	558	576	546	534	564	360	132	904	168	516	325
18	576	552	576	546	540	546	450	118	583	162	422	340
19	558	546	570	546	522	516	590	120	406	153	365	330
20	564	546	576	540	522	494	540	148	472	145	315	305
21	558	558	576	558	552	499	494	130	325	140	268	310
22	552	576	560	576	564	488	466	115	450	135	201	365
23	534	596	540	622	564	488	534	122	235	150	187	375
24	540	622	576	700	576	488	466	346	219	156	168	330
25	570	609	590	680	552	482	385	1,280	260	156	150	315
26	564	602	602	707	546	482	305	922	460	194	150	305
27	546	602	576	680	528	504	282	654	428	208	168	305
28	528	596	570	642	534	499	273	472	268	198	187	305
29	494	602	576	622	552	482	286	350	194	190	198	300
30	488	609	564	602	---	477	219	315	171	190	227	310
31	488	---	560	602	---	472	---	296	---	212	219	---
Total	15,258	16,060	17,422	17,572	16,010	17,007	13,455	7,155	16,607	5,465	11,020	10,526
Mean	492	535	562	567	552	549	448	231	554	176	355	351
Max	642	622	616	707	596	654	590	1,280	1,860	305	1,380	482
Min	340	455	499	500	522	472	219	86	171	135	150	219
Ac-ft	30,260	31,850	34,560	34,850	31,760	33,730	26,690	14,190	32,940	10,840	21,860	20,880

Cal yr 1967: Total 263,700 Mean 722 Max 6,400 Min 82 Ac-ft 523,000
 Wtr yr 1968: Total 163,557 Mean 447 Max 1,860 Min 86 Ac-ft 324,400

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 1968.

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

Average discharge.--16 years, 421 cfs (304,800 per year).

Extremes.--Maximum discharge during year, 621 cfs May 25 (gage height, 3.98 ft); maximum gage height, 7.47 ft Jan. 14 (backwater from ice); minimum daily discharge, 55 cfs June 14.

1952-68: 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 except those for winter period, which are poor. 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	187	91	172	482	277	320	320	254	95	215	194	320
2	187	93	183	440	268	356	306	259	98	190	268	316
3	172	93	228	392	250	367	330	259	105	198	311	316
4	114	91	245	296	250	372	351	228	114	223	277	362
5	100	91	259	372	241	383	372	187	114	223	282	429
6	95	91	250	400	245	389	400	211	86	236	236	301
7	152	88	273	420	215	389	346	190	79	335	198	268
8	198	88	259	440	202	351	356	198	311	301	250	264
9	202	91	245	460	198	356	316	198	254	296	277	254
10	207	91	228	472	202	378	180	176	241	259	311	223
11	202	88	223	482	198	378	116	155	176	264	341	172
12	122	91	223	500	202	383	119	149	75	264	429	149
13	95	91	219	480	198	423	100	152	56	250	245	130
14	88	91	223	470	207	446	73	149	55	273	254	183
15	91	91	245	460	264	440	66	139	68	259	406	245
16	116	91	250	460	282	440	77	139	122	215	232	219
17	122	91	250	450	268	434	211	149	306	172	124	223
18	119	88	265	450	268	429	245	162	488	158	75	228
19	119	91	292	450	268	417	259	162	330	165	62	232
20	116	88	282	460	268	383	330	169	146	282	60	223
21	116	86	306	470	268	356	241	198	155	325	68	211
22	114	91	301	482	268	351	194	176	268	259	133	223
23	103	95	346	476	282	346	172	149	372	241	162	282
24	100	136	446	482	296	341	158	146	287	236	155	277
25	103	155	488	464	306	341	232	219	273	232	149	268
26	103	165	506	440	306	341	207	412	282	190	158	236
27	100	169	476	423	325	341	211	152	362	219	282	223
28	98	169	458	412	316	341	254	73	383	232	292	202
29	95	169	482	372	306	341	232	73	287	219	301	176
30	91	169	470	351	--- --	341	241	66	207	190	351	165
31	91	--- --	464	325	--- --	330	--- --	68	--- --	194	367	--- --
Total	3,918	3,213	9,557	13,533	7,444	11,604	7,015	5,417	6,195	7,315	7,250	7,320
Mean	126	107	308	437	257	374	234	175	206	236	234	244
Max	207	169	506	500	325	446	400	412	488	335	425	429
Min	88	86	172	296	198	320	66	66	55	158	60	130
Ac-ft	7,770	6,370	18,960	26,840	14,760	23,020	13,910	10,740	12,290	14,510	14,380	14,520
Cal yr 1967: Total	127,416		Mean	349	Max	3,470	Min	56	Ac-ft	252,700		
Wtr yr 1968: Total	89,781		Mean	245	Max	506	Min	55	Ac-ft	178,100		

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 on 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 1968. 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.--52 years, 356 cfs (257,700 acre-ft per year).

Extremes.--Maximum discharge during year, 522 cfs Mar. 18; minimum daily, 5.1 cfs Apr. 14.

1916-68: 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 fair. 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 year 1968 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	224	9.3	12	59	14	19	21.7	205	34	105	103	221
2	159	12	15	47	15	24	188	217	24	84	119	219
3	74	10	16	40	13	30	183	230	27	80	304	221
4	61	7.6	13	40	13	23	246	199	32	70	282	233
5	45	8.6	14	37	12	14	286	175	24	86	238	247
6	32	7.2	12	87	12	14	207	157	24	117	211	285
7	30	6.3	33	73	12	12	135	171	23	165	178	189
8	32	6.7	15	64	10	14	64	154	32	216	140	129
9	32	6.5	17	64	11	15	42	148	73	268	197	136
10	22	6.5	29	80	11	27	30	145	55	273	217	138
11	20	6.1	19	128	10	29	6.7	143	85	253	244	123
12	15	6.1	19	173	10	33	5.9	145	85	232	247	88
13	12	5.7	23	127	10	20	6.0	175	57	221	241	58
14	11	6.1	12	147	11	19	5.1	146	62	183	185	42
15	10	5.7	11	160	10	262	14	114	53	178	222	61
16	9.9	7.1	12	200	12	461	93	108	53	167	86	133
17	9.9	12	16	215	12	468	96	110	63	116	38	139
18	9.3	12	15	181	11	458	189	129	145	63	32	164
19	9.3	12	20	151	11	465	244	143	245	41	29	170
20	9.1	12	18	136	11	476	249	152	85	28	22	167
21	9.8	12	21	118	12	425	251	171	27	81	16	147
22	9.6	12	30	111	12	376	195	176	68	136	14	136
23	9.8	12	29	111	12	374	149	178	209	146	13	166
24	10	12	52	102	12	385	133	163	291	210	29	202
25	9.9	13	73	105	13	378	124	116	269	239	44	245
26	9.9	16	76	91	13	381	151	74	234	213	41	216
27	9.4	16	77	38	13	407	178	55	197	200	34	182
28	9.2	14	83	20	13	276	206	34	227	166	106	168
29	9.0	14	71	16	13	244	227	24	243	159	144	135
30	9.0	12	71	16	- - - -	212	213	38	146	143	162	124
31	9.3	- - - -	71	14	- - - -	218	- - - -	42	- - - -	118	199	- - - -
Total	931.4	298.5	995	2,951	344	6,559	4,333.7	4,237	3,192	4,757	4,137	4,884
Mean	30.0	9.95	32.1	95.2	11.9	212	144	137	106	153	133	163
Max	224	16	83	215	15	476	286	230	291	273	304	285
Min	9.0	5.7	11	14	10	12	5.1	24	23	28	13	42
Ac-ft	1,850	592	1,970	5,850	682	13,010	8,600	8,400	6,330	9,440	8,210	9,690
Cal yr 1967: Total	87,464.1		Mean	240	Max	2,720	Min	5.7	Ac-ft	173,500		
Wtr yr 1968: Total	37,619.6		Mean	103	Max	476	Min	5.1	Ac-ft	74,620		

PLATTE RIVER BASIN

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

Location.--Lat 40°58'46", long 102°15'15", in NW¼NE¼ and SE¼NE¼ (two channels) sec.33, T.12 N., R.44 W., on left bank of channel no. 4 (left channel) 215 ft downstream from bridge, and on right bank of channel no. 2 800 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 1968. 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.--Two water-stage recorders. Datum of gages is 3,446.76 ft above mean sea level, datum of 1929. Apr. 1, 1902, to May 10, 1922, and Oct. 1, 1924, to Sept. 30, 1956, staff gages, chain gages, or water-stage recorders on four to six channels at several sites within 1,800 ft of present sites 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. Since Oct. 1, 1956, water-stage recorders on channels nos. 2 and 4. Channel no. 2: Oct. 1, 1956, to Sept. 22, 1965, at site 300 ft downstream at present datum. Channel no. 4: Oct. 1, 1956, to Dec. 10, 1958, at site 135 ft downstream at present datum.

Average discharge.--66 years, 455 cfs (329,400 acre-ft per year).

Extremes.--Maximum discharge during year, 12,200 cfs Aug. 16; minimum daily, 14 cfs Aug. 7, 8.
1902-68: 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. 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 1968 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	103	281	255	406	289	399	56	173	28	26	367
2	50	107	255	238	390	286	394	51	173	29	24	341
3	58	105	261	224	383	286	377	49	174	28	18	326
4	64	105	277	214	336	290	389	47	166	27	15	306
5	68	102	277	194	335	290	496	43	140	25	15	305
6	80	104	292	174	333	290	562	41	132	24	15	288
7	92	105	271	154	339	289	572	63	131	20	14	277
8	118	106	276	160	338	282	478	135	132	21	14	278
9	145	120	222	184	329	257	441	111	121	29	373	260
10	147	115	194	192	329	241	386	96	104	26	165	240
11	151	113	268	224	320	237	259	87	84	24	77	219
12	145	112	314	256	316	233	176	92	70	25	59	203
13	138	113	268	293	304	232	166	103	61	23	51	187
14	138	113	238	343	291	217	152	98	61	24	94	169
15	138	113	214	364	302	189	146	100	89	23	4,150	166
16	124	115	265	424	299	183	138	97	267	22	8,920	165
17	122	118	268	476	299	184	119	109	200	21	6,530	159
18	105	171	271	537	298	253	122	114	296	22	3,150	132
19	102	229	258	644	305	344	122	119	148	22	1,990	124
20	100	257	251	620	318	364	112	113	83	18	1,430	118
21	99	267	233	588	315	413	102	97	60	18	1,150	124
22	99	271	180	568	318	428	99	93	48	18	885	120
23	100	275	174	545	313	466	93	89	41	21	733	114
24	98	275	204	566	318	494	87	89	36	23	560	108
25	100	275	281	588	318	502	84	93	35	46	479	111
26	100	269	331	607	317	480	81	179	34	43	433	111
27	98	260	347	529	304	475	72	221	34	143	388	108
28	100	264	291	480	301	485	67	200	29	62	350	111
29	103	281	297	415	293	506	61	194	26	37	362	116
30	103	276	308	425	- - - - -	500	59	193	25	32	431	116
31	103	- - - - -	292	426	- - - - -	455	- - - - -	187	- - - - -	30	426	- - - - -
Total	3,238	5,239	9,159	11,907	9,367	10,440	6,811	3,359	3,173	954	33,327	5,769
Mean	104	175	263	384	323	337	227	108	106	30.8	1,075	192
Max	151	281	347	644	406	506	572	221	296	143	8,920	367
Min	50	102	174	154	291	183	59	41	25	18	14	108
Ac-ft	6,420	10,390	16,180	23,620	18,580	20,710	13,510	6,660	6,290	1,890	66,100	11,440
Cal yr 1967: Total	130,244		Mean 357		Max 2,910	Min 28	Ac-ft 258,300					
Wtr yr 1968: Total	101,743		Mean 278		Max 8,920	Min 14	Ac-ft 201,800					

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

Location.--Lat 39°37'00", long 102°14'30", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.13, T.5 S., R.44 W., on left bank 0.7 mile east of U. S. Highway 385, 1 $\frac{1}{2}$ miles upstream from Landsman Creek, 4 miles upstream from Bonny Dam, and 6 $\frac{1}{2}$ miles southeast of Idalia.

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

Records available.--May 1950 to September 1968.

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 2 $\frac{1}{2}$ miles upstream at different datum.

Average discharge.--18 years, 32.7 cfs (23,670 acre-ft per year).

Extremes.--Maximum discharge during year, 5,220 cfs July 26 (gage height, 10.99 ft); no flow July 2, 3.

1950-68: Maximum discharge, 14,300 cfs May 16, 1957; maximum gage height, that of July 26, 1968; no flow at times in 1952-54, 1959-61, 1963-68.

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.--Seventeen discharge measurements furnished by Bureau of Reclamation.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	31	26	30	30	32	29	28	27	0.02	25	11
2	15	33	26	26	29	32	29	29	26	0	24	8.8
3	15	33	27	25	31	32	26	29	23	0	52	8.8
4	11	33	26	30	31	33	28	30	19	451	20	11
5	11	33	26	35	30	32	31	30	18	39	16	12
6	13	32	24	31	30	31	29	29	15	26	8.8	8.8
7	12	31	22	32	29	32	30	24	6.7	19	7.4	4.4
8	16	30	28	30	30	32	30	23	12	12	5.2	6.7
9	15	28	22	34	30	34	31	23	8.8	.65	96	6.7
10	18	28	30	37	30	38	26	31	8.1	32	48	5.6
11	17	28	35	35	29	33	30	40	6.7	.45	34	4.8
12	15	29	28	30	29	34	26	35	6.7	.40	26	4.4
13	19	28	23	32	28	35	26	32	5.6	.50	12	4.0
14	21	31	26	38	27	37	25	29	5.6	1.8	17	4.4
15	26	29	28	36	28	35	30	26	16	6.7	20	4.8
16	26	27	30	35	30	35	24	32	29	10	19	8.1
17	26	27	31	34	29	34	31	34	23	15	19	11
18	26	25	28	33	33	32	34	29	19	107	21	12
19	19	25	28	38	32	34	37	29	19	19	20	10
20	21	28	30	45	29	35	36	30	19	74	20	8.1
21	23	28	30	45	33	31	35	31	18	17	19	12
22	24	28	31	45	34	32	41	31	17	15	16	13
23	24	28	44	47	32	32	33	30	14	9.5	14	15
24	24	26	40	51	32	32	34	32	11	5.6	13	17
25	28	26	31	41	31	31	31	32	13	1.4	14	13
26	27	26	28	32	33	31	31	34	12	871	13	11
27	27	26	21	30	34	30	32	32	8.1	79	213	11
28	29	26	26	31	32	31	30	29	3.7	20	931	12
29	35	27	24	30	32	30	28	28	.15	23	8.1	16
30	34	27	22	30	---	31	29	28	05	25	5.6	18
31	33	---	13	32	---	29	---	28	---	36	60	---
Total	665	857	854	1,080	887	1,012	912	927	410.20	1,917.02	1,763.1	293.4
Mean	21.5	28.6	27.5	34.8	30.6	32.6	30.4	29.9	13.7	61.8	56.9	9.78
Max	35	33	44	51	34	38	41	40	29	871	931	18
Min	11	25	13	25	27	29	24	23	0.05	0	5.2	4.0
Ac-ft	1,320	1,700	1,690	2,140	1,760	2,010	1,810	1,840	814	3,800	3,500	582

Cal yr 1967: Total 9,691.96 Mean 26.6 Max 342 Min 0 Ac-ft 19,220
 Wtr yr 1968: Total 11,577.72 Mean 31.6 Max 931 Min 0 Ac-ft 22,960

Peak discharge (base, 1,000 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
7-4	0415	-	†1,890	8-27	2400	10.58	4,200
7-26	1730	10.99	5,220				

† Estimated.

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 1968.

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.--18 years, 4.32 cfs (3,130 acre-ft per year).

Extremes.--Maximum discharge during year, 335 cfs Aug. 9 (gage height, 8.60 ft); minimum daily, 0.15 cfs Sept. 13-18.

1950-68: 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; maximum gage height, 10.72 ft June 20, 1967; 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.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.17	0.42	0.64	0.60	1.3	1.2	0.97	0.74	0.42	0.23	0.24	0.17
2	.17	.42	.55	.60	1.3	1.2	1.0	.69	.37	.27	.27	.17
3	.17	.42	.69	.55	1.2	1.2	.97	.60	.27	.46	11	.23
4	.17	.42	.64	.55	1.3	1.2	1.0	.60	.33	.69	.51	.42
5	.17	.37	.64	.60	1.2	1.2	.97	.55	.33	.87	.55	.37
6	.17	.37	.60	.69	1.3	1.1	.87	.60	.33	.55	.64	.17
7	.20	.37	.55	.55	1.4	1.1	.92	.55	.33	.20	.60	.17
8	.20	.37	.64	.60	1.5	1.1	.87	.55	.33	.20	.64	.17
9	.20	.37	.46	.60	1.5	1.1	.87	.51	.33	.23	32	.17
10	.20	.37	.60	.64	1.4	1.0	.78	.74	.33	.37	1.4	.17
11	.17	.37	.78	.74	1.5	1.0	.78	.83	.33	.27	.87	.17
12	.20	.33	.64	.83	1.5	1.1	.74	.64	.33	.23	.64	.17
13	.20	.33	.46	.74	1.4	1.1	.74	.55	.33	.23	.55	.15
14	.20	.33	.51	.83	1.4	1.2	.74	.55	.33	.23	.51	.15
15	.23	.33	.51	.87	1.4	1.2	.74	.46	.42	.23	.46	.15
16	.27	.33	.51	1.0	1.3	1.3	.78	.46	.69	.23	.46	.15
17	.23	.33	.55	1.1	1.1	1.3	.74	.55	.37	.38	.46	.15
18	.20	.37	.51	1.0	1.2	1.3	.78	.51	.42	.83	.46	.15
19	.23	.42	.55	1.1	1.2	1.3	.87	.46	.37	.69	.46	.17
20	.23	.46	.60	.83	1.2	1.3	.87	.55	.37	.74	.46	.20
21	.20	.46	.46	.83	1.3	1.3	.78	.60	.33	.78	.46	.20
22	.23	.51	.37	.87	1.1	1.2	.97	.60	.33	.83	.46	.23
23	.23	.60	.51	.97	1.2	1.2	.83	.60	.27	.83	.46	.33
24	.23	.55	.74	.97	1.2	1.2	.78	.69	.27	.74	.46	.37
25	.27	.55	.74	.97	1.2	1.1	.78	.64	.27	.89	.51	.42
26	.27	.55	.78	.83	1.1	1.1	.87	.64	.23	6.5	.51	.42
27	.27	.55	.74	.97	1.2	1.1	.78	.64	.20	.46	.51	.46
28	.27	.60	.78	1.1	1.4	1.1	.83	.51	.23	.37	9.4	.51
29	.37	.69	.69	.97	1.2	1.0	.83	.46	.27	.42	.60	.55
30	.33	.64	.78	1.1	- - - -	1.0	.78	.42	.23	.33	.23	.69
31	.42	- - - -	.60	1.3	- - - -	.97	- - - -	.42	- - - -	.27	.27	- - - -
Total	7.07	13.20	18.82	25.90	37.5	35.77	25.23	17.91	9.96	20.55	67.05	8.00
Mean	0.23	0.44	0.61	0.84	1.29	1.15	0.84	0.58	0.33	0.66	2.16	0.27
Max	0.42	0.69	0.78	1.3	1.5	1.3	1.0	0.83	0.69	6.5	32	0.69
Min	0.17	0.33	0.37	0.55	1.1	0.97	0.74	0.42	0.20	0.20	0.23	0.15
Ac-ft	14	26	37	51	74	71	50	36	20	41	133	16

Cal yr 1967: Total 656.36 Mean 1.80 Max 160 Min 0.07 Ac-ft 1,300
Wtr yr 1968: Total 286.96 Mean 0.78 Max 32 Min 0.15 Ac-ft 569

Peak discharge (base, 350 cfs).-- No peak above base.

6-8260. Bonny Reservoir near Hale, Colo.

Location.--Lat 39°38'00", long 102°10'40", in SE¼SE¼ 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 1968.

Gage.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Prior to Oct. 1, 1967, mercury manometer at same site and datum.

Extremes.--Maximum contents observed during year, 41,340 acre-ft Mar 29 (elevation, 3,672.00 ft); minimum observed, 34,390 acre-ft Oct. 24 (elevation, 3,668.40 ft).

1950-68: 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.

Capacity table (elevation, in feet, and total contents, in acre-ft)
(Furnished by Bureau of Reclamation)

3,665.0	28,460
3,670.0	37,390
3,675.0	47,760

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34,970	34,650	35,850	37,300	38,890	40,300	41,010	40,060	37,580	36,480	38,150	39,190
2	34,950	34,710	35,950	37,310	38,990	40,260	41,030	39,760	37,560	36,420	38,210	39,130
3	34,970	34,780	35,980	37,390	39,010	40,260	40,910	39,570	37,560	36,360	38,250	39,560
4	34,890	34,820	36,020	37,470	39,070	40,360	40,890	39,270	37,470	36,710	38,290	39,620
5	34,870	34,840	36,080	37,480	39,170	40,440	40,910	39,010	37,430	36,880	38,290	39,410
6	34,820	34,950	36,060	37,520	39,210	40,460	40,890	38,840	37,410	36,820	38,250	38,190
7	34,760	35,020	36,100	37,600	39,250	40,520	40,890	38,520	37,370	36,820	38,250	37,870
8	34,740	35,090	36,100	37,710	39,310	40,560	40,890	38,290	37,390	36,760	38,170	37,600
9	34,620	35,190	36,140	37,750	39,350	40,500	40,850	38,040	37,310	36,950	38,190	37,330
10	34,720	35,170	36,190	37,790	39,390	40,480	40,850	37,960	37,310	37,020	38,290	37,080
11	34,720	35,190	36,330	37,810	39,450	40,580	40,850	37,960	37,280	36,980	38,310	36,820
12	34,710	35,190	36,330	37,830	39,490	40,730	40,810	37,830	37,300	36,890	38,350	36,570
13	34,710	35,240	36,360	37,900	39,510	40,810	40,730	37,710	37,260	36,890	38,350	36,330
14	34,690	35,280	36,400	37,960	39,550	40,870	40,730	37,540	37,220	36,860	38,330	36,060
15	34,720	35,360	36,460	38,060	39,640	40,890	40,730	37,370	37,330	36,820	38,310	35,730
16	34,720	35,410	36,520	38,110	39,680	40,930	40,650	37,350	37,470	36,780	38,270	35,520
17	34,710	35,390	36,570	38,110	39,700	40,990	40,540	37,370	37,500	36,720	38,210	35,450
18	34,650	35,380	36,610	38,170	39,780	40,950	40,520	37,350	37,480	36,740	38,190	35,460
19	34,600	35,460	36,650	38,250	39,880	40,850	40,540	37,330	37,470	36,690	38,150	35,460
20	34,540	35,500	36,690	38,310	39,800	40,910	40,480	37,350	37,430	36,690	38,130	35,430
21	34,500	35,480	36,720	38,390	39,900	41,050	40,520	37,350	37,300	36,630	38,110	35,460
22	34,480	35,560	36,760	38,390	39,900	41,070	40,460	37,390	37,300	36,570	38,040	35,450
23	34,410	35,580	36,840	38,460	40,000	41,320	40,460	37,450	37,260	36,500	37,940	35,450
24	34,390	35,620	36,890	38,660	40,040	41,260	40,440	37,450	37,100	36,440	37,850	35,450
25	34,430	35,650	36,950	38,580	40,060	41,280	40,380	37,540	36,930	36,380	37,810	35,460
26	34,430	35,650	37,000	38,580	40,080	40,970	40,360	37,560	36,890	37,830	37,730	35,450
27	34,470	35,710	37,060	38,680	40,120	40,910	40,320	37,600	36,860	38,210	37,770	35,450
28	34,430	35,740	37,100	38,760	40,120	41,280	40,320	37,600	36,860	38,210	39,270	35,380
29	34,410	35,800	37,160	38,780	40,220	41,340	40,300	37,580	36,740	38,290	39,250	35,320
30	34,540	35,890	37,220	38,840	- - - -	41,050	40,240	37,560	36,560	38,290	39,230	35,380
31	34,600	- - - -	37,260	38,890	- - - -	41,010	- - - -	37,580	- - - -	38,190	39,210	- - - -
Max	34,970	35,890	37,260	38,890	40,220	41,340	41,030	40,060	37,580	38,290	39,270	39,190
Min	34,390	34,650	35,890	37,300	38,890	40,260	40,240	37,330	36,560	36,360	37,730	35,320
†	3,668.51	3,669.21	3,669.93	3,670.78	3,671.45	3,671.84	3,671.46	3,670.10	3,669.56	3,670.42	3,670.94	3,668.93
‡	-240	+1,290	+1,370	+1,630	+1,330	+790	-770	-2,660	-1,020	+1,630	+1,020	-3,830

Calendar year 1967.....‡ -890

Water year 1968.....‡ +540

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-ft.

KANSAS RIVER BASIN

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

Location.--Lat 39°37'25", long 102°09'45", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ 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 1968.

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.--17 years (1951-68), 24.8 cfs (17,950 acre-ft per year).

Extremes.--Maximum discharge during year, 144 cfs May 6 (gage height, 4.75 ft); minimum daily, 5.2 cfs July 16, 24, 25, 29, 30.

1946-48, 1951-68: 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 31, 1935, stage and discharge not determined. A discharge of 103,000 cfs was determined at a site near Newton, $\frac{5}{2}$ 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 (4,370 acre-ft diverted in 1968).

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.2	6.2	5.8	6.5	5.8	6.2	28	81	14	5.8	5.8	7.0
2	6.2	6.5	5.8	5.8	5.8	6.2	28	121	14	5.8	5.8	7.0
3	5.8	6.2	5.8	6.2	5.8	6.2	29	117	14	5.8	6.2	47
4	6.2	6.2	5.8	6.5	5.8	6.2	28	117	15	5.8	6.2	112
5	5.8	6.2	5.8	6.2	5.8	6.2	28	121	9.2	5.8	5.8	112
6	6.2	6.2	6.2	6.2	6.2	6.2	29	121	6.5	5.8	5.8	112
7	6.2	6.2	6.2	6.2	6.2	6.2	29	121	6.5	5.8	5.8	112
8	5.8	6.2	6.2	6.2	6.2	6.2	28	121	6.5	5.8	5.8	112
9	6.2	6.2	6.2	6.2	6.2	6.2	28	126	6.2	5.8	7.0	112
10	6.2	6.5	6.2	6.2	6.2	6.2	28	100	6.2	6.2	6.5	112
11	6.2	6.2	6.2	6.2	6.2	6.2	28	68	5.8	5.5	6.2	117
12	6.2	6.5	6.5	6.2	6.2	6.2	29	68	5.8	5.5	6.2	117
13	6.2	6.5	6.2	6.2	6.2	6.2	29	68	5.8	5.5	6.2	117
14	6.2	6.5	6.5	6.2	6.2	6.2	29	70	6.2	5.5	6.2	117
15	6.5	6.5	6.5	6.2	6.2	6.2	29	73	6.2	5.5	6.5	117
16	18	6.5	7.0	6.2	6.2	6.2	28	28	7.0	5.2	6.2	56
17	25	6.5	6.5	6.2	6.2	6.2	28	9.2	6.2	5.8	6.2	6.2
18	27	6.5	6.5	6.2	6.2	6.2	28	9.2	6.2	5.5	6.2	6.2
19	27	6.5	6.5	5.8	6.2	6.2	29	9.2	6.5	5.5	6.2	6.2
20	27	6.5	6.5	5.8	6.2	6.2	29	9.2	6.5	5.5	6.2	6.2
21	27	6.5	6.5	5.8	6.2	6.2	29	9.2	6.2	5.5	5.8	6.2
22	27	6.5	6.5	6.2	6.2	6.2	31	9.2	6.5	5.5	5.8	6.2
23	15	6.2	6.5	6.2	6.2	6.2	29	8.7	6.2	5.5	5.8	6.5
24	6.5	6.2	6.5	6.2	6.2	6.2	28	10	6.2	5.2	5.8	5.8
25	6.5	6.2	6.5	6.2	6.2	6.2	28	13	6.5	5.2	5.8	5.8
26	6.2	5.8	6.5	6.2	6.2	20	28	16	6.5	7.6	5.8	5.8
27	6.2	5.8	6.5	6.2	6.2	31	28	16	5.8	5.8	5.8	5.5
28	6.2	5.8	6.5	6.2	6.2	28	28	15	5.8	5.5	8.7	5.5
29	6.2	5.8	6.5	6.2	6.2	28	29	15	5.8	5.2	7.6	5.5
30	6.2	5.8	6.5	6.2	- - - -	28	29	15	5.8	5.2	7.0	5.5
31	6.2	- - - -	6.2	6.2	- - - -	28	- - - -	14	- - - -	5.8	7.0	- - - -
Total	335.3	187.9	196.1	191.2	177.8	318.0	856	1,698.9	221.6	175.4	193.9	1,569.1
Mean	10.8	6.26	6.33	6.17	6.13	10.3	28.5	54.8	7.39	5.66	6.25	52.3
Max	27	6.5	7.0	6.5	6.2	31	31	126	15	7.6	8.7	117
Min	5.8	5.8	5.8	5.8	5.8	6.2	28	8.7	5.8	5.2	5.8	5.5
Ac-ft	665	373	389	379	353	631	1,700	3,370	440	348	385	3,110
Cal yr 1967: Total	6,621.6			Mean 18.1	Max 117	Min 5.2	Ac-ft 13,130					
Wtr yr 1968: Total	6,121.2			Mean 16.7	Max 126	Min 5.2	Ac-ft 12,140					

7-0812. Arkansas River near Leadville, Colo.

Location.--Lat 39°15'26", long 106°20'35", in NW¼NW¼ sec.21, T.9 S., R.80 W., on right bank 500 ft downstream from confluence of East Fork Arkansas River and Tennessee Creek, 0.5 mile downstream from highway bridge, and 3 miles northwest of Leadville.

Drainage area.--97.2 sq mi.

Records available.--October 1967 to September 1968.

Gage.--Water-stage recorder. Altitude of gage is 9,730 ft (from topographic map).

Extremes.--Maximum discharge recorded during year, 671 cfs June 6 (gage height, 3.97 ft); minimum daily, 9.6 cfs Mar. 20.

Remarks.--Records good except those for winter period, which are fair. Transmountain diversion from Colorado River basin to Arkansas River basin enters above this station (see elsewhere in this report). Small diversions upstream for irrigation and municipal use. Records of chemical analyses for the water year 1968 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	21	18	17	13	11	16	31	295	131	109	46
2	27	22	18	16	13	10	16	36	352	120	95	45
3	26	24	20	16	14	10	15	40	439	120	95	57
4	27	20	20	16	12	10	16	57	488	122	81	66
5	30	22	18	15	12	12	16	75	488	127	72	57
6	28	19	18	15	12	12	16	78	480	118	95	52
7	28	22	18	15	13	13	15	63	450	109	131	47
8	27	24	18	15	12	13	15	57	320	111	184	43
9	26	22	17	15	12	13	15	66	260	118	160	41
10	26	22	16	15	12	13	16	66	250	118	196	40
11	26	19	15	15	14	12	17	66	250	109	229	39
12	26	20	18	15	16	12	17	81	280	100	175	38
13	25	21	17	15	15	13	18	75	320	102	145	38
14	24	22	17	15	16	14	18	62	320	95	148	41
15	24	22	18	15	15	13	18	67	330	92	151	40
16	22	20	18	15	14	12	18	56	340	81	118	40
17	21	20	17	15	13	13	18	47	360	73	102	44
18	22	19	17	15	13	13	18	50	388	69	93	44
19	21	19	17	15	13	11	18	55	382	75	85	43
20	20	19	17	15	12	9.6	17	67	376	69	77	40
21	20	20	17	15	12	11	17	78	388	63	75	38
22	20	19	16	15	11	13	16	113	335	63	70	36
23	20	19	17	15	12	14	16	131	300	70	65	34
24	19	18	17	15	11	13	17	115	272	65	62	33
25	20	18	17	15	10	13	18	95	258	61	59	32
26	20	17	17	14	12	13	18	97	199	75	56	32
27	18	16	17	14	11	13	18	95	196	109	60	32
28	20	17	17	14	12	12	17	113	202	124	86	31
29	20	18	17	14	10	13	20	160	190	100	63	32
30	20	20	17	14	- - - -	14	25	190	160	85	56	32
31	20	- - - -	17	13	- - - -	15	- - - -	233	- - - -	107	50	- - - -
Total	720	601	538	463	367	383.6	515	2,615	9,668	2,981	3,243	1,233
Mean	23.2	20.0	17.4	14.9	12.7	12.4	17.2	84.4	322	96.2	105	41.1
Max	30	24	20	17	16	15	25	233	488	131	229	66
Min	18	16	15	13	10	9.6	15	31	160	61	50	31
Ac-ft	1,430	1,190	1,070	918	728	761	1,020	5,190	19,180	5,910	6,430	2,450
Cal yr 1967: Total	-	-	-	-	-	-	-	-	-	-	-	-
Wtr yr 1968: Total	23,327.6	-	-	63.7	Max 488	Min 9.6	-	Ac-ft 46,270	-	-	-	-

ARKANSAS RIVER BASIN

7-0830. Halfmoon Creek near Malta, Colo.

(Hydrologic bench-mark station)

Location.--Lat 39°10'20", long 106°23'20", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.13, T.10 S., R.81 W., on right bank 1.4 miles upstream from culvert, 3.3 miles upstream from mouth, and 4.3 miles southwest of Malta.

Drainage area.--23.6 sq mi. Area at site used prior to Oct. 19, 1966, 24.5 sq mi.

Records available.--July 1946 to September 1968.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 9,830 ft (from topographic map). Prior to Oct. 19, 1966, at sites 1.4 miles downstream at different datums.

Average discharge.--22 years, 28.9 cfs (20,920 acre-ft per year).

Extremes.--Maximum discharge during year, 306 cfs June 20 (gage height, 3.33 ft), from rating curve extended above 185 cfs; minimum daily, 2.0 cfs Mar. 3.

1946-68: Maximum discharge, 450 cfs June 30, 1957 (gage height, 3.48 ft, site and datum then in use); minimum not determined.

Revisions.--The maximum discharge for the water year 1967 has been revised to 210 cfs June 22, 1967 (gage height, 3.12 ft), superseding figure previously published.

Remarks.--Records excellent. No regulation or diversion above station. Records of chemical analyses and water temperatures for the water year 1968 are published in Part 2 of this report.

Revisions.--Revised figures of discharge, in cubic feet per second, for the water year 1967, superseding those previously published, are given herewith:

1967		1967-Con.		1967-Con.		1967-Con.	
May	18..... 40	June	5..... 105	June	22..... 120	July	10..... 63
	19..... 46		6..... 107		23..... 137		11..... 57
	20..... 43		7..... 104		24..... 135		12..... 54
	21..... 50		8..... 109		25..... 123		13..... 52
	23..... 104		9..... 113		26..... 113		14..... 51
	24..... 130		10..... 102		27..... 113		15..... 51
	25..... 123		11..... 82		28..... 107		16..... 50
	26..... 91		12..... 78		29..... 104		17..... 49
	27..... 62		13..... 65		30..... 113		18..... 48
	28..... 56		14..... 54	July	1..... 107		19..... 44
	29..... 51		15..... 51		2..... 102		20..... 43
	30..... 51		16..... 54		3..... 96		21..... 41
	31..... 47		18..... 107		4..... 91		22..... 39
June	1..... 50		19..... 120		5..... 88		23..... 41
	3..... 84		20..... 118		6..... 84		24..... 54
	4..... 98		21..... 107				

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
May 1967.....	1,181.7	130	-	38.1	2,340
June 1967.....	2,915	137	50	97.2	5,780
July 1967.....	1,779	107	-	57.4	3,530
Water year 1966-67.....	8,235.7	137	-	22.6	16,340

7-0830. Halfmoon Creek near Malta, Colo.--Continued

(Hydrologic bench-mark station)

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	7.2	4.6	3.9	3.2	2.6	3.7	7.8	105	79	65	27
2	13	6.9	4.4	3.7	3.2	2.9	2.9	9.9	130	79	64	26
3	13	6.4	5.0	3.7	2.9	2.0	2.9	11	157	76	61	33
4	13	7.5	5.0	3.7	2.9	2.4	2.6	14	170	69	53	32
5	15	6.9	5.4	3.5	2.9	2.4	2.4	16	177	75	52	31
6	14	6.0	4.8	3.5	2.9	2.7	3.2	17	160	68	56	29
7	14	7.5	4.8	3.5	2.9	2.7	2.7	14	135	69	54	28
8	13	9.2	4.8	3.5	2.9	2.7	2.7	12	104	71	57	27
9	12	8.2	5.2	3.5	2.7	2.4	2.4	13	84	68	66	26
10	13	7.2	4.6	3.5	2.9	2.7	2.6	12	73	69	80	25
11	12	6.4	4.2	3.5	2.9	2.4	3.2	12	72	68	88	24
12	11	7.2	4.4	3.5	2.9	2.7	3.9	13	98	62	82	24
13	11	6.9	4.1	3.5	2.9	2.7	3.9	13	130	60	71	25
14	10	6.7	4.4	3.3	2.9	2.7	3.3	12	130	58	73	26
15	10	6.4	4.4	3.3	2.9	2.4	3.5	13	135	57	68	25
16	9.2	6.0	4.4	3.3	2.9	2.7	4.1	13	143	54	58	25
17	9.5	4.9	4.1	3.2	2.9	2.7	3.9	11	160	50	52	24
18	9.5	4.6	4.1	3.2	2.9	2.4	3.5	11	177	48	49	24
19	8.8	5.6	4.1	3.2	2.9	2.4	3.3	11	177	48	44	24
20	8.5	6.1	4.1	3.2	2.9	2.6	3.5	13	195	43	42	22
21	8.8	6.0	4.1	3.2	2.9	2.6	3.5	18	195	43	39	22
22	8.2	6.0	3.9	3.2	2.7	2.6	3.7	30	177	45	36	21
23	7.8	6.1	4.1	3.2	3.2	2.6	3.3	37	152	49	34	21
24	6.7	5.6	3.9	3.2	2.9	2.4	3.3	34	146	45	33	19
25	7.8	6.1	3.9	3.2	2.4	2.6	3.9	27	125	46	31	19
26	7.2	5.1	3.9	3.2	3.5	2.6	3.9	27	107	49	29	18
27	6.1	4.6	3.9	3.2	2.7	2.4	3.9	26	118	90	34	17
28	8.5	5.5	3.9	3.2	3.2	2.6	3.7	34	127	76	40	16
29	7.2	5.2	4.1	2.9	2.4	2.7	4.1	49	113	58	34	16
30	6.4	4.9	3.9	3.3	---	2.9	6.1	65	91	63	31	16
31	8.2	---	4.1	3.2	---	3.7	---	86	---	72	29	---
Total	316.4	188.9	134.6	104.2	84.3	80.9	103.6	681.7	4,063	1,907	1,605	712
Mean	10.2	6.30	4.34	3.36	2.91	2.61	3.45	22.0	135	61.5	51.8	23.7
Max	15	9.2	5.4	3.9	3.5	3.7	6.1	86	195	90	88	33
Min	6.1	4.6	3.9	2.9	2.4	2.0	2.4	7.8	72	43	29	16
Ac-ft	628	375	267	207	167	160	205	1,350	8,060	3,780	3,180	1,410

Cal yr 1967: Total 8,376.1 Mean 22.9 Max 137 Min 2.6 Ac-ft 16,610

Wtr yr 1968: Total 9,981.6 Mean 27.3 Max 195 Min 2.0 Ac-ft 19,800

Peak discharge (base, 150 cfs).--June 3 (2330) 249 cfs (3.21 ft); June 20 (2315) 306 cfs (3.33 ft).

ARKANSAS RIVER BASIN

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 1968. 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.--21 years, 165 cfs (119,500 acre-ft per year).

Extremes.--Maximum discharge during year, 2,170 cfs June 5 (gage height, 5.00 ft); minimum not determined.

1946-62, 1963-68: 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 winter period, 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	65	42						20	1,200	479	324	101
2	64	41						24	1,380	484	354	94
3	60	37						30	1,440	474	362	105
4	58							54	1,520	452	284	111
5	69							65	1,670	474	242	101
6	67		73	1,670	446	280	101					
7	85		65	1,350	435	280	92					
8	94						89	1,120	446	276	85	
9	94						84	880	410	280	80	
10	73						54	709	400	328	73	
11	49						15	69	520	385	344	66
12	46	76	781	354	316	58						
13	45	77	1,140	332	272	54						
14	43	80	1,240	304	288	50						
15	41	74	1,440	292	296	50						
16	57	30	24	18	13	14	74	1,370	268	250	51	
17	94						56	1,480	232	216	54	
18	87						74	1,300	204	198	78	
19	70						85	1,260	207	180	80	
20	62						98	1,240	201	165	82	
21	56						146	1,270	195	160	89	
22	42						210	1,190	201	150	45	
23	36						284	1,120	232	132	45	
24	32						385	1,080	219	115	45	
25	33						242	1,000	225	117	44	
26	33						15	225	916	253	115	43
27	30						15	228	880	410	119	42
28	36						17	304	916	435	152	41
29	37						20	474	853	354	132	41
30	40						18	727	676	300	119	39
31	41	-----			-----		-----	990	-----	320	107	-----
Total	1,739	930	744	558	377	434	460	5,536	34,611	10,423	6,953	2,040
Mean	56.1	31.0	24	18	13	14	15.3	179	1,154	336	224	68.0
Max	94	-	-	-	-	-	-	990	1,670	484	362	111
Min	30	-	-	-	-	-	-	20	520	195	107	39
Ac-ft	3,450	1,840	1,480	1,110	748	861	912	10,980	68,650	20,670	13,797	4,050
Cal yr 1967: Total	68,675		Mean	188	Max	1,420	Min	-	Ac-ft	136,200		
Wtr yr 1968: Total	64,805		Mean	177	Max	1,670	Min	-	Ac-ft	128,500		

Note.--No gage-height record Nov. 4 to Apr. 26.

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 1968. 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.--58 years (1910-68), 356 cfs (257,700 acre-ft per year).

Extremes.--Maximum discharge during year, 2,300 cfs June 6 (gage height, 4.64 ft); minimum not determined. 1895, 1897-99, 1910-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.				
1	180	120	90					566	1,300	1,190	1,170	714				
2	175	123	90					552	1,580	1,140	777	538				
3	170	116	90					573	1,930	1,150	732	360				
4	165	120	92					580	2,030	1,180	660	340				
5	168	116	94					596	2,200	1,230	573	305				
6	160	107	94				140	644	2,210	1,300	604	278				
7	157	109	88					644	2,120	1,190	628	258				
8	150	109	91					636	1,960	894	705	241				
9	148	112						644	1,740	795	750	229				
10	145	116						705	1,380	804	849	208				
11	140	111		705	1,110	750	1,170	208								
12	145	116		732	1,060	714	1,170	208								
13	152	123		723	1,260	723	1,130	208								
14	152	127		70	90	100	145	678	1,420	984	1,050	226				
15	150	127					145	660	1,470	1,060	705	229				
16	150	136					148	620	1,530	1,020	652	229				
17	143	134					140	545	1,640	975	636	235				
18	134	120					138	538	1,770	939	620	235				
19	134	123	80	136	559	1,900	939	517	235							
20	127	123		125	385	1,930	912	450	226							
21	123	125		125	340	1,930	903	444	217							
22	123	123		123	474	1,790	921	396	208							
23	123	125		123	444	1,970	921	596	196							
24	118	120					123	396	1,910	930	723	184				
25	120	127					125	396	1,770	921	714	173				
26	120	123					127	468	1,580	957	696	170				
27	116	116					202	462	1,570	1,210	741	168				
28	123	114					545	468	1,750	1,180	822	168				
29	125	95					545	669	1,630	1,180	768	176				
30	118	92					566	813	1,330	1,180	741	176				
31	123	- - - - -					- - - - -	921	- - - - -	1,240	714	- - - - -				
Total	4,377	3,548					2,569	2,170	2,610	3,100	5,401	18,136	50,770	31,432	22,903	7,546
Mean	141	118					82.9	70	90	100	180	585	1,692	1,014	739	252
Max	180	136	-	-	-	-	566	921	2,210	1,300	1,170	714				
Min	116	92	-	-	-	-	-	340	1,060	714	396	168				
Ac-ft	8,680	7,040	5,100	4,300	5,180	6,150	10,710	35,970	100,700	62,340	45,430	14,970				

Cal yr 1967: Total 121,415 Mean 333 Max 2,040 Min - Ac-ft 240,800
Wtr yr 1968: Total 154,562 Mean 422 Max 2,210 Min - Ac-ft 306,600

Note.--No gage-height record Dec. 9 to Apr. 13.

ARKANSAS RIVER BASIN

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 1968. 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.--22 years, 70.6 cfs (51,110 acre-ft per year).

Extremes.--Maximum discharge during year, 525 cfs June 6 (gage height, 2.78 ft); minimum not determined.

1946-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	31						16	305	162	182	54
2	53	32						19	380	160	170	53
3	50	29						25	422	152	167	56
4	52	30						32	383	152	141	54
5	56	30						38	390	170	125	50
6	56							41	425	194	123	47
7	55							34	358	160	156	46
8	54							32	311	147	158	44
9	53							34	237	147	152	40
10	53						13	34	206	143	156	38
11	53							35	198	143	221	40
12	48							35	279	129	167	38
13	46							35	372	121	141	38
14	44							33	355	121	154	38
15	42							32	348	108	177	38
16	39		20	15	11	12		33	369	102	145	38
17	40	25						32	380	95	129	38
18	37							33	386	87	115	36
19	37						13	36	366	86	108	35
20	34						14	42	358	77	100	31
21	34						13	54	362	79	96	32
22	35						13	80	324	79	89	32
23	34						13	94	282	91	82	32
24	33						13	91	262	96	79	31
25	33						13	78	237	115	72	31
26	33						14	84	224	108	68	31
27	31						14	84	240	194	68	30
28	32						13	104	245	198	82	30
29	33						14	165	229	152	68	30
30	30						15	237	198	165	62	30
31	32							234		213	58	
Total	1,318	777	620	465	319	372	396	1,956	9,431	4,146	3,811	1,161
Mean	42.5	25.9	20	15	11	12	13.2	63.1	314	134	123	38.7
Max	56	-	-	-	-	-	-	237	425	213	221	56
Min	30	-	-	-	-	-	-	16	198	77	58	30
Ac-ft	2,610	1,540	1,230	922	633	738	785	3,880	18,710	8,220	7,560	2,300

Cal yr 1967 Total 26,418 Mean 72.4 Max 433 Min - Ac-ft 52,400
 Wtr yr 1968 Total 24,772 Mean 67.7 Max 425 Min - Ac-ft 49,130

Peak discharge (base, 400 cfs).--June 6 (0200) 525 cfs (2.78 ft).

Note.--No gage-height record Nov. 5 to Apr. 19.

7-0872. Arkansas River at Buena Vista, Colo.

Location.--Lat 38°50'55", long 106°07'23", 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 1968.

Gage.--Water-stage recorder. Altitude of gage is 7,920 ft (from topographic map).

Extremes.--Maximum discharge during year, about 3,000 cfs June 6; minimum daily, 85 cfs Feb. 16.

1964-68: Maximum discharge, 3,540 cfs July 13, 1965 (gage height, 6.32 ft); minimum daily, that of Feb. 16, 1968.

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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	239	145	124	111	95	98	140	668	1,800	1,260	1,390	730
2	222	153	117	116	89	96	128	658	1,960	1,180	952	645
3	215	136	133	117	98	95	105	676	2,480	1,180	909	418
4	212	145	131	112	105	90	100	699	2,560	1,210	780	396
5	215	138	163	110	107	89	102	717	2,700	1,300	668	365
6	218	128	140	110	102	93	126	771	2,800	1,410	686	331
7	218	123	147	110	98	100	126	771	2,180	1,350	708	309
8	208	130	130	110	93	95	118	762	1,800	990	762	295
9	189	133	158	108	89	94	114	744	1,600	891	800	274
10	179	133	147	100	88	90	116	780	1,300	984	939	260
11	202	128	120	100	88	89	128	795	1,200	903	1,400	239
12	202	131	128	100	88	87	138	830	1,100	841	1,450	239
13	205	133	116	100	89	95	153	815	1,240	815	1,350	239
14	189	145	114	106	88	99	136	771	1,400	971	1,260	260
15	195	145	114	110	89	93	138	748	1,600	1,120	830	278
16	189	142	136	108	85	89	151	712	1,680	1,070	805	278
17	176	140	121	114	88	98	142	672	1,740	971	810	284
18	158	136	121	112	88	95	140	708	1,900	915	748	295
19	160	138	118	116	88	89	133	700	1,960	939	654	288
20	158	140	124	112	93	95	126	600	1,950	909	577	288
21	149	156	126	108	112	90	128	540	1,960	903	565	278
22	147	158	135	107	105	102	126	600	1,910	915	509	260
23	140	153	133	105	103	100	123	800	2,030	939	621	246
24	135	145	136	104	103	104	124	920	2,000	952	795	236
25	135	160	128	108	102	102	131	900	1,820	958	780	222
26	135	147	124	107	98	104	133	1,000	1,630	971	762	205
27	130	145	118	105	103	102	136	1,000	1,590	1,300	744	199
28	136	149	116	105	96	104	607	1,080	1,730	1,400	810	199
29	138	142	123	100	103	113	633	1,200	1,730	1,350	776	215
30	131	128	121	95	- - - -	124	654	1,360	1,440	1,350	766	212
31	136	- - - -	114	98	- - - -	128	- - - -	1,500	- - - -	1,410	748	- - - -
Total	5,461	4,225	3,976	3,324	2,773	3,042	5,355	25,497	54,790	33,657	26,354	8,983
Mean	176	141	128	107	95.6	98.1	178	822	1,826	1,086	850	299
Max	239	160	163	117	112	128	654	1,500	2,800	1,410	1,450	730
Min	130	123	114	95	85	87	100	540	1,100	815	509	199
Ac-ft	10,830	8,380	7,890	6,590	5,500	6,030	10,620	50,570	108,700	66,760	52,270	17,820

Cal yr 1967: Total 157,457 Mean 431 Max 2,410 Min 90 Ac-ft 312,300
Wtr yr 1968: Total 177,437 Mean 485 Max 2,800 Min 85 Ac-ft 351,900

Note.--No gage-height record May 19 to June 18.

ARKANSAS RIVER BASIN

7-0890, Cottonwood Creek below Hot Springs, near Buena Vista, Colo.

Location.--Lat 38°48'46", long 106°13'18", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ 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 $5\frac{1}{2}$ miles southwest of Buena Vista.

Drainage area.--65 sq mi.

Records available.--October 1910 to September 1923, August 1949 to September 1968. 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.--32 years, 58.1 cfs (42,060 acre-ft per year).

Extremes.--Maximum discharge during year, about 400 cfs June 6; minimum, 16 cfs Apr. 9 (gage height, 1.13 ft).

1910-23, 1949-68: 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, 19, 1914.

Remarks.--Records good. Several small diversions above station for irrigation.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	35	26	24	19	20	19	22	210	103	94	53
2	42	35	28	24	19	20	20	25	250	98	98	51
3	40	35	28	24	20	20	19	25	280	93	132	53
4	41	33	28	24	20	19	18	28	300	91	117	60
5	47	34	28	24	20	19	18	28	320	114	108	57
6	44	34	28	23	21	19	18	29	300	112	110	54
7	43	32	28	23	22	19	18	26	275	96	117	52
8	42	32	28	24	22	20	18	22	220	94	112	49
9	42	33	28	24	22	19	18	24	144	85	108	46
10	42	31	26	22	22	19	18	22	134	82	117	46
11	42	31	26	22	21	19	18	22	123	78	146	46
12	40	31	26	22	22	19	18	26	178	75	123	47
13	39	29	29	22	21	19	18	26	224	75	114	46
14	39	30	28	22	22	19	18	24	234	71	127	46
15	39	29	28	22	22	19	18	26	224	73	136	49
16	38	29	29	22	21	19	18	26	224	67	116	48
17	38	29	29	22	21	19	18	24	224	64	107	46
18	37	28	29	22	21	19	18	22	224	62	98	46
19	37	28	28	20	21	18	18	22	214	65	91	44
20	35	28	28	20	21	18	18	26	208	64	86	44
21	35	28	28	21	21	19	18	35	214	58	80	44
22	35	30	26	22	21	19	18	54	202	56	76	43
23	34	28	26	21	21	19	18	65	181	57	71	43
24	34	28	28	21	21	19	19	56	166	64	66	43
25	34	28	26	20	21	19	20	50	151	62	64	42
26	34	28	24	21	20	19	20	49	140	61	61	42
27	35	26	24	21	20	18	19	49	130	96	61	41
28	35	26	24	21	20	18	20	80	130	93	70	41
29	34	28	24	21	20	18	20	110	125	66	62	41
30	34	28	24	19	19	18	20	150	116	64	57	41
31	35	- - - -	24	19	- - - -	18	- - - -	170	- - - -	76	55	- - - -
Total	1,188	904	834	679	605	586	556	1,363	6,065	2,415	2,920	1,404
Mean	38.3	30.1	26.9	21.9	20.9	18.9	18.5	44.0	202	77.9	91.1	46.8
Max	47	35	29	24	22	20	20	170	320	114	146	60
Min	34	26	24	19	19	18	18	22	116	56	55	41
Ac-ft	2,360	1,790	1,650	1,350	1,200	1,160	1,100	2,700	12,030	4,790	5,910	2,780

Cal yr 1967: Total 17,055 Mean 46.7 Max 217 Min 18 Ac-ft 33,830

Wtr yr 1968: Total 19,579 Mean 53.5 Max 320 Min 18 Ac-ft 38,830

Peak discharge (base, 300 cfs).--June 6 (about 0230) about 400 cfs; June 14 (0015) 313 cfs (2.84 ft).

Note.--No gage-height record Nov. 16 to Dec. 30, May 7 to June 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 1968.

Gage.--Water-stage recorder. Altitude of gage is 7,350 ft (from topographic map).

Extremes.--Maximum discharge during year, 3,250 cfs June 6 (gage height, 6.88 ft); minimum daily, 163 cfs Mar. 12, 16, 19. 1964-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	362	271	252	252	206	204	225	690	2,040	1,430	1,950	914
2	350	296	237	275	200	202	220	700	2,420	1,330	1,540	878
3	343	271	239	234	208	200	185	685	2,810	1,330	1,500	614
4	350	282	248	228	220	190	167	725	2,870	1,330	1,280	610
5	370	292	271	220	210	185	169	740	2,940	1,440	1,050	578
6	374	288	282	214	197	180	192	800	3,090	1,580	1,050	533
7	374	268	248	210	192	185	207	818	2,950	1,530	1,080	502
8	354	288	252	208	190	183	194	795	2,700	1,200	1,140	479
9	313	292	237	218	185	180	187	765	2,280	1,030	1,180	454
10	306	299	245	214	183	176	185	800	1,890	1,160	1,360	438
11	320	292	245	220	185	169	197	836	1,440	1,060	1,890	410
12	313	296	248	206	194	163	212	866	1,360	990	1,910	406
13	328	292	237	224	185	171	228	866	1,670	955	1,820	402
14	299	306	242	228	185	174	220	800	2,030	1,040	1,740	422
15	306	313	275	228	185	167	200	785	2,140	1,220	1,370	434
16	296	302	285	214	183	163	223	755	2,200	1,170	1,200	426
17	292	288	242	217	185	171	220	695	2,380	1,080	1,170	430
18	262	278	248	204	187	171	223	735	2,500	1,020	1,080	434
19	265	278	258	212	185	163	220	780	2,590	1,030	976	422
20	265	282	242	217	192	174	207	730	2,570	1,010	866	406
21	258	296	231	212	220	169	204	574	2,580	983	830	394
22	248	302	240	212	220	169	204	745	2,460	997	760	386
23	245	296	258	212	212	183	202	908	2,440	1,020	780	370
24	242	285	260	212	217	185	197	1,020	2,450	1,050	1,020	354
25	245	296	245	212	217	180	202	955	2,200	1,060	997	339
26	245	292	239	212	207	183	207	1,050	1,970	1,070	955	328
27	237	278	234	212	210	180	214	1,080	1,860	1,660	962	317
28	239	278	231	212	202	180	514	1,170	1,950	1,880	1,050	299
29	252	265	234	212	200	190	655	1,430	2,010	1,670	1,020	313
30	239	255	239	210	---	204	670	1,650	1,680	1,710	962	313
31	255	---	258	210	---	210	---	1,760	---	1,850	934	---
Total	9,147	8,617	7,702	6,771	5,762	5,604	7,350	27,708	63,470	33,885	37,422	13,605
Mean	295	287	248	218	199	181	245	894	2,282	1,254	1,207	454
Max	374	313	285	275	220	210	670	1,760	3,090	1,880	1,950	914
Min	237	255	231	204	183	163	167	574	1,360	955	760	299
Ac-ft	18,140	17,090	15,280	13,430	11,430	11,120	14,580	54,960	135,800	77,130	74,230	26,990

Cal yr 1967: Total 196,224 Mean 538 Max 2,620 Min 183 Ac-ft 389,200
 Wtr yr 1968: Total 237,043 Mean 648 Max 3,090 Min 163 Ac-ft 470,200

ARKANSAS RIVER BASIN

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 1968. 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.--62 years (1898-99, 1901-3, 1909-68), 626 cfs (453,200 acre-ft per year).

Extremes.--Maximum discharge during year, 2,940 cfs June 6 (gage height, 3.76 ft); minimum daily, 170 cfs Apr. 4-5. 1895-1903, 1909-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	362	302	318	235	223	231	199	655	1,530	1,560	2,107	990
2	351	302	307	250	211	223	199	655	1,890	1,470	1,720	965
3	340	312	307	255	219	223	181	627	2,270	1,460	1,697	692
4	346	312	312	245	227	219	170	655	2,330	1,450	1,450	692
5	356	324	324	240	223	207	170	670	2,510	1,530	1,270	627
6	346	329	324	240	227	207	181	722	2,750	1,670	1,260	572
7	346	318	302	240	227	207	195	760	2,630	1,670	1,307	520
8	334	324	312	235	219	203	188	738	2,420	1,360	1,360	488
9	307	329	290	245	215	207	188	715	2,030	1,210	1,360	455
10	302	334	296	255	207	207	184	745	1,690	1,290	1,497	437
11	307	318	296	255	219	195	188	782	1,350	1,250	1,970	407
12	296	307	290	245	223	192	195	798	1,290	1,180	2,040	407
13	312	290	280	240	211	195	203	805	1,510	1,140	1,910	401
14	302	296	270	260	219	195	203	752	1,880	1,170	1,840	419
15	302	307	275	265	211	188	199	722	1,970	1,340	1,550	425
16	296	302	285	260	219	184	211	700	2,080	1,300	1,370	425
17	290	296	280	245	223	188	211	627	2,300	1,230	1,330	431
18	270	296	260	235	227	184	215	662	2,390	1,170	1,250	431
19	270	290	275	255	223	184	215	708	2,540	1,180	1,130	413
20	270	302	275	255	231	188	199	692	2,530	1,160	990	413
21	265	307	255	260	255	188	203	390	2,590	1,130	949	395
22	265	318	255	260	255	181	207	507	2,500	1,130	893	384
23	255	318	270	255	245	188	207	641	2,480	1,170	901	362
24	255	318	275	245	255	188	211	738	2,560	1,170	1,090	340
25	255	329	285	240	255	184	215	700	2,310	1,180	1,070	324
26	255	334	275	235	240	181	227	752	2,040	1,220	1,030	307
27	255	329	250	235	240	181	231	798	1,930	1,750	1,030	296
28	270	329	260	235	235	178	441	853	2,020	2,050	1,100	290
29	270	324	255	235	231	181	641	941	2,110	1,800	1,080	290
30	275	318	260	227	- - - - -	184	641	1,090	1,780	1,830	1,020	296
31	280	- - - - -	245	231	- - - - -	188	- - - - -	1,250	- - - - -	1,920	1,010	- - - - -
Total	9,205	9,414	8,763	7,613	6,615	6,049	7,118	22,850	64,210	43,140	41,553	13,894
Mean	297	314	283	246	228	195	237	737	2,140	1,392	1,340	463
Max	362	334	324	265	255	231	641	1,250	2,750	2,050	2,100	990
Min	255	290	245	227	207	178	170	390	1,290	1,130	873	290
Ac-ft	18,260	18,670	17,380	15,100	13,120	12,000	14,120	45,320	127,400	85,570	82,420	27,560
Cal yr 1967: Total	206,043		Mean	565	Max	2,670	Min	192	Ac-ft	408,700		
Wtr yr 1968: Total	240,424		Mean	637	Max	2,750	Min	170	Ac-ft	476,900		

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 1968.

Gage.--Water-stage recorder. Datum of gage is 6,883.4 ft above mean sea level (river-profile survey).

Average discharge.--7 years, 676 cfs (489,400 acre-ft per year).

Extremes.--Maximum discharge during year, 3,620 cfs June 6 (gage height, 7.18 ft); minimum daily, 188 cfs Apr. 5.
1961-68: Maximum discharge, 4,390 cfs July 13, 1963 (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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	428	316	356	302	268	282	247	670	1,930	1,450	2,000	912
2	412	344	332	316	244	271	241	680	2,380	1,340	1,660	882
3	396	352	336	316	268	264	215	660	2,930	1,330	1,600	618
4	408	372	352	296	271	250	190	680	2,900	1,330	1,350	605
5	432	404	356	292	271	238	188	690	3,070	1,420	1,130	564
6	412	408	380	296	278	241	198	742	3,320	1,560	1,100	528
7	412	388	344	278	271	247	223	767	3,080	1,570	1,160	500
8	400	392	364	288	268	247	212	760	2,800	1,250	1,200	484
9	368	396	332	313	254	244	205	724	2,390	1,050	1,200	456
10	348	392	332	299	254	244	200	736	2,000	1,150	1,400	448
11	360	384	348	306	254	238	202	795	1,590	1,080	1,880	420
12	356	372	352	278	268	226	215	816	1,460	1,000	1,940	408
13	364	368	332	292	257	238	232	816	1,710	965	1,840	404
14	340	368	332	313	257	235	229	767	2,080	1,030	1,750	424
15	348	376	356	310	254	226	229	724	2,170	1,230	1,470	432
16	344	364	380	299	250	220	226	700	2,190	1,200	1,270	440
17	332	348	344	302	254	220	226	650	2,360	1,100	1,210	436
18	310	336	313	282	257	229	226	655	2,440	1,040	1,140	444
19	306	332	348	288	260	220	226	690	2,550	1,050	1,100	436
20	310	332	344	306	268	226	212	685	2,500	1,030	898	428
21	306	340	299	296	285	226	208	444	2,530	988	860	416
22	299	356	302	288	299	218	215	528	2,430	988	774	408
23	292	348	332	292	285	232	215	650	2,360	1,030	724	388
24	288	352	348	296	292	229	220	680	2,390	1,040	1,020	368
25	285	368	348	292	288	226	229	670	2,160	1,080	1,000	352
26	285	372	340	292	278	223	232	685	1,960	1,080	958	340
27	278	360	332	285	285	218	238	712	1,830	1,630	958	324
28	282	364	320	288	292	212	439	774	1,900	1,970	1,040	313
29	299	372	324	282	268	210	665	1,040	1,990	1,740	1,020	316
30	299	364	320	271	- - - -	229	665	1,360	1,650	1,770	965	324
31	299	- - - -	302	274	- - - -	235	- - - -	1,610	- - - -	1,860	935	- - - -
Total	10,598	10,940	10,500	9,128	7,798	7,264	7,668	23,560	69,050	39,351	38,552	13,818
Mean	342	365	339	294	269	234	256	760	2,302	1,269	1,244	461
Max	432	408	380	316	299	282	665	1,610	3,320	1,970	2,000	912
Min	278	316	299	271	244	210	188	444	1,460	965	724	313
Ac-ft	21,020	21,700	20,830	18,110	15,470	14,410	15,210	46,730	137,000	78,050	76,470	27,410
Cal yr 1967: Total	209,174		Mean	573	Max	2,500	Min	185	Ac-ft	414,900		
Wtr yr 1968: Total	248,227		Mean	678	Max	3,320	Min	188	Ac-ft	492,400		

ARKANSAS RIVER BASIN

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 1968. 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.--14 years, 773 cfs (559,600 acre-ft per year).

Extremes.--Maximum discharge during year, 3,870 cfs June 6 (gage height, 6.30 ft); minimum daily, 274 cfs Apr. 5, 11.

1945-55, 1964-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	472	354	400	360	320	328	324	731	1,910	1,650	2,150	1,040
2	450	372	391	375	307	324	337	731	2,500	1,480	1,950	1,030
3	440	400	376	390	307	324	317	717	3,060	1,450	1,760	892
4	440	386	396	360	313	313	284	724	3,240	1,440	1,590	766
5	455	425	391	350	313	300	274	738	3,290	1,470	1,360	717
6	455	435	410	350	317	300	279	766	3,600	1,620	1,330	668
7	445	435	396	340	317	300	284	812	3,400	1,700	1,410	616
8	435	435	410	345	313	307	284	820	3,160	1,500	1,430	586
9	420	440	396	360	310	310	279	788	2,710	1,240	1,520	568
10	400	440	354	380	307	307	276	804	2,310	1,240	1,580	538
11	396	435	396	360	304	304	274	876	1,860	1,240	1,820	520
12	391	420	396	340	317	290	279	884	1,640	1,170	2,300	484
13	391	415	386	350	313	294	294	892	1,720	1,110	2,090	472
14	391	410	362	370	307	300	297	868	2,120	1,070	1,970	478
15	391	420	354	370	310	297	284	812	2,270	1,310	1,840	490
16	396	415	396	350	307	290	282	788	2,270	1,320	1,540	496
17	381	400	405	360	304	294	290	745	2,450	1,240	1,450	496
18	372	391	367	372	310	297	297	724	2,530	1,150	1,400	508
19	349	381	381	345	310	294	304	766	2,670	1,140	1,280	502
20	349	386	415	362	313	294	300	780	2,630	1,220	1,160	490
21	354	381	362	349	324	294	294	610	2,680	1,120	1,080	472
22	345	396	324	345	341	287	287	532	2,620	1,100	1,020	466
23	341	400	386	341	337	294	297	703	2,480	1,140	924	460
24	333	396	405	349	337	297	297	812	2,710	1,160	1,100	435
25	333	400	420	345	341	300	294	812	2,370	1,160	1,170	420
26	333	410	415	345	333	304	294	773	2,160	1,170	1,130	410
27	324	405	410	333	328	307	300	836	1,970	1,430	1,090	396
28	320	405	381	341	345	300	328	868	1,940	2,140	1,140	381
29	341	420	396	337	317	304	730	1,040	2,140	1,830	1,170	376
30	345	415	381	324	- - - -	313	745	1,400	1,860	1,830	1,110	386
31	337	- - - -	370	313	- - - -	328	- - - -	1,660	- - - -	1,940	1,080	- - - -
Total	11,925	12,223	12,028	10,911	9,222	9,395	9,705	25,812	74,270	42,780	44,944	16,559
Mean	385	407	388	352	318	303	324	833	2,476	1,380	1,450	552
Max	472	440	420	390	345	328	745	1,660	3,600	2,140	2,300	1,040
Min	320	354	324	313	304	287	274	532	1,640	1,070	924	376
Ac-Ft	23,650	24,240	23,860	21,640	18,290	18,630	19,250	51,200	147,300	84,850	89,150	32,840

Cal yr 1967: Total 222,500 Mean 610 Max 2,340 Min 246 Ac-ft 441,300
 Wtr yr 1968: Total 279,774 Mean 764 Max 3,600 Min 274 Ac-ft 554,900

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 1968. 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.--43 years, 31.8 cfs (23,020 acre-ft per year).

Extremes.--Maximum discharge during year, 625 cfs Aug. 11 (gage height, 2.86 ft); minimum not determined.

1924-61, 1962-68: Maximum discharge, 7,460 cfs Aug. 2, 1966 (gage height, 8.45 ft), from rating curve extended above 320 cfs on basis of slope-area measurement of peak flow; 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	25	17					142	84	11	206	46
2	14	29	17					99	78	12	240	39
3	14	27	18					74	75	32	206	40
4	13	25	20					64	75	17	168	67
5	21	24	19					58	78	13	139	50
6	21	32				25	55	52	78	25	151	44
7	24	21						49	99	40	229	37
8	24	21						44	112	37	235	30
9	21	22						41	89	28	229	28
10	27	27						44	74	20	461	27
11	25	29					68	54	55	44	546	25
12	22	30					65	56	39	41	429	22
13	19	30					58	56	46	51	344	22
14	14	29					44	52	49	47	272	20
15	12	28					40	44	46	39	235	15
16	27	26		18	21			40	41	54	193	14
17	24	22						39	41	67	161	14
18	21	21						41	39	77	132	14
19	18	21						51	45	65	110	12
20	15	19						61	46	59	99	12
21	15	18				40		49	50	64	94	9.8
22	17	17						43	54	68	84	9.8
23	15	15						65	60	67	74	15
24	14	15						84	58	68	34	15
25	14	19						61	58	59	60	13
26	14	16						52	54	51	55	12
27	13	15						49	49	40	94	9.8
28	13	18						65	50	31	188	9.8
29	16	24						117	65	27	144	9.8
30	18	20						243	84	16	106	11
31	20								84		51	
Total	561	685	559	558	609	1,090	1,885	1,807	1,990	1,480	5,485	693.0
Mean	18.1	22.8	18.0	18	21	35.2	62.8	58.3	63.0	47.7	177	23.1
Max	27	32	-	-	-	-	243	142	112	188	546	67
Min	12	15	-	-	-	-	39	39	16	11	51	9.8
Ac-ft	1,110	1,360	1,110	1,110	1,210	2,160	3,740	3,580	3,750	2,940	10,880	1,370

Cal yr 1967: Total 8,725.6 Mean 23.9 Max 224 Min 4.2 Ac-ft 17,310
 Wtr yr 1968: Total 17,302.0 Mean 47.3 Max 546 Min - Ac-ft 34,320

Peak discharge (base, 250 cfs)

Note.--No gage-height record Dec. 8 to Apr. 11.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
4-30	0300	2.08	327	8-11	0600	2.86	625
8-2	1700	2.04	299				

ARKANSAS RIVER BASIN

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 1968. 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.--80 years, 718 cfs (519,800 acre-ft per year).

Extremes.--Maximum discharge during year, 4,230 cfs June 6 (gage height, 6.85 ft); minimum daily, 165 cfs Apr. 24, 25.

1888-1968: 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 analyses for the water year 1968 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	356	225	348	312	246	288	640	580	1,740	1,640	2,570	957
2	340	276	336	328	228	284	640	586	2,330	1,490	2,440	906
3	328	336	316	352	225	284	653	569	2,940	1,440	2,090	768
4	328	328	328	308	236	268	622	564	3,200	1,420	1,920	604
5	348	356	324	280	222	256	610	580	3,330	1,540	1,540	547
6	340	376	336	292	228	250	610	604	3,780	1,640	1,460	547
7	324	394	340	260	232	253	542	622	3,760	1,640	1,660	470
8	320	384	336	268	228	264	460	616	3,650	1,530	1,610	445
9	304	416	348	320	228	264	360	592	3,220	1,250	1,700	420
10	300	440	320	300	225	264	296	646	2,720	1,190	2,010	402
11	284	445	344	308	222	253	246	719	2,100	1,230	2,410	384
12	260	402	352	276	239	228	256	747	1,700	1,120	2,990	364
13	250	389	344	260	246	242	264	761	1,770	1,060	2,690	360
14	250	372	340	320	246	256	256	754	2,360	1,010	2,540	352
15	246	384	336	312	236	246	236	666	2,500	1,240	2,300	348
16	250	376	364	296	225	236	204	622	2,400	1,310	1,810	356
17	232	340	389	308	222	256	204	574	2,580	1,240	1,650	372
18	225	328	344	300	225	272	242	542	2,660	1,150	1,530	412
19	207	324	348	246	239	280	246	569	2,840	1,130	1,430	407
20	201	324	380	292	242	288	213	610	2,830	1,220	1,230	394
21	201	324	344	288	260	284	168	480	2,870	1,130	1,080	380
22	204	332	288	276	300	268	171	348	2,830	1,090	1,050	344
23	186	344	352	280	300	268	168	505	2,600	1,110	993	324
24	183	344	356	292	296	288	165	610	2,910	1,120	1,050	296
25	186	356	372	288	312	288	165	640	2,620	1,140	1,130	280
26	177	368	368	288	300	296	180	586	2,360	1,090	1,110	260
27	174	364	380	280	288	308	189	634	2,140	1,380	1,030	250
28	174	372	348	288	312	304	222	679	2,100	2,510	1,050	242
29	204	372	352	280	284	344	596	835	2,340	2,050	1,080	236
30	219	356	348	268	- - - - -	364	598	1,070	2,110	1,970	1,020	242
31	210	- - - - -	300	250	- - - - -	455	- - - - -	1,290	- - - - -	2,220	984	- - - - -
Total	7,811	10,747	10,681	8,996	7,292	8,699	10,422	20,200	79,290	43,300	51,157	12,669
Mean	252	358	345	290	251	281	347	652	2,643	1,397	1,650	422
Max	356	445	389	332	312	455	653	1,290	3,780	2,510	2,990	957
Min	174	225	288	246	222	228	165	348	1,700	1,010	984	236
Ac-ft	15,490	21,320	21,190	17,840	14,460	17,250	20,670	40,070	157,300	85,880	101,500	25,130
Cal yr 1967: Total	203,215		Mean 557	Max 2,760	Min 117	Ac-ft 403,100						
Wtr yr 1968: Total	271,264		Mean 741	Max 3,780	Min 165	Ac-ft 538,000						

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.

Drainage area.--4,280 sq mi.

Records available.--October 1964 to September 1968.

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, 4,410 cfs Aug. 10 (gage height, 5.07 ft); minimum daily, 172 cfs Oct. 26.

1964-68: Maximum discharge, 23,900 cfs Aug. 21, 1965 (gage height, 11.85 ft), from rating curve extended above 7,400 cfs on basis of slope-area measurement of peak flow; minimum daily, 86 cfs May 10, 1967.

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 for the water year 1968 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	422	222	346	295	237	281	604	604	1,990	1,610	2,340	928
2	412	272	320	346	222	276	639	604	2,460	1,460	2,400	907
3	365	315	300	335	207	272	520	597	2,950	1,410	1,980	900
4	360	320	315	325	230	250	431	583	3,460	1,370	1,910	761
5	370	340	320	286	218	241	356	618	3,610	1,420	1,640	693
6	350	378	335	290	222	234	351	646	3,630	1,570	1,480	610
7	340	425	340	275	230	241	335	705	3,950	1,660	1,590	550
8	330	413	310	260	218	230	315	682	3,950	1,530	1,620	503
9	320	395	340	300	218	234	272	646	3,460	1,720	1,730	473
10	310	395	286	272	211	241	254	682	2,980	1,440	2,280	448
11	300	419	325	305	241	226	241	795	2,520	1,490	1,940	428
12	280	384	368	290	222	193	245	819	2,060	1,390	2,200	390
13	250	419	378	234	226	200	390	788	2,040	1,300	2,040	371
14	250	362	360	290	211	218	390	772	2,420	1,230	1,910	354
15	255	384	360	320	222	211	351	750	2,560	1,350	1,840	349
16	260	390	350	315	222	215	325	668	2,560	1,430	1,580	358
17	250	368	380	320	204	211	325	653	2,540	1,390	1,520	362
18	245	325	340	325	207	196	407	576	2,540	1,420	1,500	399
19	218	320	340	263	218	211	462	604	2,620	1,500	1,390	399
20	204	315	370	290	218	204	425	660	2,650	1,440	1,260	385
21	211	325	350	315	234	204	356	639	2,590	1,340	1,120	362
22	211	340	300	281	281	207	330	384	2,530	1,400	1,040	345
23	196	340	325	276	305	179	351	488	2,410	1,340	991	367
24	186	330	378	286	290	196	330	705	2,470	1,420	1,030	341
25	186	340	390	286	305	218	315	795	2,290	1,440	1,140	316
26	172	346	378	276	295	226	286	728	2,090	1,460	1,040	296
27	176	351	390	263	290	230	230	750	1,890	1,580	967	284
28	179	335	356	272	305	218	258	772	1,810	2,280	975	270
29	241	346	356	268	295	234	477	909	1,930	2,230	1,020	270
30	245	351	351	250	- - - - -	268	618	1,290	1,860	2,060	1,010	276
31	218	- - - - -	295	234	- - - - -	330	- - - - -	1,670	- - - - -	2,150	959	- - - - -
Total	8,312	10,565	10,652	8,943	7,004	7,095	11,189	22,582	78,820	47,830	47,442	13,695
Mean	268	352	344	288	242	229	373	728	2,627	1,543	1,530	456
Max	422	425	390	346	305	330	639	1,670	3,950	2,280	2,400	928
Min	172	222	286	234	204	179	230	384	1,810	1,230	959	270
Ac-ft	16,490	20,960	21,130	17,740	13,890	14,070	22,190	44,790	156,300	94,870	94,100	27,160
Cal yr 1967: Total	210,447		Mean	577	Max	2,540	Min	86	Ac-ft	417,400		
Wtr yr 1968: Total	274,129		Mean	749	Max	3,950	Min	172	Ac-ft	543,700		

ARKANSAS RIVER BASIN

7-0994. Arkansas River above Pueblo, Colo.

Location.--Lat 38°16'17", Long 104°43'06", in NE¼NE¼ sec.36, T.20 S., R.66 W., on left bank 450 ft downstream from headgate of West Pueblo ditch, 0.4 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 1968.

Gage.--Water-stage recorder. Altitude of gage is 4,740 ft (from topographic map). Prior to Mar. 23, 1967, at site 730 ft upstream at datum 1.23 ft higher.

Extremes.--Maximum discharge during year, 4,630 cfs Aug. 10 (gage height, 5.67 ft); maximum gage height, 5.96 ft Jan. 2 (backwater from ice); minimum daily discharge, 82 cfs Oct. 27.

1965-68: Maximum discharge, 10,100 cfs Aug. 1, 1966 (gage height, 9.4 ft, from flood marks, present site and datum), from rating curve extended above 1,600 cfs on basis of slope-area measurement of peak flow; minimum daily, 28 cfs, May 11, 1967.

Remarks.--Records good except those for winter period, which are 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 for the water year 1968 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	292	169	245	300	255	203	417	548	1,730	1,450	2,120	784
2	266	203	224	290	250	214	466	540	2,200	1,470	2,300	739
3	240	261	208	290	229	203	372	518	2,720	1,200	1,940	739
4	234	250	203	290	245	193	319	495	3,050	1,140	1,880	618
5	234	240	219	290	245	188	255	502	3,230	1,140	1,490	546
6	271	287	245	290	245	169	234	510	3,710	1,310	1,180	470
7	282	298	330	280	245	164	229	525	3,650	1,390	1,260	410
8	250	292	319	280	245	146	219	532	3,420	1,320	1,200	380
9	240	298	340	280	240	146	179	532	3,060	1,080	1,300	350
10	219	314	314	280	234	150	150	540	2,570	896	2,420	328
11	224	308	303	280	229	150	141	540	2,060	888	2,030	312
12	208	303	351	280	240	140	119	608	1,630	920	2,710	295
13	193	282	351	290	250	146	229	608	1,540	864	2,670	270
14	188	266	330	300	245	146	292	585	1,720	808	2,490	260
15	245	261	330	310	245	124	261	532	1,920	864	2,280	250
16	240	266	310	320	219	110	214	502	1,980	1,000	1,830	260
17	208	261	310	320	240	110	229	495	2,070	976	1,580	280
18	188	250	310	300	234	115	282	459	2,190	912	1,410	300
19	174	240	310	310	245	119	298	417	2,270	952	1,200	292
20	155	229	320	310	214	115	330	417	2,360	960	1,020	288
21	141	229	330	310	174	115	266	410	2,300	928	944	270
22	160	234	330	300	198	124	229	314	2,250	920	912	275
23	146	245	300	310	219	110	271	255	2,130	1,010	864	280
24	128	240	300	324	214	124	245	324	2,180	984	864	280
25	124	245	310	330	214	146	240	495	2,070	1,000	968	260
26	110	250	320	303	219	155	224	532	1,880	992	888	240
27	82	255	310	292	208	160	193	518	1,750	1,030	824	210
28	103	240	300	282	214	155	137	540	1,660	1,780	800	200
29	155	240	300	292	219	164	263	578	1,760	1,920	896	198
30	219	255	300	271	- - - - -	214	570	908	1,680	1,830	856	196
31	179	- - - - -	300	261	- - - - -	245	- - - - -	1,270	- - - - -	1,940	808	- - - - -
Total	6,098	7,711	9,272	9,165	6,673	4,763	7,873	16,549	63,740	35,874	45,934	10,580
Mean	197	257	299	296	230	154	262	534	2,291	1,157	1,482	353
Max	292	314	351	330	255	245	570	1,270	3,710	1,940	2,710	784
Min	82	169	203	261	174	110	119	255	1,540	808	800	196
Ac-ft	12,100	15,290	18,390	18,180	13,240	9,450	15,620	32,820	136,300	71,160	91,110	20,990
Cal yr 1967: Total	171,814		Mean	471	Max	2,300	Min	28	Ac-ft	340,800		
Wtr yr 1968: Total	229,232		Mean	626	Max	3,710	Min	82	Ac-ft	454,700		

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 1968. 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.--75 years (1886-87, 1894-1968), 708 cfs (512,600 acre-ft per year).

Extremes.--Maximum discharge during year, 5,190 cfs Aug. 10 (gage height, 4.99 ft); minimum daily, 103 cfs Oct. 27.

1885-87, 1889, 1894-1968: 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 poor. 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	327	175	269	296	254	222	391	508	1,580	1,490	2,200	839
2	292	220	258	287	247	227	532	517	2,240	1,510	2,360	827
3	264	250	233	287	235	227	451	535	2,680	1,390	2,060	803
4	249	232	224	287	247	215	355	526	2,880	1,220	1,970	748
5	243	243	229	287	241	197	294	517	2,980	1,260	1,770	598
6	284	263	276	287	247	181	261	553	3,320	1,500	1,620	524
7	311	257	382	277	254	181	263	562	3,240	1,530	1,850	479
8	297	237	354	277	254	167	245	571	3,120	1,430	1,790	426
9	276	278	358	276	241	167	201	599	2,880	1,370	1,880	409
10	255	292	313	276	236	181	169	612	2,380	1,340	2,950	375
11	261	298	302	285	236	237	149	653	1,900	1,200	2,090	344
12	235	292	299	294	241	232	146	735	1,460	1,070	2,740	313
13	206	285	301	304	254	186	210	743	1,390	1,000	2,720	286
14	178	271	296	314	241	196	262	755	1,700	920	2,440	252
15	239	263	290	324	241	185	239	702	1,940	1,000	2,400	241
16	228	263	288	332	223	161	203	624	1,990	1,110	2,040	253
17	199	237	290	342	229	151	209	607	2,140	1,110	1,790	267
18	189	220	300	321	223	161	268	542	2,280	1,050	1,690	305
19	179	232	309	331	229	160	323	497	2,370	1,350	1,580	311
20	159	237	318	340	228	160	317	569	2,520	1,160	1,390	320
21	154	237	324	339	234	160	262	587	2,670	1,070	1,180	317
22	174	237	302	328	273	154	227	339	2,690	1,010	1,070	315
23	158	237	291	347	300	154	245	347	2,570	1,170	994	333
24	138	250	300	358	287	153	211	560	2,500	1,160	945	336
25	143	243	308	366	286	163	195	706	2,420	1,200	1,010	309
26	133	250	318	339	306	159	185	646	2,140	1,220	993	275
27	103	252	308	319	294	154	180	608	1,920	1,330	944	234
28	127	255	297	299	287	154	147	617	1,780	2,040	896	213
29	170	254	296	279	286	151	242	684	1,890	2,120	873	221
30	218	269	297	271	- - - -	180	499	1,030	1,820	2,200	862	214
31	184	- - - -	297	262	- - - -	201	- - - -	1,350	- - - -	1,980	850	- - - -
Total	6,573	7,529	9,227	9,531	7,354	5,577	7,881	19,401	69,390	41,510	51,947	11,689
Mean	212	251	298	307	254	180	263	626	2,313	1,339	1,676	390
Max	327	298	382	366	306	237	532	1,350	3,320	2,200	2,950	839
Min	103	175	224	262	223	151	146	339	1,390	920	850	213
Ac-ft	13,040	14,930	18,300	18,900	14,590	11,060	15,630	38,480	137,600	82,330	103,000	23,180

Cal yr 1967: Total 174,984 Mean 479 Max 2,290 Min 30 Ac-ft 347,100

Wtr yr 1968: Total 247,609 Mean 677 Max 3,320 Min 103 Ac-ft 491,100

Note.--No gage-height record Dec. 3 to Jan. 31.

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 1968.

Gage.--Water-stage recorder and Parshall flume with overflow weirs. Altitude of gage is 6,110 ft (from topographic map).

Average discharge.--10 years, 11.7 cfs (8,470 acre-ft per year).

Extremes.--Maximum discharge during year, 301 cfs Aug. 2 (gage height, 3.57 ft); minimum daily, 3.3 cfs July 21.

1958-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.8	12	9.1	9.5	6.1	7.6	12	9.3	12	4.7	11	13
2	5.0	12	6.4	9.5	6.3	7.5	11	9.5	12	4.0	29	11
3	4.8	10	6.9	9.0	7.8	7.1	10	10	11	6.5	28	11
4	5.0	12	8.0	9.0	7.0	9.3	9.7	11	15	6.0	26	11
5	5.7	14	7.3	8.5	6.6	10	11	9.8	14	9.6	23	15
6	8.9	13	6.4	8.5	6.6	10	12	12	18	7.6	25	14
7	8.0	12	5.0	8.0	6.4	9.3	11	10	18	7.5	31	13
8	9.0	13	7.0	8.0	6.2	9.0	10	9.5	23	7.5	31	13
9	9.8	10	8.5	8.0	6.3	7.2	10	9.1	22	9.7	26	12
10	22	7.6	8.6	8.5	5.9	7.2	11	9.0	21	9.1	37	12
11	15	7.3	9.1	8.5	6.2	7.3	11	9.1	19	10	41	12
12	13	14	7.0	9.0	6.9	7.6	11	10	17	7.3	42	11
13	9.3	12	5.4	9.0	5.8	8.1	10	9.5	14	6.4	38	12
14	8.0	6.0	5.2	9.0	7.0	8.3	9.1	10	14	6.9	39	11
15	11	10	5.2	9.5	8.0	8.0	11	9.5	15	5.7	39	11
16	9.6	12	5.2	9.5	7.9	7.8	11	9.1	14	5.4	31	12
17	13	11	6.0	9.0	6.0	8.3	11	9.0	13	5.0	16	14
18	13	9.6	7.6	9.0	7.8	7.3	10	8.3	12	5.8	14	12
19	10	8.1	8.0	8.0	7.8	7.0	11	7.6	11	5.2	13	8.5
20	8.1	8.0	8.8	8.0	7.6	7.2	10	7.8	8.5	3.9	9.6	9.1
21	8.8	7.6	8.0	9.0	8.0	8.5	12	7.5	8.6	3.3	14	11
22	9.1	7.3	7.4	10	7.8	7.5	11	7.3	8.1	10	22	10
23	8.1	7.3	9.0	11	6.7	7.3	9.3	8.5	7.8	15	22	12
24	8.8	7.2	10	11	7.0	8.0	11	15	12	14	22	12
25	9.6	7.8	9.5	11	6.7	9.8	10	19	17	8.5	21	11
26	7.3	8.3	9.6	10	6.9	11	9.3	16	7.8	8.5	21	11
27	7.3	9.2	9.2	9.0	6.7	11	7.6	10	6.9	11	18	11
28	7.2	9.6	8.4	8.0	6.7	10	7.2	8.1	6.0	10	18	11
29	8.6	11	9.2	7.5	6.7	13	7.6	8.0	6.2	8.6	17	8.5
30	7.3	9.5	9.4	7.2	- - - -	15	8.5	9.6	4.4	10	17	7.5
31	8.6	- - - -	9.6	7.2	- - - -	12	- - - -	9.6	- - - -	13	14	- - - -
Total	284.7	298.4	240.0	275.9	199.4	274.2	306.3	307.7	388.3	245.7	755.6	342.6
Mean	9.18	9.95	7.74	8.90	6.88	8.85	10.2	9.93	12.9	7.93	24.4	11.4
Max	22	14	10	11	8.0	15	12	19	23	15	42	15
Min	4.8	6.0	5.0	7.2	5.8	7.0	7.2	7.3	4.4	3.3	9.6	7.5
Ac-ft	565	592	476	547	396	544	608	610	770	487	1,500	680

Cal yr 1967: Total 3,915.3 Mean 10.7 Max 64 Min 3.6 Ac-ft 7,770
 Wtr yr 1968: Total 3,918.8 Mean 10.7 Max 42 Min 3.3 Ac-ft 7,770

Note.--No gage-height record Dec. 27 to Jan. 29.

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 1968.

Gage.--Water-stage recorder and Parshall flume. Datum of gage is 7,080.78 ft (city of Colorado Springs bench mark).

Average discharge.--11 years, 0.69 cfs (500 acre-ft per year).

Extremes.--Maximum discharge during year, 8.5 cfs Apr. 11 (gage height, 0.77 ft); no flow Nov. 7 to Jan. 24.

1957-68: 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 except those for winter period, which are poor. 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.90	0.21		0	0.30	0.60	1.8	1.9	1.6	0.78	0.54	0.66
2	.90	.21		0	.25	.80	2.1	2.2	1.5	.46	1.1	.72
3	1.3	.25		0	.20	.60	2.5	2.2	1.2	.84	1.9	1.3
4	.84	.21		0	.20	.50	3.0	1.9	1.5	.78	1.8	2.1
5	.60	.21		0	.20	.60	3.2	1.8	2.2	1.0	1.6	1.1
6	.60	.10		0	.20	.65	3.0	1.8	2.9	.97	1.9	.97
7	.54	0		0	.20	.70	2.5	2.3	1.6	.84	2.0	.72
8	.38	0		0	.20	1.0	2.3	1.7	1.2	1.3	3.5	.60
9	.21	0		0	.20	1.5	1.9	1.6	.90	1.8	4.1	.72
10	.33	0		0	.20	1.6	1.6	1.6	1.0	2.6	1.7	.66
11	.17	0		0	.60	1.6	4.1	1.6	.90	1.2	1.9	.66
12	.25	0		0	1.0	1.8	1.6	1.5	.97	1.4	3.8	.72
13	.17	0		0	1.2	1.0	1.3	1.7	.72	.78	3.7	.60
14	.38	0		0	.90	.70	1.1	1.4	.66	.90	1.5	.54
15	.38	0		0	.50	.56	1.2	1.8	.84	.90	1.1	.60
16	.38	0		0	.30	.50	1.6	2.0	.78	1.3	.60	.60
17	.25	0		0	.20	.50	1.5	1.5	.97	1.1	1.0	.78
18	.33	0		0	.20	.80	1.3	1.4	.84	1.0	.97	.72
19	.17	0		0	.20	1.5	1.1	1.1	.84	1.1	.90	.90
20	.21	0		0	.50	2.0	1.3	1.2	.84	1.1	.72	.84
21	.25	0		0	.30	1.5	1.0	1.4	.54	1.0	.84	.84
22	.17	0		0	.20	1.0	1.2	1.5	.72	1.3	.66	.97
23	.17	0		0	.15	.80	1.1	1.6	.84	1.2	.66	.78
24	.13	0		0	.10	.60	1.6	2.2	.78	1.0	.48	.84
25	.13	0		.05	.10	.50	1.3	2.4	.84	1.0	.43	.66
26	.21	0		.10	.10	.60	1.6	2.2	.97	.97	.60	.84
27	.25	0		.15	.20	.70	1.2	2.0	.72	1.1	.66	.72
28	.17	0		.20	.50	.90	1.6	1.8	.84	.97	.66	1.1
29	.17	0		.25	.55	1.0	1.3	1.9	.66	.97	.97	.90
30	.17	0		.30	---	1.3	2.2	2.0	.72	.97	.84	1.0
31	.17	---		.35	---	1.5	---	1.8	---	.78	.97	---
Total	11.28	1.19	0	1.40	9.95	29.91	54.1	55.0	31.59	33.41	44.10	25.16
Mean	0.36	0.040	0	0.045	0.34	0.96	1.80	1.77	1.05	1.08	1.42	0.84
Max	1.3	0.25	0	0.35	1.2	2.0	4.1	2.4	2.9	2.6	4.1	2.1
Min	0.13	0	0	0	0.10	0.50	1.0	1.1	0.54	0.46	0.43	0.54
Ac-ft	22	2.4	0	2.8	20	59	107	109	63	66	87	50

Cal yr 1967: Total 205.48 Mean 0.56 Max 5.4 Min 0 Ac-ft 408

Wtr yr 1968: Total 297.09 Mean 0.81 Max 4.1 Min 0 Ac-ft 589

Note.--No gage-height record Nov. 6 to Apr. 8.

ARKANSAS RIVER BASIN

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 1968.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 6,200 ft (from topographic map).

Average discharge.--17 years, 0.18 cfs (130 acre-ft per year).

Extremes.--Maximum discharge during year, 346 cfs Aug. 9 (gage height, 2.43 ft); no flow for most of year.

1951-68: 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 1967 to September 1968

Oct.	10.....	0.01	July	28.....	1.8
May	24.....	1.1		29.....	20
	25.....	1.2		30.....	.01
	31.....	.54		31.....	2.5
July	5.....	9.9	Aug.	1.....	.32
	6.....	2.9		2.....	8.6
	12.....	.21		3.....	23
	22.....	2.1		4.....	18
	23.....	1.8		5.....	.01
	24.....	5.2		9.....	51
	26.....	1.1		10.....	17
	27.....	2.9		11.....	.33

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0.01	0.01	0	0.0003	0.02
May.....	2.84	1.2	0	0.092	5.6
July.....	50.42	20	0	1.63	100
August.....	118.26	51	0	3.81	235
Calendar year 1967.....	244.88	50	0	0.67	486
Water year 1968.....	171.53	51	0	0.47	340

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 left bank on upstream side of 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 1968.

Gage.--Water-stage recorder. Altitude of gage is 5,640 ft (from topographic map). Prior to Oct. 26, 1966, at site 60 ft upstream at same datum.

Extremes.--Maximum discharge during year, 2,520 cfs Aug. 27 (gage height, 7.12 ft); minimum daily, 6.3 cfs Sept. 14, 19. 1964-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	31	24	15	24	50	33	36	29	16	60	15
2	31	26	24	14	24	57	34	35	26	17	70	13
3	33	24	24	13	24	41	32	35	32	29	100	49
4	36	24	32	14	22	57	27	36	31	17	60	25
5	32	25	34	16	18	48	26	38	28	105	65	16
6	45	25	36	13	18	40	27	36	23	23	65	14
7	33	21	33	10	23	33	22	35	20	16	70	8.2
8	27	25	37	15	22	34	21	36	27	21	85	10
9	27	27	38	11	22	33	20	36	24	12	186	11
10	63	24	29	16	24	50	23	27	24	12	144	9.8
11	26	28	38	13	23	45	18	24	23	33	54	9.8
12	20	26	33	9.3	24	36	24	27	20	115	59	11
13	24	24	16	12	24	40	31	26	17	40	43	9.8
14	24	21	18	12	31	37	31	23	12	45	43	6.3
15	29	21	24	13	25	40	34	23	12	45	43	7.5
16	21	26	29	21	29	34	36	26	12	40	45	7.8
17	19	22	22	19	25	38	36	26	12	50	37	8.0
18	18	23	16	20	31	32	50	32	12	40	33	7.0
19	18	25	29	22	31	32	38	27	12	35	31	6.3
20	17	23	23	24	20	31	33	26	12	30	32	7.7
21	16	22	8.2	26	22	33	37	27	12	40	33	8.2
22	18	24	18	25	32	38	41	31	12	100	38	8.8
23	20	26	23	26	61	29	50	32	12	80	32	20
24	21	24	26	22	67	37	41	36	13	60	34	17
25	18	26	24	23	54	50	43	33	19	50	31	15
26	17	26	20	21	59	59	45	29	12	115	28	13
27	21	26	18	18	45	43	42	33	8.2	100	249	13
28	24	24	16	16	43	34	38	33	10	200	52	17
29	25	27	16	28	54	38	36	40	12	100	23	15
30	27	25	13	28	- - - - -	36	35	36	16	70	18	14
31	28	- - - - -	14	25	- - - - -	33	- - - - -	56	- - - - -	50	16	- - - - -
Total	809	741	755.2	560.3	921	1,238	1,004	996	534.2	1,706	1,879	393.2
Mean	26.1	24.7	24.4	18.1	31.8	39.9	33.5	32.1	17.8	55.0	60.6	13.1
Max	63	31	38	28	67	59	50	56	32	200	249	49
Min	16	21	8.2	9.3	18	29	18	23	8.2	12	16	6.3
Ac-ft	1,600	1,470	1,500	1,110	1,830	2,460	1,990	1,980	1,060	3,380	3,730	780
Cal yr 1967 : Total	16,376.2		Mean	44.9	Max	295	Min	8.2	Ac-ft	32,480		
Wtr yr 1968 : Total	11,536.9		Mean	31.5	Max	249	Min	6.3	Ac-ft	22,880		

ARKANSAS RIVER BASIN

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 or 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 1968.

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.--15 years, 857 cfs (620,400 acre-ft per year).

Extremes.--Maximum discharge during year, 5,750 cfs Aug. 10 (gage height, 6.58 ft); minimum daily, 244 cfs Oct. 28.

1939-51, 1965-68: 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 good. 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	441	334	390	345	414	483	434	539	1,820	1,550	1,720	1,140
2	434	334	384	330	402	469	652	568	2,050	1,850	1,820	1,110
3	396	372	372	310	390	469	686	598	2,540	1,720	1,700	1,100
4	366	339	384	330	390	441	605	612	2,940	1,510	1,590	1,100
5	339	344	372	350	396	414	532	612	3,090	1,460	1,480	965
6	396	372	378	320	390	396	476	652	3,620	1,490	1,380	873
7	532	408	427	360	396	390	462	678	3,780	1,520	1,420	774
8	427	441	427	390	396	372	434	694	3,500	1,490	1,420	712
9	420	441	414	434	378	355	408	712	3,150	1,320	1,660	669
10	390	434	390	441	378	390	324	783	2,620	1,670	3,230	590
11	408	441	402	420	378	441	303	873	2,130	1,330	2,170	560
12	408	434	462	455	396	427	279	909	1,710	1,360	2,400	518
13	372	427	414	408	402	396	294	900	1,580	1,250	2,260	483
14	350	414	384	396	402	378	360	873	1,720	1,120	2,060	476
15	344	402	375	462	396	366	384	819	1,920	1,100	1,900	434
16	396	408	355	490	396	355	334	747	1,970	1,190	1,690	434
17	390	390	340	497	390	360	334	882	2,000	1,180	1,560	441
18	350	372	330	518	384	360	427	738	2,090	1,150	1,560	462
19	339	372	350	476	396	360	469	686	2,100	1,500	1,480	469
20	329	384	390	469	390	360	462	729	2,180	1,270	1,350	455
21	318	384	350	490	396	360	420	783	2,060	1,280	1,200	462
22	329	384	315	497	408	360	378	694	2,040	1,200	1,190	448
23	334	378	355	483	462	366	360	644	1,940	1,250	1,110	525
24	329	396	385	497	476	360	334	846	1,760	1,230	1,060	497
25	329	378	420	518	483	378	313	1,090	1,880	1,450	1,210	462
26	298	378	390	497	497	396	308	1,060	1,800	1,280	1,170	434
27	248	396	410	455	490	384	303	984	1,740	1,310	1,140	434
28	244	390	390	434	497	366	274	984	1,650	1,730	1,100	420
29	270	396	375	441	504	350	265	1,020	1,710	1,790	1,220	511
30	334	408	370	427	- - - -	350	490	1,240	1,740	1,520	1,220	448
31	350	- - - -	360	420	- - - -	355	- - - -	1,550	- - - -	1,640	1,170	- - - -
Total	11,210	11,751	11,860	13,360	12,073	12,007	12,104	25,499	66,830	43,710	48,640	18,406
Mean	362	392	383	431	416	387	403	823	2,228	1,410	1,569	614
Max	532	441	462	518	504	483	686	1,550	3,780	1,850	3,230	1,140
Min	244	334	315	310	378	350	265	539	1,580	1,100	1,060	420
Ac-ft	22,230	23,310	23,520	26,500	23,950	23,820	24,010	50,580	132,600	86,700	96,480	36,510
Cal yr 1967: Total	226,993			Mean 622	Max 2,790	Min 138	Ac-ft 450,200					
Wtr yr 1968: Total	287,450			Mean 785	Max 3,780	Min 244	Ac-ft 570,100					

7-1110. Huerfano River at Manzanares Crossing, at 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 1968. 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.--45 years, 32.2 cfs (23,310 acre-ft per year).

Extremes.--Maximum discharge during year, 355 cfs Aug. 11 (gage height, 1.94 ft); minimum not determined.

1923-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							14	27	168	60	91	35
2							13	30	162	58	120	34
3							12	32	153	58	91	50
4							12	34	182	53	77	44
5							12	40	172	50	70	40
6							13	40	165	54	75	39
7							12	37	156	56	137	37
8							18	32	131	62	156	34
9						11	15	37	103	52	131	33
10							15	47	88	47	114	31
11							16	44	83	46	122	29
12							20	46	91	43	108	29
13							22	47	97	43	95	28
14							21	43	105	46	91	26
15							23	43	117	43	77	25
16	22	18	12	9.0	10		25	48	117	35	66	25
17							24	52	120	31	59	27
18							24	54	120	30	53	26
19						9.6	21	59	111	30	48	25
20						11	22	68	114	29	46	23
21						12	22	77	117	26	46	23
22						12	22	86	111	25	44	22
23						11	19	105	103	31	42	26
24						9.4	18	93	97	79	40	24
25						9.8	20	81	93	70	39	22
26						11	21	83	86	75	37	22
27						11	21	95	81	114	39	22
28						11	21	111	79	97	40	21
29						12	23	143	77	75	39	22
30						14	25	153	72	70	39	23
31						14		165		73	39	
Total	682	540	372	279.0	290	345.8	566	2,052	3,471	1,661	2,271	867
Mean	22	18	12	9.0	10	11.2	18.9	66.2	116	53.6	73.3	28.9
Max	-	-	-	-	-	-	25	165	182	114	156	50
Min	-	-	-	-	-	-	12	27	72	25	37	21
Ac-ft	1,350	1,070	738	553	575	686	1,120	4,070	6,880	3,290	4,500	1,720

Cal yr 1967: Total 8,656.3 Mean 23.7 Max 87 Min - Ac-ft 17,170

Wtr yr 1968: Total 13,396.8 Mean 36.6 Max 182 Min - Ac-ft 26,570

Peak discharge (base, 200 cfs).--Aug. 11 (1830) 355 cfs (1.94 ft); Aug. 13 (2115) 228 cfs (1.68 ft).

Note.--No gage-height record Oct. 1 to Mar. 19.

ARKANSAS RIVER BASIN

7-1140. Cucharas River at Boyd Ranch, near La Veta, Colo.

Location.--Lat 37°27'12", long 105°03'08", in SE¼NE¼SE¼ 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 1968.

Gage.--Water-stage recorder. Altitude of gage is 7,781 ft (from topographic map).

Average discharge.--34 years, 23.7 cfs (17,160 acre-ft per year).

Extremes.--Maximum discharge during year, 126 cfs May 31 (gage height, 2.25 ft); minimum not determined.

1934-68: 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 winter period, which are poor. Diversions for irrigation of about 500 acres above station.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.7						14	48	119	50	35	19
2	6.7						14	45	116	50	34	17
3	6.7						14	52	112	49	32	19
4	6.7						14	51	112	46	29	19
5	7.4						13	57	116	49	29	18
6	7.7						12	63	119	49	30	16
7	8.8						12	53	116	53	31	15
8	8.0						13	49	109	44	29	15
9	7.7						12	49	102	40	32	15
10	7.7						12	51	95	39	38	14
11	7.7						15	54	84	35	35	14
12	6.7						20	55	82	32	35	14
13	6.7						23	66	81	30	31	13
14	6.4						23	55	83	29	30	13
15	7.4						25	53	86	28	29	13
16	6.7						28	58	90	26	28	13
17	7.0						26	65	90	26	27	13
18	6.7						25	65	91	24	25	13
19	6.4						22	69	90	24	23	12
20	6.1						21	73	92	24	22	12
21	6.1						23	81	88	24	22	11
22	6.1						23	104	88	23	22	10
23	5.8						23	113	82	25	21	12
24	5.8						22	105	83	30	20	12
25	5.8						23	94	83	31	20	11
26	5.8						25	91	77	32	20	10
27	5.8						24	95	72	37	19	10
28	5.5						28	102	66	33	20	10
29	4.6						12	111	61	32	20	11
30	7.5						13	42	112	54	33	21
31	9.0						13	119	54	36	20	13
Total	209.7	180.0	155.0	170.5	159.5	237.0	619	2,258	2,739	1,083	829	407
Mean	6.77	6.0	5.0	5.5	5.5	7.65	20.6	72.8	91.3	34.9	26.7	13.6
Max	8.8	-	-	-	-	-	42	119	119	53	38	19
Min	4.6	-	-	-	-	-	12	45	54	23	19	10
Ac-ft	416	357	307	338	316	470	1,230	4,480	5,430	2,150	1,640	807

Cal yr 1967: Total 2,902.4 Mean 7.95 Max 22 Min - Ac-ft 5,760

Wtr yr 1968: Total 9,046.7 Mean 24.7 Max 119 Min - Ac-ft 17,940

Peak discharge (base, 150 cfs).--No peak above base.

Note.--No gage-height record Nov. 8 to Mar. 28.

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.

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 1968. 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 (gauge 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.--55 years (1913-68), 685 cfs (495,900 acre-ft per year).

Extremes.--Maximum discharge during year, 4,260 cfs Aug. 10 (gage height, 6.72 ft); minimum daily, 125 cfs Nov. 8. 1897-1904, 1906-12, 1913-68: 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.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	325	138	365	252	400	385	302	195	1,520	1,210	1,380	542
2	345	132	355	256	355	385	462	192	1,730	1,330	1,560	530
3	320	164	325	250	345	390	542	217	1,810	1,260	1,540	498
4	310	140	325	288	329	375	504	235	1,840	793	1,640	682
5	315	170	325	305	333	370	444	232	1,870	674	1,360	860
6	325	178	302	302	329	345	390	252	2,200	890	1,460	674
7	456	151	317	300	333	360	360	277	2,530	1,010	1,360	556
8	370	125	329	310	337	370	365	298	2,370	1,080	1,330	486
9	335	153	321	320	325	360	360	309	2,170	986	1,540	428
10	340	165	317	310	329	370	305	333	2,170	1,560	2,250	385
11	315	214	329	340	321	422	274	444	1,970	1,100	1,600	337
12	320	242	360	335	321	395	263	462	1,500	1,060	1,800	313
13	275	246	305	310	341	365	252	474	1,550	1,220	1,920	303
14	242	249	266	360	341	337	302	444	1,380	870	1,700	298
15	211	249	238	370	350	333	321	412	1,280	811	1,390	291
16	256	238	288	360	355	333	302	365	1,440	766	1,190	294
17	265	260	288	417	350	317	284	428	1,210	650	1,030	305
18	224	288	345	456	341	321	333	380	1,580	612	1,320	341
19	202	294	321	510	337	325	360	321	1,320	1,210	1,180	355
20	206	298	260	542	341	305	375	333	1,550	628	1,180	355
21	206	298	270	575	360	309	337	380	1,410	706	1,110	333
22	211	313	230	605	365	305	280	365	1,840	590	1,110	317
23	224	302	300	575	428	309	260	498	1,900	682	1,060	329
24	229	305	285	605	444	291	260	598	1,910	605	997	365
25	206	302	270	605	380	274	246	850	2,170	900	931	333
26	168	302	256	598	395	298	226	870	1,520	793	730	305
27	128	313	263	536	395	294	223	802	1,560	739	628	284
28	130	329	280	492	395	291	226	757	1,700	1,130	568	291
29	135	337	280	462	400	291	202	793	1,720	1,370	620	309
30	180	355	298	444	---	284	208	942	1,540	1,330	739	313
31	184	---	302	422	---	284	---	1,390	---	1,440	628	---
Total	7,958	7,250	9,315	12,812	10,375	10,393	9,568	14,848	52,260	30,005	38,851	12,012
Mean	257	242	300	413	358	335	319	479	1,742	968	1,253	400
Max	456	355	365	605	444	422	542	1,390	2,530	1,560	2,250	860
Min	128	125	230	250	321	274	202	192	1,210	590	568	284
Ac-ft	15,780	14,380	18,480	25,410	20,580	20,610	18,980	29,450	103,700	59,510	77,060	23,830
Cal yr 1967: Total	165,246		Mean	453	Max	2,220	Min	82	Ac-ft	327,800		
Wtr yr 1968: Total	215,647		Mean	589	Max	2,530	Min	125	Ac-ft	427,700		

ARKANSAS RIVER BASIN

7-1195. Apishapa River near Fowler, Colo.

Location.--Lat 38°05'28", long 103°58'52", in SE¼ 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 1968. 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.--32 years, 34.6 cfs (25,050 acre-ft per year).

Extremes.--Maximum discharge during year, 1,580 cfs Aug. 10 (gage height, 5.10 ft); minimum daily, 1.1 cfs Aug. 27, 28.

1922-25, 1939-68: 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 except those for winter period, which are poor. Waste water from Oxford Farmers Co. and Rocky Ford Highline canals enters river above station. Diversions above station for irrigation of about 4,700 acres. Records of chemical analyses and water temperatures for the water year 1968 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	17	48	3.3	7.2	8.1	2.5	1.6	9.0	5.0	11	7.2
2	32	43	45	3.2	22	12	18	1.6	8.1	5.0	36	5.4
3	26	52	37	3.0	36	15	32	1.8	7.6	3.5	21	4.5
4	22	42	46	2.9	36	12	16	1.8	9.7	1.7	32	1.9
5	6.3	61	29	2.8	27	13	6.8	2.0	2.4	1.7	61	30
6	5.4	36	30	2.8	9.0	11	37	1.8	21	1.6	19	10
7	6.8	25	33	2.7	7.2	10	29	2.0	21	2.2	10	4.5
8	9.0	23	36	2.7	6.8	9.0	4.5	2.2	23	2.8	27	2.5
9	11	15	38	2.6	7.6	7.6	1.8	2.2	7.6	2.5	56	2.5
10	8.6	16	42	2.5	9.0	9.7	1.6	2.5	1.7	3.2	744	1.8
11	7.6	29	45	2.5	5.8	19	1.4	2.2	22	3.8	219	1.8
12	14	29	30	2.4	7.6	25	1.6	2.2	15	4.5	67	1.7
13	12	17	20	2.3	12	23	1.7	3.6	12	9.0	120	1.7
14	15	9.7	17	2.4	8.1	11	1.7	3.8	4.2	9.0	71	1.7
15	15	2.0	16	2.5	8.6	5.4	4.4	3.2	3.8	2.2	233	1.8
16	17	1.4	16	2.6	12	3.8	2.5	3.0	3.2	2.0	97	3.5
17	15	1.2	17	2.7	12	6.3	2.0	3.0	11	2.2	55	3.5
18	13	1.2	16	2.5	10	5.0	2.0	2.2	5.4	2.2	37	3.0
19	13	23	19	2.8	8.6	7.6	1.8	2.2	5.0	1.7	29	2.0
20	15	26	16	3.1	12	10	1.7	2.0	5.4	1.7	14	2.0
21	13	24	13	3.5	14	10	1.6	2.0	5.8	1.7	4.5	2.0
22	14	23	12	3.8	14	12	2.2	2.0	4.2	2.0	2.5	2.5
23	14	25	15	3.8	12	6.3	2.2	1.7	11	2.5	2.2	2.8
24	9.7	24	12	4.0	15	4.2	2.0	1.8	9.2	2.5	1.7	2.8
25	5.4	24	9.0	3.5	15	5.0	1.8	1.7	3.5	4.4	1.7	3.0
26	12	25	5.0	3.5	16	3.8	1.8	1.7	2.0	12	2.2	2.8
27	20	25	4.5	3.5	14	3.8	1.7	3.4	2.8	4.5	1.1	2.8
28	15	27	4.2	3.2	14	3.0	1.6	2.0	2.5	3.2	1.1	3.0
29	16	27	3.8	3.0	12	2.5	1.4	1.8	2.5	4.0	92	2.2
30	20	29	3.6	3.2	-----	2.5	1.4	1.7	3.5	30	92	3.0
31	18	-----	3.5	2.8	-----	3.0	-----	3.2	-----	19	15	-----
Total	450.8	722.5	681.6	92.1	390.5	279.6	187.7	69.9	282.0	192.9	2,175.0	137.0
Mean	14.5	24.1	22.0	2.97	13.5	9.02	6.26	2.25	9.40	6.22	70.2	4.57
Max	32	61	48	4.0	36	25	37	3.8	24	44	744	30
Min	5.4	1.2	3.5	2.3	5.8	2.5	1.4	1.6	2.0	1.6	1.1	1.7
Ac-ft	894	1,430	1,350	183	775	555	372	139	559	383	4,310	272

Cal yr 1967: Total 11,723.55 Mean 32.1 Max 1,000 Min 0.65 Ac-ft 23,250
 Wtr yr 1968: Total 5,661.6 Mean 15.5 Max 744 Min 1.1 Ac-ft 11,230

Peak discharge (base, 3,000 cfs).--No peak above base.

Note.--No gage-height record Dec. 14 to Jan. 21.

7-1197. Arkansas River at Catlin Dam, near Fowler, Colo.

Location.--Lat 38°07'35", long 103°56'40", in NE¼NW¼ 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, of which 54 sq mi is probably noncontributing.

Records available.--October 1964 to September 1968.

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, 8,960 cfs Aug. 10 (gage height, 3.55 ft); minimum daily, 60 cfs Dec. 23.

1964-68: 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, 37 cfs Oct. 10, 11, 1966.

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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	310	167	394	200	473	393	293	165	1,340	1,200	1,310	532
2	300	138	459	180	437	395	383	140	1,460	1,150	1,250	478
3	292	166	455	160	418	390	575	160	1,740	1,490	1,460	471
4	263	214	395	190	373	368	480	189	1,610	1,100	1,420	527
5	275	198	318	230	367	340	400	225	1,700	900	1,380	672
6	319	238	288	230	356	339	350	228	1,930	967	1,280	628
7	488	160	291	180	345	337	356	233	2,240	1,110	1,220	573
8	516	131	382	144	372	342	352	252	2,100	1,130	1,290	510
9	386	140	370	210	384	330	338	273	1,920	981	1,370	475
10	355	150	386	176	367	346	337	278	1,560	1,590	3,500	455
11	312	166	336	250	360	401	280	383	1,710	1,150	1,790	397
12	310	198	330	340	366	406	204	420	1,250	1,100	1,330	336
13	297	162	210	400	382	374	187	469	1,200	1,160	1,910	312
14	273	154	70	350	387	322	202	413	1,090	893	1,660	302
15	249	166	64	220	393	304	266	360	1,390	820	1,540	278
16	254	153	78	290	354	330	282	338	1,390	765	1,300	282
17	320	182	90	480	347	327	260	370	1,090	616	1,110	288
18	317	195	80	560	342	308	282	389	1,360	589	1,320	282
19	295	188	110	620	311	297	345	270	1,210	806	1,180	303
20	278	202	100	590	336	296	367	240	1,560	834	1,090	292
21	242	204	70	540	355	299	363	264	1,310	666	1,170	263
22	219	220	62	605	361	290	323	280	1,570	630	1,010	247
23	218	237	60	572	355	284	251	262	1,940	555	981	247
24	254	241	90	526	444	265	263	431	1,700	648	914	309
25	214	254	160	536	339	252	261	643	2,040	692	922	286
26	164	235	180	558	368	291	255	750	1,380	985	769	242
27	133	239	210	514	396	319	257	711	1,380	805	651	222
28	129	285	260	492	379	283	244	668	1,250	992	592	218
29	128	304	260	479	392	274	214	684	1,190	1,310	617	221
30	144	356	250	498	--- --	268	182	723	1,310	1,240	726	275
31	185	--- --	220	491	--- --	269	--- --	1,080	--- --	1,330	592	--- --
Total	8,439	6,043	7,028	11,811	10,859	10,039	9,152	12,291	45,920	30,204	39,654	10,923
Mean	272	201	227	381	374	324	305	396	1,531	974	1,247	364
Max	516	356	459	620	473	406	575	1,080	2,240	1,590	3,500	672
Min	128	131	60	144	311	252	182	140	1,090	555	592	218
Ac-ft	16,740	11,990	13,940	23,430	21,540	19,910	18,150	24,380	91,080	59,910	76,670	21,670

Cal yr 1967: Total 150,901 Mean 413 Max 3,940 Min 60 Ac-ft 299,300
 Wtr yr 1968: Total 201,363 Mean 550 Max 3,500 Min 60 Ac-ft 399,400

Note.--No gage-height record on canal Dec. 10 to Jan. 21.

Location.--Lat 37°59'26", long 103°31'55", in SE¼NE¼ sec.2, T.24 S., R.55 W., on right bank at upstream side of bridge (relocated) on State Highway 109 in La Junta, 450 ft upstream from King Arroyo.

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 1968. Monthly discharge only for some periods, published in WSP 1311. Published as "near La Junta" in 1903.

Average discharge.--56 years (1912-68), 253 cfs (183,200 acre-ft per year).

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 1968 are published in Part 2 of this report.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.		
1	54	212	33	26	32	40	39	40	212	536	222	424		
2	50	219	34	23	37	44	34	45	496	562	170	340		
3	54	202	41	35	33	49	42	44	649	673	180	236		
4	64	170	41	37	32	45	52	47	355	484	205	280		
5	50	208	34	27	27	51	51	43	542	478	135	335		
6	41	152	33	25	32	48	62	48	448	436	106	484		
7	59	116	33	25	32	47	88	48	454	510	88	430		
8	86	55	34	25	31	41	95	47	442	548	76	360		
9	66	48	54	26	31	40	69	45	641	562	143	335		
10	47	48	50	27	28	37	58	69	542	496	550	256		
11	50	49	37	28	34	33	41	73	516	562	817	236		
12	48	54	51	27	37	24	47	95	430	529	222	191		
13	41	41	177	29	33	26	54	106	335	490	116	188		
14	36	37	103	30	26	24	53	106	419	522	110	164		
15	46	46	56	30	25	23	52	81	1,180	496	161	128		
16	48	45	48	30	23	20	51	50	155	397	114	130		
17	44	45	48	29	23	24	48	70	73	307	123	91		
18	40	42	41	38	26	25	40	71	63	155	123	66		
19	40	37	39	29	27	23	49	67	255	188	116	67		
20	35	37	59	27	31	24	62	48	188	307	121	74		
21	36	38	48	27	38	24	69	50	146	370	155	74		
22	31	38	35	28	34	21	77	59	161	307	345	74		
23	28	38	38	28	37	26	74	67	397	212	503	63		
24	41	35	34	29	33	25	39	71	397	170	454	62		
25	58	35	30	27	37	26	39	110	414	198	569	91		
26	200	34	27	25	35	24	52	335	448	320	625	106		
27	196	33	27	27	38	22	52	402	522	460	397	91		
28	172	48	26	34	35	27	46	316	522	222	340	79		
29	214	41	26	34	37	31	38	316	522	152	121	64		
30	206	35	26	34	---	42	39	298	542	155	454	62		
31	182	---	26	34	---	41	---	355	---	198	484	---		
Total	2,363	2,238	1,389	900	924	997	1,612	3,622	12,466	12,002	8,345	5,581		
Mean	76.2	74.6	44.8	29.0	31.9	32.2	53.7	117	416	387	269	186		
Max	214	219	177	38	38	51	95	402	1,180	673	817	484		
Min	28	33	26	23	23	20	34	40	63	152	76	62		
Ac-ft	4,690	4,440	2,760	1,790	1,830	1,980	3,200	7,180	24,730	23,810	16,550	11,070		
Cal yr 1967: Total	27,365.6		Mean	75.0		Max	4,060		Min	6.8		Ac-ft	54,280	
Wtr yr 1968: Total	52,439		Mean	143		Max	1,180		Min	20		Ac-ft</		

Location.--Lat 38°04'51", long 103°13'09", in SE 1/4 sec.3, T.23 S., R.52 W., on right bank at downstream side of bridge on U. S. Highway 50, 1.1 miles north of court house in Las Animas, and 4.2 miles upstream from Purgatoire River.

Records available.--May to November 1898 (gage heights only), August to November 1909 (gage heights and discharge measurements only), May 1939 to September 1968.

Average discharge.--29 years, 218 cfs (157,800 acre-ft per year).

Remarks.--Records good except those for winter period, which are fair. 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.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	118	35	53	27	20	20	16	297	494	39	312
2	14	124	54	50	30	21	20	15	248	432	56	304
3	14	140	56	53	35	22	28	15	400	485	44	200
4	14	124	51	51	35	22	50	15	360	649	48	182
5	15	216	30	47	34	22	36	14	306	304	54	216
6	16	256	40	40	31	21	25	14	304	336	32	368
7	16	146	60	35	36	20	21	15	408	352	23	416
8	15	107	58	37	32	21	18	15	352	416	22	320
9	13	58	45	39	34	21	18	15	440	424	19	256
10	13	49	64	40	31	21	17	15	590	424	75	264
11	14	44	73	40	26	22	17	15	539	424	755	240
12	14	39	70	40	24	20	17	15	458	416	136	200
13	15	35	65	50	24	20	17	23	440	490	222	200
14	15	31	62	60	23	21	17	28	416	530	37	152
15	16	30	60	68	23	20	17	25	1,040	500	47	82
16	16	32	58	72	22	21	17	20	521	400	40	72
17	16	28	54	77	23	21	17	17	190	280	27	69
18	16	26	48	58	22	21	18	20	80	200	54	37
19	16	25	56	60	22	21	20	19	42	164	43	34
20	16	24	66	44	21	26	20	17	101	85	16	30
21	16	23	60	34	22	27	20	16	77	353	16	27
22	16	26	55	34	21	25	21	17	36	216	20	24
23	16	28	65	30	22	22	25	17	38	224	264	26
24	19	28	70	31	22	22	25	17	312	164	376	22
25	20	26	70	30	22	21	18	17	194	107	400	22
26	69	24	72	30	22	21	18	33	440	89	440	32
27	158	24	65	27	21	21	18	146	261	418	352	36
28	134	24	60	27	20	21	16	182	376	476	320	34
29	129	26	55	28	19	22	16	188	384	159	328	27
30	152	27	60	27	---	21	16	200	458	49	368	23
31	140	---	50	27	---	21	---	208	---	35	328	---
Total	1,168	1,908	1,787	1,339	746	668	623	1,389	10,108	10,095	5,001	4,227
Mean	37.7	63.6	57.6	43.2	25.7	21.5	20.8	44.8	337	326	161	141
Max	158	256	73	77	36	27	50	208	1,040	649	755	416
Min	13	23	30	27	19	20	16	14	36	35	16	22
Ac-ft	2,320	3,780	3,540	2,660	1,480	1,320	1,240	2,760	20,050	20,020	9,920	8,380
Cal yr 1967: Total	17,617.2		Mean	48.3	Max	3,130	Min	8.7	Ac-ft	34,940		
Wtr yr 1968: Total	39,059		Mean	107	Max	1,040	Min	13	Ac-ft	77,470		

ARKANSAS RIVER BASIN

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 1968. 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.--60 years (1895-99, 1907-8, 1909-12, 1915-60, 1961-68), 87.8 cfs (63,560 acre-ft per year).

Extremes.--Maximum discharge during year, 2,970 cfs Aug. 8 (gage height, 5.50 ft), from rating curve extended above 220 cfs; minimum daily, 16 cfs Feb. 6, 14.

1895-99, 1905-12, 1915-60, 1961-68: 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 fair except those for winter period, which are poor. Diversions above station for irrigation of about 6,500 acres.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	34	31	24	28	19	36	77	315	103	141	67
2	34	35	25	22	25	20	37	83	306	116	272	59
3	29	34	20	24	21	20	37	86	292	125	157	58
4	30	34	32	25	26	24	33	108	262	118	134	73
5	31	35	28	25	18	22	33	106	262	98	132	54
6	32	34	24	23	16	23	32	114	262	103	169	51
7	42	34	23	24	19	24	34	122	266	114	185	49
8	38	32	23	20	24	23	31	116	270	110	444	44
9	36	33	20	20	24	22	31	107	254	94	404	45
10	36	31	21	22	22	26	31	129	226	106	595	41
11	36	31	23	20	20	25	30	149	223	105	472	45
12	34	31	26	26	22	28	33	139	202	85	593	43
13	31	31	24	25	18	32	36	136	188	100	355	40
14	29	33	24	27	16	39	40	129	195	80	305	37
15	32	33	25	28	24	36	41	125	206	79	216	31
16	35	32	26	31	18	31	43	121	223	66	178	30
17	33	31	25	29	21	30	50	129	242	60	152	32
18	31	31	23	31	23	28	50	136	238	248	132	33
19	29	31	26	34	20	27	50	152	220	132	116	30
20	28	31	24	33	22	30	46	149	220	116	107	30
21	29	31	22	30	22	29	46	152	223	125	107	25
22	29	31	24	28	24	34	52	198	230	96	93	25
23	29	31	28	34	24	32	50	250	226	98	82	26
24	30	31	30	31	22	35	49	250	209	225	73	32
25	31	29	29	33	22	37	50	223	192	198	73	29
26	30	28	31	33	20	36	51	209	175	306	67	28
27	30	26	30	30	20	36	57	206	152	258	66	25
28	29	22	29	34	22	34	70	216	139	266	61	24
29	32	29	26	29	20	34	70	238	116	212	79	22
30	32	28	25	26	-----	35	75	266	107	129	87	29
31	31	-----	21	24	-----	36	-----	292	-----	188	97	-----
Total	994	937	788	845	623	907	1,324	4,913	6,641	4,259	6,130	1,157
Mean	32.1	31.2	25.4	27.3	21.5	29.3	44.1	158	221	137	198	38.6
Max	42	35	32	34	28	39	75	292	315	306	598	73
Min	28	22	20	20	16	19	30	77	107	60	61	22
Ac-ft	1,970	1,860	1,560	1,680	1,240	1,800	2,630	9,740	13,170	8,450	12,160	2,290
Cal yr 1967: Total	21,505.8											
Wtr yr 1968: Total	29,518											
Mean	80.7											
Max	724											
Min	16											
Ac-ft	42,660											
Ac-ft	58,550											

Peak discharge (base, 2,000 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
7-18	1930	5.45	2,760	8- 9	1800	5.48	2,960
8- 8	1615	5.50	2,970	8-10	1030	5.28	2,710

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 right bank 550 ft downstream from bridge on county road, 510 ft downstream 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 1968 (discontinued).

Gage.--Water-stage recorder. Datum of gage is 5,732.49 ft above mean sea level, datum of 1929. Prior to Nov. 22, 1966, at site 545 ft upstream at datum 8.50 ft higher.

Average discharge.--14 years, 26.1 cfs (18,900 acre-ft per year).

Extremes.--Maximum discharge during year, 1,920 cfs Aug. 2 (gage height, 4.35 ft); minimum daily, 0.08 cfs Apr. 5, 9, Sept. 16-22, 24-30.

1954-68: Maximum discharge, 35,000 cfs May 19, 1955 (gage height, 13.97 ft, site and datum then in use), 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 most years.

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 Finon Canyon. Diversions above station for irrigation of about 10,500 acres.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.8	0.56	3.2	3.1	2.8	0.40	0.64	1.3	69	29	23	8.2
2	1.3	.72	2.9	3.0	4.4	.40	.24	1.6	50	49	146	6.2
3	.72	1.3	3.7	2.6	2.8	.40	.61	1.9	47	1.6	28	5.2
4	.64	1.0	4.5	3.5	2.8	.56	.16	9.8	48	1.6	14	7.9
5	.72	1.0	5.2	4.5	3.0	.40	.08	12	53	1.6	3.0	3.3
6	3.4	.80	2.7	3.5	3.0	.32	1.9	4.1	60	1.6	4.5	1.8
7	5.9	1.0	2.5	3.2	4.3	.24	3.6	1.6	72	2.8	15	1.3
8	4.9	1.4	2.3	11	3.9	.16	.16	1.8	64	2.8	89	.80
9	4.3	5.5	2.2	10	2.8	.16	.08	2.1	56	.80	71	.72
10	3.9	4.6	3.0	9.4	3.4	.64	.69	4.5	61	6.5	162	.72
11	3.0	1.6	4.4	9.0	3.6	.40	.40	8.7	46	14	92	.64
12	2.0	1.3	3.7	7.0	1.6	.10	.32	4.1	34	11	160	1.8
13	1.3	1.0	3.2	7.8	1.2	2.0	.24	9.4	29	13	49	.56
14	1.3	1.3	3.0	9.4	2.0	2.8	.58	9.0	62	7.2	44	.24
15	1.3	1.3	3.3	11	2.6	2.0	7.6	7.2	65	4.9	10	.24
16	1.3	1.3	3.6	11	3.3	1.3	6.1	3.9	46	6.2	22	.08
17	1.0	1.0	3.2	8.4	3.3	.72	2.3	3.9	54	1.8	24	.08
18	.72	.80	2.8	7.0	3.3	2.0	2.6	4.6	61	46	14	.08
19	.64	.72	4.5	7.0	3.6	2.8	2.3	8.4	68	18	7.2	.08
20	.64	.72	4.0	5.4	3.6	2.8	2.0	8.5	62	1.0	4.3	.08
21	.64	.72	3.6	4.5	4.3	2.7	1.8	11	65	1.5	1.8	.08
22	.64	.80	3.2	3.7	5.2	2.3	1.6	13	73	1.0	2.3	.08
23	.64	1.0	5.8	5.4	5.2	2.0	1.6	27	62	1.0	2.6	.16
24	.64	1.3	6.2	4.3	3.9	1.8	3.0	26	64	27	2.3	.08
25	.64	1.9	6.6	3.9	3.6	1.6	1.0	32	69	17	6.0	.08
26	.64	1.4	7.0	3.5	2.6	.64	1.0	24	62	40	2.0	.08
27	.64	1.2	7.4	3.6	1.3	.64	2.5	28	42	44	7.3	.08
28	.64	2.6	7.0	3.6	.64	.40	15	53	35	72	7.2	.08
29	.64	3.3	5.4	3.2	.48	.32	12	69	27	89	7.2	.08
30	.64	3.6	3.2	3.0	-----	.16	1.8	75	27	9.9	5.2	.08
31	.64	-----	2.2	3.3	-----	.16	-----	89	-----	33	6.8	-----
Total	47.82	46.74	125.5	178.8	88.52	33.32	73.90	555.4	1,633	555.80	1,032.7	40.90
Mean	1.54	1.56	4.05	5.77	3.05	1.07	2.46	17.9	54.4	17.9	33.3	1.36
Max	5.9	5.5	7.4	11	5.2	2.8	15	89	73	89	162	8.2
Min	0.64	0.56	2.2	2.6	0.48	0.10	0.08	1.3	27	0.80	1.8	0.08
Ac-ft	95	93	249	355	176	66	147	1,100	3,240	1,100	2,050	81

Cal yr 1967: Total 7,150.71 Mean 19.6 Max 1,360 Min 0 Ac-ft 14,180
 Wtr yr 1968: Total 4,412.40 Mean 12.1 Max 162 Min 0.08 Ac-ft 8,750

Peak discharge (base, 2,000 cfs).--No peak above base.

ARKANSAS RIVER BASIN

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 1968 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 5,400 ft (from topographic map).

Average discharge.--11 years, 4.42 cfs (3,200 acre-ft per year).

Extremes.--Maximum discharge during year, 870 cfs July 27 (gage height, 6.14 ft); no flow for many days.

1957-68: Maximum discharge, 10,600 cfs June 17, 1965 (gage height, 17.25 ft), from rating curve extended above 1,300 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 poor. Minor diversions above station for irrigation.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0			0.10	0.15	0.07		0	2.0	3.1	5.3	0
2	0			.10	.15	.06		0	2.0	0	4.7	0
3	0			.10	.15	.05		0	2.5	0	7.8	.40
4	0			.10	.15	.04		0	2.2	0	5.3	.70
5	0			.10	.15	.03		0	1.8	0	3.4	.02
6	33			.10	.15	.02		0	1.4	0	2.9	0
7	9.9			.10	.15	.02		0	1.0	7.8	1.3	0
8	.80			.10	.15	.01		0	.60	6.4	1.4	0
9	.62			.10	.15	.01		0	.20	4.0	3.3	0
10	.30			.20	.15	0		1.0	.10	2.2	10	0
11	.10			.30	.15	0		2.0	0	.90	3.9	0
12	0			.40	.14	0		1.6	0	0	4.3	0
13	0			.50	.13	0		1.2	0	0	8.6	0
14	0			.60	.12	.10		.70	0	0	7.8	0
15	.50			.70	.13	.20		.50	0	0	5.8	0
16	.44	0.05	0.07	.80	.14	.10		.30	0	0	4.5	0
17	.04			.90	.15	0		.20	0	0	4.3	0
18	0			1.0	.16	0		.10	0	0	3.6	0
19	0			1.1	.16	0		3.0	0	0	3.4	0
20	0			1.2	.16	0		2.7	0	0	1.4	0
21	0			1.3	.16	0		2.5	0	0	.20	0
22	0			1.5	.15	0		2.3	0	0	0	0
23	0			1.6	.14	0		2.1	0	0	0	0
24	0			1.3	.13	0		2.0	0	0	0	0
25	0			.98	.12	0		2.5	18	11	0	0
26	0			.89	.11	0		2.4	6.7	9.7	0	0
27	0			.98	.10	0		2.3	4.3	105	0	0
28	0			.74	.09	0		2.2	4.5	18	0	0
29	.27			.38	.08	0		2.2	5.8	7.4	11	0
30	.32			.18	-----	0		2.1	5.0	2.5	.10	0
31	.10	-----	-----	.16	-----	0	-----	2.1	-----	87	0	-----
Total	46.39	1.50	2.17	18.61	4.02	0.71	0	38.00	58.10	265.00	250.10	1.12
Mean	1.50	0.05	0.07	0.60	0.14	0.023	0	1.23	1.94	8.55	8.07	0.037
Max	33	-	-	1.6	0.16	0.20	0	3.0	18	105	47	0.70
Min	0	-	-	0.10	0.08	0	0	0	0	0	0	0
Ac-ft	92	3.0	4.3	37	8.0	1.4	0	75	115	526	496	2.2

Cal yr 1967: Total 3,153.84 Mean 8.64 Max 629 Min 0 Ac-ft 6,260

Wtr yr 1968: Total 685.72 Mean 1.87 Max 105 Min 0 Ac-ft 1,360

Peak discharge (base, 700 cfs).--July 27 (1845) 870 cfs (6.14 ft).

Note.--No gage-height record Oct. 31 to Jan. 24, Jan. 30 to June 24, Aug. 30 to Sept. 30.

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 1968 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 5,320 ft (from topographic map).

Average discharge.--14 years, 8.40 cfs (6,080 acre-ft per year).

Extremes.--Maximum discharge during year, 1,080 cfs July 2 (gage height, 3.73 ft); no flow for many days.

1954-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.02	0.02	0.02	0.20	0.28	0.42	0.05	8.2	0.37	0.08	2.0	0.16
2	.02	.02	.02	.20	.32	.42	.05	2.4	.37	110	.73	.12
3	.02	.05	.05	.20	.32	.54	.05	1.6	.42	10	.53	.05
4	.05	.05	.05	.20	.32	.54	.08	1.8	.37	.37	.87	.02
5	.02	.05	.05	.20	.32	.54	.05	1.6	.28	.08	.37	0
6	.95	.05	.02	.20	.28	.54	.05	1.0	.24	.07	.05	0
7	2.6	.02	.05	.20	.37	.42	.05	.88	.24	.06	.02	0
8	.37	.05	.08	.20	.37	.32	.05	.80	.20	.05	.20	0
9	.16	.05	.05	.20	.37	.28	.05	.80	.05	.04	.27	0
10	.12	.05	.02	.30	.37	.37	.05	1.0	.05	.04	8.70	0
11	.16	.02	.05	.30	.37	.42	.05	2.9	.08	.03	1.30	2.3
12	.16	.02	.08	.30	.37	.37	.05	1.6	.05	.03	.96	.27
13	.12	.02	.08	.30	.37	.28	4.0	8.8	.05	.03	.28	.08
14	.08	.02	.08	.30	.37	.20	4.8	8.6	.05	.03	.12	.05
15	.12	.02	.08	.40	.37	.16	1.4	2.2	.05	.03	.08	.02
16	.05	.02	.08	.40	.37	.12	.96	2.0	.05	.03	.08	.02
17	.02	.02	.08	.50	.37	.08	1.2	1.4	.02	.02	.05	.02
18	.05	.02	.08	.50	.37	.05	1.5	1.2	.02	.02	.05	.02
19	.05	.02	.12	.60	.37	.05	2.0	24	0	.02	.02	.02
20	.05	.02	.24	.60	.37	.05	2.0	27	.02	.02	.02	0
21	.05	.02	.24	.70	.48	.05	1.8	3.3	.02	.02	.05	0
22	.05	.02	.20	.70	.54	.05	3.0	.88	.05	.02	.05	0
23	.05	.02	.30	.80	.60	.05	4.9	.88	.05	.02	.02	.11
24	.05	.02	.30	.70	.42	.02	2.6	.96	.05	5.3	0	1.0
25	.05	.02	.20	.54	.37	.02	2.4	1.0	22	26	0	.16
26	.05	.02	.20	.54	.32	.02	4.3	.66	1.4	5.2	0	.08
27	.05	.02	.20	.54	.32	.02	7.6	.66	.88	85	0	.05
28	.05	.02	.20	.48	.42	.02	16	.60	.48	13	0	.05
29	.05	.02	.20	.48	.42	.02	11	.60	.28	.50	48	.05
30	.05	.02	.20	.37	-----	.02	10	.54	.12	.50	.90	.02
31	.02	-----	.20	.32	-----	.02	-----	.37	-----	.50	.28	-----
Total	5.71	0.81	3.82	12.47	10.91	6.48	82.09	110.23	28.31	257.11	66.00	4.67
Mean	0.18	0.027	0.12	0.40	0.38	0.21	2.74	3.56	0.94	8.29	2.13	0.16
Max	2.6	0.05	0.30	0.80	0.60	0.54	16	27	22	110	48	2.3
Min	0.02	0.02	0.02	0.20	0.28	0.02	0.05	0.37	0	0.02	0	0
Ac-ft	11	1.6	7.6	25	22	13	163	219	56	510	131	9.3

Cal yr 1967: Total 949.39 Mean 2.60 Max 139 Min 0 Ac-ft 1,880

Wtr yr 1968: Total 588.61 Mean 1.61 Max 110 Min 0 Ac-ft 1,170

Peak discharge (base, 1,000 cfs).--July 2 (1945) 1,080 cfs (3.73 ft).

Note.--No gage-height record Dec. 22 to Jan. 24.

ARKANSAS RIVER BASIN

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 "Purgatoire River"), March 1924 to September 1928, October 1951 to September 1968 (discontinued). 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.--23 years, 57.2 cfs (41,410 acre-ft per year).

Extremes.--Maximum discharge during year, 2,650 cfs July 29 (gage height, 8.58 ft); minimum daily, 3.2 cfs Sept. 16. 1905-7, 1924-28, 1951-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	17	21	8.0	28	13	11	27	118	4.1	158	13
2	14	17	16	9.0	24	13	13	21	121	170	190	13
3	18	17	20	12	23	15	12	17	76	89	362	14
4	16	23	25	12	22	14	13	17	62	20	80	16
5	16	24	21	12	21	13	12	30	51	17	44	20
6	85	25	17	7.6	20	13	11	31	51	15	24	13
7	152	25	9.0	7.4	18	14	12	19	204	19	48	8.9
8	27	22	10	20	19	12	13	13	199	21	85	6.8
9	20	18	6.4	29	18	11	12	10	167	17	307	5.0
10	18	20	8.0	30	18	13	11	14	132	15	741	4.6
11	16	19	10	31	18	12	12	62	84	27	391	11
12	16	19	9.3	18	18	10	11	40	51	21	776	9.5
13	15	18	8.8	20	15	14	14	48	38	17	254	7.8
14	14	19	8.6	25	17	13	17	28	36	15	226	6.5
15	13	18	9.2	29	18	15	12	20	112	13	125	3.9
16	13	23	10	31	17	18	14	18	98	11	70	3.2
17	11	19	9.0	28	16	15	14	15	70	9.8	56	5.0
18	13	18	8.0	26	17	14	14	15	63	8.6	44	4.6
19	9.8	22	13	29	16	13	15	58	74	169	32	4.6
20	9.8	21	11	31	17	15	16	76	36	23	26	4.8
21	8.9	21	9.0	29	18	15	13	33	39	20	18	4.2
22	8.0	20	12	31	19	15	13	23	36	19	14	3.9
23	8.6	24	14	30	20	14	17	32	99	19	12	4.4
24	7.8	27	13	31	18	14	16	80	50	25	12	8.9
25	7.2	29	10	29	17	13	16	52	248	158	17	4.4
26	7.8	26	12	27	16	13	16	26	44	103	13	3.6
27	7.8	23	11	27	16	13	21	18	29	425	8.0	3.4
28	8.9	23	10	30	18	12	71	18	13	333	6.0	3.7
29	12	24	9.0	29	15	13	78	19	10	776	135	4.6
30	16	20	8.0	28	-----	13	40	52	6.5	64	17	5.5
31	17	-----	7.0	27	-----	11	-----	78	-----	251	12	-----
Total	621.6	641	365.3	733.0	537	416	560	1,010	2,417.5	2,894.5	4,303.0	221.8
Mean	20.1	21.4	11.8	23.6	18.5	13.4	18.7	32.6	80.6	93.4	139	7.39
Max	152	29	25	31	28	18	78	80	248	776	776	20
Min	7.2	17	6.4	7.4	15	11	11	10	6.5	4.1	6.0	3.2
Ac-ft	1,230	1,270	725	1,450	1,070	825	1,110	2,000	4,800	5,740	8,530	440

Cal yr 1967: Total 24,499.9 Mean 67.1 Max 2,230 Min 1.0 Ac-ft 48,590
 Wtr yr 1968: Total 14,720.7 Mean 40.2 Max 776 Min 3.2 Ac-ft 29,200

Peak discharge (base, 2,500 cfs).--July 29 (0330) 2,650 cfs (8.58 ft).

Note.--No gage-height record Dec. 10 to Jan. 22.

7-1261. Luning Arroyo near Model, Colo.

Location.--Lat 37°18'20", long 104°00'50', in sec.33, T.31 S., R.59 W., on right bank 600 ft downstream from ford, 6 miles upstream from mouth, 13½ miles east of Model, and 29 miles northeast of Trinidad.

Drainage area.--86 sq mi.

Records available.--July 1966 to September 1968.

Gage.--Water-stage recorder. Altitude of gage is 5,150 ft (from topographic map).

Extremes.--Maximum discharge during year, 9,400 cfs Aug. 9 (gage height, 12.46 ft), from rating curve extended above 17 cfs as explained below; no flow for many days.

1966-68: Maximum discharge, that of Aug. 9, 1968 (gage height, 12.46 ft), from rating curve extended above 17 cfs on basis of slope-area measurements at gage heights 8.78 and 11.39 ft; no flow for many days each year.

Remarks.--Records good.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.23	0.58	0.62	0.32	0.35	0.26	0.14	0.32	0.32	0.0	1.5	0.20
2	.20	.50	.54	.32	.29	.29	.19	.26	.29	0	.74	.16
3	.17	.50	.47	.29	.32	.29	.32	.19	.20	0	207	.91
4	.17	.50	.50	.29	.35	.29	.32	.20	.18	0	4.1	10
5	.16	.50	.54	.29	.29	.29	.29	.20	.16	0	.58	1.3
6	.11	.50	.58	.32	.29	.29	.26	.18	.13	0	.41	.62
7	7.4	.50	.54	.32	.20	.26	.35	.17	.10	0	.62	.41
8	.47	.54	.50	.32	.17	.29	.35	.17	.04	0	1.5	.29
9	.35	.54	.58	.32	.19	.29	.32	.17	0	0	767	.29
10	.23	.54	.54	.32	.19	.53	.29	.20	0	0	33	.29
11	.20	.54	.54	.32	.19	.62	.26	.61	0	2.9	.69	.23
12	.20	.50	.62	.32	.23	.53	.26	.70	0	1.8	.29	.19
13	.19	.50	.62	.29	.26	.41	.29	.54	0	1.2	1.1	.17
14	.18	.50	.62	.29	.29	.32	.32	.35	0	.03	.26	.13
15	.18	.50	.62	.32	.32	.29	.26	.23	0	0	.17	.10
16	.20	.50	.58	.38	.29	.20	.26	.19	0	0	.16	.04
17	.23	.50	.50	.41	.32	.19	.23	.33	0	0	.19	.04
18	.26	.50	.47	.47	.35	.17	.26	.50	0	0	.17	.04
19	.26	.50	.50	.50	.44	.17	.35	.41	0	0	.11	.04
20	.26	.50	.62	.54	.44	.17	.41	.54	0	0	.13	.04
21	.26	.50	.50	.58	.54	.16	.35	.50	0	0	.13	.04
22	.26	.50	.35	.74	.54	.16	.35	.41	0	0	.13	0
23	.32	.50	.32	.72	.54	.16	.38	.35	0	0	.09	0
24	.32	1.5	.32	.70	.50	.17	.38	.35	47	.45	0	0
25	.32	.86	.32	.66	.41	.17	.38	.35	80	.38	0	.09
26	.38	.62	.32	.62	.35	.17	.38	.35	.45	0	0	.09
27	.41	.50	.35	.66	.26	.17	.54	.32	.13	152	0	.09
28	.44	.47	.35	.50	.26	.16	1.0	.32	0	193	0	.09
29	.65	.50	.35	.47	.26	.16	.86	.32	0	19	24	.09
30	.70	.54	.35	.38	-----	.16	.50	.29	0	1.5	2.9	.09
31	.58	-----	.35	.35	-----	.13	-----	.26	-----	2.5	.47	-----
Total	16.29	16.73	14.98	13.33	9.43	7.92	10.85	10.28	129.00	374.76	1,047.44	16.07
Mean	0.53	0.56	0.48	0.43	0.33	0.26	0.36	0.33	4.30	12.1	33.8	0.54
Max	7.4	1.5	0.62	0.74	0.54	0.62	1.0	0.70	80	193	767	1.0
Min	0.11	0.47	0.32	0.29	0.17	0.13	0.14	0.17	0	0	0	0
Ac-ft	32	33	30	26	19	16	22	20	256	743	2,080	32

Cal yr 1967: Total 808.20 Mean 2.21 Max 118 Min 0 Ac-ft 1,600
Wtr yr 1968: Total 1,667.08 Mean 4.55 Max 767 Min 0 Ac-ft 3,310

Peak discharge (base, 500 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
6-24	2330	8.68	977	8- 3	1645	11.39	4,830
7-27	2045	9.60	1,590	8- 9	2030	12.46	9,400
7-28	1915	9.72	1,710				

ARKANSAS RIVER BASIN

7-1262. Van Bremer Arroyo near Model, Colo.

Location.--Lat 37°20'40", long 103°57'30", in sec.13, T.31 S., R.59 W., on right bank 3 miles upstream from mouth, 16 miles east of Model, and 33 miles northeast of Trinidad.

Drainage area.--168 sq mi.

Records available.--July 1966 to September 1968.

Gage.--Water-stage recorder. Altitude of gage is 4,960 ft (from topographic map).

Extremes.--Maximum discharge during year, 2,180 cfs July 24 (gage height, 5.19 ft), from rating curve extended above 65 cfs as explained below; no flow June 7-13.

1966-68: Maximum discharge, 6,240 cfs May 26, 1967 (gage height, 9.4 ft, from floodmarks), from rating curve extended above 65 cfs on basis of slope-area measurement of peak flow; no flow June 7-13, 1968.

Remarks.--Records good.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.18	0.20	0.10	0.18	0.19	0.20	0.14	0.19	0.09	0.03	1.7	1.5
2	.16	.20	.10	.18	.19	.20	.13	.19	.09	.03	.60	.17
3	.15	.20	.10	.18	.19	.20	.13	.19	.07	.03	41	.18
4	.14	.20	.09	.18	.19	.20	.13	.19	.05	.02	1.5	.28
5	.13	.20	.09	.19	.19	.20	.13	.19	.02	.04	1.1	.20
6	.15	.20	.10	.19	.19	.20	.13	.17	.01	.04	.60	.18
7	.37	.20	.10	.19	.19	.19	.15	.16	0	.06	.37	.16
8	.28	.20	.10	.19	.19	.19	.15	.16	0	.07	.20	.15
9	.20	.19	.11	.20	.19	.19	.15	.16	0	.08	36	.15
10	.19	.19	.11	.20	.19	.20	.15	.20	0	.07	4.0	.15
11	.19	.18	.11	.20	.20	.20	.15	.37	0	.08	1.7	.15
12	.19	.18	.12	.20	.20	.19	.15	.17	0	.07	.96	.14
13	.19	.17	.12	.20	.20	.18	.15	.16	0	.08	.47	.13
14	.19	.17	.12	.20	.20	.18	.16	.14	.01	.08	.37	.12
15	.20	.17	.13	.20	.20	.18	.16	.15	.01	.09	.28	.11
16	.28	.17	.13	.20	.28	.18	.16	.15	.02	.09	.20	.10
17	.28	.16	.13	.20	.28	.16	.16	.15	.01	.09	.20	.09
18	.28	.16	.14	.20	.28	.17	.17	.15	.01	.07	.18	.08
19	.28	.15	.14	.20	.28	.17	.17	.15	.02	.07	.18	.08
20	.28	.15	.14	.20	.28	.17	.18	.15	.03	.06	.16	.08
21	.37	.14	.15	.20	.28	.17	.18	.15	.03	.06	.15	.08
22	.37	.14	.15	.37	.28	.17	.18	.16	.03	.04	.14	.08
23	.37	.13	.15	.28	.28	.17	.20	.17	.03	.06	.14	.08
24	.37	.14	.16	.20	.28	.17	.20	.37	.06	41	.15	.08
25	.37	.13	.16	.20	.28	.16	.28	1.5	.09	25	.16	.09
26	.37	.13	.16	.20	.28	.16	.28	2.2	.06	22	.18	.09
27	.37	.13	.17	.20	.28	.16	.78	2.4	.05	19	.18	.09
28	.37	.12	.17	.20	.20	.16	.96	.96	.03	16	.19	.09
29	.47	.12	.17	.20	.20	.16	.37	.13	.04	14	.28	.09
30	.47	.12	.18	.20	-----	.14	.28	.11	.04	10	4.6	.09
31	.20	-----	.18	.20	-----	.14	-----	.10	-----	4.0	3.2	-----
Total	8.41	4.94	4.08	6.33	6.66	5.51	6.71	11.79	0.90	152.41	101.22	5.06
Mean	0.27	0.16	0.13	0.20	0.23	0.18	0.22	0.38	0.03	4.92	3.27	0.17
Max	0.47	0.20	0.18	0.37	0.28	0.20	0.96	2.4	0.09	41	41	1.5
Min	0.13	0.12	0.09	0.18	0.19	0.14	0.13	0.10	0	0.02	0.14	0.08
Ac-ft	17	9.8	8.1	13	13	11	13	23	1.8	302	201	10

Cal yr 1967: Total 1,726.66 Mean 4.73 Max 794 Min 0.08 Ac-ft 3,420
 Wtr yr 1968: Total 314.02 Mean 0.86 Max 41 Min 0 Ac-ft 623

Peak discharge (base, 450 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
7-24	1930	5.19	2,180	8- 9	2115	4.00	1,150
8- 3	1745	4.08	1,210				

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 1966 to September 1968.

Gage.--Water-stage recorder. Altitude of gage is 4,790 ft (from topographic map).

Extremes.--Maximum discharge during year, 13,900 cfs Aug. 9 (gage height, 12.04 ft), from rating curve extended above 2,100 cfs; minimum daily, 1.5 cfs Sept. 12, 29.

1966-68: Maximum discharge, 15,100 cfs June 17, 1967 (gage height, 12.35 ft), from rating curve extended above 2,100 cfs; no flow July 12, 13, 1966.

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 except those for winter period and those for period of no gage-height record, which are poor. Diversions above station for irrigation of about 30,000 acres.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	20	22	16	23	16	12	37	104	90	231	12
2	18	20	20	17	20	16	12	30	198	180	86	6.8
3	16	22	17	17	22	15	15	22	150	236	747	4.1
4	18	20	24	16	24	16	15	18	96	25	235	19
5	17	24	21	14	22	16	15	20	55	23	70	12
6	16	25	22	13	22	15	15	32	56	21	37	20
7	110	24	20	16	22	14	12	25	93	24	29	14
8	47	24	18	18	20	14	14	18	184	26	48	7.6
9	24	24	15	20	21	12	16	12	188	24	1,190	5.0
10	20	20	13	19	20	14	14	17	158	27	883	3.8
11	19	20	12	19	20	15	13	22	144	29	561	2.5
12	18	20	20	22	20	17	14	48	91	26	603	1.5
13	16	19	18	19	18	19	12	29	68	21	323	7.2
14	16	19	16	17	18	22	14	37	54	17	218	6.8
15	14	20	15	22	22	24	18	24	80	14	158	7.6
16	13	18	17	27	21	28	13	20	130	12	100	4.7
17	14	22	19	27	20	22	14	18	90	94	76	3.0
18	11	19	18	29	20	18	16	13	70	6.8	60	2.2
19	16	18	18	38	20	16	14	16	55	69	37	4.4
20	12	21	18	30	20	16	16	56	48	50	27	3.8
21	10	21	18	38	21	18	15	46	41	21	22	3.0
22	10	21	19	34	22	19	12	30	70	12	16	2.5
23	9.3	20	21	44	23	18	12	22	130	11	11	5.3
24	9.0	24	19	38	22	17	18	41	260	46	9.6	2.2
25	8.6	27	18	59	21	17	15	80	350	72	7.2	4.1
26	7.9	26	18	54	18	16	15	58	100	299	12	5.0
27	7.2	23	17	46	18	16	18	34	45	293	10	3.2
28	7.6	22	16	40	18	14	36	25	15	988	4.7	2.0
29	10	22	16	38	18	14	70	26	11	1,190	100	1.5
30	14	22	15	28	---	16	58	32	9.6	204	69	2.2
31	18	---	15	27	---	14	---	67	---	120	22	---
Total	566.6	647	555	862	596	524	553	975	3,143.6	4,105.2	6,002.5	179.0
Mean	18.3	21.6	17.9	27.8	20.6	16.9	18.4	31.5	105	132	194	5.97
Max	110	27	24	59	24	28	70	80	350	1,190	1,190	20
Min	7.2	18	12	13	18	12	12	12	9.6	6.8	4.7	1.5
Ac-ft	1,120	1,280	1,100	1,710	1,180	1,040	1,100	1,930	6,240	8,140	11,910	355

Cal yr 1967: Total 31,643.90 Mean 86.7 Max 3,480 Min 0.10 Ac-ft 62,760
Wtr yr 1968: Total 18,708.9 Mean 51.1 Max 1,190 Min 1.5 Ac-ft 37,110

Peak discharge (base, 2,700 cfs)

Note.--No gage-height record June 15 to July 17.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
7-28	2345	7.92	3,020	8- 9	2200	12.04	13,900
8- 3	1915	8.57	4,050				

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 1968. 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.--44 years, 104 cfs (75,290 acre-ft per year).

Extremes.--Maximum discharge during year, 17,800 cfs Aug. 10 (gage height, 8.70 ft); no flow for many days.

1924-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	11	25		34	23	11	70	57	25	98	36
2	8.0	13	26		31	23	13	49	58	14	368	20
3	12	15	23		34	23	12	40	64	8.0	295	8.0
4	12	17	20		29	20	10	33	80	44	1,430	5.0
5	10	18	18		25	17	10	24	111	85	278	0
6	10	17	19		24	16	15	19	82	37	135	0
7	12	20			26	14	18	14	68	20	72	0
8	38	24			24	9.0	18	23	54	14	50	0
9	85	24			25	9.0	19	26	88	6.2	44	0
10	37	24			23	11	17	22	123	5.0	4,600	5.0
11	29	24			25	33	19	34	108	2.0	985	6.0
12	19	22			25	29	19	29	88	6.0	445	4.0
13	15	20			31	25	19	28	60	171	838	3.0
14	14	20			25	24	16	41	40	111	438	3.0
15	13	20		25	29	24	16	34	37	54	284	1.0
16	14	20			29	25	15	31	30	17	206	0
17	13	19	20		28	28	13	29	20	38	138	0
18	9.0	22			38	29	24	20	26	3.0	58	0
19	11	25			28	26	22	17	30	2.0	72	0
20	10	25			26	24	19	10	30	2.0	54	0
21	11	20			29	20	18	6.2	31	10	40	0
22	12	20			28	18	17	37	31	22	33	0
23	10	24			28	19	17	37	31	12	23	0
24	9.0	31			26	18	14	28	30	5.6	18	0
25	9.0	25			26	20	9.0	23	68	166	4.0	0
26	8.0	25			28	19	7.4	26	215	111	0	0
27	8.0	28			26	17	14	60	174	260	0	0
28	9.0	29			24	15	19	41	102	1,780	0	0
29	11	26			23	14	19	26	68	2,030	0	0
30	12	24			-----	13	31	6.8	43	555	3.0	0
31	12	-----			-----	12	-----	31	-----	182	74	-----
Total	495.0	652	631	775	797	617.0	490.4	915.0	2,047	5,763.6	11,124.0	91.0
Mean	16.0	21.7	20.4	25	27.5	19.9	16.3	29.5	68.2	186	359	3.03
Max	85	31	-	-	38	33	31	70	215	2,030	4,600	36
Min	8.0	11	-	-	23	9.0	7.4	6.2	20	2.0	0	0
Ac-ft	982	1,290	1,250	1,540	1,580	1,220	973	1,810	4,060	11,430	22,060	180

Cal yr 1967: Total 49,584.2 Mean 136 Max 4,970 Min 0 Ac-ft 98,350
 Wtr yr 1968: Total 24,398.0 Mean 66.7 Max 4,600 Min 0 Ac-ft 48,390

Peak discharge (base, 3,000 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
7-28	1100	6.15	4,120	8- 4	0515	6.43	5,720
7-29	1200	6.43	5,440	8-10	0800	8.70	17,800
8- 2	2030	5.83	3,000				

7-1285. Purgatoire River near Las Animas, Colo.

Location.--Lat 38°02'02", long 103°12'00", in NE¼SW¼ sec.23, T.23 S., R.52 W., on right bank at downstream side of bridge on State Highway 101, 2.3 miles southeast of court house 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 1968. 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 3,874.94 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 5.00 ft higher, and Oct. 1, 1955, to July 11, 1966, at datum 3.00 ft higher. Supplementary water-stage recorder at site 1.6 miles downstream at different datum July 12 to Nov. 17, 1966.

Average discharge.--29 years (1922-31, 1948-68), 135 cfs (97,740 acre-ft per year).

Extremes.--Maximum discharge during year, 11,600 cfs Aug. 11 (gage height, 6.50 ft); minimum daily, 3.4 cfs Apr. 11, 12, 1889, 1922-31, 1948-68: Maximum discharge, 70,000 cfs May 20, 1955 (gage height, 20.00 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 good except those for winter period, which are fair. Diversions for irrigation of about 36,000 acres above station. Records of chemical analyses and water temperatures for the water year 1968 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.0	5.4	4.4	2.0	6.4	1.0	8.0	3.7	196	9.0	8.9	9.0
2	6.4	5.7	3.3	2.0	5.6	1.0	7.2	2.3	7.0	5.6	7.0	1.0
3	5.6	5.7	3.2	2.0	4.5	2.0	6.8	2.6	3.2	4.4	3.72	1.2
4	4.8	5.2	3.7	2.2	4.3	2.3	8.5	1.5	2.5	4.4	1,690	1.4
5	4.4	5.6	6.5	2.5	4.4	1.4	4.4	1.0	2.6	1.4	507	9.5
6	4.4	5.8	3.5	2.3	3.9	1.7	4.0	1.0	5.6	6.4	167	6.8
7	5.2	4.4	2.8	2.6	3.6	1.5	6.0	7.6	3.6	5.6	8.9	6.0
8	8.0	3.9	2.2	2.7	2.5	8.5	1.5	6.8	2.6	3.7	5.7	5.6
9	2.2	4.5	2.0	2.8	1.7	6.8	1.1	7.2	2.2	3.7	2.8	5.6
10	2.3	4.9	2.4	2.9	1.2	7.2	4.0	6.8	4.4	4.0	2,520	6.8
11	3.0	4.9	2.2	3.1	9.0	1.4	3.4	1.1	9.7	4.8	1,010	6.4
12	1.9	5.2	2.1	3.2	1.0	2.5	3.4	9.0	7.6	4.4	638	5.6
13	1.6	5.4	1.7	3.3	1.5	2.1	4.0	9.0	5.2	4.0	54.9	5.2
14	1.5	4.5	2.0	3.5	1.9	1.2	4.8	8.5	3.7	2.2	3.76	5.2
15	1.4	3.5	1.8	3.6	2.0	2.4	5.2	5.2	6.24	3.3	2.96	4.8
16	1.7	3.0	2.0	3.7	1.7	1.4	5.2	4.4	10.2	1.3	2.01	4.4
17	2.6	3.2	1.8	3.8	1.0	9.5	4.8	6.8	3.6	6.0	1.22	5.6
18	1.7	3.2	2.0	3.5	1.1	6.4	5.2	6.4	2.2	4.8	6.5	5.2
19	1.6	3.2	2.4	4.0	8.5	7.2	5.6	5.2	1.4	6.8	4.4	4.8
20	1.0	3.3	2.3	4.3	1.1	7.6	4.4	5.6	2.2	7.6	2.6	4.4
21	1.0	3.7	2.1	6.6	2.8	1.0	3.7	6.0	2.4	7.2	1.9	4.0
22	1.2	3.6	2.0	7.6	2.1	7.2	5.6	6.4	1.9	4.0	1.4	4.0
23	7.2	3.6	2.3	8.1	1.0	6.4	4.8	6.0	1.4	4.8	1.2	4.8
24	7.6	4.3	2.6	7.9	1.0	6.4	4.8	7.6	1.0	8.0	9.0	6.0
25	1.7	3.7	2.7	8.7	9.0	6.8	4.4	1.2	3.6	4.41	6.4	6.0
26	2.8	3.4	2.4	7.2	1.2	6.8	4.8	1.2	4.7	2.01	5.6	5.2
27	3.6	2.9	2.1	6.8	1.1	5.6	6.0	8.5	10.7	2.57	1.1	4.8
28	2.2	2.7	2.3	6.2	1.1	6.8	5.6	6.8	4.3	2,000	1.2	4.0
29	3.9	3.3	2.4	5.9	1.1	6.4	4.8	1.9	2.7	1,940	1.2	4.0
30	5.2	3.5	2.3	5.8	- - - - -	6.4	4.0	1.6	1.5	1,190	1.0	4.0
31	4.7	- - - - -	2.1	5.8	- - - - -	1.1	- - - - -	3.06	- - - - -	2.40	9.0	- - - - -
Total	549.6	1,252	796	1,366	634.5	352.0	169.4	593.5	1,957	6,460.2	9,036.0	183.7
Mean	17.7	41.7	25.7	44.1	21.9	11.4	5.65	19.1	65.2	208	291	6.12
Max	52	58	65	87	64	25	15	306	624	2,000	2,520	14
Min	4.4	2.7	1.7	2.0	8.5	5.6	3.4	3.7	1.0	3.7	5.6	4.0
Ac-ft	1,090	2,480	1,580	2,710	1,260	698	336	1,180	3,880	12,810	17,920	364

Cal yr 1967: Total 44,004.3 Mean 121 Max 2,880 Min 1.9 Ac-ft 87,280

Wtr yr 1968: Total 23,349.9 Mean 63.8 Max 2,520 Min 3.4 Ac-ft 46,310

Peak discharge (base, 6,000 cfs)--Aug. 10 (1730) 11,600 cfs (6.50 ft).

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 1968.

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, 42,950 acre-ft Mar. 30, 31 (elevation, 3,806.64 ft); no contents for several months. 1943-68: 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, 1968.

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, 631,100 acre-ft at elevation 3,870.00 ft (top of spillway gates), of which 353,900 acre-ft (between elevations 3,773.5 ft, elevation of no contents, and 3,851.00 ft) is for conservation and 277,200 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 1967 to September 1968

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	3,805.78	40,270	-
Oct. 31.....	3,795.87	15,000	-25,270
Nov. 30.....	3,799.32	22,730	+7,730
Dec. 31.....	3,801.85	29,100	+6,370
Calendar year 1967.....	--	--	a -151,700
Jan. 31.....	3,804.30	35,870	+6,770
Feb. 29.....	3,805.66	39,910	+4,040
Mar. 31.....	3,806.64	42,950	+3,040
Apr. 30.....	-	0	-42,950
May 31.....	-	0	0
June 30.....	-	0	0
July 31.....	3,791.70	7,510	+7,510
Aug. 31.....	-	0	-7,510
Sept. 30.....	-	0	0
Water year 1968.....	--	--	-40,270

† Elevation at 2400.

a Based on revised capacity table being applicable Dec. 31, 1967.

7-1305. Arkansas River below John Martin Reservoir, Colo.

Location.--Lat 38°05'02", long 102°55'10", in NW¼NW¼ 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 1968. 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 707 ft upstream at datum 3.64 ft higher than present datum.

Average discharge.--30 years, 341 cfs (246,900 acre-ft per year), adjusted for storage in John Martin Reservoir.

Extremes.--Maximum discharge during year, 1,490 cfs June 1 (gage height, 3.55 ft); minimum daily, 2.0 cfs Jan. 4, 5, 10-22. 1938-68: 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 good. 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 1968 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	475	78	8.1	2.3	3.0	3.0	561	56	913	426	567	369
2	480	54	7.1	2.6	3.3	3.3	1,020	54	431	431	540	341
3	573	53	7.6	2.3	3.3	3.3	1,000	71	404	400	475	310
4	684	42	11	2.0	3.8	3.3	1,080	67	440	612	422	261
5	714	31	14	2.0	3.8	3.3	1,120	59	333	460	404	253
6	720	19	12	2.3	3.8	3.0	1,100	57	404	436	408	265
7	720	7.1	12	2.3	3.8	3.0	1,110	48	365	378	431	374
8	726	12	13	2.3	3.6	2.8	1,130	49	369	400	436	344
9	738	25	11	2.3	3.6	2.8	1,140	54	356	418	512	291
10	738	18	11	2.0	3.6	2.8	1,200	61	506	408	595	268
11	732	14	11	2.0	3.0	2.6	1,200	79	490	395	630	242
12	726	14	9.0	2.0	3.0	2.6	1,070	71	528	404	666	211
13	573	14	6.6	2.0	2.8	2.6	1,020	65	445	408	762	189
14	506	14	3.6	2.0	2.8	2.6	1,020	65	378	404	854	162
15	501	15	3.3	2.0	2.8	2.6	1,020	61	443	450	613	131
16	496	15	3.0	2.0	2.8	2.6	1,030	59	214	400	882	111
17	496	15	2.8	2.0	2.8	2.6	1,010	59	378	322	847	108
18	404	14	2.8	2.0	2.8	2.6	987	51	382	280	828	103
19	352	13	2.8	2.0	2.8	2.6	987	54	352	276	816	85
20	348	13	2.8	2.0	2.8	2.6	1,020	48	322	181	804	75
21	344	13	2.8	2.0	2.8	2.6	457	49	333	230	810	67
22	341	13	2.8	2.0	2.8	2.6	77	51	361	253	494	67
23	325	13	2.8	2.3	2.8	4.8	73	49	369	215	185	67
24	329	11	3.0	2.3	2.8	14	75	49	268	185	348	69
25	325	11	3.0	2.6	2.8	14	69	54	341	369	361	61
26	314	11	3.0	2.8	2.8	14	67	56	352	338	395	61
27	310	9.9	3.0	2.6	3.0	13	94	126	480	378	386	75
28	310	9.0	2.6	2.3	3.0	20	67	242	512	477	306	83
29	310	9.0	2.6	2.6	3.0	20	63	246	490	431	272	83
30	310	9.0	2.6	2.8	---	20	59	253	418	545	310	69
31	310	---	2.6	3.0	---	20	---	276	---	636	356	---
Total	15,230	589.0	185.3	69.7	89.8	201.6	21,926	2,639	12,377	11,946	16,715	5,195
Mean	491	19.6	5.98	2.25	3.10	6.50	731	85.1	413	385	539	173
Max	738	78	14	3.0	3.8	20	1,200	276	913	636	882	374
Min	310	7.1	2.6	2.0	2.8	2.6	59	48	214	181	185	61
Ac-ft	30,210	1,170	368	138	178	400	43,490	5,230	24,550	23,690	33,150	10,300
Cal yr 1967: Total	141,863.3		Mean 389		Max 1,260	Min 2.6	Ac-ft 281,400					
Wtr yr 1968: Total	87,163.4		Mean 238		Max 1,200	Min 2.0	Ac-ft 172,900					

7-1330. Arkansas River at Lamar, Colo.

Location.--Lat 38°06'24", long 102°37'04", in SE¼ sec.30, T.22 S., R.46 W., on left bank at downstream side of bridge on U. S. Highways 50 and 287, 1.4 miles north of court house in Lamar. Prior to Mar. 27, 1968, at site 450 ft upstream.

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 1968. Monthly discharge only for some periods, published in WSP 1311.

Gage.--Water-stage recorder. Datum of gage is 3,597.39 ft above mean sea level, datum of 1929. Prior to June 4, 1941, at present site at datum 7.49 ft higher. June 4, 1941, to Apr. 3, 1946, at site 800 ft downstream and Apr. 4, 1946, to Sept. 30, 1955, at site 150 ft downstream, both at datum 6.49 ft higher. Apr. 4, 1959, to Mar. 26, 1968, at site 450 ft upstream at datum 2.42 ft higher.

Average discharge.--51 years, 221 cfs (164,300 acre-ft per year).

Extremes.--Maximum discharge during year, 1,560 cfs Aug. 15 (gage height, 4.76 ft); minimum daily, 3.0 cfs Feb. 22-28, July 16.

1913-55, 1959-68: Maximum discharge, 130,000 cfs June 5, 1921 (gage height, 19.4 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, 21.32 ft, present datum (from floodmark) June 18, 1965; no flow at times in 1913-15, 1953.

Remarks.--Records good. Flow regulated by John Martin Reservoir (see sta. 7-1300). Natural flow of stream affected by transmountain 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	236	15	36	40	29	3.5	6.7	9.9	290	7.3	186	7.9
2	227		33	45	24	4.0	466	9.2	160	7.3	177	7.9
3	227	9.8	34	50	25	4.0	492	8.5	43	6.2	219	7.3
4	349	8.2	37	52	24	4.0	486	7.9	17	21	212	7.3
5	399	7.4	37	47	21	4.0	534	43	11	37	188	7.3
6	383	6.6	39	43	20	4.0	520	54	30	6.2	182	7.3
7	404	5.8	36	44	16	4.0	500	12	41	8.5	177	7.3
8	393	5.8	31	45	16	4.0	478	8.5	23	7.3	171	6.7
9	383	5.8	26	45	13	4.5	506	8.5	9.9	7.3	149	6.2
10	404	5.0	24	44	15	4.5	538	8.5	8.5	14	222	6.7
11	409	5.0	22	44	12	4.5	538	9.2	11	6.7	252	6.7
12	435	7.4	21	43	23	5.0	517	8.5	9.9	5.7	264	6.7
13	404	16	34	43	20	5.0	468	8.5	7.9	4.7	282	6.7
14	241	18	33	44	18	5.2	478	8.5	6.7	3.8	461	6.7
15	218	24	34	44	15	5.2	468	7.9	50	3.4	704	6.7
16	236	28	36	40	9.8	5.6	454	7.9	90	3.0	517	6.7
17	275	28	38	44	5.0	6.0	464	7.9	12	3.4	500	6.7
18	275	28	40	44	5.8	6.4	402	7.3	8.5	4.2	461	5.7
19	181	28	42	41	4.0	6.8	405	7.3	7.9	33	436	5.7
20	160	28	46	45	4.0	7.2	430	7.3	6.7	6.2	402	5.7
21	160	28	44	49	3.5	7.2	357	7.9	6.7	5.2	377	5.2
22	126	27	42	54	3.0	7.1	26	7.9	6.7	5.7	366	5.2
23	114	27	41	54	3.0	7.1	15	7.9	6.7	4.7	41	5.2
24	79	28	40	47	3.0	6.9	14	7.9	7.9	4.9	14	5.2
25	67	28	39	36	3.0	6.9	12	7.3	22	6.7	11	5.2
26	58	32	39	30	3.0		12	7.3	7.9	5.9	9.9	5.2
27	44	39	37	30	3.0	5.8	12	7.8	8.5	13	9.2	5.2
28	36	42	37	29	3.0	6.0	9.9	7.6	8.5	446	9.2	5.7
29	34	40	37	29	3.5	6.2	9.9	7.9	7.3	27	8.5	5.7
30	33	37	37	24	-----	5.7	9.9	7.9	8.5	5.2	8.5	5.7
31	25	-----	37	23	-----	5.7	-----	50	-----	164	7.9	-----
Total	7,015	6,168	1,109	1,292	3,476	168.9	9,628.4	3,777	934.7	981.7	7,024.2	189.4
Mean	226	20.6	35.8	41.7	12.0	5.45	321	12.2	31.2	31.7	227	6.31
Max	435	42	46	54	29	7.2	538	54	290	446	704	7.9
Min	25	5.0	21	23	3.0	3.5	6.7	7.3	6.7	3.0	7.9	5.2
Ac-ft	13,910	1,220	2,200	2,560	689	335	19,100	749	1,850	1,950	13,930	376
Cal yr 1967: Total	70,285.9			193		3,230		2.5				
Wtr yr 1968: Total	29,685.4			81.1		704		3.0				
									139,400			
									58,880			

7-1370. Frontier ditch near Coolidge, Kans.

Location.--Lat 38°02'18", long 102°02'19", in NE¼ sec.21, T.23 S., R.43 W., on left bank 0.3 mile east of Colorado-Kansas State line, 0.5 mile downstream from Holly drain diversion, 1.5 miles west of Coolidge, and 2.3 miles downstream from diversion from Arkansas River.

Records available.--October 1950 to September 1968.

Gage.--Water-stage recorders and Parshall flume. Datum of gage is 3,353.14 ft above mean sea level, datum of 1929.

Extremes.--1950-68: Maximum daily discharge, 70 cfs May 7, 1959; no flow for many days.

Remarks.--Records good. This ditch diverts water from Arkansas River in Colorado for use in Kansas. These records and records for Arkansas River near Coolidge represent total flow of Arkansas River at the Colorado-Kansas State line.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33					0	48	39	31	37	33	43
2	32					0	49	36	43	30	18	42
3	32					0	50	41	23	26	33	38
4	33					0	39	53	16	36	37	33
5	36					0	24	52	7.4	34	28	29
6	38					0	29	52	0	45	17	28
7	40					0	30	41	0	38	14	28
8	46					0	15	43	3.3	30	29	35
9	44					0	8.6	39	23	25	38	41
10	43					0	7.0	40	27	29	43	41
11	46					0	7.7	45	30	33	38	37
12	41					0	5.8	48	36	25	46	36
13	37					0	.70	47	37	26	41	41
14	35					0	0	44	29	30	48	40
15	30					0	0	42	3.8	30	50	41
16	29					0	0	38	0	27	31	41
17	28					0	0	41	0	36	34	42
18	28					15	0	39	0	47	30	40
19	28					51	0	37	0	39	33	37
20	25					50	0	36	7.6	30	36	39
21	24					48	0	36	8.2	40	35	34
22	26					49	0	37	16	36	32	34
23	26					46	0	38	27	40	28	32
24	28					42	0	37	31	50	16	32
25	31					43	0	37	43	52	7.4	32
26	18					47	14	37	31	33	27	34
27	0					44	41	36	27	26	50	33
28	0					42	36	36	27	38	53	30
29	0					46	33	33	28	43	56	30
30	0					44	38	33	28	35	50	34
31	0	-----			-----	48	-----	39	-----	38	42	-----
Total	857	0	0	0	0	615	475.80	1,252	583.3	1,084	1,073.4	1,077
Mean	27.6	0	0	0	0	19.8	15.9	40.4	19.4	35.0	34.6	35.9
Max	46	0	0	0	0	51	50	53	43	52	56	43
Min	0	0	0	0	0	0	0	33	0	25	7.4	28
Ac-ft	1,700	0	0	0	0	1,220	944	2,480	1,160	2,150	2,130	2,140
Cal yr 1967: Total	6,380.7		Mean	17.5	Max	62	Min	0	Ac-ft	12,660		
Wtr yr 1968: Total	7,017.50		Mean	19.2	Max	56	Min	0	Ac-ft	13,920		

ARKANSAS RIVER BASIN

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.

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 1968. 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.--18 years, 236 cfs (170,900 acre-ft per year).

Extremes.--Maximum discharge during year, 1,300 cfs Aug. 15 (gage height, 4.45 ft); minimum daily, 6.8 cfs July 18.

1903, 1921, 1950-68: Maximum discharge, 158,000 cfs June 17, 1965 (gage height, 14.8 ft, present site and datum, from flood-marks), 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 1968 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	308	208	119	90	135	83	14	77	225	92	262	19
2	304	200	136	90	151	77	19	62	536	65	340	14
3	284	196	122	95	133	89	134	60	345	42	310	42
4	280	181	126	100	122	98	385	34	244	55	355	62
5	304	174	119	105	122	92	402	34	216	71	310	83
6	358	170	126	100	116	89	390	70	216	95	254	65
7	376	158	130	110	116	86	429	160	164	89	235	60
8	403	155	136	120	116	83	429	101	168	86	215	52
9	454	151	130	125	126	80	464	77	156	68	195	80
10	448	140	107	130	133	92	452	74	142	57	468	98
11	472	136	116	140	147	98	518	89	142	74	254	98
12	478	126	122	130	130	92	554	107	156	62	232	74
13	472	133	130	145	144	92	586	107	164	52	249	49
14	430	133	130	150	158	92	542	83	128	49	254	42
15	349	122	133	160	162	83	506	74	271	49	810	26
16	316	126	133	170	130	74	506	77	350	47	725	19
17	324	126	147	170	109	71	512	92	330	36	548	32
18	340	112	130	151	112	62	518	83	160	6.8	494	32
19	358	112	147	174	116	24	500	86	188	93	440	24
20	312	122	136	177	109	24	476	86	160	128	385	47
21	280	126	136	147	130	32	500	89	139	104	402	34
22	261	130	109	151	109	32	440	92	86	32	390	9.2
23	242	133	112	144	112	32	220	83	83	14	375	12
24	242	144	155	170	107	29	168	85	80	159	216	24
25	246	144	151	155	98	19	164	85	208	160	139	26
26	246	136	147	151	93	12	139	80	132	92	113	19
27	227	133	144	144	93	14	128	80	122	104	60	22
28	208	112	133	135	90	14	119	80	110	188	36	29
29	200	112	119	145	85	9.2	107	74	104	369	19	26
30	227	112	116	145	- - - - -	12	89	83	92	208	22	29
31	231	- - - - -	80	140	- - - - -	14	- - - - -	119	- - - - -	160	26	- - - - -
Total	9,980	4,263	3,977	4,259	3,504	1,800.2	10,410	2,583	5,617	2,906.8	9,175	1,248.2
Mean	322	142	128	137	121	58.1	347	83.3	187	93.8	276	41.6
Max	478	208	155	177	162	98	586	160	536	369	810	98
Min	200	112	80	90	85	9.2	14	34	80	6.8	19	9.2
Ac-ft	19,800	8,460	7,890	8,450	6,950	3,570	20,650	5,120	11,140	5,770	18,270	2,480

Cal yr 1967: Total	104,163	Mean	285	Max	1,930	Min	65	Ac-ft	206,600
Wtr yr 1968: Total	59,723.2	Mean	163	Max	810	Min	6.8	Ac-ft	118,500

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 1968. 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.--55 years (1910-23, 1926-68), 215 cfs (155,700 acre-ft per year).

Extremes.--Maximum discharge during year, 1,590 cfs June 17 (gage height, 3.65 ft); minimum daily, 2.3 cfs Nov. 4-30. 1909-23, 1925-68: 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-Loehr and Fuchs ditches (see elsewhere in this report). No known diversions above station.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	61	4.6	2.4	2.6	3.0	3.5	4.0	63	1,040	674	131	175
2	61	2.6	2.4	2.6	3.0	3.5	4.0	106	672	424	131	151
3	61	2.6	2.4	2.6	3.0	3.5	4.0	151	336	430	131	144
4	61	2.3	2.4	2.6	3.0	3.5	4.0	175	137	836	172	168
5	61	2.3	2.4	2.6	3.0	3.5	4.0	261	148	972	194	165
6	59	2.3	2.4	2.6	3.0	3.5	4.5	285	154	940	194	175
7	55	2.3	2.4	2.6	3.0	3.5	4.5	198	568	844	126	179
8	50	2.3	2.4	2.6	3.0	3.5	4.5	165	813	964	269	151
9	47	2.3	2.4	2.6	3.0	3.5	4.5	237	964	1,070	360	126
10	47	2.3	2.4	2.6	3.0	3.5	4.5	269	828	1,090	252	112
11	47	2.3	2.4	2.6	3.0	3.5	5.0	269	694	1,050	11	249
12	51	2.3	2.4	2.6	3.0	3.5	5.0	269	844	1,000	11	321
13	55	2.3	2.4	2.6	3.0	3.5	5.0	269	1,190	964	11	321
14	50	2.3	2.4	2.6	3.0	3.5	5.0	269	1,310	892	11	321
15	47	2.3	2.4	2.6	3.0	3.5	5.0	269	1,380	648	11	312
16	38	2.3	2.5	2.8	3.0	4.0	5.0	237	1,420	563	11	303
17	33	2.3	2.5	2.8	3.0	4.0	5.0	190	1,500	743	11	298
18	33	2.3	2.5	2.8	3.0	4.0	5.0	217	1,510	764	133	316
19	33	2.3	2.5	2.8	3.0	4.0	5.0	241	1,490	743	213	321
20	32	2.3	2.5	2.8	3.0	4.0	5.4	225	1,390	582	201	138
21	28	2.3	2.5	2.8	3.0	4.0	5.4	471	1,360	280	198	61
22	28	2.3	2.5	2.8	3.0	4.0	5.4	757	1,280	305	198	61
23	30	2.3	2.5	2.8	3.0	4.0	5.8	836	1,040	430	186	63
24	31	2.3	2.5	2.8	3.0	4.0	5.8	792	948	217	201	63
25	31	2.3	2.5	2.8	3.0	4.0	31	628	799	134	201	63
26	33	2.3	2.5	2.8	3.0	4.0	41	660	634	128	201	63
27	31	2.3	2.5	2.8	3.0	4.0	41	836	608	128	179	63
28	28	2.3	2.5	2.8	3.0	4.0	41	1,100	701	131	144	56
29	28	2.3	2.5	2.8	3.0	4.0	41	1,180	654	131	175	44
30	30	2.3	2.5	2.8	---	4.0	41	751	961	131	175	41
31	31	---	2.5	2.8	---	4.0	---	852	---	131	172	---
Total	1,311	71.9	76.0	83.8	87.0	116.5	351.3	13,228	27,373	18,339	4,614	5,024
Mean	42.3	2.40	2.45	2.70	3.00	3.76	11.7	427	912	592	149	167
Max	61	4.6	2.5	2.8	3.0	4.0	41	1,180	1,510	1,090	360	321
Min	28	2.3	2.4	2.6	3.0	3.5	4.0	63	137	128	11	41
Ac-ft	2,600	143	151	166	173	231	697	26,240	54,290	36,370	9,150	9,960

Cal yr 1967: Total 48,412.0 Mean 133 Max 1,190 Min 2.3 Ac-ft 96,020
 Wtr yr 1968: Total 70,675.5 Mean 193 Max 1,510 Min 2.3 Ac-ft 140,200

Note.--No gage-height record Nov. 5 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 1968. 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--39 years, 30.9 cfs (22,370 acre-ft per year).

Extremes--Maximum discharge during year, 346 cfs May 31 (gage height, 3.00 ft); minimum daily, 0.80 cfs Sept. 19.

1929-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	3.8	1.1	1.1	1.1	1.1	1.1	12	338	23	58	38
2	14	1.1	1.1	1.1	1.1	1.1	1.1	12	329	23	54	36
3	14	1.1	1.1	1.1	1.1	1.1	1.1	20	309	57	52	35
4	12	1.1	1.1	1.1	1.1	1.1	1.1	26	274	30	38	34
5	11	1.1	1.1	1.1	1.1	1.1	1.1	26	268	.85	31	32
6	11	1.1	1.1	1.1	1.1	1.1	1.1	26	271	.85	31	12
7	11	1.1	1.1	1.1	1.1	1.1	1.1	32	271	.85	42	.90
8	11	1.1	1.1	1.1	1.1	1.1	1.1	35	222	.85	58	.90
9	11	1.1	1.1	1.1	1.1	1.1	1.1	47	159	51	63	.90
10	11	1.1	1.1	1.1	1.1	1.1	1.1	64	116	116	63	.85
11	11	1.1	1.1	1.1	1.1	1.1	1.1	80	99	123	27	.85
12	11	1.1	1.1	1.1	1.1	1.1	1.1	86	93	77	.90	.90
13	11	1.1	1.1	1.1	1.1	1.1	1.1	90	93	52	.85	.90
14	11	1.1	1.1	1.1	1.1	1.1	1.1	93	85	46	.85	.90
15	11	1.1	1.1	1.1	1.1	1.1	1.1	96	85	65	.90	.85
16	12	1.1	1.1	1.1	1.1	1.1	1.1	99	88	82	.85	.90
17	13	1.1	1.1	1.1	1.1	1.1	1.1	80	98	93	.90	.90
18	13	1.1	1.1	1.1	1.1	1.1	1.1	69	101	101	33	.85
19	13	1.1	1.1	1.1	1.1	1.1	1.1	76	101	93	39	.80
20	12	1.1	1.1	1.1	1.1	1.1	1.1	85	94	77	35	3.7
21	12	1.1	1.1	1.1	1.1	1.1	1.1	121	80	80	36	9.8
22	12	1.1	1.1	1.1	1.1	1.1	1.1	222	76	83	36	9.8
23	12	1.1	1.1	1.1	1.1	1.1	1.1	279	76	82	36	9.8
24	12	1.1	1.1	1.1	1.1	1.1	1.1	268	76	98	36	9.8
25	12	1.1	1.1	1.1	1.1	1.1	6.7	206	72	110	36	9.8
26	14	1.1	1.1	1.1	1.1	1.1	12	186	69	99	26	9.8
27	14	1.1	1.1	1.1	1.1	1.1	12	228	58	80	26	10
28	12	1.1	1.1	1.1	1.1	1.1	12	266	55	76	28	10
29	10	1.1	1.1	1.1	1.1	1.1	12	298	45	83	36	10
30	8.7	1.1	1.1	1.1	1.1	1.1	12	309	28	64	42	13
31	7.5	1.1	1.1	1.1	1.1	1.1	1.1	326	28	57	40	1.1
Total	364.2	35.7	34.1	34.1	31.9	34.1	93.1	3,863	4,129	2,024.40	1,007.25	303.90
Mean	11.7	1.19	1.10	1.10	1.10	1.10	3.10	125	138	65.3	32.5	10.1
Max	14	3.8	1.1	1.1	1.1	1.1	12	326	338	123	63	38
Min	7.5	1.1	1.1	1.1	1.1	1.1	1.1	12	28	0.85	0.85	0.80
Ac-ft	722	71	68	68	63	68	185	7,660	8,190	4,020	2,000	603

Cal yr 1967: Total 6,577.9 Mean 18.0 Max 110 Min 1.1 Ac-ft 13,050
 Wtr yr 1968: Total 11,954.75 Mean 32.7 Max 338 Min 0.80 Ac-ft 23,710

Note--No gage-height record Nov. 3 to Apr. 25.

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 1968.

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.--17 years, 21.6 cfs (15,640 acre-ft per year).

Extremes.--Maximum discharge during year, 280 cfs May 29 (gage height, 3.62 ft); minimum daily, 3.0 cfs Dec. 21.

1951-68: 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 winter period, which are poor. Diversions above station for municipal supply of Creede.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	7.6	4.4	3.8	3.8	3.8	7.4	15	177	36	46	22
2	14	7.2	4.2	4.2	3.6	4.2	6.2	20	184	34	57	22
3	13	5.4	4.0	4.4	3.8	4.4	5.9	28	171	33	50	23
4	13	7.2	4.2	4.2	3.8	4.6	5.9	33	168	32	48	21
5	12	6.8	4.4	4.0	3.6	4.8	5.9	36	177	32	45	20
6	11	5.8	4.6	3.4	3.8	5.0	5.9	36	171	30	58	20
7	11	5.4	4.2	3.6	4.0	5.5	4.7	32	148	29	55	18
8	10	5.8	4.0	3.6	4.0	5.0	5.0	30	115	28	60	18
9	10	6.3	3.8	3.8	3.8	4.6	5.0	35	87	29	60	17
10	10	5.8	4.0	4.0	3.8	4.4	5.3	37	78	29	61	16
11	10	5.4	4.4	4.2	3.8	4.0	6.2	37	85	27	59	16
12	9.8	5.4	4.4	3.6	3.8	3.8	7.0	37	93	26	54	16
13	9.0	5.8	4.0	3.8	3.8	4.2	7.4	34	97	25	52	16
14	8.6	5.8	3.8	3.8	3.8	4.2	7.4	31	89	25	59	15
15	8.6	5.4	4.0	3.8	3.6	3.8	8.3	33	88	23	52	14
16	8.1	5.0	4.0	3.8	3.6	4.0	9.2	37	88	22	45	15
17	8.1	5.0	4.0	3.8	3.6	4.0	8.8	42	87	21	40	14
18	8.1	5.0	3.6	3.6	3.8	3.8	8.8	48	90	20	36	14
19	8.1	5.0	3.6	3.8	3.6	3.6	7.8	55	89	20	33	14
20	8.1	5.4	3.8	4.0	3.8	3.4	7.8	69	87	20	31	14
21	8.6	5.8	3.0	3.8	3.8	3.3	7.8	94	84	19	30	13
22	8.6	5.4	3.4	3.8	3.8	3.8	7.0	127	74	18	28	13
23	8.1	4.0	3.6	3.6	3.6	4.1	6.5	119	70	19	26	13
24	8.1	4.2	4.4	3.8	3.8	4.7	6.5	96	69	23	26	12
25	8.1	4.5	4.2	3.8	4.0	4.7	7.4	85	61	27	25	12
26	8.1	3.8	3.8	3.8	4.0	4.7	7.8	94	55	33	25	11
27	6.8	3.2	3.6	3.8	4.0	4.4	7.8	120	53	65	25	11
28	7.2	4.2	4.0	4.0	3.8	4.7	7.8	155	49	64	25	11
29	7.2	4.8	3.8	3.8	3.8	5.6	8.3	191	44	51	23	11
30	6.3	4.6	3.8	3.6	---	5.9	1.1	191	38	47	23	10
31	8.1	---	3.6	4.0	---	7.0	---	176	---	46	22	---
Total	289.7	161.0	122.6	119.0	109.8	138.0	213.8	2,173	2,966	953	1,279	462
Mean	9.35	5.37	3.95	3.84	3.79	4.45	7.13	70.1	98.9	30.7	41.3	15.4
Max	14	7.6	4.6	4.4	4.0	7.0	11	191	184	65	61	23
Min	6.3	3.2	3.0	3.4	3.6	3.3	4.7	15	38	18	22	10
Ac-ft	575	319	243	236	218	274	424	4,310	5,880	1,890	2,540	916

Cal yr 1967: Total 4,961.9 Mean 13.6 Max 49 Min 3.0 Ac-ft 9,840

Wtr yr 1968: Total 8,986.9 Mean 24.6 Max 191 Min 3.0 Ac-ft 17,830

Peak discharge (base, 120 cfs)

Note.--No gage-height record Nov. 28 to Mar. 20.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-22	1930	2.86	148	6-12	2030	2.81	139
5-29	2000	3.62	280				

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 1968.

Gage.--Water-stage recorder. Datum of gage is 8,431.26 ft above mean sea level, datum of 1929.

Average discharge.--17 years, 496 cfs (359,100 acre-ft per year).

Extremes.--Maximum discharge during year, 3,910 cfs May 29 (gage height, 5.10 ft); minimum daily, 70 cfs Dec. 21.
1951-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	218	156	95	85	95	100	161	365	3,270	1,460	874	420
2	215	130	90	100	90	100	154	460	3,420	1,090	843	415
3	212	110	95	95	95	100	123	532	2,950	994	773	415
4	208	116	95	90	100	100	130	586	2,440	1,180	724	410
5	212	111	95	85	90	110	134	628	2,330	1,480	766	405
6	201	110	95	80	95	120	144	724	2,570	1,420	962	380
7	195	108	90	85	100	120	120	628	2,440	1,360	914	385
8	186	108	95	85	100	110	118	550	2,240	1,380	954	375
9	183	111	95	90	100	110	121	598	2,050	1,510	1,100	342
10	189	111	90	90	95	110	128	710	1,990	1,640	1,180	320
11	189	109	95	95	95	100	142	717	1,740	1,620	985	316
12	183	113	100	85	95	100	161	752	1,870	1,500	773	476
13	180	110	100	85	95	110	168	745	2,400	1,420	695	487
14	180	113	95	95	95	110	166	696	2,700	1,330	731	482
15	171	110	100	95	90	100	183	689	2,760	1,130	765	482
16	166	110	100	95	90	100	205	745	2,860	962	634	460
17	158	110	100	95	95	100	201	696	2,920	1,020	574	455
18	156	109	80	95	95	95	177	752	2,970	1,150	539	455
19	161	107	85	90	95	95	168	836	2,780	1,100	695	465
20	158	107	90	95	95	95	156	978	2,660	986	668	430
21	156	110	70	90	95	95	180	1,220	2,660	773	640	266
22	154	114	80	90	100	95	171	2,080	2,460	435	622	254
23	151	106	90	95	95	100	156	2,260	2,240	773	593	258
24	151	100	95	95	95	116	151	2,140	2,010	731	550	254
25	151	100	100	95	100	113	161	1,840	1,790	598	525	245
26	151	95	100	95	100	113	208	1,830	1,530	724	509	241
27	146	90	95	95	100	113	225	2,200	1,430	962	514	236
28	156	90	95	95	100	116	229	2,810	1,440	906	562	236
29	154	100	100	95	100	120	241	3,400	1,420	824	482	225
30	134	95	95	95	- - - -	128	302	3,290	1,420	773	450	225
31	151	- - - -	90	95	- - - -	144	- - - -	3,020	- - - -	808	425	- - - -
Total	5,376	3,269	2,890	2,845	2,785	3,338	5,084	39,477	69,760	34,044	22,030	10,815
Mean	173	109	93.2	91.8	96.0	108	169	1,273	2,325	1,098	711	360
Max	218	156	100	100	100	144	302	3,400	3,420	1,640	1,180	487
Min	134	90	70	80	90	95	118	365	1,420	435	425	225
Ac-ft	10,660	6,480	5,730	5,640	5,520	6,620	10,080	78,300	138,400	67,530	43,700	21,450
Cal yr 1967: Total	123,464		Mean 338	Max 1,930	Min 55	Ac-ft 244,900						
Wtr yr 1968: Total	201,713		Mean 551	Max 3,420	Min 70	Ac-ft 400,100						

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 1968.

Gage.--Water-stage recorder. Altitude of gage is 8,460 ft (from topographic map).

Average discharge.--14 years, 58.4 cfs (42,280 acre-ft per year).

Extremes.--Maximum discharge during year, 563 cfs June 5 (gage height, 4.13 ft); minimum not determined.

1954-68: 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 periods of no gage-height record, 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	18					36	79	355	146	155	48
2	27						34	102	425	137	132	44
3	25						28	112	430	132	115	57
4	26						28	107	395	123	112	50
5	27						29	112	425	115	137	41
6	27	17					29	120	468	112	209	38
7	27						25	96	457	109	170	36
8	25						26	99	375	109	167	35
9	25						25	115	272	109	158	32
10	28						27	120	233	112	191	30
11	28	16				16	34	104	217	115	241	30
12	27						40	109	263	112	217	30
13	26						42	107	326	120	217	32
14	25						46	91	355	102	221	29
15	22						54	99	365	89	225	29
16	21	15	15	14	15		57	120	370	81	180	29
17	24						54	120	355	72	161	29
18	24						46	143	370	68	140	29
19	22						42	161	340	63	123	28
20	21						41	191	340	61	112	27
21	21	16				16	42	225	365	57	107	29
22	21						16	299	330	55	94	29
23	21						17	40	317	61	81	34
24	20						18	36	272	63	72	32
25	20						17	38	233	61	68	30
26	20	16				16	18	36	254	94	63	29
27	19						20	36	290	109	63	29
28	20						20	35	326	217	107	29
29	20						24	38	355	194	109	28
30	18						26	52	365	164	99	32
31	22	-----	-----	-----	-----	-----	30	-----	375	-----	50	-----
Total	727	495	465	434	435	542	1,136	5,618	9,704	3,054	4,162	1,004
Mean	23.5	16.5	15	14	15	17.5	37.9	181	323	98.5	134	33.5
Max	28	-	-	-	-	30	57	375	468	152	241	57
Min	18	-	-	-	-	-	25	79	164	55	50	27
Ac-ft	1,440	982	922	861	863	1,080	2,250	11,140	19,250	6,060	8,260	1,990
Cal yr 1967: Total	14,380		Mean	39.4	Max	191	Min	-	Ac-ft	28,520		
Wtr yr 1968: Total	27,776		Mean	75.9	Max	468	Min	-	Ac-ft	55,090		

Peak discharge (base, 200 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
6-5	2400	4.13	563	8-11	0300	3.55	268
8-6	0700	3.76	365	8-14	2215	3.59	286

Note.--No gage-height record Nov. 10 to Mar. 20.

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 1968. 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.--44 years, 211 cfs (152,800 acre-ft per year).

Extremes.--Maximum discharge during year, 1,960 cfs June 6 (gage height, 5.42 ft); minimum not determined.

1910-22, 1936-68: 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 residents.

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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	87	38					170	290	1,380	350	280	113
2	85	36					154	326	1,500	302	260	108
3	84	27					137	338	1,440	288	240	122
4	84	46					132	317	1,400	270	220	118
5	81	38					143	347	1,530	260	230	105
6	81	45					143	371	1,700	255	270	95
7	82	38					132	329	1,760	248	260	88
8	65	48					126	362	1,520	238	270	82
9	64	44					121	440	1,210	235	340	80
10	71	43					129	474	1,060	252	380	77
11	77	38					162	436	1,010	255	390	75
12	77	43					192	466	1,050	222	370	77
13	77	43					210	458	1,000	212	360	80
14	75	43					212	408	1,110	182	350	73
15	73	40					240	422	1,150	188	400	73
16	62	42					255	446	1,130	338	371	71
17	43	42					235	429	1,100	323	323	68
18	41	38					235	466	1,090	205	282	68
19	39	38					235	498	1,030	119	258	65
20	38	42					235	586	1,010	116	275	64
21	37	40					242	710	990	121	248	64
22	37	40					232	916	916	126	210	65
23	35	34					230	949	835	141	190	74
24	34	30					225	861	775	145	166	70
25	35	29					198	805	686	162	146	65
26	37	32				95	168	916	602	170	177	63
27	31	25				99	162	1,040	542	222	175	61
28	34	28				105	164	1,230	514	240	146	61
29	38	30				130	184	1,320	474	252	129	60
30	28	32				148	258	1,320	401	245	122	66
31	40	-----			-----	160	-----	1,390	-----	255	121	-----
Total	1,772	1,132	930	806	899	2,237	5,641	19,666	31,915	6,937	7,860	2,351
Mean	57.2	37.7	30	26	31	72.2	188	634	1,064	224	254	78.4
Max	87	48	-	-	-	160	255	1,390	1,760	350	400	122
Min	28	25	-	-	-	-	121	290	401	116	121	60
Ac-ft	3,510	2,250	1,840	1,600	1,780	4,440	11,190	39,010	63,300	13,760	15,580	4,660

Cal yr 1967: Total 59,801 Mean 164 Max 916 Min - Ac-ft 118,600

Wtr yr 1968: Total 82,146 Mean 224 Max 1,760 Min - Ac-ft 162,900

Peak discharge (base, 900 cfs).--June 6 (2330) 1,960 cfs (5.42 ft).

Note.--No gage-height record Dec. 12 to Mar. 26.

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 1968. 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.--79 years, 910 cfs (658,800 acre-ft per year).

Extremes.--Maximum discharge during year, 5,790 cfs June 2 (gage height, 4.82 ft); minimum daily, 119 cfs Nov. 27.

1889-1968: 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). Records of chemical analyses for water year 1968 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	335	253	160	140	125	160	443	770	5,030	2,190	1,530	649
2	318	248	140	150	120	170	437	928	5,460	1,620	1,440	634
3	313	185	140	170	120	175	347	1,060	5,100	1,450	1,340	656
4	318	177	155	155	140	170	330	1,090	4,580	1,490	1,200	660
5	324	180	155	140	135	160	341	1,150	4,450	1,900	1,250	611
6	318	180	160	130	130	175	365	1,350	4,890	1,890	1,500	581
7	318	174	155	130	140	185	318	1,140	4,850	1,800	1,530	568
8	296	171	150	135	150	190	280	1,120	4,340	1,740	1,470	554
9	286	180	145	140	150	190	280	1,230	3,660	1,940	1,700	520
10	291	189	150	145	150	180	296	1,410	3,520	2,060	1,920	488
11	308	180	155	150	150	175	347	1,370	3,120	2,130	1,950	468
12	296	185	160	135	155	170	431	1,410	3,170	1,970	1,620	581
13	291	189	155	120	160	180	468	1,440	3,780	1,890	1,550	672
14	286	189	160	125	165	200	468	1,320	4,340	1,740	1,510	649
15	280	189	170	130	140	170	507	1,300	4,490	1,560	1,760	641
16	269	177	160	135	145	180	568	1,410	4,580	1,450	1,410	618
17	231	177	140	140	150	198	540	1,350	4,560	1,410	1,240	611
18	221	171	125	130	155	180	520	1,450	4,670	1,500	1,110	603
19	221	165	130	125	160	168	494	1,570	4,470	1,330	1,160	603
20	217	165	130	135	165	185	462	1,870	4,320	1,260	1,160	603
21	212	171	125	145	170	171	494	2,180	4,390	1,020	1,130	462
22	208	174	120	140	180	174	488	3,400	4,070	762	1,050	377
23	208	165	135	135	175	194	474	3,800	3,760	910	992	389
24	203	140	140	130	170	221	455	3,620	3,380	1,030	901	377
25	203	137	145	130	170	237	443	3,140	3,040	857	839	359
26	203	147	150	135	170	242	431	3,140	2,550	1,000	804	353
27	189	119	140	140	160	269	474	3,540	2,290	1,310	796	341
28	189	135	150	150	160	296	494	4,180	2,210	1,430	874	335
29	203	140	160	140	160	330	507	5,100	2,240	1,330	779	335
30	185	150	150	130	- - - -	365	618	5,260	1,920	1,260	704	335
31	189	- - - -	140	125	- - - -	401	- - - -	4,910	- - - -	1,350	672	- - - -
Total	7,929	5,202	4,550	4,260	4,420	6,461	13,120	68,008	117,230	46,579	38,891	15,633
Mean	256	173	147	137	152	208	437	2,194	3,908	1,503	1,255	521
Max	335	253	170	170	180	401	618	5,260	5,460	2,190	1,950	672
Min	185	119	120	120	120	160	280	770	1,920	762	672	335
Ac-ft	15,730	10,320	9,020	8,450	8,770	12,820	26,020	134,900	232,500	92,390	77,140	31,010

Cal yr 1967: Total 201,372 Mean 552 Max 2,880 Min 110 Ac-ft 399,400
Wtr yr 1968: Total 332,283 Mean 908 Max 5,460 Min 119 Ac-ft 659,100

RIO GRANDE BASIN

8-2205. Pinos Creek near Del Norte, Colo.

Location.--Lat 37°35'30", long 106°26'58" (revised), in SW¼SE¼ sec.29, T.39 N., R.5 E., on left bank 90 ft downstream from Bennett Creek (revised) and 8.0 miles southwest of Del Norte.

Drainage area.--53 sq mi, approximately.

Records available.--April 1919 to September 1924, May 1936 to September 1968. 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 8,480 ft, revised (from topographic map). May 1, 1919, to Sept. 30, 1924, staff gages at sites about 1,000 ft downstream at different datums.

Average discharge.--24 years (1940-41, 1943-47, 1949-68), 24.3 cfs (17,590 acre-ft per year).

Extremes.--Maximum discharge during year, 387 cfs July 29 (gage height, 2.70 ft), from rating curve extended above 260 cfs; minimum not determined.

1919-24, 1936-68: 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 winter period, which are poor. One small diversion above station.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	10					15	42	174	51	176	34
2	10	9.2					13	51	174	50	114	32
3	10	6.8					12	52	158	50	102	38
4	10	9.6					12	51	158	47	90	30
5	10	9.2					12	56	182	47	86	27
6	10	9.2					12	63	204	47	100	26
7	10	8.8					10	54	194	45	89	25
8	10	9.2					9.2	55	160	42	89	24
9	10	8.8					8.8	65	141	45	81	23
10	10	8.8					10	65	129	41	160	22
11	10	7.6					16	58	120	37	176	21
12	10	8.0					20	57	129	33	170	20
13	9.6	8.0				7.0	21	64	130	31	158	21
14	9.6	7.2					23	57	129	29	143	18
15	9.2	7.2					26	58	127	25	113	18
16	8.0	6.4	4.5	4.0	4.5		28	71	127	23	98	17
17	8.8	6.4					27	86	120	21	94	16
18	8.8	6.4					26	100	113	21	84	16
19	8.4	6.0					23	95	111	19	74	16
20	8.4	6.4					24	110	108	17	65	16
21	8.4	7.2					27	134	105	16	66	15
22	8.4	6.8					25	170	97	18	56	15
23	8.0						23	168	92	31	55	17
24	8.0						20	147	84	29	50	15
25	8.4						21	125	77	46	47	14
26	8.4	5.5				9.6	21	130	70	67	46	14
27	7.2					9.6	20	138	66	136	47	14
28	8.4					11	21	154	64	100	48	14
29	7.6					13	24	160	59	113	44	14
30	6.0					14	33	170	55	105	39	14
31	11					16		176		116	36	
Total	280.6	217.2	139.5	124.0	130.5	248.2	583.0	2,982	3,657	1,498	2,756	606
Mean	9.05	7.24	4.5	4.0	4.5	8.01	19.4	96.2	122	48.3	87.9	20.2
Max	11	10	-	-	-	16	33	176	204	136	176	38
Min	6.0	-	-	-	-	-	8.8	42	55	16	36	14
Ac-ft	557	431	277	246	259	492	1,160	5,910	7,250	2,970	5,470	1,200

Cal yr 1967 : Total 6,579.7 Mean 18.0 Max 63 Min - Ac-ft 13,050
Wtr yr 1968 : Total 13,222.0 Mean 36.1 Max 204 Min - Ac-ft 26,230

Peak discharge (base, 120 cfs)

Note.--No gage-height record Nov. 22 to Mar. 26.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
6-6	2400	2.13	243	7-29	1600	2.70	387
7-26	2230	2.60	363	8-10	0230	1.97	214

8-2209. San Francisco Creek at upper station, near Del Norte, Colo.

Location.--Lat 37°34'44", long 106°22'11", in SW¼ sec.36, T.39 N., R.5 E., on left bank just upstream from trail crossing, 0.2 mile upstream from unnamed tributary, 1½ miles downstream from East Fork, and 7.0 miles south of Del Norte.

Drainage area.--11.8 sq mi.

Records available.--January 1967 to September 1968.

Gage.--Water-stage recorder and Parshall flume. Altitude of gage is 8,930 ft (from topographic map). Prior to July 23, 1968, at datum 2.29 ft lower.

Extremes.--Maximum discharge during year, 754 cfs July 30 (gage height, 5.1 ft, from flood marks), by slope-area measurement of peak flow; minimum daily, 0.50 cfs Dec. 22.

1967-68: Maximum discharge, that of July 30, 1968; minimum daily, that of Dec. 22, 1967.

Remarks.--Records good except those for periods of no gage-height record, which are poor. One small diversion above station for irrigation below.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.3	2.0	1.6	1.1	1.2	1.8	3.8	7.0	24	8.5	30	5.5
2	2.5	1.7	1.4	1.2	1.0	1.7	3.6	8.0	24	8.2	25	5.7
3	2.5	1.4	1.2	1.3	1.2	1.8	3.3	8.8	22	8.0	23	7.2
4	2.5	1.4	1.3	1.2	1.2	1.7	3.1	8.0	22	7.7	20	5.6
5	2.5	1.6	1.3	1.2	1.1	1.6	3.1	11	23	7.4	19	5.0
6	2.3	1.4	1.4	1.0	1.2	1.6	3.0	9.6	23	6.9	18	4.8
7	2.2	1.4	1.3	1.2	1.2	1.7	2.9	10	20	6.5	16	4.7
8	2.2	1.6	1.3	1.4	1.2	1.6	2.8	8.8	20	6.1	14	4.4
9	2.2	1.6	1.3	1.4	1.3	1.7	2.8	9.3	17	5.8	13	4.4
10	2.2	1.8	1.2	1.5	1.3	1.8	2.9	9.6	15	5.6	14	4.3
11	2.2	1.8	1.4	1.4	1.3	1.8	3.0	9.9	14	5.4	15	4.3
12	2.2	1.8	1.2	1.3	1.4	1.9	3.3	9.6	14	5.2	16	4.4
13	2.2	2.0	1.0	1.2	1.4	1.9	3.7	9.6	14	5.8	17	4.4
14	2.2	2.1	.90	1.3	1.4	1.9	4.3	9.6	13	5.6	16	3.9
15	2.0	2.0	1.0	1.3	1.3	2.0	5.4	11	13	5.2	14	3.8
16	1.9	2.0	1.0	1.3	1.2	2.0	5.8	11	14	5.0	13	3.8
17	2.0	2.0	.70	1.4	1.5	2.0	5.2	12	14	4.8	12	3.8
18	1.9	2.0	.60	1.2	1.7	2.0	4.0	12	14	4.8	11	3.8
19	2.0	2.0	.70	1.2	1.8	1.9	3.7	13	13	4.5	11	3.7
20	1.9	1.8	.80	1.4	1.8	1.9	3.5	16	13	4.1	9.2	3.7
21	2.2	1.8	.60	1.5	1.8	1.8	3.4	20	13	4.0	8.8	3.7
22	2.3	1.8	.50	1.5	1.9	1.9	3.2	24	12	4.1	7.5	3.4
23	2.2	1.6	.60	1.4	1.9	2.0	3.1	24	12	4.5	6.9	3.4
24	2.2	1.4	.60	1.3	1.9	2.1	3.1	24	12	6.0	6.2	3.4
25	2.3	1.4	.70	1.2	1.9	2.2	3.0	20	11	15	5.9	3.3
26	2.3	1.6	.90	1.2	1.8	2.4	3.0	20	11	10	5.5	3.2
27	2.4	1.4	.90	1.3	1.8	2.6	3.0	22	10	11	5.5	3.1
28	2.2	1.2	.90	1.5	1.7	2.8	3.2	23	9.1	13	5.9	3.0
29	1.8	1.4	1.40	1.3	1.7	3.2	4.0	24	8.8	16	5.9	3.0
30	1.6	1.4	1.40	1.1	---	3.7	5.5	25	8.8	50	5.7	3.1
31	2.0	---	1.20	1.3	---	4.0	---	24	---	40	5.7	---
Total	67.4	50.4	32.30	40.1	43.1	65.0	107.7	453.8	453.7	294.7	395.7	123.8
Mean	2.17	1.68	1.04	1.29	1.49	2.10	3.59	14.6	15.1	9.51	12.8	4.13
Max	2.5	2.1	1.6	1.5	1.9	4.0	5.8	25	24	50	30	7.2
Min	1.6	1.2	0.50	1.0	1.0	1.6	2.8	7.0	8.8	4.0	5.5	3.0
Ac-ft	134	100	64	80	85	129	214	900	900	585	785	246

Cal yr 1967: Total 797.40 Mean 2.18 Max 6.0 Min 0.50 Ac-ft 1,580
Wtr yr 1968: Total 2,127.70 Mean 5.81 Max 50 Min 0.50 Ac-ft 4,220

Note.--No gage-height record Nov. 4 to May 2, July 23 to Aug. 15.

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 1968. 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.--42 years, 323 cfs (233,800 acre-ft per year).

Extremes.--Maximum discharge during year, 3,660 cfs May 29 (gage height, 6.56 ft); minimum daily, 3.6 cfs Apr. 26.

1926-68: 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 97,000 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	102	280	158	165	150	185	502	98	2,390	1,160	718	102
2	92	307	152	170	150	190	460	140	2,630	820	530	90
3	87	260	132	175	140	200	272	240	2,580	700	405	95
4	80	216	140	170	150	228	290	390	2,170	623	204	150
5	74	230	145	160	150	216	78	410	2,290	662	196	95
6	64	219	152	155	140	228	80	524	2,090	513	176	90
7	64	208	160	150	150	240	56	420	1,520	455	280	100
8	60	205	160	150	155	262	29	370	1,080	390	90	100
9	46	208	155	155	160	258	29	475	880	435	228	80
10	34	212	160	160	160	228	26	590	1,160	486	312	58
11	69	208	165	160	165	220	12	445	1,220	579	689	49
12	90	202	170	155	170	216	8.1	480	1,130	486	606	53
13	115	208	165	145	175	224	22	557	1,040	491	557	76
14	118	208	170	135	180	240	18	574	1,110	360	445	65
15	120	208	175	145	170	240	12	590	1,020	316	760	58
16	110	202	170	150	160	208	10	724	1,190	272	513	73
17	97	198	155	155	160	228	8.1	730	1,700	220	298	62
18	83	198	140	145	170	228	4.5	790	2,480	232	143	73
19	74	191	145	140	170	208	26	850	2,500	186	117	73
20	72	177	145	145	175	220	29	1,000	2,460	182	262	69
21	74	188	140	150	180	208	5.1	1,280	2,420	200	182	78
22	74	188	135	155	185	204	5.7	2,120	2,260	262	156	80
23	76	191	145	155	185	224	21	2,640	2,150	228	172	71
24	76	158	150	150	180	249	4.5	2,540	1,990	321	165	95
25	78	143	155	145	185	276	3.9	2,140	1,710	254	208	86
26	80	158	160	145	180	280	3.6	2,020	1,400	294	224	80
27	76	158	155	150	175	303	9.5	2,320	1,320	165	232	88
28	69	130	160	155	180	326	49	2,880	1,400	645	267	95
29	90	115	170	160	180	380	71	3,120	1,440	380	228	100
30	102	152	165	155	- - - - -	430	76	2,910	1,200	335	128	102
31	104	- - - - -	155	155	- - - - -	475	- - - - -	2,480	- - - - -	524	105	- - - - -
Total	2,550	5,926	4,804	4,760	4,830	7,822	2,221.0	36,847	51,930	13,176	9,596	2,486
Mean	82.3	198	155	154	167	252	74.0	1,189	1,731	425	310	82.9
Max	120	307	175	175	185	475	502	3,120	2,630	1,160	760	150
Min	34	115	132	135	140	185	3.6	98	880	165	90	49
Ac-ft	5,060	11,750	9,530	9,440	9,580	15,510	4,410	73,080	103,000	26,130	19,030	4,930

Cal yr 1967: Total 71,000.0 Mean 195 Max 1,310 Min 9.5 Ac-ft 140,800
 Wtr yr 1968: Total 146,948.0 Mean 401 Max 3,120 Min 3.6 Ac-ft 291,500

Note.--No gage-height record Dec. 7 to Jan. 19.

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 1968. 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.--56 years, 255 cfs (184,600 acre-ft per year).

Extremes.--Maximum discharge during year, 2,550 cfs May 30 (gage height, 6.47 ft); minimum daily, 13 cfs Oct. 1.

1912-68: 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.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	106	180	170	165	210	452	38	2,010	622	118	78
2	19	208	195	180	160	215	471	32	1,590	618	255	80
3	23	258	175	190	155	230	448	34	1,690	392	273	87
4	26	252	180	195	155	240	330	75	1,800	241	289	98
5	28	226	190	185	175	230	205	119	1,290	151	195	125
6	28	236	190	170	170	220	174	146	1,240	133	168	111
7	23	236	185	170	160	235	158	146	1,020	78	150	96
8	21	234	180	170	170	250	138	86	576	64	169	81
9	22	230	175	175	180	265	114	61	332	58	87	90
10	17	236	175	175	185	270	104	126	186	57	107	79
11	27	240	180	180	185	265	94	95	237	64	168	65
12	31	236	185	180	190	260	86	47	257	78	418	58
13	28	234	190	165	190	270	80	37	199	69	432	54
14	30	238	190	150	195	287	78	43	148	180	408	50
15	39	234	195	155	200	295	77	65	157	209	385	48
16	46	236	205	160	190	289	68	183	132	223	597	44
17	47	234	190	165	180	279	60	348	183	193	415	41
18	46	232	175	170	185	281	55	392	542	164	269	38
19	42	228	160	155	195	275	51	440	998	168	168	32
20	39	220	155	150	195	269	50	352	1,220	169	129	26
21	38	210	150	165	200	277	55	410	1,410	136	150	22
22	39	214	150	175	205	267	51	590	1,440	127	114	20
23	40	218	150	170	205	267	45	944	1,330	164	88	18
24	39	216	160	165	200	279	48	1,240	1,310	158	82	15
25	38	188	165	160	200	295	45	1,390	1,120	215	77	15
26	43	176	175	155	195	311	43	1,270	840	205	78	32
27	42	180	180	165	195	315	42	1,170	649	263	81	29
28	45	172	170	175	195	328	41	1,280	641	385	106	28
29	45	152	180	180	200	348	46	1,630	705	328	125	33
30	65	160	185	175	-----	390	44	2,230	763	148	120	38
31	87	-----	175	170	-----	428	-----	2,420	-----	91	87	-----
Total	1,116	6,440	5,490	5,265	5,375	8,640	3,753	17,439	26,015	6,151	6,308	1,631
Mean	36.0	215	177	170	185	279	125	563	867	198	203	54.4
Max	87	258	205	195	205	428	471	2,420	2,010	622	597	125
Min	13	106	150	150	155	210	41	32	132	57	77	15
Ac-ft	2,210	12,770	10,890	10,440	10,660	17,140	7,440	34,590	51,600	12,200	12,510	3,240
Cal yr 1967: Total	34,789		Mean 95.3	Max 260	Min 12	Ac-ft 69,000						
Wtr yr 1968: Total	93,623		Mean 256	Max 2,420	Min 13	Ac-ft 185,700						

8-2235. Rock Creek near Monte Vista, Colo.

Location (revised).--Lat 37°29'25", long 106°15'32", in SE¼SE¼ sec.36, T.38 N., R.6 E., on left bank just upstream from 1'11 ditch, 800 ft upstream from Burnt Gulch, 3.5 miles downstream from North Fork and 8.7 miles southwest of Monte Vista.

Drainage area.--32.9 sq mi.

Records available.--May to October 1935, April 1936 to September 1955, October 1966 to September 1968. Monthly discharge only for some periods, published in WSP 1312.

Gage.--Water-stage recorder and Parshall flume. Altitude of gage is 8,230 ft, revised (from topographic map).

Average discharge.--21 years (1936-55, 1966-68), 11.1 cfs (8,040 acre-ft per year).

Extremes.--Maximum discharge during water year, 149 cfs July 29 (gage height, 2.40 ft); minimum daily, 1.3 cfs Dec. 22. 1935-55, 1966-68: Maximum discharge, 190 cfs Aug. 19, 1952 (gage height, 3.01 ft); minimum daily determined, 1.0 cfs Nov. 2, 1951.

Flood of Aug. 4, 1957, reached a stage of 3.18 ft (discharge not determined). No flood has greatly exceeded that of Aug. 4, 1957, since at least 1889, from information by local residents.

Remarks.--Records good except those for winter period, which are fair. No diversion above station. Records of chemical analyses for water year 1968 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.7	4.7	2.7	2.4	3.5	4.4	12	20	71	15	87	13
2	5.4	4.4	2.3	2.6	2.8	4.2	11	24	67	15	79	12
3	5.4	3.8	2.0	2.9	2.9	4.6	9.5	26	62	14	73	13
4	5.4	3.2	2.0	2.8	3.0	4.3	8.9	27	59	14	63	12
5	5.4	3.7	2.1	2.7	2.9	3.9	8.2	28	63	14	54	12
6	4.9	4.4	2.2	2.6	3.0	4.1	8.6	32	67	19	54	12
7	5.4	4.1	2.1	2.7	3.1	4.2	7.3	30	63	15	47	11
8	5.4	4.4	2.1	2.8	3.2	4.0	7.9	31	57	13	47	11
9	5.1	4.6	2.0	2.9	3.2	3.9	7.0	34	48	14	53	11
10	4.9	4.6	1.9	3.0	3.2	4.1	7.6	34	44	13	69	11
11	5.1	4.9	2.1	3.1	3.1	4.4	10	31	42	12	69	10
12	5.1	4.9	2.3	3.0	3.4	4.5	13	31	42	14	64	11
13	4.9	4.6	2.1	3.0	3.6	4.5	14	33	42	14	63	11
14	4.9	4.6	2.1	3.0	3.8	4.7	14	30	41	13	55	9.5
15	4.9	4.6	2.2	3.1	3.7	4.7	18	33	40	11	47	9.2
16	4.1	4.6	2.3	3.1	3.5	4.8	20	38	40	9.5	40	9.2
17	4.6	4.9	1.9	3.3	3.6	4.8	20	44	36	9.2	36	8.9
18	4.8	4.9	1.5	3.1	4.2	4.7	19	47	34	8.9	33	8.9
19	4.9	4.6	1.6	3.0	4.2	4.5	17	46	32	8.2	29	8.9
20	4.9	3.9	1.8	3.0	4.2	4.3	16	49	29	7.9	27	8.6
21	4.9	3.9	1.4	3.1	4.4	4.2	17	63	28	7.3	26	7.9
22	4.9	3.9	1.3	3.1	4.6	4.5	16	80	27	8.9	22	7.6
23	4.1	4.4	1.4	3.2	4.4	4.9	15	83	25	11	20	8.6
24	4.1	3.4	1.5	3.3	4.4	5.1	13	73	24	12	18	7.9
25	4.4	3.9	2.0	3.3	4.4	5.7	14	63	22	13	17	7.6
26	4.6	3.7	2.6	3.2	4.1	5.7	13	61	21	24	16	7.6
27	3.9	3.2	2.5	3.4	4.5	6.5	12	67	19	61	18	7.9
28	4.6	2.6	2.4	3.7	4.3	7.3	12	73	18	69	19	7.3
29	4.1	2.2	2.7	3.6	4.2	9.2	13	76	17	128	14	7.3
30	3.2	2.4	2.6	3.3	---	11	16	79	16	108	14	7.3
31	4.5	---	2.5	3.3	---	12	---	79	---	94	15	---
Total	148.5	122.0	64.2	94.6	107.4	163.7	390.0	1,465	1,196	789.9	1,288	290.2
Mean	4.79	4.07	2.07	3.05	3.70	5.28	13.0	47.3	39.9	25.5	41.5	9.67
Max	5.7	4.9	2.7	3.7	4.6	12	20	83	71	128	87	13
Min	3.2	2.2	1.3	2.4	2.8	3.9	7.0	20	16	7.3	14	7.3
Ac-ft	295	242	127	188	213	325	774	2,910	2,370	1,570	2,550	576

Cal yr 1967: Total 2,865.6 Mean 7.85 Max 33 Min 1.3 Ac-ft 5,680
 Wtr yr 1968: Total 6,119.5 Mean 16.7 Max 128 Min 1.3 Ac-ft 12,140

Peak discharge (base, 40 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-22	2030	1.85	94	7-29	0730	2.40	149
5-30	2400	1.88	96	8-10	0430	1.80	89
6-5	2400	1.67	79				

Note.--No gage-height record Nov. 30 to Mar. 8.

Closed basin in San Luis Valley, Colo.

8-2242. Raspberry Creek near Villa Grove, Colo.

Location.--Lat 38°20'25", long 105°56'35", in NW¼SE¼ sec.11, T.47 N., R.9 E., on left bank 30 ft upstream from trail crossing, 3.2 miles upstream from Rock Creek, and 6½ miles north of Villa Grove.

Drainage area.--1.78 sq mi.

Records available.--January 1967 to September 1968.

Gage.--Water-stage recorder with rock and concrete control. Altitude of gage is 8,960 ft (from topographic map).

Extremes.--Maximum discharge during year, 2.9 cfs June 5 (gage height, 2.20 ft), from rating curve extended above 0.9 cfs; maximum gage height, 2.93 ft Nov. 24 (backwater from ice); minimum daily discharge, 0.06 cfs Dec. 21.

1967-68: Maximum discharge, that of June 5, 1968; maximum gage height, that of Nov. 24, 1967; minimum daily discharge, that of Dec. 21, 1967.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.56	0.64	0.42				0.44	0.49	1.2	0.79	0.99	0.99
2	.59	.66	.42				.42	.51	1.4	.76	.85	.95
3	.56	.60	.40				.40	.53	1.7	.76	.76	1.1
4	.59	.56	.41				.38	.56	1.9	.73	.88	.99
5	.59	.49	.40				.43	.58	2.0	.76	.85	.95
6												
7	.62	.44	.40				.45	.56	2.3	.76	.95	.92
8	.62	.45	.38				.40	.54	2.3	.76	.92	.88
9	.62	.47	.36				.33	.51	1.9	.76	.92	.88
10	.59	.47	.33				.35	.51	1.7	.76	.92	.88
11	.64	.47	.33				.35	.53	1.5	.76	1.1	.88
12												
13	.62	.47	.34				.40	.53	1.4	.73	1.3	.88
14	.59	.47	.31				.40	.51	1.5	.73	1.2	.88
15	.59	.47	.31				.45	.49	1.6	.70	1.1	.88
16	.59	.47	.32				.40	.49	1.5	.70	1.2	.85
17	.62	.47	.33				.45	.53	1.4	.70	1.1	.82
18				0.20	0.30	0.40						
19	.62	.45	.34				.44	.58	1.4	.68	1.1	.85
20	.62	.45	.25				.42	.56	1.3	.67	1.1	.85
21	.59	.45	.08				.42	.56	1.2	.67	1.1	.85
22	.59	.45	.12				.43	.58	1.2	.70	1.1	.85
23	.59	.45	.16				.50	.61	1.1	.73	1.0	.82
24	.59	.45	.06									
25	.59	.45	.08				.40	.67	1.1	.70	1.1	.85
26	.59	.45	.10				.35	.82	1.1	.70	1.0	.82
27	.59	.41	.10				.38	.88	1.0	.70	.99	.85
28	.62	.39	.10				.39	.88	.95	.70	.99	.82
29	.62	.39	.12				.40	.82	.92	.70	.99	.82
30												
31	.62	.40	.20				.35	.85	.88	.73	1.0	.82
32	.64	.38	.18				.32	1.0	.88	.79	.99	.82
33	.64	.38	.18				.34	1.1	.85	.88	1.0	.82
34	.67	.40	.18				.37	1.2	.82	.82	.99	.82
35	.65	.42	.16				.44	1.2	.82	.76	.99	.82
36	.67	---	.14				---	1.1	---	.85	.99	---
Total	18.90	13.92	7.91	6.20	8.70	12.40	12.00	21.28	40.82	22.94	31.47	26.21
Mean	0.61	0.46	0.26	0.20	0.30	0.40	0.40	0.69	1.36	0.74	1.02	0.87
Max	0.67	0.66	0.42	-	-	-	0.50	1.2	2.3	0.88	1.3	1.1
Min	0.56	0.38	0.06	-	-	-	0.32	0.49	0.82	0.67	0.76	0.82
Ac-ft	37	28	16	12	17	25	24	42	81	46	62	52

Cal yr 1967: Total 160.17 Mean 0.44 Max 1.2 Min 0.06 Ac-ft 318
Wtr yr 1968: Total 222.75 Mean 0.61 Max 2.3 Min 0.06 Ac-ft 442

Peak discharge (base, 1.0 cfs)

Note.--No gage-height record Nov. 24 to Apr. 8.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
6- 5	2130	2.20	2.9	8- 6	1630	1.84	1.4
7-27	2230	1.76	1.1	8-10	2230	1.91	1.8
8- 1	0500	1.77	1.1	9- 3	1100	1.84	1.4

Closed basin in San Luis Valley, Colo.

8-2245. Kerber Creek at Ashley Ranch, near Villa Grove, Colo.

Location (revised).--Lat 38°14'28", long 106°06'57", in SW¼ sec.17, T.46 N., R.8 E., on left bank at Ashley Ranch, 4.5 miles upstream from Little Kerber Creek and 9 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 1968. Monthly discharge only for some periods, published in WSP 1312.

Gage.--Water-stage recorder. Altitude of gage is 8,830 ft, revised (from topographic map). Prior to Dec. 10, 1963, at site 150 ft upstream at datum 1.50 ft higher.

Average discharge.--35 years, 12.6 cfs (9,120 acre-ft per year).

Extremes.--Maximum discharge during year, 161 cfs Aug. 7 (gage height, 1.67 ft); minimum not determined.

1923-26, 1936-68: 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. Records of chemical analyses for the water year 1968 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.7	4.6						16	78	18	29	8.6
2	2.7	4.0						22	80	17	26	7.8
3	2.7	3.5						23	84	16	24	12
4	2.7	3.5						22	80	15	22	10
5	3.2	3.5						23	73	15	20	8.6
6	2.7							24	75	14	20	7.8
7	2.7							23	72	14	24	7.0
8	2.7						6.5	20	72	15	17	7.0
9	2.7							20	64	13	22	6.5
10	3.2							20	52	13	39	7.0
11	3.6							20	46	11	72	6.5
12	3.2							24	46	10	64	6.5
13	3.2							24	48	10	46	6.5
14	3.2							22	50	10	39	6.5
15	3.2							23	48	9.4	31	6.0
16	3.2		2.8	2.5	2.7	3.5		24	46	7.8	25	6.0
17	3.6						7.8	24	44	7.0	22	6.0
18	3.6	3.0					7.0	25	42	7.0	17	6.5
19	3.6						7.0	26	40	7.0	16	6.0
20	3.6						7.0	30	40	6.5	15	5.6
21	3.6						6.5	34	40	6.5	16	5.6
22	3.6						6.5	45	39	6.5	13	5.6
23	4.1						6.5	59	35	6.5	13	5.6
24	3.6						7.0	54	34	7.0	12	5.6
25	4.6						8.6	48	31	8.6	12	5.6
26	4.1						7.8	46	27	13	13	5.6
27	4.6						7.8	46	26	15	12	5.1
28	4.1						7.8	52	24	27	11	5.1
29	4.6						11	67	23	24	10	5.1
30	3.5						13	68	19	23	9.4	5.6
31	4.0							70		26	9.4	
Total	106.4	94.1	86.8	77.5	78.3	108.5	215.3	1,044	1,478	398.8	720.8	198.9
Mean	3.43	3.14	2.8	2.5	2.7	3.5	7.18	33.7	49.3	12.9	23.2	6.63
Max	4.6	-	-	-	-	-	13	70	84	27	72	12
Min	2.7	-	-	-	-	-	-	16	19	6.5	9.4	5.1
Ac-ft	211	187	172	154	155	215	427	2,070	2,930	791	1,430	395
Cal yr 1967: Total	1,902.8			5.21		17		Ac-ft	3,770			
Wtr yr 1968: Total	4,607.4			Mean 12.6		Max 84		Ac-ft	9,140			

Peak discharge (base, 70 cfs)

Note.--No gage-height record Nov. 13 to Apr. 17.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
6- 2	1000	1.30	93	8- 7	1430	1.67	161
7-29	1700	1.57	138				

Closed basin in San Luis Valley, Colo.

8-2267. Cotton Creek near Mineral Hot Springs, Colo.

Location.--Lat 38°07'55", long 105°47'17" (revised), in SW¼ sec.20, T.45 N., R.11 E., on left bank just downstream from diversion head-gate, 7 miles upstream from mouth and 8 miles southeast of Mineral Hot Springs.

Drainage area.--13.6 sq mi.

Records available.--January 1967 to September 1968.

Gage.--Digital water-stage recorder. Altitude of gage is 8,575 ft, revised (from topographic map).

Extremes.--Maximum discharge during year, 49 cfs June 6 (gage height, 3.34 ft); maximum gage height, 3.98 ft Mar. 13 (backwater from ice); minimum daily discharge, 4.8 cfs Apr. 8.

1967-68: Maximum discharge, that of June 6, 1968; maximum gage height, that of Mar. 13, 1968; minimum daily discharge, 4.2 cfs Jan. 8, 1967.

Remarks.--Records good. One small diversion just above station for stock water (67 acre-ft diverted in water year 1968).

DISCHARGE, IN CFS. WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	11	8.5	6.2	5.8	6.8	5.8	6.3	32	19	29	13
2	12	11	9.0	6.1	6.0	6.0	5.6	6.5	37	17	26	13
3	12	11	8.6	6.0	6.0	5.9	5.5	6.5	40	17	23	15
4	12	11	8.3	5.8	5.8	6.2	5.3	6.7	40	16	21	14
5	12	11	8.3	5.7	6.0	6.5	5.2	7.1	40	16	20	13
6	12	11	7.9	5.8	6.0	5.7	5.3	6.9	45	16	24	13
7	12	11	8.0	5.8	6.0	5.7	5.0	6.4	44	17	38	12
8	11	11	8.1	5.8	6.0	5.7	4.8	6.4	39	18	39	12
9	11	11	7.8	5.8	6.0	5.7	5.4	6.9	30	18	35	12
10	12	10	7.7	5.8	6.0	5.5	5.3	7.0	27	16	36	12
11	11	10	7.3	5.8	5.9	5.3	5.5	6.7	27	16	35	11
12	11	10	7.4	5.8	6.0	5.0	5.7	6.8	34	15	35	11
13	11	10	7.4	5.8	6.2	5.2	5.8	6.5	41	15	34	11
14	11	10	7.6	5.8	6.2	5.6	5.6	6.2	42	14	33	11
15	11	10	7.6	5.8	6.0	6.0	5.9	6.3	39	13	30	10
16	10	10	7.6	5.8	6.0	5.6	6.0	6.7	40	12	27	9.9
17	10	10	6.6	5.8	6.0	5.6	5.8	6.5	41	12	24	10
18	11	9.7	7.0	5.8	6.0	5.5	5.7	6.8	40	11	22	9.9
19	10	9.6	7.1	5.8	5.8	5.6	5.7	6.9	37	12	20	9.4
20	10	9.6	7.1	5.8	5.8	5.6	5.6	7.5	40	12	20	9.5
21	11	9.6	5.5	5.8	6.0	5.6	5.6	8.3	40	12	19	9.4
22	11	9.5	6.8	5.8	5.9	5.4	5.7	11	38	11	18	9.5
23	11	9.4	6.8	5.8	5.8	5.4	5.6	13	35	12	16	10
24	10	10	6.4	5.8	5.8	5.3	5.7	13	33	12	15	10
25	11	9.3	6.3	5.8	5.8	5.3	5.7	11	29	13	15	9.4
26	11	9.4	6.2	5.7	5.7	5.3	5.7	13	26	12	15	9.4
27	11	10	6.1	5.7	5.8	5.3	5.7	16	25	15	16	9.3
28	11	9.5	6.1	5.9	6.0	5.4	5.7	21	26	16	16	9.2
29	11	9.2	6.1	5.8	6.7	5.6	5.8	26	24	16	15	9.1
30	11	8.8	6.1	5.8	-----	5.8	6.1	31	21	20	15	9.7
31	11	-----	6.1	5.8	-----	5.9	-----	33	-----	24	14	-----
TOTAL	345	302.6	223.4	180.5	173.0	175.0	167.8	329.9	1,052	466	745	326.7
MEAN	11.1	10.1	7.21	5.82	5.97	5.65	5.59	10.6	35.1	15.0	24.0	10.9
MAX	13	11	9.0	6.2	6.7	6.8	6.1	33	45	24	39	15
MIN	10	8.8	5.5	5.7	5.7	5.0	4.8	6.2	21	11	14	9.1
AC-FT	684	600	443	358	343	347	333	654	2,090	924	1,480	648
CAL YR 1967#	TOTAL 4,000.7			MEAN 10.9		MAX 28		MIN 4.2		AC-FT 7,940		
WTR YR 1968#	TOTAL 4,486.9			MEAN 12.3		MAX 45		MIN 4.8		AC-FT 8,900		

Peak discharge (base, 30 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
6-6	2400	3.34	49	8-8	1600	3.31	43
8-1	0500	3.25	35				

Closed basin in San Luis Valley, Colo.

8-2270. Saguache Creek near Saguache, Colo.

Location.--Lat 38°09'48", long 106°17'24", in SE¼SE¼ sec.10, T.45 N., R.6 E., on left bank ¼ mile downstream from Middle Creek, and 10 miles northwest of Saguache.

Drainage area.--595 sq mi.

Records available.--August 1910 to September 1912, June 1914 to September 1968. Monthly discharge only for some periods, published in WSP 1312.

Gage.--Water-stage recorder. Altitude of gage is about 8,030 ft, revised (from topographic map). Prior to Apr. 9, 1934, at sites three-quarters of a mile downstream at different datums. Apr. 10, 1934, to Nov. 20, 1966, at present site at datum 1.07 ft higher.

Average discharge.--56 years, 70.2 cfs (50,820 acre-ft per year).

Extremes.--Maximum discharge during year, 464 cfs June 3 (gage height, 3.24 ft), from rating curve extended above 104 cfs; minimum not determined.

1910-12, 1914-68: Maximum discharge, 790 cfs Aug. 3, 1964 (gage height, 3.85 ft, present datum), 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. Records of chemical analyses for water year 1968 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	46				32	65	61	404	77	229	77
2	45	42				31	54	82	392	72	221	75
3	45	33				30	43	103	428	68	243	86
4	45	33				30	37	108	424	68	188	108
5	46	33				30	40	110	376	70	159	83
6	46	33				28	46	120	368	76	168	74
7	46	26				29	38	89	412	69	194	69
8	44	29				30	30	72	392	70	204	66
9	43	33				32	29	80	308	77	246	63
10	43	36				30	33	92	235	79	260	61
11	45	33			23	37	37	104	196	79	348	61
12	43	34				33	40	117	178	71	396	61
13	40	33				29	41	126	188	71	296	65
14	40	38				27	39	100	202	69	290	64
15	40	34				29	40	86	199	64	308	60
16	39	34	25	22		29	45	90	186	61	278	56
17	39	33				30	48	92	178	57	226	57
18	40	29				31	44	98	171	55	199	56
19	40	28				34	43	115	168	53	178	55
20	38	26				30	38	153	164	52	162	54
21	38	24				33	43	191	157	49	157	52
22	37	29				33	45	238	151	52	144	51
23	37	22			31	32	40	356	151	61	132	51
24	36	18			29	38	44	308	144	77	120	50
25	37	25			32	40	46	240	134	84	111	49
26	39	28			31	40	45	224	115	100	106	47
27	36	24			29	41	43	229	101	181	106	46
28	37	13			28	44	44	260	98	312	117	45
29	41	20			27	52	51	316	93	278	104	45
30	34	21			- - - -	60	51	392	84	155	87	47
31	36	- - - -			- - - -	62	- - - -	408	- - - -	166	83	- - - -
Total	1,261	890	775	682	713	1,086	1,282	5,160	6,797	2,873	6,060	1,834
Mean	40.7	29.7	25	22	24.6	35.0	42.7	166	227	92.7	195	61.1
Max	46	46	-	-	-	62	65	408	428	312	396	108
Min	34	13	-	-	-	27	29	61	84	49	83	45
Ac-ft	2,500	1,770	1,540	1,350	1,410	2,150	2,540	10,230	13,480	5,700	12,020	3,640

Cal yr 1967: Total 13,970 Mean 38.3 Max 103 Min - Ac-ft 27,710
Wtr yr 1968: Total 29,413 Mean 80.4 Max 428 Min - Ac-ft 58,340

Peak discharge (base, 210 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
6- 3	1200	3.24	464	8- 3	0600	2.64	252
7-28	1700	2.93	344	8-12	1430	3.10	412

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 1968 (no winter records prior to 1948).

Gage.--Water-stage recorder. Altitude of gage is 8,360 ft (from topographic map).

Average discharge.--21 years (1947-68), 10.7 cfs (7,750 acre-ft per year).

Extremes.--Maximum discharge during year, 57 cfs Aug. 14 (gage height, 1.84 ft); minimum not determined.

1936-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.0	7.4					7.0	7.8	41	22	42	11
2	8.6	7.0					6.2	10	43	20	39	12
3	8.6	7.0					5.8	11	43	20	36	13
4	8.2	7.8					5.8	11	42	20	35	12
5	8.2	6.8					5.2	12	42	21	31	12
6	8.6	8.2					4.8	12	44	28	34	11
7	9.4	8.2					4.3	11	43	30	44	10
8	9.8	7.8					4.8	9.8	40	26	47	10
9	10	7.8					4.5	11	34	23	51	9.4
10	12	7.8					4.1	12	31	21	51	9.0
11	12	8.2				2.5	4.5	11	31	21	52	9.0
12	11	8.2					5.5	11	38	20	40	9.0
13	10	8.2					6.0	10	41	20	50	8.6
14	9.8	7.8					5.5	9.8	41	17	55	8.2
15	9.0	7.8					5.8	10	43	16	52	7.8
16	9.8	7.8	3.5	2.6	2.4		6.2	12	43	14	47	7.8
17	9.4	7.8					5.8	12	47	13	42	7.4
18	9.4	7.8					5.5	13	46	12	36	7.4
19	8.2	7.8					5.2	14	42	13	31	7.0
20	7.0	7.4					5.0	17	44	14	27	6.8
21	7.0	7.4				3.0	5.0	20	46	13	25	6.8
22	6.5	7.0				3.0	4.8	31	42	12	22	6.8
23	6.5	6.8				2.7	4.1	30	41	12	20	8.2
24	6.0	6.5				2.7	4.1	27	39	12	17	7.8
25	6.0	6.2				2.7	4.3	21	34	12	16	7.4
26	6.0	5.6				2.7	4.3	22	31	12	14	7.0
27	6.0	5.0				3.0	4.3	28	29	17	15	6.8
28	6.0	4.6				3.6	4.3	33	29	26	14	6.8
29	5.5	4.2				4.8	4.3	43	28	24	14	6.8
30	7.8	4.0				6.5	5.2	43	24	24	13	9.0
31	8.2					7.0		41		29	12	
Total	259.5	211.9	108.5	80.6	69.6	91.7	152.2	566.4	1,162	584	1,024	261.8
Mean	8.37	7.06	3.5	2.6	2.4	2.96	5.07	18.3	38.7	18.8	33.0	8.73
Max	12	8.2	-	-	-	7.0	7.0	43	47	30	55	13
Min	5.5	4.0	-	-	-	-	4.1	7.8	24	12	12	6.8
Ac-ft	515	420	215	160	138	182	302	1,120	2,300	1,160	2,030	519

Cal yr 1967 : Total 4,395.6 Mean 12.0 Max 59 Min - Ac-ft 8,720
Wtr yr 1968 : Total 4,572.2 Mean 12.5 Max 55 Min - Ac-ft 9,070

Peak discharge (base, 60 cfs).--No peak above base.

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

Closed basin in San Luis Valley, Colo.

8-2295. Cottonwood Creek near Crestone, Colo.

Location.--Lat 37°56'00", long 105°38'42" (revised), in Baca Grant, on left bank at Cottonwood Mining Camp (abandoned), 150 ft downstream from Cottonwood-Liberty Road, 1½ miles upstream from unnamed tributary, and 5.2 miles southeast of Crestone, Saguache County.

Drainage area.--6.77 sq mi.

Records available.--May to November 1936, January 1967 to September 1968.

Gage.--Water-stage recorder. Altitude of gage is 8,340 ft, revised (from topographic map).

Extremes.--Maximum discharge during year, 540 cfs July 26 (gage height, 5.2 ft, from flood marks), by slope-area measurement of peak flow; minimum daily, 0.70 cfs Dec. 21.

1936, 1967-68: Maximum discharge, that of July 26, 1968; minimum daily, that of Dec. 21, 1967.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.9	3.0	1.9	1.1	1.2	1.3	1.5	2.0	32	10	63	6.0
2	4.7	2.8	1.8	1.1	1.1	1.3	1.3	2.7	30	9.6	27	5.7
3	4.5	2.5	1.6	1.2	1.2	1.4	1.2	2.8	36	9.9	24	6.4
4	4.5	2.8	1.7	1.1	1.3	1.3	1.3	2.8	39	9.3	18	6.7
5	4.4	2.5	1.7	1.1	1.2	1.3	1.2	2.9	42	9.6	14	6.4
6	4.2	2.4	1.8	1.0	1.2	1.4	1.1	2.9	25	15	49	6.2
7	4.2	2.4	1.8	1.0	1.2	1.6	1.1	2.5	25	31	40	6.0
8	4.2	2.4	1.8	1.1	1.3	1.5	1.3	2.5	22	21	36	5.7
9	4.0	2.4	1.9	1.2	1.3	1.5	1.3	2.8	13	15	31	5.3
10	4.0	2.4	1.7	1.3	1.3	1.5	1.2	2.9	12	14	43	5.3
11	4.0	2.3	2.3	1.3	1.3	1.3	1.3	2.9	15	13	58	4.9
12	3.8	2.3	2.5	1.3	1.3	1.1	1.3	3.0	29	16	64	4.8
13	3.7	2.3	2.1	1.2	1.3	1.1	1.4	2.8	30	20	37	4.6
14	3.7	2.2	1.9	1.2	1.4	1.1	1.3	2.7	27	15	27	4.4
15	3.7	2.2	2.2	1.3	1.2	1.2	1.4	3.0	27	12	22	4.4
16	3.5	2.2	2.4	1.3	1.2	1.2	1.4	3.4	30	10	17	4.2
17	3.5	2.2	1.9	1.6	1.2	1.4	1.4	3.3	32	9.0	14	4.2
18	3.5	2.2	1.6	1.5	1.4	1.3	1.3	3.5	27	8.3	12	4.0
19	3.4	2.1	1.7	1.4	1.4	1.2	1.3	3.8	28	11	10	3.7
20	3.3	2.2	1.8	1.5	1.4	1.2	1.3	4.5	32	14	9	3.6
21	3.3	2.1	.70	1.6	1.5	1.2	1.2	4.9	30	10	8.8	3.5
22	3.1	2.1	.80	1.5	1.5	1.3	1.2	9.0	27	9.6	8.5	3.5
23	3.0	2.0	1.1	1.4	1.4	1.3	1.2	9.9	24	9.0	8	4.0
24	2.9	1.6	1.2	1.4	1.4	1.4	.96	9.6	21	12	7.4	3.7
25	2.9	2.0	1.2	1.5	1.5	1.4	1.3	6.1	17	17	6.7	3.6
26	2.9	1.9	1.3	1.5	1.4	1.4	1.3	7.4	16	64	6.4	3.4
27	2.5	1.8	1.2	1.5	1.4	1.4	1.3	14	16	92	7.0	3.3
28	2.8	1.7	1.2	1.7	1.3	1.4	1.3	23	17	66	7.7	3.2
29	2.7	1.8	1.1	1.5	1.3	1.4	1.2	33	14	36	7.0	3.1
30	2.9	1.9	1.1	1.2	-----	1.4	1.4	36	12	24	6.7	3.5
31	2.9	-----	1.0	1.2	-----	1.5	-----	32	-----	27	6.4	-----
Total	111.6	66.7	50.00	40.8	38.1	41.3	38.26	244.6	747	639.3	695.6	137.3
Mean	3.60	2.22	1.61	1.32	1.31	1.33	1.28	7.89	24.9	20.6	22.4	4.58
Max	4.9	3.0	2.5	1.7	1.5	1.6	1.5	36	42	92	64	6.7
Min	2.5	1.6	0.70	1.0	1.1	1.1	0.96	2.0	12	8.3	6.4	3.1
Ac-ft	221	132	99	81	76	82	76	485	1,480	1,270	1,380	272

Cal yr 1967: Total 2,253.38 Mean 6.17 Max 81 Min 0.70 Ac-ft 4,470
 Wtr yr 1968: Total 2,850.26 Mean 7.79 Max 92 Min 0.70 Ac-ft 5,650

Peak discharge (base, 40 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
6-5	2100	2.55	74	7-31	0200	-	†90
6-12	2130	2.45	58	8-6	0100	2.71	88
7-7	0100	2.23	40	8-11	2330	2.70	87
7-26	1930	5.2	540				

† Estimated.

Note.--No gage-height record Nov. 28 to Mar. 29, July 26 to Aug. 5.

Closed basin in San Luis Valley, Colo.

8-2305. Carnero Creek near La Garita, Colo.

Location (revised).--Lat 37°51'35", long 106°19'08", in SW 1/4 sec. 28, T. 42 N., R. 6 E., (projected) on left bank 4 1/2 miles northwest of La Garita and 6.6 miles downstream from North Fork.

Drainage area.--117 sq mi.

Records available.--April 1919 to September 1968. 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 8,150 ft, revised (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 site at datum 1.00 ft higher. Apr. 21, 1929, to Nov. 20, 1966, water-stage recorder at present site at datum 1.00 ft higher.

Average discharge.--26 years (1925-26, 1940-41, 1944-68), 11.3 cfs (8,180 acre-ft per year).

Extremes.--Maximum discharge during year, 438 cfs Aug. 14 (gage height, 3.43 ft), from rating curve extended above 71 cfs; minimum not determined.

1919-68: Maximum discharge, 1,600 cfs July 21, 1945 (gage height, 6.75 ft, present datum), 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. Records of chemical analyses for water year 1968 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.8	5.7					15	40	132	14	86	39
2	7.4	5.7					14	55	124	14	154	38
3	7.4	3.3					16	64	120	15	168	50
4	7.8	4.2					17	67	113	14	156	50
5	8.1	3.6					16	72	111	14	128	39
6	7.8	3.3					14	78	108	14	117	36
7	7.8	3.6					15	51	95	14	108	33
8	7.0	3.0					14	55	80	13	111	31
9	5.7	3.0					15	66	73	13	106	29
10	5.1	2.6					12	66	66	12	126	28
11	5.4	2.6				6.0	15	60	57	12	168	28
12	4.5	3.0					20	66	52	11	128	29
13	3.3	2.8					20	81	44	11	159	37
14	4.2	3.3					20	72	40	11	275	30
15	4.2	2.8					23	86	38	11	253	25
16	3.6	3.3	2.0	3.3	3.8		31	90	35	9.5	220	24
17	3.9	3.6					28	80	32	8.1	195	22
18	4.8	3.3					25	86	30	8.8	168	22
19	4.5	2.8					20	93	28	8.4	145	21
20	4.5	2.6				5.5	16	113	28	10	124	20
21	4.5	2.6				8.8	21	113	27	7.8	120	20
22	5.4	2.4				8.5	20	152	26	9.2	99	18
23	4.8	2.2				6.0	16	149	26	13	86	18
24	3.6	2.6				6.7	16	137	26	21	78	18
25	4.5	3.3				6.7	18	128	26	14	70	18
26	4.8	2.8				7.0	18	120	25	19	66	18
27	3.3	2.6				6.4	16	118	18	57	62	17
28	5.1	2.6				8.1	17	132	16	62	67	17
29	5.7	2.4				10	20	149	16	50	51	17
30	3.9	2.2				12	29	145	14	43	45	18
31	5.7					16		139		49	41	
Total	167.1	93.8	62.0	102.3	110.2	215.7	557	2,923	1,626	582.8	3,880	810
Mean	5.39	3.13	2.0	3.3	3.8	6.96	18.6	94.3	54.2	18.8	125	27.0
Max	8.8	5.7	-	-	-	16	31	152	132	62	275	50
Min	3.3	2.2	-	-	-	-	12	40	14	7.8	41	17
Ac-ft	331	186	123	203	219	428	1,100	5,800	3,230	1,160	7,700	1,610

Cal yr 1967 : Total 1,933.4 Mean 5.30 Max 28 Min - Ac-ft 3,830
Wtr yr 1968 : Total 11,129.9 Mean 30.4 Max 275 Min - Ac-ft 22,080

Peak discharge (base, 110 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-22	0330	2.77	189	8-10	1800	2.90	248
8- 2	0600	2.86	233	8-14	0030	3.43	438
8- 8	1600	2.61	178				

Note.--No gage-height record Dec. 18 to Mar. 20.

RIO GRANDE BASIN

Closed basin in San Luis Valley, Colo.

8-2310. La Garita Creek near La Garita, Colo.

Location (revised).--Lat 37°48'48", long 106°19'04", in NW¼SE¼ sec.9, T.41 N., R.6 E., on right bank 4.5 miles downstream from Little La Garita Creek and 4½ miles southwest of La Garita.

Drainage area.--61 sq mi, approximately.

Records available.--April 1919 to September 1968. 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. Nov. 14, 1935, to Nov. 16, 1966, water-stage recorder at present site at datum 1.00 ft higher.

Average discharge.--24 years (1925-26, 1940-41, 1944-46, 1947-68), 13.0 cfs (9,410 acre-ft per year).

Extremes.--Maximum discharge during year, 224 cfs July 27 (gage height, 2.74 ft), from rating curve extended above 40 cfs; minimum not determined.
1919-68: Maximum discharge, 530 cfs July 9, 1957 (gage height, 4.00 ft, present datum), 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
1	7.1	6.8					9.0	19	95	16	89	24	
2	7.1	6.8					8.5	24	102	16	95	23	
3	7.1	4.5					7.1	32	95	16	89	26	
4	7.1	5.0					7.1	34	85	16	81	26	
5	7.1	5.4					6.4	34	85	16	78	22	
6	7.1	4.5				4.0	7.4	47	89	16	80	19	
7	7.1	4.0					6.4	39	81	15	76	19	
8	7.1	4.0					6.4	36	74	16	78	18	
9	6.8	4.5					9.0	46	65	17	74	16	
10	6.0	4.5					7.1	46	60	18	91	16	
11	6.0	4.2					8.5	44	56	18	139	16	
12	6.0	5.4					11	44	53	15	106	16	
13	6.0	5.4					13	50	53	14	106	19	
14	6.0	5.4					13	46	48	13	117	16	
15	6.0	4.8					14	51	47	12	104	14	
16	6.0	4.8	3.5	2.3	3.5		19	57	43	10	95	13	
17	6.0	4.8					17	54	40	9.4	80	13	
18	6.0	4.8					16	62	39	9.0	70	13	
19	6.0	4.5					14	68	36	9.4	60	13	
20	5.7	4.5					7.3	78	34	8.5	54	13	
21	5.7	4.0				7.3	9.4	20	81	32	8.2	54	13
22	5.7	4.5					9.0	16	95	31	10	47	12
23	5.7	4.5					7.8	14	108	28	13	43	12
24	5.7	4.0					5.4	13	102	25	16	38	12
25	5.7	4.0					5.4	14	91	24	16	34	12
26	5.7	4.5					5.7	14	93	23	25	31	12
27	5.4	3.5					6.0	13	97	21	65	31	11
28	6.0	4.0					6.4	13	119	19	60	32	11
29	6.0	4.5					7.1	13	132	19	46	28	11
30	4.5	4.5					7.8	16	119	17	38	27	12
31	6.0	- - - -					8.5	- - - -	106	- - - -	62	25	- - - -
Total	191.4	140.6	108.5	71.3	101.5	161.8	358.9	2,054	1,519	639.5	2,152	473	
Mean	6.17	4.69	3.5	2.3	3.5	5.22	12.0	66.3	50.6	20.6	69.4	15.8	
Max	7.1	6.8	-	-	-	9.4	20	132	102	65	139	26	
Min	4.5	3.5	-	-	-	-	6.4	19	17	8.2	25	11	
Ac-ft	380	279	215	141	201	321	712	4,070	3,010	1,270	4,270	938	
Cal yr 1967 : Total	2,315.8		Mean	6.34	Max	27	Min	-	Ac-ft	4,590			
Wtr yr 1968 : Total	7,971.5		Mean	21.8	Max	139	Min	-	Ac-ft	15,810			

Peak discharge (base, 80 cfs)

Note.--No gage-height record Dec. 11 to Mar. 20.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-29	0300	2.55	171	7-31	2100	2.48	162
7-27	2000	2.74	224	8-11	0500	2.58	185

Closed basin in San Luis Valley, Colo.

8-2342. Mosca Creek near Mosca, Colo.

Location.--Lat 37°44'05", long 105°30'27", in N½ sec.2, T.27 S., R.73 W., Sixth principal meridian, on right bank 150 ft upstream from State Highway 150 in Great Sand Dunes National Monument and 21 miles northeast of Mosca.

Drainage area.--5.45 sq mi.

Records available.--January 1967 to September 1968.

Gage.--Water-stage recorder. Altitude of gage is 8,240 ft (from topographic map). Mar. 27 to May 11, 1967, staff gage at present site and datum.

Extremes.--Maximum discharge during year, 7.6 cfs May 24 (gage height, 1.29 ft); minimum daily, 0.02 cfs Dec. 21, 22. 1967-68: Maximum discharge, that of May 24, 1968; minimum daily, that of Dec. 21, 22, 1967.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.17	0.27	0.31	0.22	0.23	0.27	0.38	0.65	3.5	0.83	1.3	0.79
2	.17	.27	.23	.21	.23	.27	.40	.80	3.4	.83	1.3	.75
3	.17	.25	.18	.22	.23	.25	.40	1.0	3.2	.75	1.3	.87
4	.17	.32	.20	.22	.24	.25	.38	1.4	3.1	.75	1.3	.75
5	.15	.27	.21	.21	.24	.25	.40	1.6	3.0	.75	1.2	.67
6	.15	.27	.21	.20	.24	.25	.40	2.4	2.9	.67	1.2	.59
7	.17	.27	.20	.20	.24	.27	.32	1.7	2.8	.63	1.1	.59
8	.17	.27	.16	.21	.25	.27	.32	2.1	2.6	.63	1.1	.59
9	.17	.27	.09	.21	.25	.27	.40	2.1	2.5	.55	1.1	.59
10	.17	.27	.05	.22	.26	.21	.35	2.0	2.2	.49	1.1	.55
11	.17	.25	.07	.22	.25	.23	.35	1.9	2.0	.49	1.2	.55
12	.17	.27	.08	.21	.25	.27	.38	2.0	1.8	.44	1.3	.59
13	.17	.27	.09	.20	.25	.25	.39	2.2	1.7	.44	1.3	.59
14	.17	.27	.07	.20	.27	.23	.38	2.4	1.6	.44	1.3	.52
15	.19	.27	.08	.20	.24	.23	.40	2.4	1.4	.35	1.3	.52
16	.17	.30	.10	.20	.24	.23	.43	2.3	1.4	.35	1.3	.52
17	.19	.32	.08	.20	.24	.25	.46	3.3	1.3	.33	1.3	.52
18	.19	.32	.05	.21	.25	.25	.57	3.3	1.3	.33	1.2	.52
19	.21	.32	.06	.21	.25	.25	.55	3.3	1.2	.34	1.1	.52
20	.20	.32	.07	.21	.25	.24	.50	3.5	1.2	.35	1.1	.47
21	.23	.32	.02	.21	.25	.20	.50	4.2	1.1	.33	1.0	.47
22	.23	.32	.02	.21	.25	.20	.55	4.8	1.1	.30	.95	.47
23	.25	.30	.08	.21	.25	.21	.50	2.7	1.1	.30	.91	.55
24	.25	.23	.12	.22	.25	.23	.50	6.2	1.0	.35	.87	.49
25	.25	.32	.17	.22	.25	.23	.46	5.0	1.0	.41	.83	.47
26	.25	.32	.20	.22	.25	.25	.50	4.7	.95	.55	.83	.47
27	.25	.25	.18	.23	.27	.27	.50	4.5	.91	1.0	.91	.47
28	.25	.30	.16	.23	.27	.27	.46	4.2	.91	.95	.87	.47
29	.27	.32	.19	.23	.27	.32	.50	4.1	.87	.87	.83	.44
30	.30	.33	.22	.22	- - - -	.35	.60	4.0	.87	1.0	.83	.47
31	.30	- - - -	.23	.23	- - - -	.38	- - - -	3.9	- - - -	1.2	.83	- - - -
Total	6.32	8.65	4.18	6.61	7.21	7.90	13.23	90.65	53.91	18.00	34.06	16.83
Mean	0.20	0.29	0.13	0.21	0.25	0.25	0.44	2.92	1.80	0.58	1.10	0.56
Max	0.30	0.33	0.31	0.23	0.27	0.38	0.60	6.2	3.5	1.2	1.3	0.87
Min	0.15	0.23	0.02	0.20	0.23	0.20	0.32	0.65	0.87	0.30	0.83	0.44
Ac-ft	13	17	8.3	13	14	16	26	180	107	36	68	33
Cal yr 1967: Total	78.27			Mean 0.21	Max 0.49	Min 0.02	Ac-ft 155					
Wtr yr 1968: Total	267.55			Mean 0.73	Max 6.2	Min 0.02	Ac-ft 531					

Note.--No gage-height record Nov. 29 to Feb. 18.

8-2360. Alamosa Creek above Terrace Reservoir, Colo.

Location.--Lat 37°22'29", long 106°20'03", in NW¼ sec.17, T.36 N., R.6 E., on left bank 0.8 mile upstream from highwater line of Terrace Reservoir at elevation 8,568 ft, 3.0 miles downstream from French Creek, 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 1968. 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.--42 years (1911-12, 1915-18, 1923-27, 1934-68), 115 cfs (83,260 acre-ft per year).

Extremes.--Maximum discharge during year, 1,200 cfs May 30 (gage height, 3.24 ft); minimum not determined.

1911-12, 1914-27, 1934-68: 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. Records of chemical analyses for water year 1968 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	25					58	117	869	178	330	80
2	36	24					52	130	842	166	249	72
3	34	18					43	145	753	160	257	76
4	34	28					36	135	728	155	222	72
5	35	20					38	140	842	138	233	64
6	35	22					42	160	788	150	301	59
7	36	17				20	35	140	806	155	265	56
8	34	21					33	160	648	142	325	53
9	32	19					33	194	463	135	265	52
10	34	19					36	184	421	128	360	50
11	34	18					46	155	421	128	376	50
12	32	19					58	150	514	119	340	50
13	30	19					66	148	568	112	376	49
14	29	20					64	135	568	102	366	46
15	27	19				17	72	152	596	91	340	43
16	24	19	16	15	18	13	83	200	589	80	257	42
17	24	19				15	74	241	561	78	214	41
18	24	19				14	72	257	540	74	181	40
19	23	17				12	67	301	520	70	152	40
20	22	17				17	61	388	501	70	140	39
21	21	20				12	67	488	501	69	152	38
22	21	17				12	67	618	427	69	128	36
23	20	16				15	61	618	393	85	119	45
24	19	15				18	53	501	366	108	104	41
25	19	14				19	56	501	330	95	93	38
26	19	15				19	58	561	283	138	91	35
27	17	13				21	55	678	265	306	91	34
28	18	14				24	53	779	261	245	128	32
29	21	15				34	55	824	233	233	95	33
30	14	16				46	78	878	194	233	85	35
31	28	- - - -			- - - -	55	- - - -	896	- - - -	245	82	- - - -
Total	834	554	496	465	522	643	1,672	10,974	15,791	4,257	6,717	1,441
Mean	26.9	18.5	16	15	18	20.7	55.7	354	526	137	217	48.0
Max	38	28	-	-	-	55	83	896	869	306	376	80
Min	14	13	-	-	-	12	33	117	194	69	82	32
Ac-ft	1,650	1,100	984	922	1,040	1,280	3,320	21,770	31,320	8,440	13,320	2,860
Cal yr 1967: Total	34,569		Mean	94.7	Max	527	Min	-	Ac-ft	68,570		
Wtr yr 1968: Total	44,366		Mean	121	Max	896	Min	-	Ac-ft	88,000		

Peak discharge (base, 670 cfs).--May 30 (1730) 1,200 cfs (3.24 ft).

Note.--No gage-height record Dec. 8 to Mar. 15.

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 1968. 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.--20 years (1943-44, 1949-68), 15.6 cfs (11,290 acre-ft per year).

Extremes.--Maximum discharge during year, 240 cfs May 23 (gage height, 4.22 ft); minimum not determined.

1916-17, 1919-23, 1936-68: Maximum discharge, 653 cfs Apr. 22, 1919, Apr. 15, 1937; maximum gage height, 6.12 ft Aug. 11, 1961; minimum daily discharge 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.4	10					12	84	37	14	26	13
2	8.4	9.2					12	94	54	12	21	11
3	8.4	8.0					10	103	58	11	16	10
4	8.8	8.4					11	72	60	11	12	10
5	8.8	8.0					11	72	52	11	12	9.2
6	8.8	8.0					12	105	48	11	16	8.8
7	8.8	8.4					12	75	48	11	18	8.4
8	8.4	8.0					12	84	44	11	16	8.4
9	8.4	8.0					11	96	34	10	13	8.4
10	8.8	8.0					12	96	30	11	20	8.4
11	9.6	8.0					13	81	27	10	23	8.4
12	8.8	7.7				8.5	15	81	27	10	24	8.8
13	8.4	7.7					21	94	26	9.2	32	8.8
14	8.8	7.7					25	66	24	9.2	21	8.4
15	8.4	7.4					30	67	24	8.8	21	8.0
16	8.4	7.7	6.5	6.0	7.0		36	83	24	8.0	16	7.7
17	8.0	7.4					26	87	25	7.4	12	8.0
18	8.0	7.4					26	94	23	7.4	10	8.4
19	8.0	7.7					23	89	22	7.7	10	8.4
20	8.0	8.4					23	107	20	8.8	9.6	8.0
21	8.0	8.4					37	120	19	8.4	9.2	7.7
22	8.0	8.0					33	134	18	8.8	9.2	7.7
23	7.7	8.0					25	138	18	9.2	8.8	7.4
24	7.7	7.5					22	95	18	12	8.8	8.0
25	7.4	7.5				11	22	74	19	12	8.4	7.7
26	7.4	8.0				10	24	67	18	16	8.0	7.7
27	7.4	7.5				10	23	67	16	26	8.4	7.7
28	7.4	7.5				10	22	59	15	27	11	7.7
29	7.7	7.5				11	25	52	14	23	11	7.7
30	7.0	7.5				11	48	47	14	16	10	7.7
31	7.4	- - - -				11	- - - -	42	- - - -	14	14	- - - -
Total	253.5	238.5	201.5	186.0	203.0	278.0	634	2,625	876	371.9	455.4	255.5
Mean	8.18	7.95	6.5	6.0	7.0	8.97	21.1	84.7	29.2	12.0	14.7	8.52
Max	9.6	10	-	-	-	-	48	138	60	27	32	13
Min	7.0	7.4	-	-	-	-	10	42	14	7.4	8.0	7.4
Ac-ft	503	473	400	369	403	551	1,260	5,210	1,740	738	903	507

Cal yr 1967: Total 4,729.0 Mean 13.0 Max 40 Min - Ac-ft 9,380
Wtr yr 1968: Total 6,578.3 Mean 18.0 Max 138 Min - Ac-ft 13,050

Note.--No gage-height record Dec. 8 to Mar. 15.

8-2400. Rio Grande above mouth of Trinchera Creek, near Lasasues, Colo.

Location.--Lat 37°18'58", long 105°44'32", in sec.35, T.36 N., R.11 E., on right bank a quarter of a mile upstream from Trinchera Creek, 3.2 miles north of Lasasues, 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 1968. Prior to Oct. 1, 1966, published as "above mouth of Trinchera Creek, near La Sauses."

Gage.--Water-stage recorder. Altitude of gage is 7,500 ft (estimated from nearby level lines).

Average discharge.--32 years, 237 cfs (171,600 acre-ft per year).

Extremes.--Maximum discharge during year, 1,610 cfs May 31 (gage height, 6.01 ft); minimum daily, 23 cfs Oct. 12, 13.

1936-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	145	220	160	175	300	496	81	1,560	880	254	162
2	39	164	240	170	175	320	534	80	1,460	786	309	140
3	38	236	209	155	180	230	538	71	1,360	698	484	143
4	46	288	194	150	170	260	517	70	1,440	499	505	145
5	52	301	225	145	160	330	430	73	1,440	348	505	154
6	49	283	220	140	155	365	322	94	1,280	271	424	176
7	56	286	227	140	145	370	283	117	1,270	233	353	156
8	53	283	229	140	145	400	264	108	1,070	192	322	140
9	48	281	207	135	145	440	245	101	793	154	314	125
10	51	278	190	135	145	445	216	97	622	138	238	129
11	31	276	180	135	155	440	198	142	520	125	252	116
12	23	276	185	130	160	475	192	151	541	104	314	103
13	23	276	170	145	165	460	166	125	594	108	475	97
14	29	276	100	165	165	466	147	112	493	120	541	92
15	29	276	160	185	165	442	136	110	442	151	558	87
16	30	276	175	180	155	430	138	112	409	151	678	81
17	31	276	165	170	160	421	133	214	385	152	695	78
18	38	278	145	150	160	409	111	342	427	158	534	71
19	43	276	130	150	180	406	105	424	844	158	400	66
20	41	274	135	160	200	388	101	463	1,120	156	291	57
21	37	269	145	160	170	388	98	469	1,260	162	266	57
22	34	264	150	170	160	388	103	524	1,330	162	259	58
23	35	264	150	190	170	379	100	674	1,330	162	229	56
24	32	264	145	190	180	376	95	992	1,280	174	200	61
25	43	264	155	190	185	379	88	1,180	1,250	186	184	43
26	55	247	160	180	205	394	83	1,240	1,140	254	170	42
27	69	233	165	190	230	400	80	1,220	972	286	164	45
28	82	227	175	200	270	397	92	1,200	844	322	166	38
29	82	222	165	200	265	406	86	1,280	852	391	180	37
30	103	220	170	190	- - - -	430	86	1,480	892	385	192	38
31	118	- - - -	175	170	- - - -	463	- - - -	1,580	- - - -	276	188	- - - -
Total	1,481	7,779	5,461	5,070	5,095	12,197	6,183	14,926	29,220	8,342	10,644	2,793
Mean	47.8	259	176	164	176	393	206	481	974	269	343	93.1
Max	118	301	240	200	270	475	538	1,580	1,560	880	695	176
Min	23	145	100	130	145	230	80	70	385	104	164	37
Ac-ft	2,940	15,430	10,830	10,060	10,110	24,190	12,260	29,610	57,960	16,550	21,110	5,540
Cal yr 1967: Total	45,439		Mean	124	Max	340	Min	16	Ac-ft	90,130		
Wtr yr 1968: Total	109,191		Mean	298	Max	1,580	Min	23	Ac-ft	216,600		

Note.--No gage-height record Dec. 27 to Mar. 12.

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 1968. 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.--35 years (1927-28, 1934-68), 23.3 cfs (16,870 acre-ft per year).

Extremes.--Maximum discharge during year, 121 cfs June 6 (gage height, 3.06 ft); minimum not determined.

1923-68: 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 winter period, which are poor. No regulation or diversion above station.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.9	9.9	7.2				9.5	21	89	40	41	20
2	9.5	9.9	7.0				9.5	23	89	40	42	19
3	9.5	9.9	7.2				10	27	90	38	41	19
4	9.9	9.5	8.3				10	28	95	35	37	19
5	10	9.9	7.5				10	33	103	36	37	18
6	10	9.9	7.5				9.1	36	116	36	40	18
7	11	9.5	7.2				9.1	34	114	36	40	18
8	10	9.5	8.3				9.5	35	111	35	38	17
9	10	10	7.5				9.5	37	106	30	38	17
10	10	9.9	7.0			7.0	9.9	40	98	28	43	17
11	9.9	9.9	7.5				9.5	34	92	27	42	16
12	9.9	9.5	7.5				10	31	87	26	43	16
13	9.5	9.1	7.0				12	31	87	25	40	16
14	9.5	9.1					12	30	87	25	44	16
15	9.5	9.1					13	30	86	24	40	15
16	9.1	9.1		5.0	6.0		14	38	84	20	37	15
17	9.5	9.1					14	43	84	20	36	16
18	9.5	8.7					15	44	81	20	33	15
19	9.5	8.7				9.1	16	48	80	20	31	15
20	9.1	8.7				9.1	16	50	78	19	30	14
21	9.1	8.7				6.9	16	56	72	17	30	14
22	9.1	8.7	6.5			7.5	15	72	68	17	28	14
23	8.7	8.3				6.9	14	76	64	18	28	15
24	8.3	7.9				6.6	15	74	58	20	25	14
25	8.7	7.9				7.5	14	69	58	24	24	14
26	9.1	8.3				7.2	14	66	56	31	23	14
27	7.9	7.5				7.9	14	69	52	47	23	13
28	8.7	7.9				8.3	14	81	49	34	24	13
29	7.9	7.5				8.7	14	87	47	34	21	14
30	6.3	7.5				9.5	16	87	43	34	21	16
31	9.9	-----			-----	9.5	-----	87	-----	35	22	-----
Total	288.5	269.1	213.7	155.0	174.0	230.7	373.6	1,517	2,424	891	1,042	477
Mean	9.31	8.97	6.89	5.0	6.0	7.44	12.5	48.9	80.8	28.7	33.6	15.9
Max	11	10	-	-	-	-	16	87	116	47	44	20
Min	6.3	7.5	-	-	-	-	9.1	21	43	17	21	13
Ac-ft	572	534	424	307	345	458	741	3,010	4,810	1,770	2,070	946

Cal yr 1967 : Total 3,807.0 Mean 10.4 Max 23 Min - Ac-ft 7,550
Wtr yr 1968 : Total 8,055.6 Mean 22.0 Max 116 Min - Ac-ft 15,980

Peak discharge (base, 50 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
6-6	1300	3.06	121	7-29	2300	2.53	53
7-27	0130	2.79	90	8-10	0630	2.56	63

Note.--No gage-height record Dec. 10 to Mar. 19.

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, 2,000 ft upstream from Carland Canal, 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 1968. 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 at site 1,400 ft downstream at different datum. May 7, 1923, to Feb. 29, 1964, water-stage recorder at site 1 mile upstream at different datum.

Average discharge.--24 years (1940-41, 1945-68), 19.2 cfs (13,900 acre-ft per year).

Extremes.--Maximum discharge during year, 166 cfs Aug. 2 (gage height, 2.38 ft); minimum not determined.

1916, 1923-68: 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 winter period, which are poor. A few diversions above station for irrigation. Records of chemical analyses for the water year 1968 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.7	4.7	2.9	2.0			19	36	72	9.5	16	10
2	1.4	4.4	2.6	2.0			18	42	68	10	67	8.5
3	1.2	3.2	2.6				16	48	61	14	32	8.0
4	1.2	3.2	2.9				17	60	52	14	20	11
5	1.3	3.8	2.6				15	66	48	13	16	9.5
6	1.4	4.1	2.6				15	77	44	14	14	8.0
7	1.6	4.4	2.3				13	84	41	14	21	7.0
8	1.6	3.8	2.9				14	79	38	16	18	6.5
9	1.6	3.2	2.3				12	77	36	14	23	5.0
10	1.6	3.2	2.0				14	92	33	12	24	4.7
11	1.6	3.2	2.0				14	98	30	11	26	4.7
12	1.4	3.2	2.3				18	88	27	11	38	4.7
13	1.4	2.9	1.7				23	98	27	12	30	4.7
14	1.4	2.6	1.3				24	93	26	12	26	4.4
15	1.4	2.9	1.3				27	85	24	10	23	3.8
16	1.6	3.5	1.4	2.5			33	88	23	8.0	20	3.5
17	1.9	4.1	1.4				30	93	22	6.5	18	4.4
18	2.0	4.4	1.4				27	92	20	6.5	16	4.7
19	2.6	4.4	1.4				27	88	20	7.0	14	4.7
20	2.6	4.1	1.7				23	90	19	7.5	13	4.4
21	2.6	4.1	1.9				26	85	18	7.0	13	4.1
22	2.6	4.4	1.9				24	104	16	5.0	12	3.8
23	3.8	4.1	1.7				24	125	15	5.0	11	4.1
24	2.9	2.6	1.7				24	127	14	8.5	10	5.5
25	3.2	2.6	1.7				24	114	14	16	9.5	5.0
26	2.6	3.5	1.7				24	102	14	17	9.0	4.4
27	2.9	2.6	1.7				26	88	13	29	9.0	4.1
28	2.9	3.2	1.7				25	85	12	20	12	4.1
29	3.2	4.1	1.7				29	82	10	18	11	3.8
30	3.5	3.5	1.7				31	77	9.5	14	10	5.5
31	3.8	- - - -	1.7				- - - -	74	- - - -	14	12	- - - -
Total	66.5	108.0	60.7	76.5	145.0	248.0	656	2,637	866.5	375.5	593.5	166.6
Mean	2.15	3.60	1.96	2.47	5.0	8.0	21.9	85.1	28.9	12.1	19.1	5.55
Max	3.8	4.7	2.9	-	-	-	33	127	72	29	67	11
Min	1.2	2.6	1.3	-	-	-	12	36	9.5	5.0	9.0	3.5
Ac-ft	132	214	120	152	288	492	1,300	5,230	1,720	745	1,181	330

Cal yr 1967: Total 2,336.10 Mean 6.40 Max 56 Min 0.20 Ac-ft 4,630

Wtr yr 1968: Total 5,999.8 Mean 16.4 Max 127 Min - Ac-ft 11,900

Peak discharge (base, 75 cfs).--May 24 (0600) 135 cfs (2.21 ft); Aug. 2 (1100) 166 cfs (2.38 ft).

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 1968. 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.--45 years, 20.6 cfs (14,910 acre-ft per year).

Extremes.--Maximum discharge during year, 260 cfs Aug. 2 (gage height, 2.92 ft); minimum not determined.

1916, 1923-68: 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 subsequent 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	12	6.5				9.2	16	96	25	79	24
2	15	10	5.4				8.8	18	104	24	168	22
3	15	8.8	5.4				7.4	21	88	24	101	26
4	15	10	7.0				8.3	25	101	24	59	26
5	15	9.2	6.5				7.0	29	90	22	50	22
6	15	8.8	6.2				7.0	33	88	24	47	21
7	15	8.8	5.4				6.2	33	63	26	101	20
8	15	8.8	6.2				6.5	33	55	30	113	20
9	14	7.8	6.0				5.4	33	36	25	80	19
10	13	7.8	4.0			7.0	7.8	41	31	25	72	20
11	13	7.8	7.0				8.3	39	28	25	108	19
12	12	8.3	6.5				9.6	38	39	24	137	19
13	11	8.3	6.5				11	36	51	23	95	19
14	11	8.3					11	31	50	28	79	19
15	11	7.8					13	31	51	23	70	19
16	11	8.3		5.0	5.0		15	33	55	19	56	19
17	11	8.3					14	33	56	17	48	20
18	11	7.8					13	34	65	15	44	19
19	11	7.8				5.6	13	35	56	15	44	18
20	10	7.8				7.0	11	34	44	14	41	17
21	9.6	7.4				5.0	13	36	56	15	38	16
22	9.6	7.4	7.0			5.0	12	52	56	13	37	16
23	9.2	6.2				4.4	10	66	50	21	32	16
24	9.2	4.8				5.4	10	60	48	72	28	15
25	10	7.0				6.5	11	46	42	50	26	13
26	10	6.2				6.5	12	47	41	55	24	13
27	9.2	5.4				7.0	12	51	36	112	25	12
28	9.6	7.8				7.0	12	63	35	67	32	11
29	9.6	7.8				7.4	13	72	31	35	28	11
30	9.2	7.8				8.3	15	82	26	28	27	15
31	12	- - - -				8.8	- - - -	95	- - - -	29	29	- - - -
Total	366.2	240.3	204.6	155.0	145.0	209.9	312.5	1,296	1,668	949	1,918	546
Mean	11.8	8.01	6.60	5.0	5.0	6.77	10.4	41.8	55.6	30.6	61.9	18.2
Max	15	12	-	-	-	-	15	95	104	112	168	26
Min	9.2	4.8	-	-	-	-	5.4	16	26	13	24	11
Ac-ft	726	477	406	307	288	416	620	2,570	3,310	1,880	3,800	1,080

Cal yr 1967: Total 5,699.4 Mean 15.6 Max 107 Min - Ac-ft 11,300
 Wtr yr 1968: Total 8,010.5 Mean 21.9 Max 168 Min - Ac-ft 15,890

Peak discharge (base, 100 cfs)

Note.--No gage-height record Dec. 14 to Mar. 19.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
6- 2	0500	2.25	137	8- 8	1830	2.68	210
7-27	0900	2.48	170	8-12	0300	2.42	158
8- 2	0700	2.92	260				

8-2435. Trinchera Creek below Smith Reservoir, near Blanca, Colo.

Location.--Lat 37°23'10", long 105°33'02", in sec.4, T.31 S., R.73 W. (unsurveyed), on right bank 150 ft downstream from bridge, 0.6 mile downstream from Smith Reservoir, and 4.0 miles southwest of Blanca.

Drainage area.--396 sq mi.

Records available.--October 1928 to September 1968. 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.--30 years (1930-31, 1933-36, 1937-38, 1943-68), 10.8 cfs (7,820 acre-ft per year).

Extremes.--Maximum discharge during year, 42 cfs Nov. 10 (gage height, 2.46 ft); minimum daily, 0.30 cfs Oct. 2-4.

1929-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.40	1.5					1.5	1.9	15	19	4.0	4.6
2	.30	1.3					1.9	1.9	15	19	4.6	4.6
3	.30	1.3					3.4	1.9	15	19	4.6	7.8
4	.30	1.1					3.4	1.9	15	19	4.6	14
5	.40	1.1					3.1	1.7	15	20	4.6	11
6	.40	0.70					3.1	1.3	15	18	4.6	5.2
7	.50	.70					3.1	4.9	15	17	4.6	6.4
8	.50	.70					3.1	12	16	17	4.6	4.6
9	.70	.70					3.1	12	21	17	4.6	4.6
10	.50	2.3				1.2	2.8	13	20	17	4.9	4.3
11	.50	.70					2.8	13	20	12	4.9	4.3
12	.70	.70					2.8	13	20	5.2	4.9	4.3
13	.90	.90					3.1	15	20	5.2	4.9	4.9
14	1.1	.90					3.1	17	20	5.2	4.9	5.5
15	1.3	.90					3.1	16	20	4.6	4.9	5.5
16	.70	.90	2.5	2.5	2.5		2.8	17	20	4.6	4.9	5.5
17	1.1	.90					2.8	17	19	4.6	4.9	5.5
18	1.1	1.3					3.1	17	19	4.6	5.5	5.5
19	1.1	1.9				1.1	3.1	17	19	4.6	5.5	5.5
20	1.1	3.1				1.1	3.1	17	19	4.6	5.5	5.5
21	1.3	2.8					1.3	2.8	17	18	4.6	5.5
22	1.5	2.8					1.3	2.8	17	17	4.6	5.5
23	1.5	2.8					1.3	2.8	17	16	4.3	5.5
24	1.5	2.8					1.3	2.8	17	15	4.3	5.5
25	1.5	2.8					1.3	2.8	17	15	4.3	5.5
26	1.1	2.8					1.3	2.8	17	17	4.3	5.5
27	1.1	2.8					1.3	2.8	17	19	4.3	5.5
28	1.5	2.8					1.3	2.8	17	19	4.3	5.5
29	1.7	2.8					1.3	2.5	17	19	4.3	5.2
30	1.7	2.8					1.3	1.9	17	19	4.3	5.2
31	1.7	- - - -			- - - -		1.5	- - - -	17	- - - -	4.3	4.9
Total	30.00	51.60	77.5	77.5	72.5	38.3	85.1	398.5	532	285.1	155.8	170.5
Mean	0.97	1.72	2.5	2.5	2.5	1.24	2.84	12.9	17.7	9.20	5.03	5.68
Max	1.7	3.1	-	-	-	-	3.4	17	21	20	5.5	14
Min	0.30	0.70	-	-	-	-	1.5	1.3	15	4.3	4.0	4.3
Ac-ft	60	102	154	154	144	76	169	790	1,060	565	309	338

Cal yr 1967: Total 1,388.20 Mean 3.80 Max 15 Min 0.30 Ac-ft 2,750
Wtr yr 1968: Total 1,974.40 Mean 5.39 Max 21 Min 0.30 Ac-ft 3,920

Note.--No gage-height record Nov. 29 to Mar. 19.

8-2445. Platoro Reservoir at Platoro, Colo.

Location (revised).--Lat 37°21'07", long 106°32'38", on right bank in valvehouse, 400 ft downstream from Platoro Dam on Conejos River and 0.7 mile west of Platoro, Conejos County.

Drainage area.--40 sq mi, approximately.

Records available.--November 1951 to September 1968.

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, 12,600 acre-ft Aug. 18 to Sept. 30 (elevation, 9,968.7 ft); minimum, 3,000 acre-ft Nov. 3 (elevation, 9,942.4 ft).

1951-68: 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 1967 to September 1968

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	9,946.5	4,200	-
Oct. 31.....	9,946.5	4,200	0
Nov.	a9,942.4	3,000	b-1,200
Dec. 31.....	-	-	-
Calendar year 1966.....	-	-	-
Jan. 31.....	-	-	-
Feb. 29.....	-	-	-
Mar. 31.....	-	-	-
Apr. 30.....	9,943.5	3,300	c+300
May 31.....	9,949.5	5,100	+1,800
June 30.....	9,966.0	11,300	+6,200
July 31.....	9,966.0	11,300	0
Aug. 31.....	9,968.7	12,600	+1,300
Sept. 30.....	9,968.7	12,600	0
Water year 1967-68.....	-	-	+8,400

† Elevation at 0800 on first day of following month.

a Elevation at 0800 Nov. 3.

b Change in contents from Oct. 31 to Nov. 2.

c Change in contents from Nov. 2 to Apr. 30.

Note.--Operation of reservoir suspended for winter on Nov. 3, resumed on May 1.

8-2450. Conejos River below Platoro Reservoir, Colo.

Location.--Lat 37°21'18", long 106°32'37", on left bank 1,100 ft (revised) downstream from valve house for Platoro Reservoir and 0.7 mile (revised) northwest of Platoro, Conejos County.

Drainage area.--40 sq mi, approximately.

Records available.--May 1952 to September 1968.

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.--16 years, 87.8 cfs (63,560 acre-ft per year).

Extremes.--Maximum discharge during year, 780 cfs June 22 (gage height, 3.47 ft); minimum daily, 2.7 cfs Oct. 19-21.

1952-68: 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).

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	135						12	96	197	330	23
2	19	503						14	98	197	382	11
3	18	9.6						48	100	164	319	6.5
4	15	9.3						158	256	131	173	6.5
5	15	9.0						98	386	131	118	6.5
6	15	8.7						72	293	155	158	9.6
7	15	8.7						72	194	167	218	14
8	15	8.7						74	361	167	245	15
9	17	8.7						74	296	142	182	15
10	20	8.7						88	350	114	161	15
11	20	8.6						100	269	104	185	15
12	20	8.6						100	287	102	215	15
13	20	8.6						80	466	102	221	15
14	20	8.6						54	690	102	230	15
15	14	8.6						48	755	88	163	15
16	8.3	8.5						48	750	77	4.0	15
17	7.0	8.5						47	745	88	3.0	15
18	4.0	8.5						90	750	54	46	15
19	2.7	8.5						185	700	34	88	15
20	2.7	8.5						239	642	30	94	15
21	2.7	8.5						302	646	30	81	15
22	4.0	8.5						462	760	53	81	11
23	4.8	8.5						418	656	74	81	8.8
24	4.8	8.5						296	396	90	53	8.8
25	4.8	8.5						230	336	102	25	9.2
26	4.8	8.5						347	406	133	23	9.2
27	4.8	8.5						462	406	242	23	9.2
28	4.8	8.5						518	386	316	30	9.2
29	4.8	8.5						458	287	275	34	9.6
30	4.8	8.5						364	248	263	34	9.6
31	4.8	---						212	---	236	34	---
Total	349.6	879.9	263.5	263.5	243.6	257.3	252.0	5,770	13,011	4,160	4,034.0	371.7
Mean	11.3	29.3	8.5	8.5	8.4	8.3	8.4	186	434	134	130	12.4
Max	32	503	-	-	-	-	-	518	760	316	382	23
Min	2.7	8.5	-	-	-	-	-	12	96	30	3.0	6.5
Ac-ft	693	1,750	523	523	483	510	500	11,440	25,810	8,250	8,000	737

Cal yr 1967: Total 32,299.5 Mean 88.5 Max 628 Min 2.7 Ac-ft 64,070
Wtr yr 1968: Total 29,856.1 Mean 81.6 Max 760 Min 2.7 Ac-ft 59,220

Note.--No gage-height record Nov. 4 to Apr. 30.

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 1968. 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 3½ 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.--59 years, 339 cfs (245,400 acre-ft per year).

Extremes.--Maximum discharge during year, 2,250 cfs June 6 (gage height, 4.53 ft); minimum daily, 38 cfs Jan. 13.

1903-68: 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). Records of chemical analyses for water year 1968 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	118	67	61	42	45	54	184	338	1,640	565	1,010	170
2	110	418	56	44	45	56	159	414	1,810	525	932	156
3	94	281	41	46	46	54	136	455	1,640	510	833	133
4	92	84	43	44	48	53	116	496	1,500	428	680	130
5	89	73	46	43	47	58	116	510	1,920	392	535	116
6	86	71	48	42	46	59	130	505	2,030	401	525	102
7	86	63	47	40	47	69	107	432	1,780	446	540	96
8	84	59	46	41	48	69	94	460	1,530	424	675	96
9	82	61	45	42	49	69	94	555	1,450	410	560	94
10	86	61	43	44	50	63	104	585	1,220	388	665	96
11	89	59	56	45	50	56	133	540	1,040	356	715	94
12	84	61	55	41	51	67	166	525	1,160	329	730	99
13	79	59	54	38	51	82	195	540	1,390	312	775	94
14	79	59	58	41	52	75	188	450	1,640	296	720	92
15	77	58	60	42	48	75	206	419	1,760	280	790	89
16	73	59	55	44	49	75	236	510	1,810	252	464	86
17	70	58	50	46	50	71	210	580	1,780	236	334	89
18	67	56	54	44	51	65	198	670	1,800	232	284	86
19	64	54	56	42	52	59	188	780	1,680	195	316	84
20	61	53	50	45	53	65	173	970	1,590	180	324	82
21	59	58	45	47	55	61	195	1,150	1,550	180	320	82
22	58	56	40	46	57	59	188	1,530	1,570	180	292	82
23	58	54	41	45	56	63	170	1,610	1,450	232	272	92
24	56	48	42	44	55	71	150	1,400	1,220	329	252	86
25	56	50	43	45	55	73	156	1,120	982	334	198	79
26	56	61	44	46	55	82	173	1,250	987	442	170	77
27	54	48	42	48	54	86	163	1,520	954	756	166	77
28	54	63	45	50	54	96	153	1,810	932	882	170	75
29	59	71	48	48	54	121	159	1,970	828	816	173	77
30	52	59	45	47	- - - -	146	221	1,810	665	806	166	86
31	54	- - - -	42	46	- - - -	170	- - - -	1,920	- - - -	760	184	- - - -
Total	2,286	2,382	1,501	1,368	1,473	2,322	4,861	27,824	43,308	12,874	14,770	2,897
Mean	73.7	79.4	48.4	44.1	50.8	74.9	162	898	1,444	415	476	96.6
Max	118	418	61	50	57	170	236	1,970	2,030	882	1,010	170
Min	52	48	40	38	45	53	94	338	665	180	166	75
Ac-ft	4,530	4,720	2,980	2,710	2,920	4,610	9,640	55,190	85,900	25,540	29,300	5,750
Cal yr 1967: Total	105,714		Mean 290	Max 1,780	Min 38	Ac-ft 209,700						
Wtr yr 1968: Total	117,866		Mean 322	Max 2,030	Min 38	Ac-ft 233,800						

8-2475. San Antonio River at Ortiz, Colo.

Location (revised).--Lat 36°59'35", long 106°02'17", in New Mexico, in NE¼SE¼ sec.24, T.32 N., R.8 E., on left bank 800 ft south of New Mexico-Colorado State line, 0.4 mile southeast of Ortiz, and 0.4 mile upstream from Los Pinos River.

Drainage area.--110 sq mi, approximately.

Records available.--April 1919 to October 1920, October 1924 to September 1968 (no winter records prior to 1941). Monthly discharge only for some periods, published in WSP 1312.

Gage.--Water-stage recorder. Altitude of gage is 7,970 ft, revised (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.--28 years (1940-68), 25.7 cfs (18,610 acre-ft per year).

Extremes.--Maximum discharge during year, 750 cfs July 25 (gage height, 4.00 ft); no flow July 2-6, 19-24.

1919-20, 1924-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.5	5.4					21	102	46	0.05	22	2.0
2	1.4	6.4					24	145	42	0	14	2.0
3	1.3	5.4					18	158	38	0	9.3	2.8
4	1.3	4.7					16	122	34	0	7.2	1.5
5	1.3	4.0					14	160	30	0	9.3	1.5
6	1.4	4.4					18	215	26	0	9.3	1.3
7	1.4	4.0					15	160	24	.30	7.2	1.0
8	1.4	3.8					7.8	145	24	1.0	17	1.0
9	1.8	3.0					11	190	27	1.7	13	.90
10	1.8	3.2					12	222	22	2.0	59	.90
11	2.0	3.2				5.0	18	178	17	2.0	83	1.0
12	2.2	3.2					30	188	15	2.0	43	1.4
13	1.8	3.2					47	182	13	.90	30	1.4
14	1.4	3.2					41	116	12	.50	25	1.3
15	1.8	3.5					44	111	10	.45	20	1.2
16	1.5	3.2	2.5	2.0	3.5		62	138	9.0	.30	15	1.2
17	1.5	3.5					39	170	7.5	.15	11	1.2
18	1.8	3.5					34	185	7.2	.03	9.0	1.4
19	2.0	3.2					39	202	6.4	0	4.7	1.8
20	2.2	3.2					27	208	6.4	0	4.7	1.5
21	2.2	2.8				12	42	198	5.8	0	4.7	1.4
22	2.2	2.8				11	31	225	4.0	0	5.0	1.4
23	2.0	3.5				12	26	192	3.5	0	4.0	1.5
24	2.0	3.2				13	20	118	2.8	0	3.5	1.5
25	1.8	2.0				12	27	91	2.5	47	3.0	1.8
26	1.8	3.5				13	34	80	1.8	32	2.8	1.5
27	1.8	3.5				14	36	75	1.3	27	2.8	1.5
28	2.0	3.0				15	36	66	.70	16	3.0	1.5
29	2.2	3.0				17	39	61	.40	29	3.2	1.5
30	3.0	3.2				18	65	56	.20	15	3.2	2.2
31	2.2	- - - -				19	- - - -	51	- - - -	18	2.8	- - - -
Total	56.0	107.7	77.5	62.0	101.5	256.0	893.8	4,510	439.50	195.38	450.7	44.10
Mean	1.81	3.59	2.5	2.0	3.5	8.26	29.8	145	14.6	6.30	14.5	1.47
Max	3.0	6.4	-	-	-	19	65	225	46	47	83	2.8
Min	1.3	2.0	-	-	-	-	7.8	51	0.20	0	2.8	0.90
Ac-ft	111	214	154	123	201	508	1,770	8,950	872	388	854	87
Cal yr 1967: Total	4,405.00		Mean	12.1	Max	98	Min	0	Ac-ft	8,740		
Wtr yr 1968: Total	7,194.18		Mean	19.7	Max	225	Min	0	Ac-ft	14,270		

Peak discharge (base, 330 cfs)--July 25 (2000) 750 cfs (4.00 ft).

Note.--No gage-height record Dec. 11 to Mar. 19.

8-2480. Los Pinos River near Ortiz, Colo.

Location (revised).--Lat 36°58'56", long 106°04'23", on line between secs.26 and 27, T.32 N., R.8 E., in New Mexico, on left bank 0.9 mile south of New Mexico-Colorado State line, 2.1 miles southwest of Ortiz, and 2.9 miles upstream from mouth.

Drainage area.--167 sq mi.

Records available.--January 1915 to December 1920, October 1924 to September 1968. Monthly discharge only for some periods, published in WSP 1312.

Gage.--Water-stage recorder. Altitude of gage is 8,040 ft, revised (from topographic map). Prior to Apr. 15, 1955, at site 350 ft upstream at datum 2.52 ft higher.

Average discharge.--49 years, 123 cfs (89,050 acre-ft per year).

Extremes.--Maximum discharge during year, 1,340 cfs May 22 (gage height, 5.28 ft); minimum not determined.

1915-20, 1924-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	28					46	240	608	90	149	34
2	24	26					45	299	628	82	109	38
3	23	25					36	350	572	79	94	33
4	24	18					34	305	512	76	79	33
5	24	21					35	347	532	69	88	29
6	23	24					38	420	552	76	75	28
7	23	18					33	371	572	80	73	26
8	21	18					31	410	512	73	79	26
9	21	19					29	532	399	66	73	25
10	21	20					31	564	326	76	238	25
11	21	20				20	38	452	290	63	177	25
12	20	20					50	436	305	54	171	26
13	20	20					73	448	332	50	222	24
14	19	20					70	368	354	48	171	23
15	19	18					82	378	347	44	161	22
16	18	21	16	14	16		105	472	344	40	127	22
17	19	20					90	528	326	36	109	24
18	19	18					88	608	323	34	94	23
19	19	17					90	675	296	33	84	22
20	18	18					75	740	281	33	76	22
21	18	18				24	90	816	266	44	79	21
22	18	20				21	82	984	242	37	72	20
23	19	17				24	72	930	218	46	65	21
24	18	14				25	63	755	195	57	56	21
25	18	15				24	69	640	177	69	50	17
26	19	17				26	79	665	157	96	47	18
27	18	15				28	80	695	139	174	47	18
28	18	14				29	79	720	125	137	47	18
29	20	13				34	90	725	111	101	48	18
30	23	13				37	155	700	99	121	37	23
31	32	- - - -				44	- - - -	670	- - - -	109	37	- - - -
Total	640	565	496	434	464	716	1,978	17,243	10,140	2,193	3,034	725
Mean	20.6	18.8	16	14	16	23.1	65.9	556	338	70.7	97.9	24.2
Max	32	28	-	-	-	44	155	984	628	174	238	38
Min	18	13	-	-	-	-	29	240	99	33	37	17
Ac-ft	1,270	1,120	984	861	920	1,420	3,920	34,200	20,110	4,350	6,020	1,440
Cal yr 1967: Total	31,346			Mean 85.9	Max 560	Min -	Ac-ft 62,170					
Wtr yr 1968: Total	38,628			Mean 106	Max 984	Min -	Ac-ft 76,620					

Peak discharge (base, 900 cfs).--May 22 (2330) 1,340 cfs (5.28 ft).

Note.--No gage-height record Dec. 9 to Mar. 15.

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 1968. 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.--45 years, 81.0 cfs (58,640 acre-ft per year).

Extremes.--Maximum discharge during year, 817 cfs May 23 (gage height, 5.17 ft); minimum daily, 0.66 cfs Sept. 22, 23, 28, 29.

1923-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.8	7.1					6.2	65	347	43	75	8.7
2	1.8	11					7.9	112	317	34	94	7.5
3	1.8	16					11	154	304	33	63	7.9
4	1.9	15					11	151	256	27	57	7.9
5	1.9	15					9.6	162	236	25	39	7.5
6	1.9	15				13	11	237	232	23	37	5.5
7	2.0	18					10	245	241	20	30	3.8
8	2.0	17					10	230	239	18	28	2.7
9	2.0	15					10	278	221	19	31	2.2
10	2.0	15					11	405	178	22	50	1.7
11	2.3	17					9.6	389	136	23	123	1.6
12	2.4	17				18	14	336	109	22	122	1.4
13	2.4	16				15	20	347	96	21	136	1.3
14	2.4	16				14	26	306	97	17	134	1.2
15	2.3	16				15	31	252	109	13	113	.94
16	2.6	16	6.0	5.5	10	15	45	276	112	10	90	.82
17	2.3	15				15	46	314	119	7.9	70	.74
18	2.2	15				15	32	361	126	5.8	54	.78
19	2.0	15				14	29	425	125	3.8	45	.78
20	2.0	13				14	34	499	127	2.9	33	.78
21	2.2	12				14	29	559	123	2.3	30	.74
22	2.0	14				14	35	652	130	2.0	28	.66
23	1.9	15				14	36	731	148	2.0	24	.66
24	1.9	15				14	32	641	134	2.0	20	.70
25	2.2	11				13	24	489	106	3.3	17	.74
26	2.3	9.2				12	24	418	91	4.8	14	.74
27	2.2	9.2				12	27	422	79	6.4	12	.70
28	2.3	9.0				11	25	418	70	9.0	11	.66
29	2.6	8.5				9.6	24	427	59	6.8	11	.66
30	2.6	8.5				7.9	33	413	51	12.2	8.7	.82
31	3.6	-----			-----	6.6	-----	385	-----	63	10	-----
Total	67.8	411.5	186.0	170.5	290	406.1	673.3	11,099	4,718	857.0	1,609.7	72.82
Mean	2.19	13.7	6.0	5.5	10	13.1	22.4	358	157	27.6	51.9	2.43
Max	2.6	18	-	-	-	-	46	731	347	122	136	8.7
Min	1.8	7.1	-	-	-	-	6.2	65	51	2.0	8.7	0.66
Ac-ft	134	816	369	338	575	805	1,340	22,010	9,360	1,700	3,190	144

Cal yr 1967: Total 11,896.5 Mean 32.6 Max 208 Min 1.5 Ac-ft 23,600
Wtr yr 1968: Total 20,561.72 Mean 56.2 Max 731 Min 0.66 Ac-ft 40,780

Peak discharge (base, 500 cfs).--May 23 (1530) 817 cfs (5.17 ft).

Note.--No gage-height record Dec. 8 to Mar. 12.

8-2490. Conejos River near Lasauces, Colo.

Location.--Lat 37°18'01", long 105°44'47", in SW¼SW¼ sec.2, and SE¼NE¼ sec.10 (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, 1.0 mile upstream from mouth, 2.1 miles north of Lasauces, and 13 miles southeast of Alamosa.

Drainage area.--887 sq mi.

Records available.--March 1921 to September 1968. Monthly discharge only for some periods, published in WSP 1312. Prior to Oct. 1, 1966, published as "near La Sauces."

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.--47 years, 187 cfs (135,400 acre-ft per year).

Extremes.--Maximum discharge during year, 1,320 cfs May 23; minimum daily, 0.60 cfs Sept. 27, 28.
1921-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	44	82	72	95	132	83	35	664	197	488	27
2	14	52	78	82	91	135	91	74	523	172	748	23
3	14	365	74	88	93	151	85	127	533	159	737	19
4	14	202	62	80	94	141	73	118	422	137	628	5.8
5	13	139	74	76	100	131	70	133	389	66	470	4.2
6	12	127	77	70	97	137	68	183	485	29	359	3.4
7	12	118	71	70	97	128	70	237	680	16	331	3.2
8	11	109	64	72	97	144	69	214	652	12	336	2.8
9	11	101	63	74	94	144	68	222	572	9.1	406	2.8
10	17	101	77	76	94	147	66	316	466	6.1	379	2.0
11	19	104	71	78	94	124	66	375	329	6.1	569	2.0
12	17	104	64	80	92	117	68	312	267	5.6	648	2.5
13	14	104	68	68	97	120	86	298	219	4.9	659	3.1
14	17	101	73	60	94	129	91	289	226	4.0	717	2.0
15	18	103	79	58	94	139	86	234	296	5.2	685	1.8
16	18	104	77	54	106	124	97	216	398	14	629	1.6
17	18	99	74	58	103	123	124	261	490	13	366	2.0
18	17	96	83	62	103	127	86	303	535	18	273	2.0
19	19	97	92	66	100	121	62	347	600	15	219	2.0
20	18	95	88	68	106	108	62	396	558	14	201	1.4
21	18	96	78	70	111	117	60	544	512	11	194	1.0
22	18	96	73	72	120	114	58	670	475	10	184	1.0
23	19	99	73	74	120	111	57	1,080	496	13	141	1.0
24	18	93	75	76	123	111	50	953	420	10	113	1.0
25	11	87	77	80	126	120	44	619	337	16	76	.80
26	13	79	79	76	126	123	33	452	293	59	58	.80
27	16	82	75	82	129	123	26	470	293	147	47	.60
28	20	79	78	82	123	129	30	546	267	390	38	.60
29	21	82	83	84	135	136	34	736	259	430	32	.80
30	22	75	80	92	- - - -	100	35	809	232	411	30	1.2
31	29	- - - -	75	94	- - - -	80	- - - -	720	- - - -	396	33	- - - -
Total	511	3,233	2,337	2,294	3,054	3,886	1,998	12,289	12,888	2,796.0	10,794	122.40
Mean	16.5	108	75.4	74.0	105	125	66.6	396	430	90.2	348	4.08
Max	29	365	92	94	135	151	124	1,080	680	430	748	27
Min	11	44	62	54	91	80	26	35	219	4.0	30	0.60
Ac-ft	1,010	6,410	4,640	4,550	6,060	7,710	3,960	24,370	25,560	5,550	21,410	243

Cal yr 1967: Total 29,525.8 Mean 80.9 Max 767 Min 2.0 Ac-ft 58,560
Wtr yr 1968: Total 56,202.40 Mean 154 Max 1,080 Min 0.60 Ac-ft 111,500

Note.--No gage-height record on secondary channel Jan. 7 to Mar. 1.

8-2494. Culebra Creek near Chama, Colo.

Location.--Lat 37°10'53", long 105°19'14", in Sangre de Cristo Grant, on right bank 50 ft downstream from bridge, 0.4 mile downstream from El Poso Creek, and 3.3 miles northeast of Chama, Costilla County.

Drainage area.--73.1 sq mi.

Records available.--January 1967 to September 1968.

Gage.--Digital water-stage recorder. Datum of gage is 8,485.59 ft above mean sea level, datum of 1929. Apr. 3 to May 17, 1967, staff gage at site 50 ft upstream at datum 2.00 ft higher.

Extremes.--1967: Maximum discharge during water year, 240 cfs Aug. 6 (gage height, 3.71 ft); minimum daily during period January to September, 6.2 cfs Apr. 3.

1967-68: Maximum discharge during water year, 327 cfs June 5 (gage height, 4.16 ft), from rating curve extended above 200 cfs on basis of slope-area measurement of peak flow; minimum daily, 7.0 cfs Dec. 22.

Flood of Aug. 2, 1966, reached a stage of 5.9 ft, from floodmarks (discharge not determined).

Remarks.--Records good. Diversions above station for irrigation of about 1,700 acres, most of which is above station. Records of chemical analyses and water temperatures for the water year 1968 are published in Part 2 of this report.

DISCHARGE, IN CFS, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1				9.0	11	9.5	8.0	23	37	38	29	112
2				9.5	10	10	6.5	26	40	37	43	100
3				9.5	10	10	6.2	9.0	61	35	38	97
4				10	10	10	8.4	21	68	32	42	90
5				10	10	10	7.9	14	73	32	41	81
6				11	10	9.0	11	12	87	30	64	77
7				10	10	9.5	12	12	87	29	47	71
8				9.5	9.5	10	14	18	73	29	55	67
9				9.0	9.5	10	13	23	65	27	111	64
10				9.5	10	10	11	30	61	29	131	62
11				10	9.5	10	13	23	58	35	139	60
12				11	9.5	10	12	21	52	38	126	55
13				11	9.5	10	10	28	45	32	114	50
14				11	10	10	11	26	43	37	106	48
15				11	10	9.5	12	21	43	50	98	45
16				11	9.5	9.5	12	23	47	65	98	43
17				10	9.5	10	17	28	73	82	95	45
18				10	9.5	11	15	30	71	86	89	43
19				10	9.5	10	14	29	68	80	85	50
20				10	10	9.5	12	30	68	67	82	44
21				11	9.0	9.5	12	35	68	65	74	40
22				11	9.0	9.5	11	33	61	58	65	38
23				11	9.5	9.5	14	40	58	51	60	37
24				11	9.5	10	13	40	52	46	57	36
25				10	9.5	10	14	45	45	44	52	39
26				10	10	10	9.8	56	45	42	49	42
27				11	9.0	11	14	47	45	39	49	41
28				11	9.0	11	17	50	45	36	46	37
29				11	-----	11	18	45	43	34	46	35
30				11	-----	10	17	43	40	32	76	34
31		-----		12	-----	10	-----	38	-----	30	113	-----
TOTAL				322.0	271.0	309.0	365.8	919.0	1,722	1,367	2,320	1,683
MEAN				10.4	9.68	9.97	12.2	29.6	57.4	44.1	74.8	56.1
MAX				12	11	11	18	56	87	86	139	112
MIN				9.0	9.0	9.0	6.2	9.0	37	27	29	34
AC-FT				639	538	613	726	1,820	3,420	2,710	4,600	3,340

Cal yr : Total Mean Max Min Ac-ft
Wtr yr : Total Mean Max Min Ac-ft

Peak discharge (base, 150 cfs)

Note.--No gage-height record Jan. 1 to Apr. 2.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
8-6	1345	3.71	240	8-31	2330	3.36	146
8-10	0115	3.41	160				

8-2494. Culebra Creek near Chama, Colo.--Continued.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	22	10	14	12	12	20	22	299	65	114	42
2	33	20	10	13	11	12	18	28	274	61	97	40
3	32	19	12	10	12	12	17	37	257	59	92	41
4	32	21	9.8	11	11	12	16	36	290	59	89	40
5	32	20	9.7	14	12	13	17	43	307	57	80	33
6	32	19	9.2	14	12	12	17	43	197	57	75	30
7	32	19	10	13	13	12	16	37	160	57	72	31
8	28	20	8.7	14	13	13	17	33	146	57	71	29
9	28	20	10	15	13	13	17	36	138	52	79	29
10	28	19	12	15	13	13	17	48	135	48	106	28
11	28	19	12	15	12	12	19	42	132	48	117	29
12	28	18	12	15	12	11	21	39	132	46	121	28
13	28	18	12	14	12	9.0	21	46	138	45	116	29
14	29	18	13	14	12	10	21	38	154	46	112	28
15	30	17	12	14	13	10	23	38	154	43	102	27
16	29	18	10	12	13	10	23	40	151	40	89	29
17	28	18	9.5	12	12	11	22	41	151	34	80	31
18	27	17	9.0	11	11	12	24	45	143	37	72	30
19	27	17	10	11	12	13	25	52	138	60	63	29
20	26	17	9.4	11	12	11	26	58	141	55	61	26
21	24	17	8.0	11	12	10	25	68	135	45	59	24
22	24	16	7.0	11	12	10	23	107	132	40	57	23
23	23	15	8.0	11	12	10	22	117	130	38	54	24
24	23	12	9.0	11	12	11	21	103	124	45	47	23
25	22	15	10	10	12	13	21	87	119	50	47	23
26	22	16	10	10	12	14	19	100	108	53	45	23
27	20	14	9.5	10	12	14	17	113	100	59	47	22
28	20	12	9.5	10	11	15	16	146	91	53	50	21
29	19	12	13	10	12	18	15	235	83	46	43	21
30	20	11	13	12	-----	20	17	279	73	59	43	24
31	23	-----	13	12	-----	20	-----	290	-----	69	45	-----
TOTAL	831	516	320.3	380	350	388.0	593	2,447	4,732	1,583	2,345	857
MEAN	26.8	17.2	10.3	12.3	12.1	12.5	19.8	78.9	158	51.1	75.6	28.6
MAX	34	22	13	15	13	20	26	290	307	69	121	42
MIN	19	11	7.0	10	11	9.0	15	22	73	34	43	21
AC-FT	1,650	1,020	635	754	694	770	1,180	4,850	9,390	3,140	4,650	1,700
Cal yr 1967: Total	10,946.1		Mean	30.0	Max	139	Min	6.2	Ac-ft	21,710		
Wtr yr 1968: Total	17,710.3		Mean	48.4	Max	687	Min	7.0	Ac-ft	35,130		

Peak discharge (base, 150 cfs).--June 5 (1930) 327 cfs (4.16 ft).

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 1968. 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.--41 years, 48.9 cfs (35,400 acre-ft per year).

Extremes.--Maximum discharge during year, 274 cfs July 25 (gage height, 2.90 ft); minimum daily, 10 cfs Dec. 13, 20, Apr. 15. 1927-68: 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 fair. 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	24	16	15	23	22	12	14	124	112	38	51
2	16	24	16	17	20	22	12	14	121	108	30	48
3	16	19	14	17	20	21	12	14	116	107	28	47
4	16	14	14	16	20	19	12	14	114	105	25	48
5	16	13	14	16	18	19	12	14	139	104	24	48
6	15	13	14	16	18	18	12	13	179	94	35	18
7	15	12	14	17	16	17	12	13	160	85	35	16
8	15	12	14	18	15	16	12	13	146	87	27	14
9	15	14	12	19	16	16	11	14	111	92	41	14
10	14	14	12	18	16	14	12	28	128	107	57	16
11	14	14	14	18	16	13	11	21	111	104	74	16
12	14	15	14	15	18	14	11	18	115	122	71	18
13	18	16	10	15	19	13	11	16	126	124	46	37
14	15	15	14	17	19	12	11	14	137	128	30	38
15	14	20	14	19	18	12	10	13	157	139	28	37
16	14	20	14	19	18	12	12	12	159	125	26	37
17	13	19	11	20	19	12	12	13	166	107	25	38
18	12	18	12	21	22	12	12	14	154	107	25	39
19	19	18	12	20	22	12	13	15	124	105	40	38
20	23	18	10	22	23	12	13	17	126	103	37	40
21	22	18	12	23	26	12	12	31	130	100	36	43
22	18	18	13	23	26	14	14	58	122	100	36	34
23	14	18	13	22	24	14	14	46	95	103	38	25
24	16	18	13	23	25	15	14	35	107	107	36	24
25	19	17	14	24	25	14	14	30	136	117	38	19
26	20	16	14	23	25	14	14	38	143	90	51	19
27	19	16	14	24	25	14	15	112	146	31	61	19
28	19	17	14	24	25	13	16	94	149	29	64	19
29	20	17	15	24	23	13	15	84	130	30	55	19
30	20	16	16	22	-----	12	14	73	118	27	55	22
31	25	-----	15	23	-----	12	-----	95	-----	35	54	-----
Total	522	503	418	610	600	455	377	1,000	3,989	2,934	1,266	901
Mean	16.8	16.8	13.5	19.7	20.7	14.7	12.6	32.3	133	94.6	40.8	30.0
Max	25	24	16	24	26	22	16	112	179	139	74	51
Min	12	12	10	15	15	12	10	12	95	27	24	14
Ac-ft	1,040	998	829	1,210	1,190	902	748	1,980	7,910	5,820	2,510	1,790
Cal yr 1967: Total	10,496		Mean 28.8	Max 125	Min 10	Ac-ft 20,820						
Wtr yr 1968: Total	13,575		Mean 37.1	Max 179	Min 10	Ac-ft 26,930						

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 1968. 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.--69 years, 606 cfs (438,700 acre-ft per year).

Extremes.--Maximum discharge during year, 2,470 cfs June 1 (gage height, 3.93 ft); minimum daily, 44 cfs Oct. 14.

1899-1968: 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 1968 are published in Part 2 of this report as "above Culebra Creek, near Lobatos."

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	76	184	290	240	270	440	538	112	2,400	1,060	699	212
2	67	206	280	260	270	460	594	122	2,280	925	952	181
3	65	325	250	250	280	470	622	164	2,020	898	1,170	167
4	62	744	240	240	270	480	608	181	2,010	664	1,200	164
5	76	460	260	230	270	490	544	174	2,020	484	1,080	160
6	76	430	290	220	260	510	430	220	1,900	335	880	170
7	71	405	270	220	250	508	370	306	2,000	274	760	178
8	78	405	260	220	250	550	340	335	1,900	230	706	160
9	73	390	240	220	250	594	325	315	1,470	206	800	142
10	69	385	250	220	250	601	294	350	1,150	178	657	133
11	76	385	260	220	260	574	278	478	848	157	728	130
12	55	385	260	220	260	601	270	490	706	128	907	120
13	46	390	250	220	270	526	266	440	664	118	1,080	110
14	44	385	160	230	270	550	250	420	622	120	1,260	102
15	53	380	250	240	270	562	226	370	587	130	1,250	98
16	51	375	260	240	270	526	226	310	685	167	1,380	92
17	53	375	250	230	270	520	238	355	768	178	1,220	85
18	55	380	240	220	270	508	220	496	864	181	988	85
19	60	375	230	230	280	496	181	608	1,300	195	736	78
20	65	375	230	240	280	478	160	706	1,610	178	574	73
21	60	370	230	250	280	460	157	848	1,810	164	490	67
22	58	360	230	260	290	478	160	979	1,880	164	472	67
23	55	360	230	270	300	466	151	1,340	1,910	151	420	69
24	56	360	230	270	310	460	151	1,690	1,800	154	340	69
25	56	360	240	270	320	460	136	1,840	1,680	164	278	67
26	58	335	250	270	340	484	125	1,700	1,550	212	246	53
27	71	320	250	270	370	496	108	1,680	1,320	405	220	50
28	98	320	260	280	400	496	105	1,690	1,110	478	212	51
29	115	310	260	280	410	508	115	1,860	1,020	824	216	48
30	128	290	260	280	- - - -	514	115	2,240	1,050	824	216	53
31	142	- - - -	260	260	- - - -	514	- - - -	2,390	- - - -	768	234	- - - -
Total	2,168	11,124	7,720	7,570	8,340	15,780	8,303	25,209	42,934	11,114	22,371	3,234
Mean	69.9	371	249	244	288	509	277	813	1,431	359	722	108
Max	142	744	290	280	410	601	622	2,390	2,400	1,060	1,380	212
Min	44	184	160	220	250	440	105	112	587	118	212	48
Ac-ft	4,300	22,060	15,310	15,010	16,540	31,300	16,470	50,000	85,160	22,040	44,370	6,410
Cal. yr 1967: Total	80,888		Mean 222	Max 1,060	Min 37	Ac-ft 160,400						
Wtr. yr 1968: Total	165,867		Mean 453	Max 2,400	Min 44	Ac-ft 329,000						

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 5¼ miles west of Jaroso.

Records available.--October 1953 to September 1968.

Gage.--Water-stage recorder. Altitude of gage is 7,390 ft (from topographic map).

Average discharge.--15 years, 286 cfs (207,100 acre-ft per year).

Extremes.--Maximum discharge during year, 2,340 cfs June 1 (gage height, 5.56 ft); minimum daily, 44 cfs Oct. 14.

1953-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	72	169	317	240	270	440	559	118	2270	1050	666	222
2	68	207	274	260	270	460	611	120	2110	930	875	192
3	63	192	261	250	280	470	644	160	1890	910	1050	169
4	63	615	302	240	270	480	635	195	1800	670	1100	172
5	66	473	289	230	270	490	583	186	1870	490	1010	163
6	72	431	352	220	260	510	476	210	1740	340	865	172
7	68	411	298	220	250	510	408	305	1810	280	770	189
8	74	408	255	220	250	650	378	352	1820	235	698	180
9	72	398	261	220	250	600	365	343	1420	210	790	166
10	68	391	258	220	250	610	333	362	1130	180	712	155
11	74	391	264	220	260	580	302	473	865	165	716	155
12	63	391	314	220	260	600	292	527	734	130	890	146
13	52	394	298	220	270	555	280	470	689	120	1020	143
14	44	391	138	230	270	547	258	448	671	120	1170	132
15	50	391	274	240	270	571	240	418	615	130	1180	130
16	52	388	260	240	270	539	228	352	689	160	1270	130
17	55	385	250	230	270	531	243	372	748	170	1140	120
18	55	385	240	230	270	519	237	504	835	175	940	118
19	59	385	230	230	280	515	192	635	1000	195	716	110
20	64	378	230	240	280	501	198	712	1480	186	567	106
21	63	375	230	250	280	490	160	830	1680	172	494	92
22	59	368	230	260	290	501	169	920	1790	175	470	88
23	57	362	230	270	300	494	157	1,230	1830	155	438	90
24	59	368	230	270	310	487	157	1,600	1750	166	362	86
25	61	362	240	270	320	487	141	1,780	1,640	169	305	84
26	59	349	250	270	350	501	128	1,640	1,550	213	261	68
27	68	330	250	270	370	515	115	1,630	1,330	381	234	59
28	80	324	260	280	400	519	108	1,630	1,120	438	222	59
29	112	311	260	280	420	527	120	1,750	1,030	743	222	54
30	110	305	260	270	- - - -	539	120	2,080	1,040	756	228	55
31	135	- - - -	260	260	- - - -	539	- - - -	2,230	- - - -	748	240	- - - -
Total	2,117	11,028	8,065	7,570	3,360	16,277	8,837	24,582	40,946	10,962	21,581	3,805
Mean	68.3	368	260	244	288	525	295	793	1,365	354	696	127
Max	135	615	352	280	420	650	644	2,230	2,270	1,050	1,270	222
Min	44	169	138	220	250	440	108	118	615	120	222	54
Ac-ft	4,200	21,870	16,000	15,010	16,580	32,280	17,530	48,760	81,220	21,740	42,810	7,550

Cal yr 1967 : Total 79,790 Mean 219 Max 905 Min 33 Ac-ft 158,300
 Wtr yr 1968 : Total 164,130 Mean 448 Max 2,270 Min 44 Ac-ft 325,500

Note.--No gage-height record Feb. 2 to Mar. 13.

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.

Extremes.--Maximum discharge during year, 677 cfs June 7 (gage height, 6.57 ft); minimum daily, 6.6 cfs Feb. 2. 1953-68: 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).

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	23	12	8.0	7.2	7.6	12	32	336	204	70	17
2	40	22	11	8.2	6.6	7.4	11	57	393	186	59	19
3	38	21	10	8.2	7.0	7.6	11	75	483	166	57	23
4	40	20	10	7.8	7.6	8.0	12	97	511	156	53	25
5	53	20	11	7.2	8.0	8.2	12	107	570	156	49	22
6	47	20	11	7.4	8.0	8.4	12	96	612	144	48	20
7	45	20	10	7.4	8.4	8.6	12	78	620	129	44	17
8	41	19	10	7.4	8.6	8.8	12	70	584	135	45	16
9	39	16	10	7.2	8.8	8.6	11	73	508	140	49	16
10	38	16	10	6.8	8.6	8.4	12	74	441	140	52	17
11	36	16	10	7.0	8.8	8.0	12	75	342	142	45	18
12	33	16	10	7.4	8.4	7.6	13	87	333	142	38	18
13	31	16	10	7.5	8.4	7.8	13	84	414	124	35	19
14	31	16	10	7.5	8.2	8.0	13	80	490	115	38	20
15	31	16	11	7.4	8.4	8.0	13	78	469	113	40	28
16	27	16	11	7.4	8.6	8.0	13	63	490	110	32	36
17	28	16	10	7.2	8.8	8.0	12	56	483	99	26	36
18	28	16	10	7.0	8.8	8.0	12	54	490	90	24	37
19	26	16	10	7.2	8.8	8.0	12	54	494	83	21	40
20	24	15	10	7.4	8.8	8.0	13	60	536	76	19	36
21	24	14	9.6	7.4	8.6	8.0	13	95	560	74	17	33
22	23	14	8.6	7.4	8.6	8.4	12	142	536	71	17	32
23	23	14	9.0	7.2	8.4	9.0	12	144	500	71	19	30
24	22	14	9.2	7.2	8.0	9.4	11	120	441	73	19	30
25	24	14	9.0	7.4	8.0	9.6	10	105	342	70	17	28
26	24	13	9.0	7.4	7.6	9.8	10	96	278	66	17	27
27	21	12	8.0	7.4	7.4	9.6	9.8	96	282	65	25	24
28	24	12	8.4	7.4	7.6	9.8	12	111	300	64	28	24
29	24	13	8.4	7.4	7.8	10	13	170	282	54	24	25
30	21	13	8.6	7.2	- - - -	10	22	221	241	73	20	24
31	22	- - - -	7.8	7.2	- - - -	11	- - - -	280	- - - -	83	17	- - - -
Total	970	489	302.6	229.2	236.8	265.6	367.8	3,030	13,361	3,414	1,064	757
Mean	31.3	16.3	9.76	7.39	8.17	8.57	12.3	97.7	445	110	34.3	25.2
Max	53	23	12	8.2	8.8	11	22	280	620	204	70	40
Min	21	12	7.8	6.8	6.6	7.4	9.8	32	241	54	17	16
Ac-ft	1,920	970	600	455	470	527	730	6,010	26,500	6,770	2,110	1,500
Cal yr 1967: Total	29,684.0		Mean	81.3	Max	640	Min	5.4	Ac-ft	58,880		
Wtr yr 1968: Total	24,487.0		Mean	66.9	Max	620	Min	6.6	Ac-ft	48,570		

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.--102 sq mi.

Records available.--July 1904 to September 1918, October 1933 to September 1968. 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.--49 years, 93.4 cfs (67,620 acre-ft per year).

Extremes.--Maximum discharge during year, 746 cfs June 6 (gage height, 5.88 ft); minimum daily, 5.0 cfs July 22.

1904-18, 1933-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55	35	24	20	16	15	21	65	420	151	68	31
2	52	37	21	20	15	15	22	93	476	130	15	32
3	49	36	21	19	16	15	21	120	566	114	70	37
4	47	35	22	18	16	16	21	143	625	103	70	47
5	70	35	22	18	16	17	21	163	667	89	63	46
6	63	35	22	18	16	18	23	161	709	71	60	41
7	62	35	21	18	16	18	23	131	709	56	56	37
8	56	34	20	18	16	18	21	115	681	45	56	34
9	52	30	20	19	16	17	20	120	604	52	60	33
10	50	29	20	21	16	17	20	122	530	56	79	31
11	49	25	20	20	16	17	23	114	460	51	71	29
12	46	27	21	18	16	15	24	142	400	58	60	29
13	42	27	20	22	16	16	24	142	480	45	55	30
14	41	28	20	20	16	16	25	125	510	41	59	31
15	42	29	19	20	16	16	27	133	485	36	74	34
16	39	29	19	19	16	16	28	106	500	37	60	44
17	38	29	19	18	16	16	28	91	505	30	50	47
18	38	29	19	18	16	18	27	89	515	27	47	48
19	37	26	19	18	16	17	29	84	530	20	44	55
20	35	25	19	18	16	17	28	100	536	6.2	41	50
21	35	25	18	17	16	16	28	126	597	5.3	38	45
22	34	25	20	17	16	17	26	193	548	5.0	37	43
23	33	25	19	17	16	19	24	208	500	5.3	36	40
24	34	25	19	17	16	19	25	179	448	5.6	37	39
25	36	22	19	17	16	19	25	159	388	6.8	34	36
26	39	22	18	17	15	19	24	151	278	6.2	32	35
27	36	24	17	17	15	20	23	143	242	6.2	36	34
28	36	24	18	17	16	20	26	157	245	7.7	47	33
29	37	24	18	17	16	20	35	205	230	5.6	44	33
30	35	24	18	15	15	20	47	254	193	5.6	36	33
31	35	---	18	16	---	20	---	339	---	7.4	32	---
Total	1,353	855	610	564	461	539	759	4,473	14,577	1,284.9	1,505.8	1,137
Mean	43.6	28.5	19.7	18.2	15.9	17.4	25.3	144	486	41.4	48.6	37.9
Max	70	37	24	22	16	20	47	339	709	151	79	55
Min	33	22	17	15	15	15	20	65	193	5.0	6.8	29
Ac-ft	2,680	1,700	1,210	1,120	914	1,070	1,510	8,870	28,910	2,550	2,990	2,260

Cal yr 1967: Total 32,963 Mean 90.3 Max 660 Min 10 Ac-ft 65,380
Wtr yr 1968: Total 28,118.7 Mean 76.8 Max 709 Min 5.0 Ac-ft 55,770

9-0130. Alva B. Adams tunnel at east portal, near Estes Park, Colo.

Location.--Lat 40°19'40", long 105°34'39", in SW¼ 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 1968 (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.--22 years, 249 cfs (180,300 acre-ft per year).

Extremes.--Maximum discharge during year, 583 cfs Dec. 18 (gage height, 4.24 ft); no flow at times.
1946-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	162	209	258	459	410	404	75	288	2.1	250	327	204
2	219	232	227	465	412	382	74	265	0	275	330	205
3	221	232	204	459	369	310	73	240	0	320	285	222
4	211	259	256	430	257	360	70	199	0	294	276	238
5	220	206	335	429	411	406	67	205	0	149	398	323
6	185	257	259	427	409	406	68	213	0	84	412	361
7	103	259	258	457	410	406	0	157	0	1.0	435	308
8	103	257	260	455	386	404	68	219	0	143	404	326
9	223	257	260	459	404	406	51	221	0	453	285	349
10	218	259	258	458	339	404	67	215	0	314	64	306
11	220	210	272	459	252	406	71	228	0	205	1.0	326
12	275	207	260	426	412	404	71	213	0	290	314	275
13	276	264	258	458	413	402	391	231	0	192	206	252
14	398	250	274	412	388	358	359	222	0	226	221	156
15	438	226	455	440	371	362	408	179	0	380	206	150
16	423	274	458	456	373	359	408	295	0	253	224	152
17	438	267	455	457	356	360	408	230	0	254	138	153
18	447	257	457	444	256	406	412	169	0	316	1.0	130
19	486	208	458	437	415	372	412	186	0	238	252	129
20	473	257	459	413	408	406	408	186	0	211	242	124
21	478	274	462	412	406	408	360	155	0	189	245	129
22	333	262	447	400	410	408	410	169	0	205	273	132
23	337	209	415	460	412	288	365	213	0	358	267	127
24	252	202	405	441	373	311	307	157	0	393	206	321
25	283	256	358	443	408	406	258	155	153	411	214	326
26	252	154	459	459	406	404	255	152	201	383	246	421
27	231	250	459	420	406	332	256	151	204	430	232	412
28	236	255	443	298	406	325	238	139	278	391	194	410
29	228	259	458	455	406	204	253	124	6.9	412	203	307
30	259	268	400	378	-----	0	282	1.7	0	348	203	297
31	262	-----	459	413	-----	0	-----	116	-----	372	207	-----
Total	8,890	7,236	11,146	13,479	11,084	10,809	6,945	5,893.7	845.0	8,740.0	7,511.0	7,571
Mean	287	241	360	435	382	349	232	190	28.2	282	242	252
Max	486	274	462	465	415	408	412	295	278	453	435	421
Min	103	154	204	298	252	0	0	1.7	0	1.0	1.0	124
Ac-ft	17,630	14,350	22,110	26,740	21,980	21,440	13,780	11,690	1,680	17,340	14,900	15,020

Cal yr 1967: Total 117,300.7 Mean 321 Max 564 Min 0 Ac-ft 232,700
Wtr yr 1968: Total 100,149.7 Mean 274 Max 486 Min 0 Ac-ft 198,600

COLORADO RIVER MAIN STEM

9-0145. Shadow Mountain Lake near Grand Lake, Colo.

Location.--Lat 40°12'30", long 105°50'20", in SW¼ 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 ¾ miles south of town of Grand Lake.

Drainage area.--185 sq mi.

Records available.--April 1947 to September 1968. 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, 17,590 acre-ft Aug. 11 (elevation, 8,366.85 ft); minimum, 16,360 acre-ft June 9 (elevation 8,366.18 ft).

1947-68: 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 from 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 1967 to September 1968

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	8,366.62	17,160	-
Oct. 31.....	8,366.66	17,240	+80
Nov. 30.....	8,366.58	17,090	-150
Dec. 31.....	8,366.61	17,140	+50
Calendar year 1967.....	-	-	+10
Jan. 31.....	8,366.62	17,160	+20
Feb. 29.....	8,366.57	17,070	-90
Mar. 31.....	8,366.57	17,070	0
Apr. 30.....	8,366.63	17,180	+110
May 31.....	8,366.47	16,890	-290
June 30.....	8,366.66	17,240	+350
July 31.....	8,366.70	17,310	+70
Aug. 31.....	8,366.52	16,980	-330
Sept. 30.....	8,366.57	17,070	+90
Water year 1968.....	-	-	-90

† 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.--46.9 sq mi.

Records available.--October 1944 to September 1968.

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.--24 years, 81.4 cfs (58,930 acre-ft per year).

Extremes.--Maximum discharge during year, 660 cfs June 21 (gage height, 3.71 ft); minimum daily, 5.2 cfs Jan. 23.

1944-68: Maximum discharge, 1,300 cfs June 11, 1952 (gage height, 4.71 ft); minimum daily, 0.20 cfs Nov. 5, 1956 (spillway at Monarch Lake blocked for construction).

Remarks.--Records good except those for winter period, which are poor. Natural flow regulated by Monarch Lake. No diversion above station.

DISCHARGE, IN CFS, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	15	11	7.2	6.2	5.6	9.0	28	372	243	76	24
2	27	16	11	7.2	5.6	5.6	9.0	44	435	205	71	22
3	25	15	11	6.2	5.7	5.6	9.0	55	574	211	67	26
4	24	15	10	6.0	6.0	5.8	9.2	72	559	215	64	32
5	29	14	10	5.8	6.0	6.2	10	87	532	225	61	32
6	33	13	9.2	5.8	6.0	6.6	10	92	545	229	68	34
7	35	12	9.1	5.8	6.0	6.8	12	80	560	218	74	34
8	34	12	9.6	5.8	5.8	6.8	12	65	516	206	74	32
9	32	12	9.6	5.8	6.0	6.6	12	55	495	199	81	32
10	30	13	9.2	5.8	6.0	6.4	11	52	370	196	118	28
11	29	12	9.0	5.7	6.2	6.2	14	50	296	202	116	28
12	27	12	9.0	5.6	6.2	6.0	15	55	311	193	107	26
13	24	12	9.0	5.4	6.2	6.0	15	64	471	177	89	26
14	23	12	8.4	5.7	6.4	6.0	15	61	530	169	78	26
15	23	12	8.0	5.5	6.4	6.2	16	59	443	156	97	26
16	22	13	8.0	6.0	6.4	6.0	16	55	463	143	64	30
17	21	13	8.0	6.0	6.4	6.0	17	50	496	141	50	31
18	21	12	8.0	6.2	6.4	6.4	18	45	498	136	45	30
19	20	12	8.0	6.0	6.4	6.4	20	42	495	133	42	28
20	19	12	8.0	5.5	6.5	6.4	20	43	502	123	36	25
21	19	14	7.4	5.5	6.2	6.6	19	47	601	115	35	23
22	18	14	7.6	5.4	6.0	6.6	18	80	578	109	34	22
23	16	14	7.8	5.2	6.0	6.4	17	121	536	106	32	21
24	19	13	7.6	5.5	6.0	6.6	17	119	498	101	32	20
25	19	12	7.2	6.0	6.0	6.6	17	100	459	93	30	19
26	17	12	6.4	6.0	6.0	7.2	17	85	339	90	26	18
27	15	11	6.4	5.8	5.6	7.2	17	76	318	87	24	18
28	15	10	7.0	5.7	5.4	7.2	15	86	380	85	28	18
29	17	10	7.0	6.0	5.6	7.6	16	139	402	81	28	18
30	16	11	7.0	5.4	-----	8.2	19	201	347	76	26	18
31	15	-----	7.0	6.0	-----	8.6	-----	291	-----	76	24	-----
TOTAL	713	380	261.5	182.0	175.6	202.4	441.2	2,499	13,921	4,739	1,797	767
MEAN	23.0	12.7	8.44	5.87	6.06	6.53	14.7	80.6	464	153	58.0	25.6
MAX	35	16	11	7.2	6.5	8.6	20	291	601	243	118	34
MIN	15	10	6.4	5.2	5.4	5.6	9.0	28	296	76	24	18
AC-FT	1,410	754	519	361	348	401	875	4,960	27,610	9,400	3,560	1,520
CAL YR 1967	TOTAL 27,949.1		MEAN 76.6		MAX 523		MIN 1.3		AC-FT 55,440			
WTR YR 1968	TOTAL 26,078.7		MEAN 71.3		MAX 601		MIN 5.2		AC-FT 51,730			

Note.--No gage-height record Dec. 8 to Jan. 10, Aug. 5 to Sept. 10.

COLORADO RIVER MAIN STEM

9-0185. Lake Granby near Granby, Colo.

Location.--Lat 40°11'00", long 105°52'10", in NW¼ 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.--312 sq mi.

Records available.--October 1949 to September 1968. 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, 247,800 acre-ft July 17 (elevation, 8,246.32 ft); minimum, 91,300 acre-ft May 2 (elevation, 8,213.90 ft).

1949-68: 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 1967 to September 1968

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	8,238.13	203,200	-
Oct. 31.....	8,235.91	191,700	-11,500
Nov. 30.....	8,233.99	181,900	-9,800
Dec. 31.....	8,230.07	162,700	-19,200
Calendar year 1967.....	-	-	+22,200
Jan. 31.....	8,224.75	137,800	-24,900
Feb. 29.....	8,220.30	118,000	-19,800
Mar. 31.....	8,215.57	98,070	-19,930
Apr. 30.....	8,213.96	91,540	-6,530
May 31.....	8,219.13	113,000	+21,460
June 30.....	8,244.41	237,100	+124,100
July 31.....	8,245.45	242,900	+5,800
Aug. 31.....	8,244.51	237,700	-5,200
Sept. 30.....	8,242.41	226,100	-11,600
Water year 1968.....	-	-	+22,900

† 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.--312 sq mi.

Records available.--October 1950 to September 1968. 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, 105 cfs July 15 (gage height, 1.91 ft); minimum daily, 16 cfs Sept. 30.
1950-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	20	20	19	20	19	19	52	71	90	97	21
2	23	20	20	19	20	19	19	65	72	90	81	21
3	24	20	20	19	20	19	19	64	72	95	55	19
4	21	20	20	19	20	19	19	64	75	95	39	17
5	20	20	20	19	20	19	19	64	76	86	36	17
6	20	20	20	19	20	19	19	67	77	82	35	17
7	20	20	20	19	20	20	19	68	78	93	35	17
8	20	20	20	19	19	20	19	68	79	97	35	17
9	20	19	20	19	19	20	19	69	79	104	35	17
10	19	19	20	19	19	20	19	71	80	104	36	23
11	18	19	20	19	19	20	19	71	81	104	36	28
12	18	19	20	19	19	19	19	71	80	104	36	33
13	18	19	20	19	19	19	19	71	78	104	35	36
14	18	19	20	19	19	19	19	71	77	104	36	36
15	18	19	20	19	19	19	18	71	77	104	36	36
16	18	19	20	19	19	19	18	69	78	98	36	36
17	18	19	20	19	19	19	18	66	80	96	36	35
18	19	19	20	19	19	19	18	64	87	98	36	35
19	20	19	20	19	19	19	18	64	95	101	36	34
20	19	19	20	19	19	19	18	66	98	101	36	34
21	19	19	19	19	19	19	18	69	98	101	35	34
22	19	19	19	19	19	19	18	69	98	101	35	34
23	19	19	19	19	19	19	19	69	99	101	35	34
24	19	19	19	19	19	19	19	69	94	101	35	28
25	19	19	19	19	19	19	19	69	89	102	35	22
26	19	19	19	19	19	19	19	69	88	103	35	20
27	19	19	19	19	19	19	19	69	89	103	35	17
28	19	20	19	19	19	19	19	70	91	103	35	17
29	19	20	19	19	19	19	19	72	93	103	35	17
30	19	20	19	19	19	19	19	72	93	103	26	16
31	20	- - - -	19	20	- - - -	19	- - - -	72	- - - -	98	21	- - - -
Total	603	581	609	590	558	594	562	2,105	2,522	3,069	1,205	768
Mean	19.5	19.4	19.6	19.0	19.2	19.2	18.7	67.9	84.1	99.0	38.9	25.6
Max	24	20	20	20	20	20	19	72	99	104	97	36
Min	18	19	19	19	19	19	18	52	71	82	21	16
Ac-ft	1,200	1,150	1,210	1,170	1,110	1,180	1,110	4,180	5,000	6,090	2,390	1,520
Cal yr 1967 : Total	13,635		Mean	37.4	Max	100	Min	17	Ac-ft	27,050		
Wtr yr 1968 : Total	13,766		Mean	37.6	Max	104	Min	16	Ac-ft	27,310		

9-0195, Colorado River near Granby, Colo.

Location.--Lat 40°07'15", long 105°54'00", in SW¼NW¼ 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.--323 sq mi.

Records available.--October 1907 to September 1911 (published as Grand River near Granby), October 1933 to September 1953, May 1961 to September 1968 (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, 86 cfs July 12 (gage height, 1.07 ft); minimum daily, 14 cfs Sept. 7.

1907-11, 1933-53: 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).

1961-68: Maximum discharge observed for season, 1,420 cfs July 3, 1962 (gage height, 3.44 ft); minimum daily for season, 12 cfs Sept. 19, 20, 1964.

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 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								54	80	76	76	20
2								78	72	71	65	19
3								75	71	73	48	20
4								72	72	71	39	17
5								71	76	69	36	17
6								73	77	60	35	17
7								73	77	71	35	14
8								73	67	72	35	15
9								71	67	78	36	16
10								72	72	78	35	19
11								72	77	78	36	20
12								72	77	82	36	16
13								73	75	84	35	17
14								75	73	84	36	17
15								76	73	82	35	18
16								76	72	78	33	18
17								70	69	72	33	18
18								66	71	73	33	17
19								66	76	76	33	17
20								70	80	76	34	17
21								76	78	75	33	17
22								75	81	75	32	20
23								75	84	75	31	19
24								80	81	73	31	22
25								80	76	73	31	18
26								81	71	75	31	19
27								78	72	76	32	17
28								75	73	77	32	17
29								73	81	76	32	16
30								76	80	73	25	18
31		-----			-----		-----	77	-----	75	20	-----
Total								2,274	2,251	2,327	1,114	532
Mean								73.4	75.0	75.1	35.9	17.7
Max								81	84	84	76	22
Min								54	67	60	20	14
Ac-ft								4,510	4,460	4,620	2,210	1,060
Cal yr	: Total			Mean		Max		Min		Ac-ft		
Wtr yr	: Total			Mean		Max		Min		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 1968.

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, 8,510 acre-ft Oct. 10, 12 (elevation, 8,128.11 ft); minimum, 5,470 acre-ft Nov. 21 (elevation, 8,115.70 ft).

1953-68: 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 1967 to September 1968

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	8,127.00	8,190	-
Oct. 31.....	8,123.40	7,230	-960
Nov. 30.....	8,116.23	5,580	-1,650
Dec. 31.....	8,118.49	6,060	+480
Calendar year 1967.....	-	-	-350
Jan. 31.....	8,120.09	6,430	+370
Feb. 29.....	8,121.59	6,780	+350
Mar. 31.....	8,123.47	7,250	+470
Apr. 30.....	8,117.38	5,820	-1,430
May 31.....	8,120.34	6,480	+660
June 30.....	8,118.35	6,030	-450
July 31.....	8,118.50	6,060	+30
Aug. 31.....	8,123.72	7,310	+1,250
Sept. 30.....	8,127.35	8,290	+980
Water year 1968.....	-	-	+100

† Elevation at 2400.

WILLOW CREEK BASIN

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 1968.

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).--15 years, 24.7 cfs (17,880 acre-ft per year).

Extremes (combined flow).--Maximum discharge during year, 47 cfs June 11-19; minimum daily 0.10 cfs Oct. 1.

1953-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.10	7.4	7.8	7.2	7.0	6.6	6.6	3.0	43	45	40	0.76
2	4.0	7.4	7.8	7.2	7.0	6.6	6.6	.40	44	45	43	.76
3	7.4	7.4	7.8	7.2	7.0	6.6	6.6	.40	44	46	43	.76
4	7.4	7.4	7.8	7.2	7.0	6.6	6.6	.40	43	46	43	.76
5	7.4	7.4	7.8	7.2	6.8	6.6	6.6	.40	43	46	35	.76
6	7.4	7.4	7.8	7.0	6.8	6.6	6.6	.40	43	46	24	.60
7	7.4	7.4	7.8	7.0	6.7	6.6	6.6	.40	45	46	22	.44
8	7.4	7.4	7.8	7.0	6.7	6.6	6.6	.40	46	46	22	.44
9	7.4	7.4	7.8	7.0	6.7	6.6	6.6	.40	46	46	22	.44
10	7.4	7.4	7.8	7.0	6.7	6.6	6.6	.40	46	46	11	.44
11	7.4	7.4	7.8	7.0	6.7	6.6	6.6	.40	47	46	1.5	.44
12	7.4	7.4	7.8	7.0	6.7	6.6	6.6	.40	47	46	1.4	.44
13	7.4	7.4	7.8	7.0	6.7	6.6	6.6	.30	47	46	1.4	.44
14	7.4	7.4	7.8	7.0	6.7	6.6	6.6	.30	47	46	1.0	.40
15	7.4	7.4	7.8	7.0	6.7	6.6	6.6	.30	47	46	.76	.60
16	7.4	7.6	7.8	7.0	6.7	6.6	6.6	.30	47	46	.76	.40
17	7.4	7.6	7.8	7.0	6.7	6.6	6.6	.30	47	46	.76	.40
18	7.4	7.6	7.8	7.0	6.7	6.6	6.6	.30	47	42	.76	.40
19	7.4	7.6	7.8	7.0	6.7	6.6	6.6	.30	47	36	.76	.40
20	7.4	7.6	7.8	7.0	6.6	6.6	6.6	.40	46	33	.72	.40
21	7.4	7.6	7.6	7.0	6.6	6.6	6.6	.40	45	33	.72	.50
22	7.4	7.6	7.6	7.0	6.6	6.6	6.6	.30	44	40	.72	.50
23	7.4	7.6	7.6	7.0	6.6	6.6	6.6	.78	44	45	.72	.50
24	7.4	7.6	7.6	7.0	6.6	6.6	6.6	22	45	45	.72	.50
25	7.4	7.6	7.6	7.0	6.6	6.6	6.6	22	45	45	.72	.50
26	7.4	7.8	7.4	7.0	6.6	6.6	6.6	22	45	40	.72	.50
27	7.4	7.8	7.4	7.0	6.6	6.6	6.6	22	45	37	.76	.50
28	7.4	7.8	7.4	7.0	6.6	6.6	6.6	32	45	37	.76	.50
29	7.4	7.8	7.4	7.0	6.6	6.6	6.6	38	45	37	.76	.50
30	7.4	7.8	7.4	7.0	-----	6.6	6.6	38	45	37	.76	.50
31	7.4	-----	7.4	7.0	-----	6.6	-----	41	-----	37	.76	-----
Total	218.70	226.0	238.4	218.0	194.7	204.6	198.0	255.40	1,360	1,324	322.94	15.48
Mean	7.06	7.53	7.69	7.03	6.71	6.60	6.60	8.24	45.3	42.7	10.4	0.52
Max	7.4	7.8	7.8	7.2	7.0	6.6	6.6	41	47	46	43	0.76
Min	0.10	7.4	7.4	7.0	6.6	6.6	6.6	0.30	43	33	0.72	0.40
Ac-ft†	434	448	473	432	386	406	393	507	2,700	2,630	640	31
(†)	1,760	2,130	0	0	0	0	2,860	11,080	18,630	1,220	0	0
Cal Yr 1967:	4,732.80	Mean	13.0	Max	213	Min	0.10	Ac-ft	9,390			
Wcr Yr 1968:	4,776.22	Mean	13.0	Max	47	Min	0.10	Ac-ft	9,470			

† Diversions, in acre-feet, by Willow Creek Pump Canal, furnished by Bureau of Reclamation.

Note.--No gage-height record Oct. 11 to May 9.

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 1968. 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.--58 years, 40.0 cfs (28,960 acre-ft per year) including diversions to Berthoud Pass ditch and Moffat water tunnel.

Extremes.--Maximum discharge during year, 97 cfs June 20 (gage height, 1.11 ft); minimum daily, 2.2 cfs Sept. 26. 1910-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.8	6.1	5.5	5.0	4.3	4.5	7.9	11	17	14	8.3	3.1
2	2.8	6.0	6.1	5.8	4.0	4.6	7.5	12	18	13	8.3	3.1
3	4.1	6.0	5.6	5.8	4.5	4.8	7.5	13	20	12	8.7	6.4
4	18	6.4	5.3	5.8	4.5	5.0	7.4	13	22	11	8.3	6.7
5	16	6.0	5.5	6.0	5.0	5.0	7.2	12	39	12	8.3	4.3
6	4.1	6.0	5.3	6.4	5.0	5.0	7.1	13	60	10	8.3	3.9
7	3.7	6.0	5.8	6.7	5.0	5.0	7.1	12	58	8.7	9.1	3.1
8	5.2	6.0	5.5	6.7	5.0	5.0	7.3	9.7	37	8.3	8.3	3.1
9	13	7.1	5.3	6.4	5.0	4.5	7.5	10	20	8.3	8.7	6.1
10	13	5.8	5.5	6.1	5.0	4.5	8.0	10	18	7.9	8.7	3.4
11	11	5.8	5.3	5.5	5.0	4.5	8.7	9.2	18	8.7	8.3	3.2
12	6.1	5.5	5.3	5.8	4.3	4.6	9.2	10	18	7.9	8.7	3.4
13	5.8	5.8	5.3	6.4	5.0	4.8	8.7	10	37	7.1	8.3	3.4
14	5.8	5.5	5.5	6.1	5.0	5.0	8.4	9.7	43	6.7	9.7	3.4
15	5.5	5.8	5.5	5.8	4.5	5.0	8.3	10	24	6.4	8.4	3.7
16	5.3	5.3	5.5	5.8	4.5	5.0	8.3	9.2	49	6.4	7.1	4.3
17	5.3	5.3	5.3	5.8	4.5	5.0	8.7	8.3	43	6.7	6.7	3.4
18	7.1	6.1	5.5	5.8	4.8	5.0	9.7	8.3	40	12	6.1	3.4
19	5.5	6.7	5.5	5.8	4.8	5.0	8.7	8.3	53	11	6.1	2.9
20	5.5	5.3	5.5	5.5	4.8	5.0	7.9	10	45	11	6.1	2.4
21	6.1	5.3	5.0	5.5	4.8	5.0	7.9	12	73	12	6.1	2.3
22	6.1	5.0	5.5	5.5	4.8	5.0	7.1	13	38	13	5.8	2.4
23	6.1	5.0	5.3	5.5	4.8	5.0	7.2	12	33	12	5.8	2.4
24	6.7	5.0	5.3	5.3	4.8	5.0	7.3	12	20	12	5.5	2.3
25	6.1	5.0	5.3	5.3	5.0	5.0	7.5	12	17	12	5.5	2.3
26	6.1	4.8	5.3	5.3	5.0	5.5	6.7	12	15	12	5.5	2.2
27	5.8	4.5	5.8	5.0	4.5	5.8	6.7	12	15	12	6.4	2.3
28	6.4	4.5	5.5	5.0	4.5	6.0	7.5	13	15	12	5.0	2.3
29	6.7	4.5	5.5	5.0	4.5	7.5	7.9	13	15	12	3.9	2.4
30	6.4	4.5	5.3	5.0	- - - -	7.5	9.7	13	13	11	3.4	2.3
31	6.1	- - - -	5.0	4.5	- - - -	7.9	- - - -	17	- - - -	9.7	3.2	- - - -
Total	214.2	166.6	168.4	175.9	137.2	162.0	236.6	349.7	933	318.8	216.6	99.9
Mean	6.91	5.55	5.43	5.67	4.73	5.23	7.89	11.3	31.1	10.3	6.99	3.33
Max	18	7.1	6.1	6.7	5.0	7.9	9.7	17	73	14	9.7	6.7
Min	2.8	4.5	5.0	4.5	4.0	4.5	6.7	8.3	13	6.4	3.2	2.2
Ac-ft	425	330	334	349	272	321	469	694	1,850	632	430	198

Adjusted for diversions to Berthoud Pass ditch and Moffat water tunnel

	Mean	15.6	14.0	9.31	8.41	7.06	7.67	11.2	27.3	180	72.9	31.5	20.2
Ac-ft	956	832	573	517	406	471	666	1,680	10,680	4,480	1,940	1,210	
Observed													
Cal yr 1967: Total	4,716.5	Mean	12.9	Max	132	Min	2.8	Ac-ft	9,360	Mean	33.5	Ac-ft	24,300
Wtr yr 1968: Total	3,178.9	Mean	8.69	Max	73	Min	2.2	Ac-ft	6,310	Mean	33.7	Ac-ft	24,410

FRASER RIVER BASIN

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 1968. 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, 85 cfs June 21 (gage height, 2.37 ft); minimum daily, 0.64 cfs July 17. 1933-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.8	3.5	1.6	1.8	1.8	1.8	2.4	4.3	15	0.87	1.0	3.1
2	1.8	3.1	2.1	2.0	1.8	1.8	2.3	5.2	15	.79	.87	3.1
3	4.3	3.8	2.1	1.8	2.0	1.8	2.1	6.3	14	.71	1.0	4.0
4	15	3.8	2.1	1.6	2.0	1.8	2.0	7.5	13	.87	.87	4.0
5	17	3.0	2.0	1.6	2.0	2.0	2.1	7.1	17	1.1	1.0	3.8
6	5.2	2.5	2.0	1.6	2.0	2.0	2.1	7.1	26	1.3	1.3	4.3
7	4.6	2.1	2.0	1.6	2.0	2.0	2.1	6.6	19	1.2	2.3	3.8
8	7.3	2.0	2.1	1.6	2.0	2.0	2.2	5.2	13	2.9	1.8	3.3
9	15	2.0	2.0	1.6	2.0	2.0	2.2	5.6	11	2.6	2.0	3.3
10	15	2.0	2.0	1.8	1.8	2.0	2.3	5.2	8.0	2.5	2.1	3.1
11	13	2.1	2.0	1.8	1.4	1.9	2.5	5.6	6.6	2.6	2.0	3.1
12	3.3	2.9	2.0	1.8	2.0	1.8	2.6	5.9	8.1	1.5	2.6	3.1
13	2.9	2.6	1.8	1.8	1.8	1.8	2.5	5.6	18	.87	3.1	3.1
14	2.9	2.4	1.8	1.8	1.5	1.8	2.5	5.2	18	.79	3.5	3.1
15	2.9	2.6	1.8	1.8	1.8	1.8	2.9	5.9	14	.71	3.3	3.3
16	2.6	2.6	2.0	1.8	1.8	1.8	2.6	4.9	25	.71	3.3	3.5
17	2.6	2.6	2.0	1.8	1.6	1.9	2.5	4.6	24	.64	3.1	3.5
18	8.1	2.6	2.0	1.8	2.0	2.0	2.9	4.6	33	.87	3.1	3.5
19	3.1	2.3	1.8	1.8	2.0	2.0	2.6	4.9	4.0	1.3	3.1	7.9
20	2.6	2.3	1.8	1.8	2.0	2.0	2.6	5.9	6.9	1.0	3.1	6.7
21	2.6	2.2	1.8	1.8	2.0	2.0	2.6	7.5	26	1.0	2.9	3.5
22	2.5	2.0	1.8	1.8	2.0	2.0	2.5	11	44	1.0	2.9	3.3
23	2.3	1.8	1.8	1.8	2.0	2.0	2.3	12	21	1.1	2.9	7.9
24	2.9	1.9	1.8	1.8	2.0	2.0	2.6	11	6.8	1.1	2.9	16
25	2.9	2.1	1.8	1.8	1.6	2.0	2.6	11	5.6	1.0	2.9	16
26	2.6	2.0	1.8	1.8	1.6	2.1	2.5	11	2.3	1.0	2.9	15
27	2.5	2.0	1.8	1.8	1.8	2.2	2.5	12	2.2	1.0	3.1	15
28	3.3	1.8	1.8	1.8	1.8	2.3	2.5	14	4.2	1.0	3.3	15
29	2.9	1.4	1.6	1.8	1.6	2.4	3.1	15	2.3	1.1	3.1	16
30	2.9	1.4	1.5	1.8	- - - - -	2.4	3.5	15	1.0	1.0	3.1	15
31	3.3	- - - - -	1.6	1.8	- - - - -	2.4	- - - - -	16	- - - - -	1.1	3.1	- - - - -
Total	161.7	71.4	58.1	54.8	53.7	61.8	74.7	248.7	394.3	37.23	77.54	199.3
Mean	5.22	2.38	1.87	1.77	1.85	1.99	2.49	8.02	13.1	1.20	2.50	6.64
Max	17	3.5	2.1	2.0	2.0	2.4	3.5	16	44	2.9	3.5	16
Min	1.8	1.4	1.5	1.6	1.4	1.8	2.0	4.3	1.0	0.64	0.87	3.1
Ac-ft	321	142	115	109	107	123	148	493	782	74	154	395
Cal yr 1967: Total	3,718.2											
Wtr yr 1968: Total	1,493.27											
Mean				10.2		Max	119	Min	1.3	Ac-ft	7,370	
				4.08		Max	44	Min	0.64	Ac-ft	2,960	

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.--32.9 sq mi.

Records available.--October 1933 to September 1968. 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, 99 cfs June 20 (gage height, 1.74 ft); minimum daily, 1.8 cfs Jan. 25-30, Feb. 1, 2, 14. 1933-68: 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 winter periods, which are fair. Transmountain diversions above station to Moffat water tunnel not known since 1959.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	3.5	2.4	2.1	1.8	2.0	3.2	6.0	16	36	29	15
2	12	3.5	2.5	2.1	1.8	2.0	3.2	6.5	17	35	27	15
3	12	3.5	2.5	2.1	1.9	2.2	3.2	7.6	18	34	27	19
4	16	3.6	2.5	2.1	2.1	2.2	3.2	8.2	18	35	26	18
5	15	3.6	2.4	2.2	2.2	2.4	3.1	7.6	20	36	27	17
6	8.2	3.5	2.4	2.4	2.2	2.4	2.9	7.2	33	35	29	16
7	7.6	3.2	2.5	2.4	2.2	2.4	2.8	6.5	38	34	28	16
8	9.2	3.2	2.5	2.3	2.2	2.4	3.1	5.8	34	34	26	16
9	16	3.2	2.4	2.3	2.2	2.2	3.2	6.0	32	34	29	15
10	16	3.2	2.2	2.3	2.2	2.2	3.2	6.3	22	34	30	15
11	14	3.5	2.2	2.3	1.9	2.0	3.6	6.0	18	37	26	14
12	4.4	4.1	2.2	2.1	2.1	2.1	3.4	7.2	19	36	25	14
13	4.1	3.8	2.2	2.1	2.0	2.2	3.1	7.2	30	36	24	14
14	3.9	3.6	2.2	2.1	1.8	2.2	3.8	7.2	32	35	25	14
15	3.9	3.9	2.2	2.1	2.1	2.2	3.8	7.6	32	35	26	15
16	4.7	4.2	2.2	2.1	2.0	2.2	3.5	6.5	42	34	23	16
17	7.8	4.2	2.2	2.0	1.9	2.2	3.5	6.0	43	34	22	14
18	12	4.4	2.2	2.0	2.2	2.2	4.1	6.3	33	34	22	5.4
19	4.7	3.9	2.2	2.1	2.2	2.2	4.1	6.8	43	34	21	4.7
20	4.2	3.9	2.2	2.2	2.2	2.2	4.2	7.9	60	34	20	4.1
21	4.2	3.5	2.2	2.2	2.2	2.4	3.9	9.3	71	34	20	3.9
22	3.8	3.6	2.2	2.2	2.2	2.4	3.9	11	62	35	19	3.9
23	4.1	4.2	2.2	2.1	2.2	2.4	4.2	11	57	36	19	3.8
24	4.1	3.9	2.2	2.0	2.2	2.4	4.1	10	54	34	19	3.8
25	4.0	3.5	2.2	1.8	2.0	2.4	4.1	9.6	42	34	18	3.8
26	4.1	3.8	2.2	1.8	2.0	2.6	4.2	10	25	34	16	3.8
27	4.0	3.5	2.1	1.8	2.0	2.6	4.1	11	34	33	17	3.6
28	4.0	3.0	2.4	1.8	2.0	2.6	4.2	13	40	34	18	3.6
29	4.4	2.2	2.2	1.8	2.0	2.8	4.7	14	39	33	18	3.8
30	4.1	2.2	2.2	1.8	- - - -	3.0	5.6	14	35	33	16	3.6
31	4.2	- - - -	2.2	2.0	- - - -	3.1	- - - -	18	- - - -	32	16	- - - -
Total	233.7	106.9	70.6	64.7	60.0	72.8	111.2	267.3	1,059	1,068	708	314.8
Mean	7.54	3.56	2.28	2.09	2.07	2.35	3.71	8.62	35.3	34.5	22.8	10.5
Max	16	4.4	2.5	2.4	2.2	3.1	5.6	18	71	37	30	19
Min	3.8	2.2	2.1	1.8	1.8	2.0	2.8	5.8	16	32	16	3.6
Ac-ft	464	212	140	128	119	144	221	530	2,100	2,120	1,400	624
Cal yr 1967: Total	5,995.2			Mean 16.4	Max 148	Min 2.1	Ac-ft 11,890					
Wtr yr 1968: Total	4,137.0			Mean 11.3	Max 71	Min 1.8	Ac-ft 8,210					

Note.--No gage-height record Feb. 2 to Apr. 4.

FRASER RIVER BASIN

9-0320. Ranch Creek near Fraser, Colo.

Location.--Lat 39°57'00", long 105°45'54", in NW¼NE¼ 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 1968. 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.--34 years, 20.6 cfs (14,910 acre-ft per year), including diversion to Moffat water tunnel.

Extremes.--Maximum discharge during year, 67 cfs June 20 (gage height, 1.71 ft); minimum daily, 1.0 cfs Feb. 14-19, 25, 26, Mar. 9, 10, 1934-6S: 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 11,000 acre-ft during water year 1968.

Cooperation.--Records of flow diverted to Moffat water tunnel furnished by State engineer.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.8	2.0	1.5	1.2	1.1	1.1	1.5	3.6	1.7	3.6	1.8	1.2
2	1.7	2.0	1.5	1.2	1.1	1.1	1.4	4.5	1.8	3.4	1.6	1.2
3	5.7	2.0	1.5	1.2	1.1	1.1	1.5	4.6	1.8	3.1	2.3	1.8
4	7.6	2.0	1.5	1.2	1.1	1.1	1.3	5.8	1.8	2.9	2.4	1.9
5	9.1	2.2	1.5	1.2	1.1	1.2	1.2	5.1	2.0	4.1	2.6	1.6
6	3.4	1.9	1.5	1.2	1.1	1.2	1.3	5.1	2.5	6.3	2.8	1.2
7	2.8	1.7	1.5	1.2	1.1	1.2	1.2	6.3	3.5	5.8	2.1	1.2
8	2.8	1.7	1.5	1.2	1.1	1.1	1.3	4.5	3.1	4.1	2.0	1.2
9	7.3	1.7	1.5	1.2	1.1	1.0	1.3	4.1	2.0	2.8	2.2	1.2
10	7.3	1.7	1.4	1.2	1.1	1.0	1.4	4.5	1.3	2.7	2.0	1.2
11	6.3	2.0	1.4	1.2	1.1	1.1	1.4	4.5	1.0	2.9	1.8	1.2
12	2.6	2.3	1.4	1.2	1.1	1.1	1.5	4.8	9.6	2.9	1.6	1.2
13	2.2	2.1	1.4	1.2	1.1	1.1	1.6	4.6	1.4	2.6	1.5	1.2
14	2.2	2.0	1.4	1.2	1.0	1.1	1.5	4.5	1.3	2.2	1.8	1.2
15	2.3	1.9	1.4	1.2	1.0	1.1	1.5	4.6	8.4	1.8	1.8	1.2
16	2.4	1.8	1.4	1.2	1.0	1.1	1.6	4.3	1.0	2.0	1.5	1.4
17	2.8	1.8	1.4	1.2	1.0	1.1	1.6	3.9	1.5	1.9	1.4	1.4
18	2.7	1.8	1.4	1.2	1.0	1.2	1.8	3.9	1.9	1.8	1.3	1.4
19	2.7	2.0	1.4	1.2	1.0	1.1	2.1	4.1	2.4	1.8	1.3	1.4
20	2.6	1.9	1.4	1.2	1.1	1.1	1.9	5.3	3.1	1.8	1.2	1.3
21	2.6	1.8	1.4	1.2	1.1	1.1	1.8	6.3	3.8	2.8	1.2	1.2
22	2.3	1.8	1.4	1.2	1.1	1.1	1.7	7.6	3.2	2.9	1.2	1.3
23	2.6	1.7	1.3	1.2	1.1	1.1	1.7	7.6	2.0	3.1	1.2	1.3
24	2.5	1.7	1.3	1.2	1.1	1.2	1.7	7.3	1.2	2.8	1.2	1.3
25	2.4	1.6	1.3	1.2	1.0	1.2	1.8	7.3	5.9	2.7	1.2	1.3
26	2.2	1.6	1.3	1.2	1.0	1.2	1.8	8.4	2.3	2.7	1.2	1.3
27	2.2	1.5	1.3	1.2	1.1	1.2	1.8	8.7	2.6	2.6	1.3	1.3
28	2.2	1.5	1.3	1.2	1.1	1.2	1.9	1.1	4.5	2.3	1.4	1.3
29	2.6	1.5	1.3	1.2	1.1	1.2	2.0	1.3	4.1	2.2	1.3	1.4
30	2.2	1.5	1.3	1.1	1.1	1.4	2.9	1.5	3.9	2.2	1.2	1.4
31	2.0	1.2	1.2	1.1	1.1	1.6	1.7	1.7	2.8	1.2	1.2	1.4
Total	104.1	54.7	43.3	37.0	31.1	35.7	49.0	201.8	494.3	89.6	50.6	39.7
Mean	3.36	1.82	1.40	1.19	1.07	1.15	1.63	6.51	16.5	2.89	1.63	1.32
Max	9.1	2.3	1.5	1.2	1.1	1.6	2.9	17	38	6.3	2.8	1.9
Min	1.7	1.5	1.2	1.1	1.0	1.0	1.2	3.6	2.3	1.8	1.2	1.2
Ac-ft	206	108	86	73	62	71	97	400	980	178	100	79
Cal. yr 1967: Total	3,266.69	Mean	8.95	Max	122	Min	0.99	Ac-ft	6,480			
Wtr yr 1968: Total	1,230.9	Mean	3.36	Max	38	Min	1.0	Ac-ft	2,440			

9-0345. Colorado River at Hot Sulphur Springs, Colo.

Location.--Lat 40°05'00", long 106°05'15", in NE¼ 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 1968. 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, 760 cfs June 6, 7 (gage height, 1.70 ft); maximum recorded gage height, 2.57 ft Apr. 4 (back-water from ice); minimum daily discharge, 54 cfs Jan. 13.

1904-68: 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, 1956.

Remarks.--Records good except those for winter period, which are fair. 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 1968 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	62	88	73	62	60	65	163	256	568	234	243	83
2	60	98	59	62	60	65	172	305	598	220	234	80
3	67	96	62	64	64	65	149	310	645	216	194	90
4	74	96	65	64	64	65	123	331	673	220	173	128
5	119	98	63	64	62	65	123	326	688	261	156	109
6	112	115	64	64	60	66	133	326	688	252	156	101
7	98	115	58	62	58	66	117	290	696	248	162	93
8	85	115	66	62	60	68	107	275	631	243	152	85
9	93	98	62	62	62	68	103	261	592	252	170	74
10	115	90	63	62	62	68	115	266	514	248	216	76
11	112	85	65	64	62	66	155	261	454	248	189	78
12	101	80	66	60	62	64	200	266	414	266	170	74
13	80	83	68	54	62	65	222	270	442	256	152	74
14	78	88	70	58	62	70	166	270	490	238	162	76
15	83	88	70	60	64	69	170	285	409	238	194	78
16	78	88	70	60	70	68	212	295	448	234	156	85
17	76	85	68	60	70	70	184	270	478	216	138	90
18	80	80	68	60	70	72	156	248	442	207	128	85
19	88	80	66	60	66	70	189	238	424	207	122	80
20	78	80	66	60	66	70	138	256	402	212	119	80
21	78	90	66	62	64	69	142	295	442	207	119	74
22	78	88	66	62	64	74	132	315	442	207	109	69
23	80	82	66	62	65	72	112	353	408	234	109	71
24	85	80	68	62	65	76	122	348	358	238	104	74
25	85	79	64	64	64	78	135	342	353	230	101	76
26	93	57	62	64	64	82	132	353	300	234	98	74
27	85	58	62	64	63	82	122	336	266	234	101	64
28	88	66	62	64	64	85	112	331	256	234	109	60
29	90	72	62	64	65	100	132	364	252	230	107	60
30	83	72	62	62	---	117	189	408	234	234	101	64
31	88	---	64	62	---	144	---	484	---	243	88	---
Total	2,672	2,590	2,016	1,916	1,844	2,324	4,427	9,534	14,007	7,241	4,532	2,405
Mean	86.2	86.3	65.0	61.8	63.6	75.0	148	308	467	234	146	80.2
Max	119	115	73	64	70	144	222	484	696	266	243	128
Min	60	57	58	54	58	64	103	238	234	207	88	60
Ac-ft	5,300	5,140	4,000	3,800	3,660	4,610	8,780	18,910	27,780	14,360	8,990	4,770

Cal yr 1967: Total 67,257 Mean 184 Max 792 Min 48 Ac-ft 133,400
Wtr yr 1968: Total 55,508 Mean 152 Max 696 Min 54 Ac-ft 110,100

Note.--No gage-height record Feb. 1 to Apr. 4.

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 1968.

Gage.--Water-stage recorder. Altitude of gage is 10,430 ft (from topographic map).

Extremes.--1966-67: Maximum discharge during year, 99 cfs June 23 (gage height, 4.18 ft); minimum daily, 0.62 cfs Mar. 5.

1967-68: Maximum discharge during year, 187 cfs June 20 (gage height, 4.71 ft); minimum daily, 0.50 cfs Feb. 10.

1966-68: Maximum discharge, that of June 20, 1968; minimum daily, 0.50 cfs Mar. 12, 1966, Feb. 10, 1968.

Revisions.--The maximum discharge for the water year 1966 has been revised to 68 cfs May 30, 1966 (gage height, 3.94 ft), superseding figure previously published.

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

Discharge, in cubic feet per second, water year October 1966 to September 1967

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.5	1.7	1.2	0.80	0.68	0.64	0.72	3.5	25	47	8.9	4.0
2	3.6	1.6	1.0	.70	.68	.68	.72	1.9	39	43	8.4	3.6
3	4.2	1.6	.92	.70	.68	.68	.72	1.6	53	39	10	3.3
4	4.1	1.6	.83	.66	.68	.64	.72	1.4	56	36	8.1	3.1
5	4.6	1.6	.83	.66	.64	.62	.82	1.4	54	35	7.4	3.1
6	4.6	1.6	.83	.66	.68	.70	.84	1.3	58	33	7.4	2.9
7	4.0	1.6	.83	.66	.66	.66	.84	1.3	57	32	7.8	2.9
8	3.3	1.7	.83	.68	.68	.70	1.0	1.7	56	30	7.8	3.1
9	3.0	1.7	.92	.72	.68	.68	.94	2.7	58	29	10	3.5
10	2.9	1.6	.92	.66	.68	.68	.92	3.6	46	26	9.1	3.1
11	3.0	1.6	.92	.66	.72	.68	.98	3.3	39	24	7.8	3.6
12	3.0	1.6	.92	.66	.68	.68	1.0	3.3	33	24	7.1	10
13	2.9	1.4	.92	.66	.68	.68	.92	3.3	31	22	6.6	4.8
14	3.0	1.4	.92	.66	.68	.68	1.0	2.9	30	22	6.6	4.2
15	3.0	1.4	.92	.68	.68	.70	.96	2.6	27	22	6.8	4.0
16	3.0	1.4	.92	.66	.68	.66	.98	2.2	29	21	6.4	4.0
17	3.0	1.4	.92	.68	.68	.66	1.1	2.7	32	21	5.7	3.8
18	2.9	1.3	.92	.74	.68	.72	1.2	4.4	48	21	5.5	3.8
19	3.0	1.3	.92	.74	.68	.70	1.3	8.9	53	19	4.8	5.0
20	3.1	1.3	.92	.64	.68	.70	1.1	8.9	64	18	4.6	4.0
21	2.8	1.3	.90	.66	.68	.70	1.1	11	66	16	4.4	3.6
22	2.5	1.3	.90	.64	.68	.70	1.0	18	63	17	4.2	3.3
23	2.3	1.2	.90	.64	.68	.70	.94	25	65	16	4.0	3.1
24	2.3	1.2	.90	.64	.68	.70	.88	30	62	15	3.5	3.3
25	2.3	1.2	.90	.66	.68	.70	.82	33	59	14	3.6	4.2
26	2.3	1.4	.90	.68	.66	.70	.83	30	57	13	3.6	5.9
27	2.3	1.4	.78	.68	.68	.70	.92	25	55	12	3.3	5.0
28	2.2	1.4	.78	.68	.66	.72	1.3	25	47	11	3.3	4.4
29	2.2	1.4	.90	.68	-	.74	1.6	23	48	10	3.5	4.2
30	2.2	1.4	.90	.68	- - - - -	.78	2.4	22	50	9.4	6.0	4.0
31	1.8	- - - - -	.90	.68	- - - - -	.72	- - - - -	22	- - - - -	9.1	5.0	- - - - -
Total	92.9	43.6	27.97	21.00	18.98	21.40	30.57	326.9	1,460	706.5	191.2	120.8
Mean	3.00	1.45	0.90	0.68	0.68	0.69	1.02	10.5	48.7	22.8	6.17	4.03
Max	4.6	1.7	1.2	0.80	0.72	0.78	2.4	33	66	47	10	10
Min	1.8	1.2	0.78	0.64	0.64	0.62	0.72	1.3	25	9.1	3.3	2.9
Ac-ft	184	86	55	42	38	42	61	648	2,900	1,400	379	240

Cal yr 1966: Total 2,657.27 Mean 7.28 Max 45 Min 0.50 Ac-ft 5,270

Wtr yr 1967: Total 3,061.82 Mean 8.39 Max 66 Min 0.62 Ac-ft 6,070

Peak discharge (base, 50 cfs).--June 3 (1730) 79 cfs (4.08 ft); June 23 (1700) 99 cfs (4.18 ft).

Note.--No gage-height record Oct. 1 to Nov. 8, Dec. 21 to Apr. 25.

9-0349. Bobtail Creek near Jones Pass, Colo.--Continued

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.8	2.2	1.3	0.80	0.60	0.70	1.1	1.2	40	40	11	4.4
2	3.8	2.1	1.2	.80	.70	.70	1.0	1.3	45	38	10	4.4
3	3.6	2.1	1.2	.80	.70	.80	1.0	1.4	51	38	9.1	6.6
4	7.1	2.2	1.2	.80	.80	.70	1.1	1.5	45	36	8.1	6.1
5	7.6	2.2	1.2	.80	.80	.70	1.2	1.6	61	37	9.3	6.4
6	6.1	2.2	1.2	.90	.80	.80	1.2	1.7	60	35	12	5.7
7	5.7	2.2	1.1	.90	.70	.80	1.2	1.8	55	33	9.4	5.0
8	5.5	2.3	1.0	.90	.60	.80	1.3	1.9	45	32	11	4.6
9	5.3	2.3	.80	1.0	.60	.90	1.4	1.9	41	30	16	4.6
10	5.3	2.3	.90	1.0	.50	.80	1.4	1.9	33	30	18	4.4
11	5.0	2.2	1.0	.90	.60	.80	1.4	1.9	32	30	16	4.0
12	4.6	2.1	1.0	.90	.60	.70	1.4	1.9	51	29	14	4.6
13	4.4	1.8	1.0	.90	.60	.80	1.4	1.9	78	27	13	4.6
14	4.2	1.4	1.1	.90	.60	.80	1.4	1.9	68	26	15	4.8
15	4.2	1.7	1.1	.90	.80	.90	1.4	1.9	70	25	13	5.3
16	4.2	1.6	1.1	.80	.80	1.0	1.4	1.9	82	24	11	5.5
17	4.2	1.5	1.1	.80	.80	1.0	1.3	1.8	91	22	9.4	5.0
18	4.2	1.5	1.1	.60	.80	.90	1.3	1.7	98	21	8.6	7.5
19	4.1	1.5	1.1	.80	.70	.80	1.3	1.7	99	21	7.8	6.8
20	4.0	1.4	1.1	.80	.70	.70	1.3	1.7	113	19	7.4	5.9
21	3.9	1.4	1.0	.80	.60	.80	1.2	1.9	92	18	6.8	5.5
22	3.7	1.4	1.0	.80	.60	.90	1.1	3.6	88	17	8.6	5.3
23	3.6	1.4	1.1	.80	.60	1.0	1.0	5.7	88	17	6.1	5.3
24	3.5	1.4	1.1	.90	.60	1.0	1.2	4.2	79	16	5.5	5.3
25	3.5	1.4	1.2	.90	.70	1.0	1.2	3.1	64	15	5.0	5.0
26	3.3	1.4	1.2	.80	.70	1.1	1.2	2.9	59	14	5.0	4.6
27	3.2	1.4	1.1	.80	.70	1.1	1.2	2.9	67	15	6.9	4.4
28	3.1	1.3	1.1	.80	.70	1.2	1.2	5.0	68	13	6.6	4.4
29	2.7	1.3	1.1	.80	.70	1.2	1.2	15	59	12	6.1	5.0
30	2.4	1.3	1.0	.70	---	1.1	1.2	20	48	13	5.9	4.4
31	2.2	---	.80	.70	---	1.1	---	30	---	13	4.8	---
Total	132.0	52.5	33.50	25.80	19.70	27.60	37.2	128.8	1,970	756	296.4	155.4
Mean	4.26	1.75	1.08	0.83	0.68	0.89	1.24	4.15	65.7	24.4	9.56	5.18
Max	7.6	2.3	1.3	1.0	0.80	1.2	1.4	30	113	40	18	7.5
Min	2.2	1.3	0.80	0.60	0.50	0.70	1.0	1.2	32	12	4.8	4.0
Ac-ft	262	104	66	51	39	55	74	255	3,910	1,500	588	308

Cal yr 1967: Total 3,115.35 Mean 8.54 Max 66 Min 0.62 Ac-ft 6,180

Wtr yr 1968: Total 3,634.90 Mean 9.93 Max 113 Min 0.50 Ac-ft 7,210

Peak discharge (base, 50 cfs).--June 5 (1800) 82 cfs (4.07 ft); June 20 (1730) 187 cfs (4.71 ft).

Note.--No gage-height record Nov. 26 to May 16.

WILLIAMS FORK BASIN

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 1968. 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.--11 years, 24.3 cfs (17,590 acre-ft per year), including diversions to August P. Gumlick Tunnel.

Extremes.--1966-67: Maximum discharge during water year, 218 cfs June 23 (gage height, 4.78 ft); minimum daily, 0.20 cfs Mar. 6.

1967-68: Maximum discharge during water year, 320 cfs June 20 (gage height, 5.30 ft); minimum daily, 0.85 cfs Oct. 22.

1933-41, 1965-68: 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, 0.20 cfs Mar. 6, 1967.

Revision.--The maximum discharge for the water year 1966 has been revised to 125 cfs June 30, 1966 (gage height, 4.29 ft), superseding figure previously published.

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 1966 to September 1967

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.60	0.65	0.75	0.35	0.55	0.35	0.70	3.1	36	131	2.3	1.2
2	.65	.91	.75	.35	.40	.35	.70	3.0	93	121	1.7	1.0
3	.80	.70	.75	.40	.40	.35	.70	2.7	133	110	2.0	.97
4	1.1	.65	.65	.35	.40	.35	.70	2.4	150	104	1.9	.91
5	.91	.91	.65	.45	.50	.30	1.2	2.4	156	95	1.6	.85
6	.85	1.0	.65	.40	.45	.20	1.5	2.4	154	87	1.5	.97
7	1.1	.80	.65	.35	.40	.45	1.8	2.0	150	84	1.6	1.5
8	.97	2.1	.70	.30	.40	.45	2.1	2.5	150	76	1.8	1.5
9	.75	.90	.70	.35	.40	.45	1.6	3.5	148	71	1.9	.85
10	.70	.85	1.6	.90	.35	.70	2.0	4.8	133	65	1.9	.80
11	.75	.65	.70	.35	.40	.55	1.9	4.6	114	62	1.6	.85
12	.75	.60	1.0	.40	.40	.55	1.5	4.3	65	61	1.4	2.7
13	.70	.60	.70	.40	.40	.55	1.2	5.0	11	56	1.4	1.1
14	3.8	1.1	.70	.40	.40	.95	1.6	4.8	11	51	1.3	.97
15	.97	.75	.60	.40	.40	.55	1.8	4.7	11	56	1.4	.91
16	.70	.56	.40	.40	.40	.70	1.4	8.0	29	50	1.3	.97
17	.70	.56	.40	.40	.40	.70	1.4	13	10	50	1.2	1.0
18	.65	.56	.40	.55	.40	.60	1.6	21	25	49	1.2	1.0
19	.75	.56	.40	.55	.40	.60	2.3	26	136	43	1.1	1.4
20	.75	.60	.50	.40	.40	.60	1.6	9.2	159	40	1.1	1.2
21	1.7	.65	.50	.40	.40	.60	1.5	10	167	38	1.1	1.0
22	.80	.65	.50	.35	.40	.60	1.3	13	167	37	1.0	.91
23	.60	.75	.65	.35	.40	.60	1.2	20	169	39	.97	.85
24	.70	.75	.45	.35	.70	.60	1.1	31	169	36	.97	.91
25	2.9	.75	.40	.50	.40	.60	1.6	36	161	34	.97	1.3
26	.91	.80	.35	.40	.40	.60	1.5	26	154	32	.97	1.6
27	.85	.75	.35	.40	.40	.60	1.4	16	150	30	.97	1.4
28	.75	.75	.35	.40	.40	.70	2.0	18	136	22	.97	1.1
29	.70	.80	.35	.40	-	.95	2.5	16	133	2.2	.97	.97
30	.85	.90	.35	.40	- - - -	.80	3.5	13	136	4.0	1.4	.91
31	.60	- - - -	.35	.40	- - - -	.65	- - - -	30	- - - -	4.4	1.6	- - - -
Total	30.31	23.56	18.25	12.80	11.75	17.60	46.90	358.4	3,416	1,740.6	43.09	33.60
Mean	0.98	0.79	0.59	0.41	0.42	0.57	1.56	11.6	114	56.1	1.39	1.12
Max	3.8	2.1	1.6	0.90	0.70	0.95	3.5	36	169	131	2.3	2.7
Min	0.60	0.56	0.35	0.35	0.35	0.20	0.70	2.0	10	2.2	0.97	0.80
Ac-ft	60	47	36	25	23	35	93	711	6,780	3,450	85	67

Cal yr 1966: Total 1,848.32 Mean 5.06 Max 55 Min 0.35 Ac-ft 3,670
 Wtr yr 1967: Total 5,752.86 Mean 15.8 Max 169 Min 0.20 Ac-ft 11,410

Note.--No gage-height record Dec. 12 to Apr. 19.

9-0355. Williams Fork below Steelman Creek, Colo.--Continued

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.91	1.0	5.0	3.6	2.8	2.4	5.0	5.7	68	25	2.5	1.6
2	.91	1.0	4.6	3.6	2.8	2.4	4.4	7.0	87	7.0	2.3	1.6
3	4.0	1.0	4.4	3.6	2.8	2.4	4.0	7.9	116	6.3	2.2	3.1
4	15	1.0	4.4	3.4	2.8	2.4	4.0	9.5	129	6.6	2.0	2.9
5	8.6	.90	4.4	3.2	3.0	2.4	4.0	9.8	161	7.3	2.2	2.3
6	1.4	.90	4.4	3.2	3.0	2.6	4.4	11	157	7.0	2.7	1.9
7	1.4	.90	4.4	3.2	3.0	2.6	4.4	10	152	5.7	2.2	1.7
8	5.6	4.0	4.4	3.2	3.0	2.6	4.4	9.2	135	5.4	2.6	1.7
9	12	7.8	4.4	3.2	2.8	2.6	4.4	8.2	121	5.1	3.3	1.5
10	12	9.0	4.4	3.2	2.6	2.6	4.2	8.2	104	4.8	3.1	1.4
11	8.0	8.0	4.0	3.2	2.4	2.4	4.2	7.9	94	5.4	2.9	1.4
12	1.0	8.0	4.0	3.2	2.4	2.4	3.0	8.9	121	5.1	2.3	1.3
13	.97	8.9	4.0	3.0	2.4	2.4	2.8	8.5	165	4.5	2.2	1.3
14	.97	7.6	4.0	3.0	2.4	2.4	3.6	8.2	161	4.3	2.7	1.4
15	.97	8.2	4.0	3.0	2.4	2.4	5.2	8.5	159	4.1	2.5	1.6
16	.97	7.9	4.0	3.0	2.4	2.6	5.2	8.2	174	3.8	1.9	1.7
17	.97	6.6	4.0	3.0	2.2	2.6	3.0	7.3	190	3.6	1.7	3.1
18	7.8	6.0	4.0	3.0	2.2	2.6	2.4	7.0	209	3.3	1.7	1.9
19	1.0	5.7	4.0	3.0	2.2	2.6	2.6	6.3	218	3.1	1.6	1.1
20	.91	5.4	4.0	3.1	2.2	2.6	3.4	6.6	237	3.1	1.6	1.4
21	.91	5.4	4.0	3.4	2.2	2.4	3.0	7.3	235	3.1	1.6	1.7
22	.85	5.4	4.0	3.4	2.2	2.0	2.1	14	230	2.7	1.6	1.5
23	.91	5.4	4.0	3.4	2.2	2.0	3.0	17	220	2.9	1.6	8.4
24	.91	5.1	4.1	3.4	2.2	2.4	2.9	15	211	2.9	1.5	1.1
25	.97	5.1	4.4	3.4	2.2	2.6	2.7	12	180	2.7	1.5	1.1
26	.91	5.0	4.4	3.4	2.2	2.8	2.7	11	165	2.7	5.6	1.1
27	1.0	5.0	3.9	3.4	2.2	2.8	2.7	11	143	2.7	2.2	1.1
28	.91	4.6	3.5	3.4	2.2	2.8	2.7	15	109	2.5	2.5	1.1
29	1.2	4.5	3.4	3.4	2.2	3.2	3.3	27	96	2.5	2.2	1.2
30	.91	5.0	3.4	3.2	- - - -	3.6	4.8	38	60	2.5	1.8	1.1
31	4.0	- - - -	3.4	3.0	- - - -	4.3	- - - -	51	- - - -	2.7	1.7	- - - -
Total	98.86	150.30	127.3	100.7	71.6	60.9	108.5	382.2	4,607	150.4	70.0	148.0
Mean	3.19	5.01	4.11	3.25	2.47	2.61	3.62	12.3	154	4.85	2.26	4.93
Max	15	9.0	5.0	3.6	3.0	4.3	5.2	51	237	25	5.6	14
Min	0.85	0.90	3.4	3.0	2.2	2.0	2.1	5.7	60	2.5	1.5	1.3
Ac-ft	196	298	252	200	142	160	215	758	9,140	298	139	294

Cal yr 1967: Total 6,057.20 Mean 16.6 Max 169 Min 0.20 Ac-ft 12,010
Wtr yr 1968: Total 6,095.76 Mean 16.7 Max 237 Min 0.85 Ac-ft 12,090

Note.--No gage-height record Dec. 20 to Feb. 2, Feb. 5 to Apr. 24.

WILLIAMS FORK BASIN

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 1968.

Gage.--Digital water-stage recorder. Altitude of gage is 8,940 ft (from topographic map).

Extremes.--Maximum discharge during year, 570 cfs June 20 (gage height, 4.90 ft); minimum daily, 5.6 cfs Apr. 27.
1965-68: Maximum discharge, that of June 20, 1968; minimum daily, 3.8 cfs Mar. 5, 1967.

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 CFS, WATER YEAR OCTUBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.8	7.9	12	9.0	8.4	7.2	14	16	106	133	23	10
2	8.8	7.9	11	8.8	8.2	7.0	13	21	127	93	22	9.9
3	9.1	7.9	11	8.8	8.2	7.0	12	24	160	83	21	15
4	19	7.6	11	8.6	8.0	7.0	12	28	178	81	20	16
5	30	7.5	11	8.4	8.0	7.0	12	30	240	81	19	14
6	12	7.4	11	8.4	8.2	7.4	12	31	264	76	23	13
7	11	7.4	11	8.4	8.0	7.4	15	27	255	68	20	12
8	11	11	11	8.2	8.0	7.4	12	25	237	65	18	11
9	21	15	10	8.2	8.0	7.2	13	26	228	62	22	9.9
10	21	16	10	8.2	7.8	7.2	12	25	210	57	23	9.9
11	20	15	10	8.2	7.8	7.4	13	25	195	56	20	9.4
12	11	15	10	8.0	8.0	7.6	10	26	216	55	18	9.4
13	9.1	14	10	8.0	8.0	7.6	6.3	26	268	51	17	9.4
14	9.0	13	10	8.0	7.6	7.4	16	25	270	48	21	9.4
15	9.3	13	9.6	8.0	7.8	7.4	16	25	264	45	20	10
16	9.0	13	9.6	8.0	7.8	7.6	5.8	23	287	42	16	12
17	8.9	14	9.6	8.0	7.6	7.8	5.8	20	313	40	15	12
18	8.9	14	9.6	7.8	7.6	7.8	6.8	20	341	37	15	13
19	8.9	14	9.6	7.6	7.6	8.0	6.6	21	363	36	13	19
20	8.4	13	9.8	8.0	7.6	6.6	11	24	383	35	13	25
21	8.4	13	9.8	8.2	7.4	6.3	8.7	26	408	32	13	13
22	8.1	13	9.8	8.4	7.4	6.3	5.8	39	391	31	13	11
23	7.9	13	10	8.4	7.4	6.6	8.7	44	371	32	13	13
24	7.9	13	10	8.4	7.2	7.3	8.4	38	352	30	12	20
25	7.9	12	11	8.4	7.2	8.2	5.8	33	303	29	12	20
26	7.9	12	9.8	8.4	7.4	8.0	5.7	31	278	28	13	19
27	7.9	11	9.2	8.4	7.4	8.0	5.6	31	267	28	13	18
28	7.9	12	8.6	8.6	7.4	8.4	10	37	234	26	15	18
29	7.9	12	8.8	8.6	7.4	10	7.5	51	219	25	14	20
30	7.9	12	9.0	8.6	-----	12	11	66	181	25	12	19
31	7.9	-----	34	8.6	-----	15	-----	88	-----	25	11	-----
TOTAL	341.8	356.6	336.8	257.6	224.4	243.1	301.5	972	7,909	1,555	520	420.3
MEAN	11.0	11.9	10.9	8.31	7.74	7.84	10.1	31.4	264	50.2	16.8	14.0
MAX	30	16	34	9.0	8.4	15	16	88	408	133	23	25
MIN	7.9	7.4	8.6	7.6	7.2	6.3	5.6	16	106	25	11	9.4
AC-FT	678	707	668	511	445	482	598	1,930	15,690	3,080	1,030	834
CAL YR 1967	TOTAL 12,713.5		MEAN 34.8		MAX 264		MIN 3.8		AC-FT 25,220			
WTR YR 1968	TOTAL 13,438.1		MEAN 36.7		MAX 408		MIN 5.6		AC-FT 26,650			

9-0358. Darling Creek near Leal, Colo.

Location.--Lat 39°48'15", long 106°01'10", in NE¼SW¼ 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 1968.

Gage.--Digital water-stage recorder. Altitude of gage is 9,090 ft (from topographic map).

Extremes.--Maximum discharge during year, 224 cfs June 20 (gage height, 3.62 ft); minimum daily, 1.5 cfs Mar. 20.
1965-68: Maximum discharge, that of June 20, 1968; minimum daily, that of Mar. 20, 1968.

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

DISCHARGE, IN CFS, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	3.3	2.9	2.4	1.8	1.7	1.8	3.5	25	42	9.3	5.5
2	3.1	3.4	2.9	2.4	1.9	1.7	1.8	4.5	36	37	9.1	5.4
3	3.0	3.0	2.9	2.3	1.9	1.7	1.7	5.2	50	35	8.7	6.6
4	3.3	2.8	2.9	2.3	1.9	1.7	1.7	5.8	53	33	8.3	6.6
5	3.6	2.7	2.9	2.3	1.8	1.7	1.7	6.0	69	31	8.2	6.4
6	3.6	2.7	2.8	2.3	1.8	1.7	1.7	5.2	73	29	9.1	6.1
7	3.6	3.0	2.8	2.3	1.7	1.7	1.7	4.8	63	26	8.1	5.7
8	3.5	2.9	2.8	2.3	1.7	1.7	1.7	4.4	52	25	8.1	5.5
9	3.5	2.9	2.8	2.2	1.7	1.7	1.7	4.5	45	24	9.8	5.3
10	3.4	2.8	2.7	2.2	1.7	1.7	1.7	4.5	36	23	9.3	5.1
11	3.4	2.7	2.6	2.2	1.7	1.7	1.8	4.6	32	22	8.5	5.0
12	3.3	2.7	2.6	2.2	1.7	1.6	1.8	4.7	44	21	7.8	4.9
13	3.2	2.6	2.5	2.2	1.7	1.6	1.8	4.5	69	20	7.5	4.8
14	3.2	2.6	2.5	2.1	1.7	1.6	1.8	4.6	77	18	8.4	4.8
15	3.2	2.6	2.5	2.2	1.7	1.6	1.9	4.8	80	17	8.1	5.0
16	3.0	2.6	2.5	2.2	1.7	1.6	1.9	4.4	96	16	7.4	5.2
17	3.3	2.6	2.5	2.2	1.7	1.6	2.0	4.3	97	15	7.1	5.1
18	3.3	2.6	2.4	2.1	1.7	1.6	1.9	4.4	111	15	6.9	5.9
19	3.2	2.6	2.4	2.1	1.6	1.6	1.9	4.4	114	14	6.6	5.7
20	3.1	2.6	2.4	2.0	1.6	1.5	2.0	4.5	133	13	6.5	5.4
21	3.1	2.6	2.4	2.0	1.6	1.6	2.0	5.5	149	13	6.4	5.2
22	3.1	2.5	2.5	2.0	1.7	1.7	1.9	7.9	146	12	6.3	5.0
23	3.0	2.6	2.5	2.0	1.7	1.7	2.0	8.2	135	12	6.3	4.8
24	3.2	2.6	2.4	2.1	1.7	1.7	2.0	7.5	126	11	6.0	4.7
25	3.3	2.6	2.4	2.1	1.7	1.7	2.0	7.0	97	11	5.8	4.6
26	3.1	2.6	2.4	2.1	1.7	1.7	2.0	7.0	80	11	5.7	4.6
27	3.0	2.7	2.4	2.1	1.7	1.7	2.1	7.1	83	11	6.2	4.5
28	3.4	2.7	2.3	2.1	1.7	1.7	2.3	8.6	85	10	6.4	4.4
29	3.3	2.8	2.3	2.0	1.7	1.7	2.6	11	70	9.9	6.3	4.4
30	3.3	2.8	2.3	2.0	-----	1.7	3.0	14	51	9.9	5.8	4.4
31	3.3	-----	2.4	1.9	-----	1.7	-----	20	-----	9.8	5.6	-----
TOTAL	101.0	82.2	79.6	66.9	49.9	51.6	57.9	197.4	2,377	596.6	229.6	156.6
MEAN	3.26	2.74	2.57	2.16	1.72	1.66	1.93	6.37	79.2	19.2	7.41	5.22
MAX	3.6	3.4	2.9	2.4	1.9	1.7	3.0	20	149	42	9.8	6.6
MIN	3.0	2.5	2.3	1.9	1.6	1.5	1.7	3.5	25	9.8	5.6	4.4
AC-FT	200	163	158	133	99	102	115	392	4,710	1,180	455	311
CAL YR 1967	TOTAL 2,820.3		MEAN 7.73	MAX 51	MIN 1.8	AC-FT 5,590						
WTR YR 1968	TOTAL 4,046.3		MEAN 11.1	MAX 149	MIN 1.5	AC-FT 8,030						

Note.--No gage-height record Nov. 7 to May 6.

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 1968.

Gage.--Digital water-stage recorder. Altitude of gage is 8,950 ft (from topographic map).

Extremes.--Maximum discharge during year, about 380 cfs June 20 (gage height unknown); minimum daily, 2.9 cfs Mar. 21.
1965-68: Maximum discharge, that of June 20, 1968; minimum daily, 2.6 cfs Mar. 6, 1967.

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

Note.--The figures of peak discharge for water year 1967, not previously published, are given herewith:
Peak discharge (base, 200 cfs).--1967: June 23 (2030) 213 cfs (3.25 ft).

DISCHARGE, IN CFS, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	7.0	7.7	6.8	4.4	3.3	4.5	9.1	111	135	26	18
2	12	7.0	8.0	6.8	4.2	3.3	4.5	11	124	120	24	18
3	12	7.0	8.3	6.4	4.3	3.3	4.7	13	151	110	23	25
4	11	7.4	8.3	6.6	4.2	3.4	4.7	17	156	106	21	26
5	18	7.8	8.2	6.6	4.0	3.5	4.9	18	178	100	20	24
6	13	8.4	8.1	6.6	3.9	3.4	5.0	17	176	93	26	23
7	12	8.8	8.0	6.6	3.8	3.4	5.1	14	161	86	24	20
8	11	8.8	8.0	6.5	3.7	3.3	5.1	12	149	84	23	19
9	9.3	8.6	7.9	6.6	3.6	3.4	5.1	11	140	75	26	18
10	8.9	8.6	7.9	6.4	3.5	3.5	5.1	11	129	73	27	18
11	8.5	8.4	7.9	6.2	3.5	3.5	5.1	10	116	69	25	18
12	8.3	8.2	7.9	6.0	3.4	3.4	5.4	11	133	65	23	18
13	8.0	8.0	7.8	5.8	3.4	3.3	5.2	10	181	61	21	18
14	7.9	7.7	7.9	6.0	3.4	3.3	5.2	9.8	182	57	24	18
15	8.0	7.5	7.9	6.0	3.4	3.3	5.2	11	177	52	25	18
16	7.5	7.4	7.8	6.0	3.4	3.2	5.2	9.7	192	49	21	19
17	7.9	7.2	7.5	5.8	3.4	3.2	5.2	8.4	210	46	19	19
18	7.8	7.2	7.3	5.5	3.4	3.1	5.3	10	250	43	18	21
19	7.6	7.1	7.4	5.2	3.4	3.1	5.2	14	280	41	18	22
20	7.4	7.0	7.2	5.0	3.4	3.0	5.1	16	290	40	17	20
21	7.4	6.9	7.1	5.0	3.4	2.9	5.2	18	310	36	18	18
22	7.3	6.7	7.2	5.2	3.5	3.1	5.0	29	280	35	22	18
23	7.2	6.6	6.8	5.3	3.5	3.2	5.2	35	260	35	21	18
24	6.7	6.5	6.8	5.4	3.5	3.3	5.2	32	230	33	20	17
25	7.6	6.5	7.4	5.4	3.5	3.3	5.2	27	210	32	19	17
26	7.4	6.5	7.2	5.4	3.5	3.4	5.1	28	190	31	19	15
27	7.5	6.4	7.1	5.6	3.4	3.5	4.8	28	180	31	20	15
28	7.7	6.6	7.0	5.4	3.3	3.7	5.2	38	175	29	26	15
29	7.7	7.0	6.9	5.2	3.3	3.8	5.8	58	165	28	23	15
30	7.4	7.3	6.7	5.0	-----	4.2	7.0	78	150	27	20	15
31	7.0	-----	6.5	4.7	-----	4.6	-----	100	-----	27	18	-----
TOTAL	280.0	222.1	233.7	181.0	104.6	105.2	154.5	714.0	5,636	1,849	677	563
MEAN	9.03	7.40	7.54	5.84	3.61	3.39	5.15	23.0	188	59.6	21.8	18.8
MAX	18	8.8	8.3	6.8	4.4	4.6	7.0	100	310	135	27	26
MIN	6.7	6.4	6.5	4.7	3.3	2.9	4.5	8.4	111	27	17	15
AC-FT	555	441	464	359	207	209	306	1,420	11,180	3,670	1,340	1,120

CAL YR 1967 TOTAL 9,535.4 MEAN 26.1 MAX 190 MIN 2.6 AC-FT 18,910
WTR YR 1968 TOTAL 10,720.1 MEAN 29.3 MAX 310 MIN 2.9 AC-FT 21,260

Peak discharge (base, 200 cfs)--June 20 (time unknown) about 380 cfs (gage height unknown).

Note.--No gage-height record Jan. 8 to Apr. 9, June 17 to July 3.

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.--89.3 sq mi.

Records available.--July 1933 to September 1968. 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.--35 years, 101 cfs (73,120 acre-ft per year), including diversions to August P. Gumlick Tunnel.

Extremes.--Maximum discharge during year, 1,180 cfs June 20 (gage height, 3.35 ft); minimum daily, 17 cfs Mar. 21.

1933-68: 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, Mar. 5, 6, 1967.

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 CFS, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	31	29	23	20	19	23	45	257	361	86	40
2	30	29	28	23	20	19	22	56	312	314	85	39
3	30	26	27	23	20	20	21	63	386	287	81	50
4	34	31	27	23	19	19	21	73	422	265	75	53
5	55	30	26	23	20	20	21	77	497	265	72	48
6	38	30	26	23	19	20	21	75	549	246	80	45
7	34	37	26	22	20	21	20	66	522	225	71	42
8	32	33	26	22	19	20	20	60	469	219	67	40
9	38	33	26	22	19	20	21	61	435	207	73	38
10	40	33	25	22	19	19	21	62	397	196	78	37
11	38	33	25	21	19	19	24	62	363	190	69	36
12	32	33	25	21	18	19	26	62	415	184	66	36
13	30	32	25	22	18	19	24	59	558	173	61	37
14	30	33	25	22	18	19	24	57	578	161	67	36
15	31	33	24	21	18	19	25	60	517	152	67	39
16	29	33	24	21	18	18	25	53	577	146	59	42
17	31	31	24	21	18	19	25	47	656	137	55	41
18	34	30	24	20	18	18	26	48	688	131	53	43
19	32	30	24	20	18	18	26	50	705	126	51	47
20	30	31	24	20	18	18	24	55	770	123	50	51
21	30	31	23	20	18	17	24	58	889	117	49	43
22	29	30	23	20	18	18	23	87	862	112	50	39
23	29	31	23	20	18	18	23	103	830	112	49	39
24	28	30	23	20	18	19	24	91	777	108	47	44
25	31	31	23	20	18	19	24	78	685	104	45	43
26	31	30	23	20	19	19	24	78	572	102	45	43
27	25	29	23	20	20	18	23	74	572	101	47	43
28	32	30	23	20	20	19	23	89	543	98	52	42
29	28	30	23	20	20	21	26	131	513	94	49	42
30	26	29	23	20	-----	23	35	163	439	90	44	42
31	29	-----	23	20	-----	24	-----	216	-----	92	42	-----
TOTAL	997	933	763	655	545	598	709	2,359	16,755	5,238	1,885	1,260
MEAN	32.2	31.1	24.6	21.1	18.8	19.3	23.6	76.1	559	169	60.8	42.0
MAX	55	37	29	23	20	24	35	216	889	361	86	53
MIN	25	26	23	20	18	17	20	45	257	90	42	36
AC-FT	1,980	1,850	1,510	1,300	1,080	1,190	1,410	4,680	33,230	10,390	3,740	2,500
†	335	23	0	0	0	0	0	0	428	3,370	1,160	442
CAL YR 1967	TOTAL 31,108			MEAN 85.2		MAX 597		MIN 13		AC-FT 61,700		
WTR YR 1968	TOTAL 32,697			MEAN 89.3		MAX 889		MIN 17		AC-FT 64,850		

† Diversion, in acre-feet, through August P. Gumlick Tunnel, furnished by State engineer of Colorado.

WILLIAMS FORK BASIN

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.--184 sq mi.

Records available.--July 1904 to September 1924, June 1933 to September 1968. 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.--55 years, 141 cfs (102,100 acre-ft per year), including diversion to August P. Gumlick Tunnel.

Extremes.--Maximum discharge during year, 1,030 cfs June 21 (gage height, 4.25 ft); minimum daily, 13 cfs May 14, 18, 19. 1904-24, 1933-68: 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, 9.8 cfs Oct. 7, 1966, May 17, 18, 1967.

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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	54	60	36	30	30	50	93	316	235	84	47
2	55	56	60	38	30	30	50	118	372	180	80	45
3	55	44	58	36	30	30	46	138	485	151	80	49
4	56	57	58	36	30	28	47	157	530	132	78	53
5	86	56	56	34	30	28	46	162	572	138	76	60
6	73	56	54	34	30	28	46	162	641	132	78	64
7	66	56	52	34	30	30	42	120	578	104	75	60
8	62	58	48	32	28	30	42	72	505	67	72	57
9	62	58	46	32	28	28	43	23	460	62	75	52
10	66	61	46	32	28	28	44	24	388	53	86	51
11	66	58	46	32	28	28	48	24	353	46	81	50
12	61	61	46	32	28	30	54	25	356	46	76	48
13	55	60	48	32	28	30	54	22	465	43	73	50
14	54	61	46	32	26	30	48	13	515	43	76	54
15	54	57	46	30	26	28	53	14	460	57	83	55
16	52	57	46	30	26	26	55	14	505	48	73	62
17	53	55	44	30	26	30	53	14	583	47	67	64
18	55	54	42	30	26	30	55	13	635	36	67	62
19	58	56	40	30	26	30	57	13	677	22	62	73
20	53	55	38	30	26	30	50	16	695	70	61	78
21	53	55	36	30	26	28	50	16	795	130	57	67
22	52	52	36	30	26	30	48	46	739	102	52	57
23	51	50	38	30	26	32	45	97	774	86	53	47
24	51	50	38	30	28	30	47	99	746	102	52	36
25	52	50	36	28	28	30	51	63	641	114	51	30
26	56	45	38	30	26	30	49	40	510	99	49	30
27	47	35	38	30	24	32	47	37	505	86	51	30
28	54	42	38	30	28	32	45	57	480	84	53	29
29	56	54	38	30	30	36	53	139	392	84	53	29
30	50	56	38	30	---	40	70	192	328	84	51	30
31	52	---	38	30	---	46	---	260	---	84	49	---
Total	1,772	1,619	1,392	980	802	948	1,488	2,283	16,001	2,767	2,074	1,519
Mean	57.2	54.0	44.9	31.6	27.7	30.6	49.6	73.6	533	89.3	66.9	50.6
Max	86	61	60	38	30	46	70	260	795	235	86	78
Min	47	35	36	28	24	26	42	13	316	22	49	29
Ac-ft	3,510	3,210	2,760	1,940	1,590	1,880	2,950	4,530	31,740	5,490	4,110	3,010
Cal yr 1967: Total	33,592.6		Mean	92.0	Max	623	Min	9.8	Ac-ft	66,630		
Wtr yr 1968: Total	33,645		Mean	91.9	Max	795	Min	13	Ac-ft	66,730		

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.--230 sq mi.

Records available.--April 1939 to September 1968. 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, 66,770 acre-ft July 31 (elevation, 7,789.63 ft); minimum observed, 20,420 acre-ft, Apr. 10 (elevation, 7,736.38 ft).

1939-68: Maximum contents observed, 97,130 acre-ft July 9, 1962 (elevation, 7,811.19 ft); no contents at times in 1958 (construction) and 1966 (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 1967 to September 1968

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	7,767.78	43,660	-
Oct. 31.....	7,765.78	41,840	-1,820
Nov. 30.....	7,763.62	39,930	-1,910
Dec. 31.....	7,758.29	35,470	-4,460
Calendar year 1967.....	-	-	+33,600
Jan. 31.....	7,751.47	30,240	-5,230
Feb. 29.....	7,743.84	24,980	-5,260
Mar. 31.....	7,737.03	20,800	-4,180
Apr. 30.....	7,737.68	21,170	+370
May 31.....	7,744.74	25,570	+4,400
June 30.....	7,783.60	59,710	+34,140
July 31.....	7,789.63	66,770	+7,060
Aug. 31.....	7,786.31	62,810	-3,960
Sept. 30.....	7,781.81	57,730	-5,080
Water year 1968.....	-	-	+14,070

† Elevation at 0800.

WILLIAMS FORK BASIN

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.--230 sq mi.

Records available.--October 1948 to September 1954, August 1958 to September 1968. 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.--16 years, 120 cfs (86,880 acre-ft per year), adjusted for storage in Williams Fork Reservoir.

Extremes.--Maximum discharge during year, 294 cfs Oct. 30 (gage height, 2.52 ft); minimum daily, 13 cfs Apr. 21, May 2-5, 12-15, 23. 1948-54, 1958-68: 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 CFS, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	93	91	128	130	139	56	36	14	16	134	135
2	94	93	125	127	130	140	71	13	15	15	136	136
3	93	92	121	127	130	140	78	13	15	15	131	135
4	93	92	121	129	130	140	78	13	15	16	133	134
5	92	95	121	129	132	140	78	13	15	16	133	133
6	92	85	121	129	132	140	78	13	16	16	131	134
7	92	86	121	130	132	139	78	13	16	16	133	134
8	91	87	121	131	132	139	78	13	16	15	132	135
9	92	87	121	130	132	139	78	13	15	15	133	136
10	93	87	121	129	132	139	78	14	15	15	133	137
11	93	87	123	128	132	139	76	14	15	15	133	136
12	94	87	123	128	132	140	42	13	15	15	134	138
13	95	87	121	128	132	143	45	13	15	15	132	137
14	94	88	124	127	132	144	64	13	16	15	133	136
15	95	88	124	127	134	144	47	13	16	15	133	136
16	95	87	124	127	134	144	36	14	16	15	133	139
17	95	87	124	128	134	144	36	14	16	15	134	139
18	95	87	124	129	134	144	36	14	16	15	135	138
19	94	88	124	129	133	144	32	14	16	16	135	138
20	94	87	124	129	133	145	17	14	15	16	135	139
21	94	88	124	129	132	114	13	14	16	16	134	139
22	93	88	124	129	133	55	35	14	16	15	133	139
23	93	88	126	128	134	54	69	13	16	15	134	138
24	93	88	126	128	136	54	57	14	16	16	135	140
25	93	86	126	128	136	55	93	15	16	15	134	141
26	94	87	126	128	136	56	86	15	16	15	134	141
27	93	88	127	129	136	56	82	15	15	15	134	141
28	94	89	128	129	136	56	79	15	15	15	133	142
29	95	90	128	130	136	56	68	15	16	15	133	143
30	96	90	128	130	-----	56	64	15	16	14	134	142
31	94	-----	128	130	-----	56	-----	14	-----	14	135	-----
TOTAL	2,902	2,652	3,810	3,987	3,857	3,494	1,828	449	466	472	4,139	4,131
MEAN	93.6	88.4	123	129	133	113	60.9	14.5	15.5	15.2	134	138
MAX	96	95	128	131	136	145	93	36	16	16	136	143
MIN	91	85	91	127	130	54	13	13	14	14	131	133
AC-FT	5,760	5,260	7,560	7,910	7,650	6,930	3,630	891	924	936	8,210	8,190
CAL YR 1967	TOTAL 21,522			MEAN 59.0		MAX 194		MIN 13		AC-FT 42,690		
WTR YR 1968	TOTAL 32,187			MEAN 87.9		MAX 145		MIN 13		AC-FT 63,840		

179

179

179

179

179

179

179

179

179

179

179

179

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.

Drainage area.--76.0 sq mi.

Records available.--April 1937 to September 1943, October 1953 to September 1968. 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.--21 years, 26.3 cfs (19,040 acre-ft per year).

Extremes.--Maximum discharge during year, 252 cfs June 3 (gage height, 4.69 ft); minimum daily, 3.3 cfs Feb. 19, 23. 1937-43, 1953-68: 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 good except those for winter period, which are poor. Diversions above station for irrigation.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.4	5.6	5.6	5.1	4.5	3.8	12	45	179	29	8.7	4.7
2	5.4	5.0	5.4	5.4	4.5	4.5	15	54	196	26	7.7	4.3
3	5.1	4.5	5.4	5.1	4.5	4.0	13	58	216	25	8.0	5.1
4	5.1	4.0	5.6	4.9	4.2	4.9	12	73	230	23	8.0	8.0
5	6.1	4.0	5.6	5.1	4.0	5.6	11	76	213	25	6.8	6.4
6	6.8	4.0	5.6	5.4	4.0	5.8	13	68	210	32	6.4	5.6
7	6.8	4.2	5.6	4.9	4.0	4.5	9.0	60	182	22	8.0	4.9
8	5.8	4.5	5.6	5.4	4.5	4.3	9.9	55	150	21	8.7	4.5
9	5.6	4.7	5.4	5.6	4.9	4.0	8.4	58	133	21	7.4	4.0
10	5.6	5.6	5.0	5.6	5.6	3.8	8.4	60	133	18	13	4.0
11	5.6	5.6	5.2	5.6	5.6	3.8	11	56	131	18	9.9	3.8
12	5.6	5.8	5.0	5.2	4.9	5.1	15	63	112	19	8.0	3.6
13	5.1	5.1	4.9	5.0	4.5	4.3	18	64	110	16	6.8	4.0
14	5.1	5.8	4.9	5.2	3.8	4.0	15	60	105	16	9.0	4.5
15	5.4	4.9	4.7	5.4	3.8	3.8	16	62	99	14	13	4.7
16	4.9	5.4	4.7	5.4	3.8	4.3	18	57	93	15	8.7	5.6
17	4.7	5.1	4.9	5.4	3.6	4.0	21	51	83	12	7.1	5.8
18	4.9	5.8	4.7	5.4	3.6	3.8	23	49	78	11	6.1	5.6
19	5.1	6.0	4.9	5.2	3.3	3.8	24	48	75	10	5.4	4.7
20	4.9	5.4	4.9	5.2	3.4	3.6	17	52	68	9.9	5.1	4.5
21	4.9	5.6	4.7	5.0	3.4	4.5	17	57	64	8.7	4.9	4.5
22	4.9	6.8	4.9	5.0	3.4	4.3	16	82	60	8.7	4.5	4.5
23	4.9	5.8	4.9	5.0	3.3	3.6	15	99	55	9.9	5.1	4.5
24	5.4	6.8	4.9	5.0	3.4	4.0	17	99	52	9.4	5.1	4.5
25	6.1	5.4	4.9	5.0	3.4	4.3	18	93	49	8.7	4.5	4.5
26	7.1	6.4	4.9	4.7	4.5	4.5	18	91	41	8.0	4.0	4.5
27	5.8	5.4	4.7	5.0	4.9	4.3	17	85	37	9.4	4.7	4.5
28	5.6	5.4	5.4	5.0	4.5	4.7	14	95	34	9.9	7.4	4.5
29	7.1	5.6	5.1	4.5	4.0	5.6	21	126	33	8.4	6.4	4.7
30	6.6	5.8	5.4	4.5	---	6.8	34	158	30	8.0	5.8	4.7
31	6.0	---	5.1	4.5	---	9.0	---	179	---	11	5.1	---
Total	173.4	160.0	158.5	158.7	119.8	141.3	476.7	2333	3251	483.0	219.3	143.7
Mean	5.59	5.33	5.11	5.12	4.13	4.56	15.9	75.3	108	15.6	7.07	4.79
Max	7.1	6.8	5.6	5.6	5.6	9.0	34	179	230	32	13	8.0
Min	4.7	4.0	4.7	4.5	3.3	3.6	8.4	45	30	8.0	4.0	3.6
Ac-ft	344	317	314	315	238	280	946	4,630	6,450	958	435	285

Cal yr 1967: Total 7,762.9 Mean 21.3 Max 184 Min 3.4 Ac-ft 15,400
 Wtr yr 1968: Total 7,818.4 Mean 21.4 Max 230 Min 3.3 Ac-ft 15,510

Peak discharge (base, 170 cfs).--June 3 (2200) 252 cfs (4.69 ft).

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 1968. Monthly discharge only for some periods, published in WSP 1313.

Gage.--Water-stage recorder. Altitude of gage is 7,856 ft (from topographic map). Prior to Oct. 1, 1955, staff gage at site 3 miles upstream at different datum.

Average discharge.--19 years, 50.8 cfs (36,780 acre-ft per year).

Extremes.--Maximum discharge during year, 534 cfs June 6 (gage height, 4.95 ft); minimum daily, 3.6 cfs Feb. 21.

1937-43, 1955-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.3	6.5	5.8	4.5	4.3	4.2	15	64	453	47	21	5.0
2	5.8	6.8	5.4	4.7	4.3	4.1	17	99	460	44	17	4.4
3	5.8	6.6	5.4	4.5	4.3	4.2	16	138	472	42	20	5.8
4	5.8	6.4	5.6	4.5	4.3	4.3	14	182	450	40	19	8.3
5	5.8	7.0	5.8	4.5	4.3	5.0	13	192	447	43	17	7.5
6	6.2	5.2	5.6	4.6	4.0	5.0	16	182	472	53	17	6.2
7	7.2	4.5	5.4	4.5	4.0	4.9	13	128	415	36	16	5.0
8	6.8	4.6	5.2	4.6	4.0	4.7	14	127	393	26	17	4.4
9	6.8	4.8	4.9	4.6	4.3	4.5	13	167	316	26	21	4.2
10	6.2	5.8	5.0	4.7	4.9	4.5	13	184	297	26	32	4.0
11	5.8	5.6	5.0	4.7	4.9	4.9	17	202	334	25	26	4.2
12	5.6	5.2	5.0	4.7	4.8	5.0	20	215	334	24	21	4.0
13	5.3	5.0	4.8	4.7	4.5	4.7	22	215	334	24	19	4.2
14	5.3	5.0	4.8	4.6	4.2	4.5	18	213	337	25	27	5.3
15	5.3	5.0	4.7	4.5	4.2	4.3	21	236	294	21	40	7.5
16	5.0	5.4	4.7	4.5	4.2	4.5	24	194	285	17	23	9.5
17	5.0	5.2	4.7	4.5	4.0	4.5	26	177	239	16	15	10
18	5.3	5.2	4.7	4.5	4.0	4.4	28	194	218	15	12	8.7
19	5.3	5.4	4.8	4.5	3.8	4.5	29	194	213	12	10	12
20	5.0	5.4	4.8	4.5	3.7	5.0	25	231	197	9.5	8.7	9.5
21	4.8	5.6	4.8	4.6	3.6	5.2	24	261	182	12	7.9	7.5
22	4.8	5.8	4.8	4.7	3.7	5.2	24	340	156	15	7.2	7.2
23	5.0	5.8	4.8	4.7	3.9	4.8	22	381	134	16	6.8	7.2
24	5.6	5.8	4.7	4.7	4.0	5.0	27	337	121	16	7.2	6.8
25	6.5	5.8	4.7	4.5	4.4	5.4	28	291	108	16	6.8	6.5
26	7.2	5.6	4.7	4.5	4.6	5.0	24	288	91	16	5.8	5.8
27	6.5	5.4	4.7	4.5	4.6	5.0	24	273	76	16	5.6	5.8
28	6.8	5.4	4.6	4.5	4.2	5.8	27	297	70	15	6.2	5.6
29	7.2	5.6	4.6	4.5	4.2	7.8	32	353	62	15	6.5	5.8
30	5.8	5.8	4.6	4.5	- - - -	9.8	43	399	51	22	5.8	5.8
31	6.2	- - - -	4.5	4.5	- - - -	13	- - - -	421	- - - -	29	5.0	- - - -
Total	181.0	167.2	153.6	141.6	122.2	163.7	649	7,175	8,011	759.5	469.5	193.7
Mean	5.84	5.57	4.95	4.57	4.21	5.28	21.6	231	267	24.5	15.1	6.46
Max	7.2	7.0	5.8	4.7	4.9	13	43	421	472	53	40	12
Min	4.8	4.5	4.5	4.5	3.6	4.1	13	64	51	9.5	5.0	4.0
Ac-ft	359	332	305	281	242	325	1,290	14,230	15,890	1,510	931	384

Cal yr 1967: Total 14,051.2 Mean 38.5 Max 421 Min 1.2 Ac-ft 27,870
 Wtr yr 1968: Total 18,187.0 Mean 49.7 Max 472 Min 3.6 Ac-ft 36,070

Peak discharge (base, 300 cfs)

Note.--No gage-height record Dec. 28 to Apr. 10.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-25	0200	4.57	434	6-14	0530	4.58	412
6-6	0730	4.95	534				

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 1968 (discontinued).

Gage.--Water-stage recorder and concrete control. Altitude of gage is 7,933 ft (from topographic map).

Average discharge.--13 years, 1.94 cfs (1,400 acre-ft per year).

Extremes.--Maximum discharge during year, 18 cfs May 23 (gage height, 1.94 ft); minimum daily, 0.28 cfs Aug. 20-23, 25-27, Sept. 1, 2. 1955-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.42	0.64	0.68	0.84	0.84	0.84	1.3	4.6	11	0.98	0.48	0.28
2	.42	.64	.70	.84	.84	.82	1.3	6.0	10	.84	.42	.28
3	.48	.64	.70	.84	.86	.82	1.3	6.8	9.9	.84	.42	.48
4	.48	.62	.70	.84	.86	.82	1.3	8.1	8.1	1.8	.42	.56
5	.56	.58	.70	.84	.86	.82	1.3	8.6	7.2	2.4	.37	.48
6	.56	.54	.70	.84	.86	.84	1.5	6.3	6.8	3.3	.37	.42
7	.56	.54	.70	.84	.86	.86	1.3	5.0	6.0	3.1	.37	.42
8	.56	.56	.70	.84	.86	.86	1.3	4.6	5.6	3.3	.48	.37
9	.56	.56	.70	.84	.84	.86	1.3	5.3	5.6	2.2	.56	.32
10	.56	.56	.68	.84	.84	.84	1.5	5.3	5.8	.98	.84	.32
11	.56	.56	.70	.84	.84	.82	2.5	4.8	7.2	.74	.56	.32
12	.48	.56	.72	.84	.86	.82	2.2	6.3	5.6	.64	.48	.32
13	.56	.56	.76	.82	.86	.82	1.8	5.6	4.6	.64	.37	.37
14	.56	.56	.74	.82	.86	.84	2.0	4.6	4.0	.64	.48	.42
15	.56	.56	.76	.84	.86	.84	2.6	5.3	3.8	.56	.84	.42
16	.56	.56	.80	.84	.84	.84	2.4	4.6	3.3	.42	.42	.56
17	.48	.56	.80	.84	.84	.84	3.6	4.3	3.1	.42	.37	.64
18	.56	.56	.76	.84	.84	.84	2.8	4.3	2.6	.37	.32	.64
19	.56	.56	.78	.80	.84	.84	2.2	4.6	2.2	.32	.32	.56
20	.56	.64	.80	.82	.84	.86	2.2	6.0	2.0	.32	.28	.48
21	.56	.74	.82	.84	.84	.84	1.5	6.0	1.5	.32	.28	.48
22	.56	.70	.80	.84	.86	.84	1.3	9.4	1.3	.28	.28	.42
23	.56	.70	.82	.84	.84	.84	1.5	9.4	1.1	.48	.28	.42
24	.56	.70	.82	.86	.84	.86	1.8	7.2	1.3	.42	.32	.48
25	.56	.70	.82	.88	.84	.86	1.5	6.3	1.3	.37	.28	.48
26	.64	.70	.84	.90	.84	.86	1.3	6.3	1.3	.32	.28	.48
27	.56	.68	.84	.90	.84	.86	1.1	5.6	.98	.42	.28	.42
28	.56	.68	.84	.90	.84	.88	1.8	6.0	.98	.37	.37	.48
29	.56	.66	.84	.90	.84	.94	8.1	9.0	.84	.32	.42	.42
30	.64	.68	.84	.88	-----	1.1	3.3	10	.84	.74	.37	.42
31	.74	-----	.84	.86	-----	1.2	-----	11	-----	.74	.32	-----
Total	17.10	18.50	23.70	26.30	24.58	26.82	60.9	197.2	125.84	29.59	12.65	13.16
Mean	0.55	0.62	0.76	0.85	0.85	0.87	2.03	6.36	4.19	0.95	0.41	0.44
Max	0.74	0.74	0.84	0.90	0.86	1.2	8.1	11	11	3.3	0.84	0.64
Min	0.42	0.54	0.68	0.80	0.84	0.82	1.1	4.3	0.84	0.28	0.28	0.28
Ac-ft	34	37	47	52	49	53	121	391	250	59	25	26

Cal yr 1967: Total 488.47 Mean 1.34 Max 11 Min 0.11 Ac-ft 969
 Wtr yr 1968: Total 576.34 Mean 1.57 Max 11 Min 0.28 Ac-ft 1,140

Peak discharge (base, 15 cfs).--May 23 (0200) 18 cfs (1.94 ft).

Note.--No gage-height record Jan. 9 to Apr. 3.

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 1968.

Gage.--Water-stage recorder. Altitude of gage is 8,961 ft (from topographic map).

Average discharge.--13 years, 18.6 cfs (13,470 acre-ft per year).

Extremes.--Maximum discharge during year, 158 cfs June 7 (gage height, 2.57 ft); minimum daily, 2.4 cfs Jan. 13, 14, Feb. 9, 10, 18-21. 1955-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	2.7	2.8	2.8	2.7	2.8	3.7	6.4	90	64	33	7.2
2	14	2.8	2.8	2.7	2.7	2.8	3.5	6.6	96	63	33	7.2
3	14	2.8	2.8	2.7	2.7	2.9	3.3	6.8	99	63	33	7.5
4	14	2.9	2.9	2.7	2.7	3.1	3.3	7.0	107	62	32	7.2
5	14	3.0	2.9	2.7	2.6	3.1	3.4	6.8	112	62	31	7.2
6	13	3.0	2.8	2.7	2.6	3.0	3.3	6.4	127	62	30	7.0
7	13	3.0	2.8	2.6	2.6	3.0	3.3	6.0	142	62	30	7.0
8	14	3.0	2.7	2.6	2.5	3.0	3.6	7.5	142	61	19	7.0
9	13	3.0	2.7	2.6	2.4	3.1	4.1	10	129	61	9.5	7.0
10	13	2.9	2.7	2.5	2.4	3.1	4.6	12	120	60	8.3	6.7
11	13	2.9	2.8	2.6	2.5	3.0	5.2	13	115	60	7.8	7.0
12	13	3.0	2.8	2.5	2.6	3.0	5.4	15	114	58	7.2	7.0
13	13	3.0	2.8	2.4	2.6	3.0	5.8	13	112	57	7.2	7.0
14	11	3.0	2.6	2.4	2.6	3.0	5.8	11	104	56	8.3	7.0
15	2.6	3.0	2.6	2.5	2.5	2.9	5.6	9.4	94	56	7.8	7.2
16	2.6	3.0	2.6	2.5	2.5	2.9	6.0	8.3	89	56	7.2	7.2
17	2.6	3.0	2.6	2.6	2.5	3.0	6.0	8.6	83	55	7.2	7.0
18	2.6	2.9	2.6	2.6	2.4	3.0	6.2	13	79	55	7.2	7.2
19	2.6	2.9	2.6	2.6	2.4	3.0	6.2	29	71	53	7.5	7.2
20	2.6	3.0	2.6	2.7	2.4	3.2	6.0	37	64	45	7.5	7.0
21	2.6	3.0	2.7	2.7	2.4	3.2	5.7	27	63	45	7.5	6.7
22	2.6	3.0	2.8	2.7	2.5	3.2	5.6	16	62	48	7.5	6.7
23	2.6	3.0	2.8	2.7	2.6	3.2	5.4	17	62	54	7.5	6.5
24	2.6	2.8	2.8	2.7	2.7	3.2	5.6	16	62	53	7.5	6.5
25	2.7	2.8	2.8	2.7	2.8	3.2	6.0	16	61	48	7.5	6.5
26	2.6	2.8	2.7	2.7	2.8	3.3	6.0	18	60	44	7.5	6.5
27	2.6	2.8	2.7	2.8	2.8	3.3	5.6	17	61	43	7.8	6.5
28	2.6	2.9	2.8	2.9	2.8	3.2	5.8	20	62	43	7.5	6.5
29	2.8	3.0	2.8	2.9	2.8	3.4	6.0	26	65	41	7.5	6.5
30	2.7	3.0	2.8	2.9	- - - -	3.5	6.2	29	65	35	7.5	6.3
31	2.7	- - - -	2.8	2.7	- - - -	3.8	- - - -	54	- - - -	34	7.5	- - - -
Total	230.7	87.9	85.0	82.4	75.1	96.4	152.2	488.8	2,712	1,659	416.5	207.0
Mean	7.44	2.93	2.74	2.66	2.59	3.11	5.07	15.8	90.4	53.5	13.4	6.90
Max	14	3.0	2.9	2.9	2.8	3.8	6.2	54	142	64	33	7.5
Min	2.6	2.7	2.6	2.4	2.4	2.8	3.3	6.0	60	34	7.2	6.3
Ac-ft	458	174	169	163	149	191	302	970	5,380	3,290	826	411

Cal yr 1967: Total 4,615.2 Mean 12.6 Max 89 Min 1.3 Ac-ft 9,150
 Wtr yr 1968: Total 6,293.0 Mean 17.2 Max 142 Min 2.4 Ac-ft 12,480

Note.--No gage-height record Nov. 26 to Apr. 2, Apr. 8 to May 7.

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 1968.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 7,840 ft (from topographic map).

Average discharge.--11 years, 8.22 cfs (5,950 acre-ft per year).

Extremes.--Maximum discharge during year, 59 cfs June 1 (gage height, 3.56 ft); minimum daily, 1.1 cfs Sept. 10-12.

1957-68: 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, 0.40 cfs 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.8	2.0	1.8	1.7	1.8	2.2	4.5	13	55	7.2	2.4	1.5
2	1.7	2.1	1.7	1.5	1.8	2.2	5.4	15	55	6.2	2.4	1.4
3	1.7	1.7	1.7	1.6	1.8	2.2	4.5	21	55	4.6	3.7	2.1
4	1.8	2.1	1.8	1.8	1.8	2.3	3.9	24	52	4.1	3.7	2.2
5	2.0	1.7	1.9	1.7	1.5	2.5	3.7	31	50	4.6	2.9	2.0
6	2.1	1.7	1.9	1.6	1.5	2.4	4.0	32	48	4.8	3.1	1.7
7	2.2	1.7	1.8	1.4	1.5	2.3	3.4	25	40	4.1	2.9	1.4
8	2.1	1.7	1.8	1.5	1.6	2.3	3.1	23	39	3.9	3.3	1.3
9	2.4	2.0	1.8	1.7	2.0	2.3	3.1	28	34	4.1	6.0	1.2
10	2.2	2.0	1.7	1.7	2.2	2.5	3.1	30	36	4.1	7.2	1.1
11	2.0	2.0	1.8	1.8	2.2	2.6	3.5	30	34	4.3	6.8	1.1
12	2.0	2.1	1.9	1.7	1.8	2.7	4.1	34	25	3.7	4.3	1.1
13	1.7	2.1	1.6	1.5	1.8	2.4	3.9	39	23	3.5	3.5	1.4
14	1.8	2.1	1.5	1.3	1.8	2.2	3.7	31	21	3.1	4.3	1.4
15	1.8	2.1	1.5	1.5	1.8	2.3	4.3	35	20	2.9	5.6	1.3
16	1.7	2.1	1.5	1.7	1.8	2.4	5.1	30	17	3.3	3.5	2.0
17	1.7	2.1	1.7	1.8	1.8	2.4	5.4	28	16	2.7	2.6	1.8
18	1.8	2.1	1.8	1.8	1.8	2.4	5.1	28	18	2.6	2.4	1.8
19	1.8	2.0	1.8	1.8	1.9	2.4	4.6	27	17	2.2	2.2	1.7
20	1.8	2.0	1.8	1.7	1.8	2.5	4.6	35	16	2.1	2.1	1.7
21	1.8	2.0	1.7	1.7	1.7	2.6	4.8	39	15	2.1	2.1	1.7
22	2.2	1.9	1.8	1.7	2.0	2.5	4.3	46	15	2.1	2.0	1.8
23	2.7	1.8	1.8	1.7	2.0	2.4	4.1	46	17	2.1	2.1	1.8
24	2.1	1.7	1.8	1.8	2.1	2.5	4.3	44	16	2.2	2.2	2.0
25	2.1	1.7	1.8	1.8	2.2	2.6	4.8	44	15	2.0	1.8	1.8
26	2.2	1.7	1.7	1.6	2.3	2.7	4.8	44	12	1.8	1.7	1.8
27	1.8	1.7	1.8	2.0	2.4	2.7	4.6	44	10	2.0	1.8	1.9
28	2.0	1.7	2.0	2.0	2.3	2.8	4.6	46	9.5	1.8	2.7	1.9
29	2.1	1.8	2.0	2.0	2.2	3.0	6.5	48	8.3	1.5	3.1	2.0
30	1.5	1.8	2.1	1.8	-----	3.3	11	49	8.0	1.7	2.1	1.8
31	2.0	-----	1.9	1.8	-----	3.8	-----	54	-----	2.6	1.8	-----
Total	60.6	57.2	55.2	52.7	55.2	78.4	136.8	1,063	796.8	100.0	98.3	49.7
Mean	1.95	1.91	1.78	1.70	1.90	2.53	4.56	34.3	26.6	3.23	3.17	1.66
Max	2.7	2.1	2.1	2.0	2.4	3.8	11	54	55	7.2	7.2	2.2
Min	1.5	1.7	1.5	1.3	1.5	2.2	3.1	13	8.0	1.5	1.7	1.1
Ac-ft	120	113	109	105	109	156	271	2,110	1,580	198	195	99
Cal yr 1967: Total	2,113.62		Mean	5.79	Max	40	Min	0.88	Ac-ft	4,190		
Wtr yr 1968: Total	2,603.9		Mean	7.11	Max	55	Min	1.1	Ac-ft	5,160		

Note.--No gage-height record Dec. 10 to Apr. 10.

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 1968.

Gage.--Water-stage recorder and Parshall flume. Altitude of gage is 10,986 ft (from State engineer).

Extremes.--1957-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0	12	2.6	23	0
2								0	12	2.5	26	0
3								0	16	2.5	23	0
4								0	13	2.5	15	2.2
5								0	11	2.5	13	4.5
6								1.6	10	2.5	19	2.3
7								2.5	7.7	2.5	14	2.6
8								2.2	5.9	2.5	0	3.7
9								2.2	4.8	2.8	0	.78
10								2.3	4.4	3.6	0	.16
11								2.8	4.6	3.0	0	0
12								3.4	6.0	3.3	0	0
13								2.6	7.5	4.0	0	0
14								2.3	6.9	1.9	0	0
15								2.3	7.1	2.2	0	0
16								2.0	6.9	1.9	0	12
17								1.8	6.9	1.6	0	33
18								2.0	6.7	1.4	0	33
19								2.6	7.1	1.5	0	33
20								3.2	7.1	1.6	1.6	32
21								5.3	6.7	1.4	3.7	32
22								6.8	5.9	1.3	4.0	32
23								5.8	5.5	1.2	4.4	31
24								4.2	4.9	1.2	2.1	30
25								3.1	4.8	1.3	2.6	31
26								3.0	4.0	1.6	3.2	32
27								3.4	3.7	4.9	3.6	31
28								5.6	3.8	3.8	5.0	30
29								8.5	3.8	1.7	4.4	30
30								11	3.1	1.7	3.8	29
31								12		2.0	.20	
Total	0	0	0	0	0	0	0	104.5	2098	300.5	171.60	467.24
Mean	0	0	0	0	0	0	0	3.37	6.99	9.69	5.54	15.6
Max	0	0	0	0	0	0	0	12	16	22	26	33
Min	0	0	0	0	0	0	0	0	3.1	2.5	0	0
Ac-ft	0	0	0	0	0	0	0	207	416	596	340	927
Cal yr 1967: Total	1,492.16			Mean	4.09	Max	41	Min	0	Ac-ft	2,960	
Wtr yr 1968: Total	1,253.64			Mean	3.43	Max	33	Min	0	Ac-ft	2,490	

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 1968.

Gage.--Water-stage recorder and Parshall flume. Altitude of gage is 10,986 ft (from State engineer).

Extremes.--1957-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0	15	8.6	5.4	2.7
2								0	18	8.2	5.4	2.6
3								0	23	8.2	5.2	2.7
4								0	19	7.8	4.8	2.9
5								0	22	8.2	4.8	3.2
6								0.70	22	7.6	5.2	3.0
7								1.2	19	7.2	6.8	2.9
8								1.1	15	7.2	4.5	2.7
9								1.2	12	7.4	3.2	2.1
10								1.2	11	7.4	5.7	1.6
11								1.2	12	6.7	5.1	1.6
12								1.2	17	6.3	5.0	1.6
13								1.1	20	5.9	6.5	1.6
14								1.0	20	5.6	5.4	1.6
15								1.1	20	5.4	1.2	1.5
16								1.1	19	5.2	1.8	1.5
17								1.1	20	4.8	2.3	1.5
18								1.0	20	4.7	2.3	1.6
19								.96	20	4.7	2.3	1.5
20								1.0	20	4.7	4.8	1.5
21								1.7	19	4.5	5.9	1.4
22								3.1	17	4.5	5.7	1.3
23								3.3	15	4.8	5.6	1.3
24								2.9	14	4.7	5.0	1.2
25								2.3	13	4.8	4.8	1.2
26								2.3	12	4.8	4.5	1.1
27								2.7	12	5.2	4.8	1.1
28								4.8	11	5.2	4.5	1.1
29								7.0	11	5.0	4.1	1.2
30								8.3	9.5	5.6	3.8	1.1
31		-----			-----		-----	11	-----	5.7	2.9	-----
Total	0	0	0	0	0	0	0	65.56	497.5	186.6	139.3	53.9
Mean	0	0	0	0	0	0	0	2.11	16.6	6.02	4.49	1.80
Max	0	0	0	0	0	0	0	11	23	8.6	6.8	3.2
Min	0	0	0	0	0	0	0	0	9.5	4.5	1.2	1.1
Ac-ft	0	0	0	0	0	0	0	130	987	370	276	107
Cal yr 1967: Total	615.54		Mean	1.69	Max	12	Min	0	Ac-ft	1,220		
Wtr yr 1968: Total	942.86		Mean	2.58	Max	23	Min	0	Ac-ft	1,870		

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 1968. 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.--1957-68: Maximum daily discharge, 123 cfs June 20, 1968; 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0	36	33	10	0
2								0	49	37	4.4	0
3								0	70	40	.30	0
4								0	81	37	.25	2.8
5								0	80	36	.30	7.4
6								1.6	99	36	.97	7.0
7								2.3	70	41	.25	6.3
8								1.5	38	42	.20	5.8
9								1.7	27	43	.10	2.7
10								1.9	23	49	0	0
11								2.1	23	46	0	0
12								2.7	43	46	0	0
13								1.7	62	49	0	0
14								1.4	69	48	0	0
15								1.3	68	35	0	0
16								1.3	68	45	0	0
17								1.2	80	2.9	0	0
18								1.0	88	8.5	0	0
19								1.5	99	11	0	0
20								1.9	123	11	0	0
21								3.2	109	10	8.0	0
22								7.4	93	10	12	0
23								7.0	80	12	11	0
24								4.7	76	12	9.2	0
25								3.6	62	9.3	8.5	0
26								3.8	45	2.0	8.1	0
27								3.9	59	.29	8.5	0
28								7.5	71	.15	11	0
29								14	62	.15	11	0
30								19	47	9.9	7.2	0
31		-----			-----		-----	28	-----	14	0	-----
Total	0	0	0	0	0	0	0	127.2	2,000	731.64	111.27	32.0
Mean	0	0	0	0	0	0	0	4.10	66.7	23.6	3.59	1.07
Max	0	0	0	0	0	0	0	28	123	49	12	7.4
Min	0	0	0	0	0	0	0	0	23	0.15	0	0
Ac-ft	0	0	0	0	0	0	0	252	3,970	1,450	221	63

Cal yr 1967: Total 3,011.07 Mean 8.25 Max 70 Min 0 Ac-ft 5,970

Wtr yr 1968: Total 3,002.11 Mean 8.20 Max 123 Min 0 Ac-ft 5,950

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.--119 sq mi.

Records available.--October 1957 to September 1968.

Gage.--Water-stage recorder. Altitude of gage is 9,120 ft (from topographic map).

Average discharge.--11 years, 92.2 cfs (66,750 acre-ft per year), including diversion to Hoosier Pass tunnel.

Extremes.--Maximum discharge during year, 426 cfs Aug. 11 (gage height, 4.11 ft); minimum daily, 20 cfs Feb. 27 to Mar. 11, Mar. 13-30. 1957-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	37	30	27	22	20	22	30	203	215	145	82
2	51	37	30	27	24	20	22	33	233	197	148	78
3	50	37	30	27	23	20	22	39	292	185	150	84
4	48	37	31	26	23	20	22	44	340	179	150	86
5	48	37	31	26	23	20	22	50	336	173	138	92
6	50	36	31	26	23	20	22	57	390	176	135	94
7	51	34	31	26	22	20	22	65	398	170	150	84
8	51	34	30	26	22	20	22	65	358	160	230	74
9	50	33	30	26	22	20	22	60	320	155	300	69
10	47	33	30	25	22	20	22	60	292	155	304	67
11	47	33	30	24	22	20	22	62	272	152	376	63
12	45	33	30	24	22	21	22	63	257	148	312	65
13	45	33	30	24	22	20	23	63	288	142	239	67
14	44	33	30	24	22	20	24	67	316	140	212	69
15	44	32	30	25	21	20	24	69	312	140	221	72
16	43	33	29	25	21	20	24	71	320	135	206	74
17	42	32	29	25	21	20	25	69	332	135	185	76
18	42	32	29	25	21	20	25	67	336	150	168	80
19	41	32	29	25	21	20	26	63	349	145	160	80
20	41	32	28	24	21	20	26	62	354	140	150	82
21	41	32	28	24	21	20	25	67	367	132	140	82
22	40	32	28	24	21	20	25	72	358	125	128	78
23	39	32	27	24	21	20	25	90	332	125	118	72
24	39	33	27	24	21	20	25	115	312	122	108	69
25	38	33	27	24	21	20	26	122	296	122	101	67
26	38	32	28	24	21	20	26	118	276	118	96	67
27	37	31	28	24	20	20	26	113	254	128	92	62
28	37	30	28	23	20	20	26	110	248	158	92	62
29	37	30	27	23	20	20	26	115	242	170	94	60
30	37	30	27	22	20	20	28	140	233	162	92	58
31	37	- - - -	27	22	- - - -	21	- - - -	168	- - - -	145	88	- - - -
Total	1,354	995	900	765	626	622	719	2,389	9,216	4,699	5,228	2,215
Mean	43.7	33.2	29.0	24.7	21.6	20.1	24.0	77.1	307	152	169	73.8
Max	54	37	31	27	24	21	28	168	398	215	376	94
Min	37	30	27	22	20	20	22	30	203	118	88	58
Ac-ft	2,690	1,970	1,790	1,520	1,240	1,230	1,430	4,740	18,280	9,320	10,370	4,390
Cal yr 1967: Total	22,509	Mean	61.7	Max	220	Min	20	Ac-ft	44,650			
Wtr yr 1968: Total	29,728	Mean	81.2	Max	398	Min	20	Ac-ft	58,960			

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.--57.7 sq mi.

Records available.--July 1942 to September 1946, October 1951 to September 1968.

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.--21 years, 59.3 cfs (42,930 acre-ft per year).

Extremes.--Maximum discharge during year, 582 cfs June 20 (gage height, 3.22 ft); minimum daily, 9.0 cfs Feb. 2.
1942-46, 1951-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	18	18	12	9.5	13	15	19	148	183	83	39
2	30	16	18	12	9.0	13	14	21	216	173	75	39
3	29	16	18	12	9.3	13	12	22	295	168	68	49
4	32	17	17	12	9.5	13	12	26	306	166	62	52
5	39	19	17	13	9.5	14	10	26	339	168	68	49
6	35	18	16	13	9.5	14	9.8	27	374	157	83	45
7	32	18	16	13	9.6	14	10	25	362	150	79	40
8	31	19	16	13	9.4	13	9.5	21	299	148	73	38
9	30	20	15	13	9.6	13	9.5	20	253	150	91	36
10	29	20	15	13	10	13	10	22	216	148	113	34
11	28	20	15	13	10	13	11	21	214	142	115	33
12	27	20	15	11	10	13	12	23	278	141	98	33
13	26	19	14	11	11	13	13	21	358	133	88	34
14	26	19	13	11	11	13	12	20	343	126	105	35
15	27	19	13	11	11	13	12	22	317	120	96	36
16	25	19	13	11	11	13	12	20	354	117	81	36
17	24	19	13	11	11	13	11	19	378	110	75	36
18	24	19	13	10	11	12	12	19	391	112	71	40
19	24	18	13	10	11	11	11	19	391	112	64	38
20	24	18	13	10	12	11	11	22	412	105	62	33
21	23	18	13	10	12	12	11	26	417	98	58	31
22	22	18	14	10	12	12	11	41	395	93	57	30
23	22	18	15	10	12	12	11	49	347	91	55	30
24	23	17	15	10	11	13	10	46	313	86	51	29
25	23	17	14	10	11	13	10	40	278	81	49	28
26	24	16	14	10	11	13	11	40	246	81	46	28
27	23	15	13	10	12	14	11	40	262	91	51	27
28	24	16	13	10	12	14	13	51	265	88	58	27
29	24	16	13	10	12	14	13	78	246	84	49	30
30	20	17	13	10	- - - - -	15	16	93	211	84	45	29
31	18	- - - - -	12	10	- - - - -	15	- - - - -	115	- - - - -	93	40	- - - - -
Total	819	539	450	345	308.9	405	345.8	1,054	9,224	3,799	2,209	1,064
Mean	26.4	18.0	14.5	11.1	10.7	13.1	11.5	34.0	307	123	71.3	35.5
Max	39	20	18	13	12	15	16	115	417	183	115	52
Min	18	15	12	10	9.0	11	9.5	19	148	81	40	27
Ac-ft	1,620	1,070	893	684	613	803	686	2,090	18,300	7,540	4,380	2,110
Cal yr 1967: Total	18,169.8			Mean 49.8	Max 278	Min 7.8		Ac-ft 36,040				
Wtr yr 1968: Total	20,562.7			Mean 56.2	Max 417	Min 9.0		Ac-ft 40,790				

Peak discharge (base, 500 cfs).--June 6 (2130) 500 cfs (3.08 ft); June 20 (2115) 582 cfs (3.22 ft).

Note.--No gage-height record Dec. 6 to Apr. 4.

BLUE RIVER BASIN

9-0477. Keystone Gulch' near Dillon, Colo.

Location.--Lat 39°35'40", long 105°58'19", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ 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.--9.10 sq mi.

Records available.--October 1957 to September 1968.

Gage.--Water-stage recorder. Altitude of gage is 9,350 ft (from topographic map).

Average discharge.--11 years, 5.18 cfs (3,750 acre-ft per year).

Extremes.--Maximum discharge during year, 39 cfs June 6 (gage height, 2.36 ft); minimum daily, 1.7 cfs Feb. 2, 3, Mar. 18-21.

1957-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.4	3.1	2.5	2.0	1.8	2.0	2.0	3.5	19	12	5.0	3.4
2	3.2	2.8	2.6	2.0	1.7	2.0	2.0	3.9	22	12	4.7	3.2
3	3.0	2.5	2.7	2.0	1.7	2.0	2.0	4.1	27	11	4.7	4.1
4	3.4	2.4	2.6	2.0	1.8	2.0	2.0	4.7	28	11	4.5	4.3
5	3.6	2.6	2.6	2.1	1.9	2.0	1.9	4.3	29	11	4.5	4.1
6	3.4	2.5	2.6	2.1	2.0	2.0	1.9	4.3	32	9.5	6.0	3.9
7	3.2	2.4	2.5	2.1	2.0	1.9	1.9	3.9	30	9.5	6.0	3.4
8	3.2	2.4	2.4	2.1	2.0	1.8	1.9	4.1	26	9.5	5.0	3.2
9	3.2	2.4	2.4	2.0	2.0	1.8	1.9	3.6	24	9.0	5.4	3.0
10	3.2	2.4	2.4	2.0	2.0	1.8	1.9	3.9	21	7.9	6.0	3.0
11	3.0	2.4	2.4	2.0	2.0	1.8	2.0	3.9	21	7.6	5.4	3.0
12	3.0	2.4	2.2	1.9	2.0	1.8	2.1	3.6	24	7.3	4.7	3.0
13	2.9	2.4	2.1	1.9	2.1	1.8	2.1	3.9	25	7.0	4.5	3.4
14	3.0	2.3	2.1	1.9	2.1	1.8	2.1	4.1	24	6.6	5.2	3.6
15	3.2	2.3	2.1	1.9	2.1	1.8	2.1	4.5	23	6.6	5.0	3.4
16	2.9	2.3	2.1	1.9	2.1	1.8	2.1	4.1	24	6.0	4.5	3.4
17	3.0	2.3	2.1	1.9	2.1	1.8	2.1	4.3	24	5.4	4.5	3.4
18	3.0	2.4	2.1	1.9	2.1	1.7	2.2	3.9	24	5.4	4.1	3.6
19	2.9	2.4	2.1	1.8	2.1	1.7	2.2	4.1	24	5.4	4.1	3.6
20	2.9	2.4	2.1	1.8	2.2	1.7	2.2	4.5	24	5.4	4.1	3.4
21	2.9	2.4	2.1	1.8	2.2	1.7	2.2	5.4	23	5.0	4.1	3.4
22	2.9	2.4	2.2	1.8	2.2	1.8	2.3	7.6	22	5.0	3.9	3.2
23	2.9	2.4	2.3	1.8	2.1	1.8	2.3	7.9	21	5.0	3.9	3.0
24	2.9	2.4	2.2	1.8	2.0	1.8	2.4	7.3	19	5.0	3.9	3.0
25	3.0	2.4	2.2	1.8	1.9	1.8	2.6	7.3	18	5.0	3.9	3.0
26	2.9	2.3	2.1	1.8	1.9	1.8	2.6	7.3	16	5.0	3.6	2.9
27	3.1	2.3	2.0	1.8	2.0	1.9	2.6	7.6	15	5.7	3.9	2.9
28	3.2	2.2	2.0	1.8	2.0	1.9	2.8	10	15	5.2	4.5	2.9
29	3.2	2.2	2.0	1.8	2.0	1.9	3.0	12	14	5.2	3.9	3.0
30	3.2	2.4	2.0	1.8	1.9	1.9	3.2	13	13	5.2	3.6	2.9
31	3.2	---	2.0	1.8	---	2.0	---	15	---	5.7	3.4	---
Total	96.0	72.5	69.8	59.1	58.1	57.3	66.6	181.6	671	222.1	139.9	99.6
Mean	3.10	2.42	2.25	1.91	2.00	1.85	2.22	5.86	22.4	7.16	4.51	3.32
Max	3.6	3.1	2.7	2.1	2.2	2.0	3.2	15	32	12	6.0	4.3
Min	2.9	2.2	2.0	1.8	1.7	1.7	1.9	3.5	13	5.0	3.4	2.9
Ac-ft	190	144	138	117	115	114	132	360	1,330	441	277	198

Cal yr 1967: Total 1,696.8 Mean 4.65 Max 18 Min 1.3 Ac-ft 3,370
 Wtr yr 1968: Total 1,793.6 Mean 4.90 Max 32 Min 1.7 Ac-ft 3,560

Peak discharge (base, 35 cfs).--June 6 (2330) 39 cfs (2.36 ft).

Note.--No gage-height record Nov. 30 to Apr. 11.

9-0501. Tenmile 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 1968.

Gage.--Water-stage recorder. Altitude of gage is 9,090 ft (from topographic map).

Average discharge.--11 years, 86.7 cfs (62,770 acre-ft per year).

Extremes.--Maximum discharge during year, 1,270 cfs June 5 (gage height, 5.56 ft); minimum daily, 11 cfs Jan. 6-13.

1957-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	17	13	12	14	23	23	36	475	251	127	51
2	24	14	14	12	14	23	22	43	570	236	127	49
3	23	12	14	12	14	23	21	48	716	227	133	64
4	24	13	15	12	14	24	22	63	737	213	115	64
5	29	14	15	12	15	24	22	70	767	210	104	50
6	28	14	15	11	15	24	22	76	793	205	142	43
7	26	14	14	11	15	24	22	70	612	195	202	47
8	24	15	13	11	15	24	20	69	505	197	197	46
9	24	15	13	11	15	23	21	73	470	202	190	43
10	24	15	12	11	15	22	22	79	424	192	236	41
11	23	15	12	11	15	22	23	83	408	190	236	40
12	22	17	12	11	15	22	25	89	515	183	176	38
13	21	19	12	11	16	22	26	84	648	178	148	42
14	21	19	12	12	16	23	24	79	642	169	160	46
15	21	19	12	12	16	23	26	86	612	151	157	48
16	19	19	12	12	17	23	26	76	642	135	144	48
17	18	18	12	12	18	23	26	68	681	119	106	48
18	19	18	13	13	19	23	27	68	674	112	98	48
19	18	18	13	13	20	23	28	69	667	100	86	48
20	18	18	13	13	20	23	28	84	706	92	72	43
21	18	17	13	13	21	22	26	107	667	89	63	41
22	18	16	13	13	21	22	26	176	576	92	59	39
23	18	15	13	13	21	22	25	216	510	98	56	37
24	18	15	13	14	21	23	24	202	490	95	53	35
25	18	15	12	15	22	23	28	180	455	88	51	34
26	19	15	12	15	22	24	27	171	380	107	48	38
27	18	13	12	15	22	24	27	176	380	135	52	38
28	18	12	12	14	22	25	27	210	384	117	64	37
29	18	13	12	14	22	25	26	293	332	121	63	38
30	18	13	12	14	-----	25	31	332	299	108	57	38
31	18	-----	12	14	-----	24	-----	404	-----	121	54	-----
Total	649	467	397	389	512	720	743	3,880	16,737	4,728	3,576	1,322
Mean	20.9	15.6	12.8	12.5	17.7	23.2	24.8	125	558	152	115	44.1
Max	29	19	15	15	22	25	31	404	793	251	236	64
Min	18	12	12	11	14	22	20	36	299	88	48	34
Ac-ft	1,290	926	787	772	1,020	1,430	1,470	7,700	33,200	9,380	7,090	2,620

Cal yr 1967: Total 28,867 Mean 79.1 Max 606 Min 10 Ac-ft 57,260
Wtr yr 1968: Total 34,120 Mean 93.2 Max 793 Min 11 Ac-ft 67,680

Peak discharge (base, 700 cfs).--June 5 (2200) 1,270 cfs (5.56 ft); June 20 (2115) 1,160 cfs (5.49 ft).

Note.--No gage-height record Nov. 30 to Apr. 4.

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 1968.

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, 256,900 acre-ft July 1-3 (elevation, 9,017.88 ft); minimum observed, 219,200 acre-ft May 22 (elevation, 9,005.51 ft).

1963-68: Maximum contents observed, 258,000 acre-ft June 28, 1967 (elevation, 9,018.20 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 1967 to September 1968

Date	Elevation (feet)†	Contents (acre-feet)	Changes in contents (acre-feet)
Sept. 30.....	9,012.30	239,200	-
Oct. 31.....	9,010.75	234,500	-4,700
Nov. 30.....	9,010.43	233,600	-900
Dec. 31.....	9,009.71	231,400	-2,200
Calendar year 1967.....	-	-	+9,800
Jan. 31.....	9,008.96	229,200	-2,200
Feb. 29.....	9,008.14	226,800	-2,400
Mar. 31.....	9,007.15	223,900	-2,900
Apr. 30.....	9,006.60	222,300	-1,600
May 31.....	9,006.47	222,000	-300
June 30.....	9,017.85	256,800	+34,800
July 31.....	9,017.57	255,900	-900
Aug. 31.....	9,016.77	253,300	-2,600
Sept. 30.....	9,015.29	248,500	-4,800
Water year 1968.....	-	-	+9,300

† Elevation at 0800.

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 1968.

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 300 ft (relocated) downstream from point of diversion.

Extremes.--Maximum discharge during year, 719 cfs June 3; minimum daily, 40 cfs Mar. 30, 31.

1960-68: 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.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	106	84	51	79	63	60	50	95	275	438	249	215
2	109	89	51	74	67	58	72	119	395	454	241	215
3	109	95	51	74	67	58	84	109	606	454	237	215
4	109	95	58	56	67	55	84	119	700	448	225	263
5	143	95	65	46	67	53	84	172	700	438	210	295
6	126	84	74	46	60	53	84	243	693	439	217	235
7	106	79	70	58	56	50	84	231	693	419	246	193
8	106	79	60	67	58	50	84	168	693	404	303	179
9	106	79	60	67	56	50	84	147	693	393	327	172
10	106	79	60	67	55	50	63	211	687	382	407	161
11	106	79	60	67	55	50	60	243	687	378	488	150
12	106	79	60	67	65	50	72	235	581	374	510	150
13	106	70	65	67	67	50	72	215	518	359	464	154
14	106	65	70	67	67	60	72	197	516	342	415	154
15	106	65	63	67	67	70	63	215	518	324	385	154
16	98	65	58	67	67	60	72	193	519	300	344	186
17	89	72	58	67	67	58	79	175	518	282	300	204
18	89	76	60	67	67	53	79	175	589	262	259	168
19	92	76	63	67	67	63	81	175	699	251	231	150
20	84	76	63	67	67	56	79	175	700	245	204	183
21	81	76	67	67	67	48	79	208	691	225	183	180
22	81	84	72	67	76	48	72	263	697	216	161	162
23	81	87	72	67	79	48	60	271	693	206	133	136
24	81	89	72	67	79	48	58	271	697	197	112	123
25	81	92	72	67	79	46	72	271	549	182	98	123
26	87	95	72	67	79	44	79	271	508	178	84	123
27	72	76	72	65	79	44	87	271	536	197	147	123
28	65	65	81	58	76	44	92	271	524	228	204	123
29	65	56	89	55	70	41	92	271	485	257	197	123
30	70	51	89	55	- - - -	40	92	271	438	265	204	123
31	79	- - - -	89	55	- - - -	40	- - - -	271	- - - -	261	211	- - - -
Total	2,951	2,352	2,067	1,994	1,956	1,598	2,285	6,522	17,798	9,798	7,996	5,135
Mean	95.2	78.4	66.7	64.3	67.4	51.5	76.2	210	593	316	258	171
Max	143	95	89	79	79	70	92	271	700	454	510	295
Min	65	51	51	46	55	40	50	95	275	178	84	123
Ac-ft	5,850	4,670	4,100	3,960	3,880	3,710	4,530	12,940	35,300	19,430	15,850	10,190
Cal yr 1967: Total	47,323		Mean	130	Max	750	Min	50	Ac-ft	93,860		
Wtr yr 1968: Total	62,452		Mean	171	Max	700	Min	40	Ac-ft	123,900		

BLUE RIVER BASIN

9-0520. Rock Creek near Dillon, Colo.

Location.--Lat 39°43'25", long 106°07'40", in NE¼ sec.9, T.4 S., R.78 W., on right bank 500 ft upstream from bridge on State Highway 9, 1,100 ft upstream from mouth, 1,200 ft downstream from confluence of North and South Rock Creeks, and 8 miles northwest of Dillon.

Drainage area.--15.8 sq mi.

Records available.--July 1942 to September 1956, October 1966 to September 1968.

Gage.--Digital water-stage recorder. Datum of gage is 8,502.52 ft above mean sea level (State Highway Department bench mark). Prior to Apr. 21, 1943, staff gage and Apr. 21, 1943, to Sept. 13, 1950, graphic water-stage recorder, at site 500 ft downstream at datum 28.76 ft lower. Sept. 14, 1950, to Sept. 30, 1956, graphic water-stage recorder at present site and datum.

Average discharge.--16 years, 23.0 cfs (16,650 acre-ft per year).

Extremes.--1966-67: Maximum discharge during water year, 148 cfs (revised) May 16 (gage height, 3.85 ft, revised); minimum daily, 2.9 cfs Feb. 9.

1967-68: Maximum discharge during water year, 187 cfs June 28 (gage height, 3.99 ft); minimum daily, 3.0 cfs Feb. 2.

1942-56, 1966-68: Maximum discharge, 260 cfs June 18, 1951 (gage height, 4.35 ft), from rating curve extended above 190 cfs; minimum daily determined, 2.2 cfs Apr. 13, 17, 1945.

Revisions.--The maximum discharge and gage height for the water year 1967 has been revised to 148 cfs May 16, 1967 (gage height, 3.85 ft), superseding figures previously published.

Remarks.--Records good except those for winter periods, which are fair. A few small diversions for irrigation of hay meadows above and below station.

Revisions.--Revised figures of discharge for the water year 1967, superseding those previously published, are given herein.

Discharge, in cubic feet per second, water year October 1966 to September 1967

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.2	6.0	4.6	4.0	3.2	3.7	5.1	14	60	82	25	9.1
2	7.1	6.6	4.3	4.0	3.2	3.7	5.0	12	75	79	24	7.9
3	9.5	6.6	4.1	3.9	3.2	3.7	5.2	10	91	75	23	7.3
4	9.1	6.2	4.1	3.8	3.2	3.7	5.8	9.0	98	73	21	6.8
5	8.9	6.4	4.1	3.4	3.2	3.5	6.4	8.0	93	69	19	6.6
6	9.4	5.9	3.8	3.3	3.2	3.2	6.4	7.7	98	70	18	6.6
7	9.1	6.4	3.8	3.3	3.2	3.5	8.0	8.3	89	75	21	6.4
8	8.5	5.2	3.6	3.2	3.1	3.7	9.1	12	85	87	22	6.4
9	8.0	5.8	3.8	3.2	2.9	3.7	8.3	17	87	72	21	7.9
10	7.4	7.0	3.9	3.6	3.0	3.7	8.4	21	85	60	19	7.9
11	7.3	6.6	3.9	3.5	3.1	3.7	8.9	19	66	52	17	7.9
12	7.8	5.0	3.9	3.5	3.1	3.7	9.5	20	55	56	15	3.2
13	7.9	5.9	3.9	3.5	3.2	3.7	8.3	20	54	55	14	1.8
14	8.6	5.6	3.9	3.5	3.8	3.7	8.8	16	48	50	13	1.3
15	10	5.6	3.8	3.5	3.6	3.8	8.1	14	50	52	12	1.1
16	8.1	5.4	3.7	3.4	3.3	4.0	8.2	12	59	49	11	9.4
17	7.6	5.5	3.7	3.5	3.1	4.2	13	21	63	48	10	8.8
18	7.2	4.6	3.7	3.4	3.1	4.5	9.3	35	80	47	9.7	8.5
19	8.8	5.3	3.6	3.3	3.1	4.9	10	42	91	40	9.4	11
20	7.7	5.4	3.5	3.3	3.1	4.3	11	44	98	37	9.1	9.7
21	6.8	5.1	3.6	3.3	3.1	4.3	11	50	95	36	8.8	8.8
22	7.3	4.5	3.6	3.3	3.1	4.3	10	69	93	36	8.5	8.2
23	6.4	5.0	3.5	3.3	3.3	4.5	8.5	89	91	39	8.5	7.9
24	6.3	5.2	3.5	3.3	3.6	4.6	7.4	113	95	35	8.2	7.6
25	6.7	5.0	3.7	3.3	4.0	4.8	7.3	121	98	32	7.6	8.8
26	6.3	4.7	3.9	3.3	3.7	4.7	9.0	106	91	28	6.8	9.4
27	6.6	4.6	3.9	3.3	3.5	4.6	7.9	80	87	28	7.0	9.4
28	6.3	4.8	3.9	3.3	3.4	4.8	10	72	84	26	7.6	8.8
29	6.0	4.8	3.9	3.3	-	5.0	14	69	72	24	7.6	8.2
30	6.4	4.8	4.0	3.3	- - - - -	5.4	15	66	80	24	7.9	7.6
31	6.0	- - - - -	4.0	3.2	- - - - -	5.3	- - - - -	62	- - - - -	24	9.7	- - - - -
Total	236.3	165.5	119.2	106.3	91.6	128.9	262.9	1,259.0	2,411	1,560	421.4	286.9
Mean	7.62	5.52	3.85	3.43	3.27	4.16	8.76	40.6	80.4	50.3	13.6	9.56
Max	10	7.0	4.6	4.0	4.0	5.4	15	121	98	87	25	32
Min	6.0	4.5	3.5	3.2	2.9	3.2	5.0	7.7	48	24	6.8	6.4
Ac-ft	469	328	236	211	182	256	521	2,500	4,780	3,090	836	569

Cal yr 1966 : Total
Wtr yr 1967 : Total 7,049.0

Mean 19.3
Max 121
Min 2.9
Ac-ft 13,980

Peak discharge (base, 160 cfs)--No peak above base.

Note.--No gage-height record Feb. 8 to Apr. 5.

9-0520. Rock Creek near Dillon, Colo.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	6.0	5.6	4.6	3.2	3.4	4.9	11	100	49	30	11
2	7.0	6.0	5.2	4.6	3.0	3.4	4.7	13	113	47	38	10
3	6.8	6.0	5.0	4.6	3.1	3.4	4.4	16	142	50	37	14
4	7.0	6.4	5.0	4.4	3.2	3.4	4.1	18	140	52	32	17
5	7.9	6.2	5.0	4.6	3.2	3.4	4.0	20	134	47	28	14
6	8.8	6.2	5.2	4.6	3.3	3.4	4.2	22	126	49	42	13
7	8.2	6.2	5.0	4.4	3.2	3.4	4.3	21	102	49	39	11
8	7.6	6.0	5.2	4.6	3.2	3.2	4.5	18	85	50	37	11
9	7.3	5.6	5.2	4.6	3.2	3.2	4.7	15	72	48	36	10
10	7.0	5.4	5.0	4.4	3.2	3.4	5.0	17	67	51	53	9.4
11	6.8	5.4	5.2	4.4	3.2	3.4	5.0	16	62	53	51	9.4
12	6.6	5.4	5.2	4.4	3.2	3.4	4.9	19	73	50	41	9.1
13	6.2	5.4	5.0	4.2	3.2	3.4	4.7	19	106	50	33	9.4
14	6.2	5.6	4.8	3.8	3.2	3.6	6.0	17	108	48	40	11
15	6.2	5.4	4.8	3.6	3.2	3.6	5.8	17	102	47	46	12
16	6.2	5.4	4.7	3.5	3.1	3.4	5.2	13	108	44	32	12
17	6.2	5.4	4.7	3.5	3.2	3.4	5.0	11	113	40	26	12
18	6.0	5.8	4.7	3.5	3.3	3.2	4.7	11	121	37	24	11
19	5.8	5.4	4.7	3.5	3.3	3.2	4.9	11	131	36	20	12
20	5.8	5.0	4.7	3.3	3.3	3.2	5.8	15	126	34	19	11
21	5.4	5.0	4.7	3.5	3.1	3.2	7.0	18	134	32	18	9.7
22	5.4	5.2	4.7	3.5	3.2	3.2	7.0	32	121	31	17	9.4
23	5.2	5.4	4.7	3.5	3.1	3.2	6.6	37	111	33	16	9.4
24	5.4	5.2	4.7	3.5	3.1	3.2	6.4	35	106	32	15	8.8
25	5.4	5.2	4.7	3.5	3.1	3.2	6.0	28	95	28	13	8.8
26	5.2	5.0	4.7	3.5	3.1	3.2	5.7	26	77	24	13	8.8
27	6.2	5.0	4.7	3.5	3.2	3.2	5.4	24	85	28	14	8.8
28	5.4	5.0	4.7	3.5	3.4	3.3	5.8	32	93	27	19	8.8
29	5.2	5.6	4.6	3.4	3.4	3.4	7.0	49	89	27	14	8.8
30	5.8	5.6	4.6	3.2	-----	3.5	9.0	63	73	32	13	8.8
31	5.4	-----	4.6	3.2	-----	3.8	-----	85	-----	34	12	-----
TOTAL	146.4	166.4	151.3	120.9	92.7	103.8	162.7	749	3,115	1,259	868	319.4
MEAN	6.35	5.55	4.88	3.90	3.20	3.35	5.42	24.2	104	40.6	28.0	10.6
MAX	8.8	6.4	5.6	4.6	3.4	3.8	9.0	85	142	53	53	17
MIN	5.2	5.0	4.6	3.2	3.0	3.2	4.0	11	62	24	12	8.8
AC-FT	391	330	300	240	184	206	323	1,490	6,180	2,500	1,720	634

Cal Yr 1967: Total 7,042.6 Mean 19.3 Max 121 Min 2.9 Ac-ft 13,970
 Wtr Yr 1968: Total 7,305.1 Mean 20.0 Max 142 Min 3.0 Ac-ft 14,490

Peak discharge (base, 160 cfs).--June 3 (2200) 178 cfs (3.96 ft); June 20 (2400) 187 cfs (3.99 ft).

Note.--No gage-height record Feb. 6 to Apr. 1.

9-0524. Boulder Creek at upper station, near Dillon, Colo.

Location.--Lat 39°43'40", long 106°10'20", in SW¼SW¼ sec.6, T.4 S., R.78 W., on left bank 1.2 miles downstream from Boulder Lake, 3.2 miles upstream from mouth, and 9.4 miles northwest of Dillon.

Drainage area.--8.56 sq mi.

Records available.--October 1966 to September 1968.

Gage.--Water-stage recorder. Altitude of gage is 9,460 ft (from topographic map).

Extremes.--Maximum discharge during year, 160 cfs June 20 (gage height, 2.82 ft); minimum daily, 1.2 cfs Feb. 22.
1966-68: Maximum discharge, that of June 20, 1968; minimum daily, that of Feb. 22, 1968.

Remarks.--Records good except those for winter period, which are poor.

Note.--The figures of peak discharge for water year 1967, not previously published, are given herewith:

Peak discharge (base, 120 cfs).--1967: June 23 (2230) 120 cfs (2.61 ft).

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.8	2.9	2.4	1.7	1.4	1.4	1.9	3.0	5.2	4.8	2.9	8.1
2	5.6	3.2	2.5	1.6	1.4	1.4	2.1	3.6	6.5	4.7	3.0	7.4
3	5.3	3.1	2.5	1.6	1.4	1.4	2.2	4.6	8.3	5.2	3.0	8.8
4	5.3	3.1	2.5	1.5	1.4	1.4	2.1	6.0	9.3	5.5	2.8	1.1
5	6.4	3.1	2.6	1.5	1.4	1.4	2.1	7.6	10.0	4.9	2.5	1.0
6	6.9	3.1	2.6	1.5	1.4	1.4	2.1	9.6	10.4	5.1	2.9	9.9
7	7.3	3.0	2.2	1.5	1.4	1.4	2.2	8.4	9.3	5.6	3.4	8.8
8	6.9	2.9	2.2	1.4	1.4	1.4	2.2	7.0	7.3	5.8	3.2	7.9
9	6.4	2.8	2.2	1.5	1.4	1.5	2.1	7.4	5.9	5.9	3.2	7.6
10	6.1	2.7	2.1	1.5	1.4	1.5	2.0	7.9	5.4	6.1	4.2	7.1
11	5.6	2.7	2.0	1.4	1.4	1.5	2.1	7.6	4.5	5.6	3.4	6.8
12	5.0	2.6	1.9	1.4	1.4	1.5	2.3	8.1	5.6	4.9	2.8	6.6
13	4.5	2.5	2.0	1.4	1.4	1.5	2.6	8.1	9.0	5.5	2.4	6.6
14	4.2	2.5	2.0	1.4	1.4	1.5	2.7	7.9	9.0	4.7	2.4	7.9
15	4.1	2.3	1.9	1.4	1.4	1.4	2.6	7.6	8.3	4.5	2.9	8.8
16	3.8	2.3	1.9	1.4	1.4	1.4	2.6	7.1	9.3	4.2	2.3	9.9
17	4.0	2.3	1.9	1.3	1.4	1.4	2.7	7.9	10.0	3.5	2.0	9.9
18	4.0	2.3	1.9	1.4	1.4	1.4	2.7	6.1	10.7	3.3	1.8	8.8
19	3.8	2.3	2.0	1.3	1.3	1.4	2.6	6.6	11.4	3.2	1.6	9.5
20	3.5	2.2	2.1	1.3	1.3	1.4	2.7	7.4	11.8	3.1	1.5	9.2
21	3.4	2.1	2.2	1.3	1.3	1.4	2.7	9.2	12.2	3.0	1.4	8.4
22	3.2	2.3	2.2	1.3	1.2	1.3	2.6	1.6	11.2	2.7	1.3	7.9
23	3.0	2.4	2.1	1.3	1.3	1.3	2.5	2.0	10.7	2.9	1.3	7.6
24	3.0	2.5	1.9	1.3	1.3	1.3	2.5	1.8	10.0	3.0	1.2	7.1
25	3.0	2.7	1.8	1.3	1.4	1.3	2.6	1.4	8.7	2.6	1.0	6.6
26	3.0	2.4	1.8	1.3	1.4	1.3	2.7	1.1	7.3	2.4	9.2	6.3
27	2.8	2.3	1.8	1.3	1.4	1.3	2.8	9.9	8.3	2.5	9.5	5.8
28	2.9	2.3	1.8	1.3	1.4	1.3	2.9	1.3	9.1	2.5	1.2	5.8
29	2.9	2.2	1.8	1.3	1.4	1.4	2.9	2.2	9.0	2.5	1.1	5.8
30	3.0	2.3	1.8	1.3	1.5	1.5	2.9	3.2	7.3	3.0	1.0	5.8
31	2.9	1.8	1.8	1.4	1.7	1.7	4.4	4.4	3.2	3.2	8.8	4.7
Total	137.6	77.4	64.4	43.4	39.9	43.7	73.7	348.6	2,610	1,264	664.5	237.7
Mean	4.44	2.58	2.08	1.40	1.38	1.41	2.46	11.2	87.0	40.8	21.4	7.92
Max	7.3	3.2	2.6	1.7	1.4	1.7	2.9	44	122	61	42	11
Min	2.8	2.1	1.8	1.3	1.2	1.3	1.9	3.0	4.5	2.4	8.8	5.8
Ac-ft	273	154	128	86	79	87	146	691	5,180	2,510	1,320	471

Cal yr 1967: Total 5,567.7 Mean 15.3 Max 92 Min 1.6 Ac-ft 11,040
Wtr yr 1968: Total 5,604.9 Mean 15.3 Max 122 Min 1.2 Ac-ft 11,120

Peak discharge (base, 120 cfs).--June 6 (0030) 121 cfs (2.52 ft); June 20 (2300) 160 cfs (2.82 ft).

Note.--No gage-height record Nov. 3 to May 9.

9-0528. Slate Creek at upper station, near Dillon, Colo.

Location.--Lat 39°45'45", long 106°11'30", in SW¼ sec.25, T.3 S., R.79 W., on left bank a quarter of a mile upstream from unnamed tributary, 2.7 miles upstream from mouth, and 12 miles northwest of Dillon.

Drainage area.--14.2 sq mi.

Records available.--October 1966 to September 1968.

Gage.--Water-stage recorder. Altitude of gage is 9,040 ft (from topographic map).

Extremes.--Maximum discharge during year, 210 cfs June 21 (gage height, 5.00 ft), from rating curve extended above 170 cfs; minimum daily, 2.7 cfs Feb. 22.
1966-68: Maximum discharge, 252 cfs May 25, 1967 (gage height, 5.15 ft), from rating curve extended above 170 cfs; minimum daily, 2.2 cfs Feb. 21, Mar. 5, 6, 1967.

Remarks.--Records good except those for winter period, which are fair. No diversions above station.

Note.--The figures of peak discharge for water year 1967, not previously published, are given herewith:

Peak discharge (base, 160 cfs).--1967: May 25 (0330) 252 cfs (5.15 ft); June 21 (0030) 187 cfs (4.80 ft); July 8 (0400) 172 cfs (4.71 ft).

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	4.8	3.9	3.2	2.9	3.0	3.4	7.9	91	61	39	12
2	10	5.1	4.1	3.2	2.9	3.0	3.4	9.6	97	61	38	11
3	10	5.0	4.1	3.2	2.9	3.0	3.5	12	119	67	40	15
4	10	5.0	4.1	3.2	2.9	3.0	3.5	16	140	70	38	20
5	11	4.8	4.0	3.2	2.9	3.1	3.4	18	145	68	34	17
6	12	4.8	4.1	3.2	2.8	3.2	3.1	19	148	72	39	16
7	13	4.6	3.8	3.2	2.8	3.1	3.2	18	129	73	60	15
8	12	4.5	3.7	3.2	2.8	3.1	3.3	14	92	79	47	13
9	11	4.3	3.7	3.2	2.8	3.0	3.5	13	67	91	51	12
10	10	4.1	3.8	3.2	2.8	3.1	3.6	15	60	82	60	11
11	9.6	4.2	3.8	3.2	2.8	3.1	3.9	15	54	78	46	10
12	8.6	4.2	3.6	3.1	2.8	3.1	4.4	16	61	70	39	10
13	7.9	4.1	3.6	3.1	2.8	3.1	3.8	16	100	73	32	10
14	7.4	4.1	3.5	3.1	2.8	3.2	4.0	14	105	64	37	11
15	7.1	4.1	3.5	3.1	3.0	3.3	4.0	13	86	67	50	13
16	6.9	4.1	3.3	3.1	2.9	3.2	4.1	11	102	59	34	14
17	6.7	4.0	3.3	3.1	2.8	3.1	3.9	10	119	48	27	14
18	6.4	4.0	3.3	3.1	2.9	3.1	4.1	9.6	131	49	24	14
19	6.0	4.0	3.5	3.0	2.9	3.1	3.9	9.3	143	52	21	15
20	5.8	4.0	3.5	3.0	2.9	3.1	4.1	12	145	48	20	14
21	5.8	4.1	3.5	3.0	2.8	3.1	3.8	14	162	46	18	13
22	5.3	4.2	3.3	3.0	2.7	3.1	3.6	25	145	41	18	12
23	5.1	4.4	3.3	3.0	2.8	3.1	3.8	28	132	45	18	11
24	5.0	4.4	3.3	3.0	2.8	3.1	3.8	25	123	46	22	10
25	5.0	4.5	3.3	3.0	2.8	3.1	3.6	21	102	39	14	9.6
26	4.8	4.2	3.3	3.0	3.0	3.1	3.6	22	85	36	13	9.0
27	4.6	4.2	3.3	2.8	3.1	3.0	3.5	21	97	39	14	8.3
28	4.6	4.1	3.3	2.8	3.0	3.1	3.9	25	110	41	16	8.3
29	4.8	4.1	3.3	2.8	3.0	3.2	4.4	39	108	38	15	8.3
30	5.0	4.0	3.3	2.8	- - - - -	3.2	6.2	53	89	42	14	8.3
31	4.8	- - - - -	3.3	2.9	- - - - -	3.3	- - - - -	78	- - - - -	44	13	- - - - -
Total	237.2	130.0	110.7	95.0	83.1	96.4	114.3	619.4	3,287	1,789	951	364.8
Mean	7.65	4.33	3.57	3.06	2.87	3.11	3.81	20.0	110	57.7	30.7	12.2
Max	13	5.1	4.1	3.2	3.1	3.3	6.2	78	162	91	60	20
Min	4.6	4.0	3.3	2.8	2.7	3.0	3.1	7.9	54	36	13	8.3
Ac-ft	470	258	220	188	165	191	227	1,230	6,520	3,550	1,890	724

Cal yr 1967: Total 8,500.7 Mean 23.3 Max 145 Min 2.2 Ac-ft 16,860
Wtr yr 1968: Total 7,877.9 Mean 21.5 Max 162 Min 2.7 Ac-ft 15,630

Peak discharge (base, 160 cfs).--June 6 (0100) 175 cfs (4.78 ft); June 21 (0100) 210 cfs (5.00 ft).

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.

1943-68: 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.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	178	129	100	150	100	120	115	209	674	778	444	324
2	182	141	100	140	110	110	132	245	802	754	450	324
3	174	141	110	130	120	100	144	275	1,100	762	438	342
4	174	141	120	130	120	94	141	280	1,240	754	414	402
5	201	140	130	95	120	90	138	308	1,190	754	384	432
6	221	130	130	95	110	90	132	366	1,260	754	414	402
7	189	130	120	100	100	90	147	390	1,170	722	456	324
8	185	125	110	110	100	90	144	324	1,080	706	456	308
9	174	123	110	120	100	90	141	270	1,020	698	508	286
10	174	129	110	120	100	90	132	302	1,020	682	622	265
11	171	129	110	120	100	92	117	372	1,000	682	674	245
12	168	132	110	120	110	92	147	378	940	674	698	240
13	164	129	120	120	120	92	144	366	950	643	636	240
14	160	117	130	120	120	110	138	336	980	608	601	255
15	164	115	120	120	120	120	141	366	960	587	625	260
16	157	112	110	120	120	110	144	360	1,020	541	560	292
17	147	112	110	120	120	93	154	324	1,060	502	496	330
18	147	117	110	120	120	96	157	292	1,170	476	450	302
19	144	117	120	120	120	93	157	275	1,350	456	414	270
20	138	117	130	120	120	115	150	308	1,360	438	372	275
21	126	123	135	120	120	96	150	330	1,430	420	336	297
22	120	126	140	120	130	86	150	438	1,370	384	308	265
23	120	132	140	120	140	96	138	502	1,330	378	280	240
24	117	144	140	120	140	86	132	496	1,310	372	255	213
25	120	144	140	120	140	86	132	476	1,130	342	225	205
26	126	154	140	120	140	84	150	496	980	342	205	205
27	115	144	140	120	140	84	150	476	1,030	366	225	201
28	112	123	150	110	140	91	157	456	1,050	402	342	201
29	112	110	160	100	130	91	168	515	1,000	420	336	201
30	106	100	160	100	- - - -	96	189	567	882	438	324	201
31	120	- - - -	160	100	- - - -	109	- - - -	636	- - - -	456	324	- - - -
Total	4,706	3,826	3,915	3,640	3,470	2,982	4,331	11,734	32,858	17,291	13,276	3,347
Mean	152	128	126	117	120	96.2	144	379	1,100	558	428	278
Max	221	154	160	150	140	120	189	636	1,430	778	698	432
Min	106	100	100	95	100	84	115	209	674	342	205	201
Ac-ft	9,330	7,590	7,770	7,220	6,880	5,910	8,590	23,270	65,170	34,300	26,330	16,560
Cal yr 1967: Total	92,938		Mean	255	Max	1,150	Min	94	Ac-ft	184,300		
Wtr yr 1968: Total	110,376		Mean	302	Max	1,430	Min	84	Ac-ft	218,900		

9-0540. Black Creek below Black Lake, near Dillon, Colo.

Location.--Lat 39°48'00", long 106°16'05", in SW¼SW¼ sec.8, T.3 S., R.79 W., on right bank, 600 ft upstream from bridge, 0.3 mile downstream from Black Lake, 4.5 miles upstream from highwater line of Green Mountain Reservoir at elevation 7,950 ft, and 17 miles northwest of Dillon.

Drainage area.--15.0 sq mi. Area at site used prior to Oct. 1, 1966, 15.5 sq mi.

Records available.--July 1942 to September 1949, October 1966 to September 1968.

Gage.--Digital water-stage recorder. Altitude of gage is 8,750 ft (from topographic map). July 17, 1942, to May 27, 1943, staff gage and May 28, 1943, to Sept. 30, 1949, graphic water-stage recorder at site 600 ft downstream at different datum.

Average discharge.--9 years, 32.4 cfs (23,460 acre-ft per year).

Extremes.--Maximum discharge during year, 280 cfs June 21 (gage height, 3.95 ft), from rating curve extended above 165 cfs; minimum daily, 1.5 cfs Nov. 26.

1942-49, 1966-68: Maximum discharge, 384 cfs July 1, 1943 (gage height, 4.72 ft, site and datum then in use), from rating curve extended above 260 cfs; minimum daily, that of Nov. 26, 1967.

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

Note.--The figures of peak discharge for water year 1967, not previously published, are given herewith:

Peak discharge (base, 160 cfs).--May 25 (2300) 241 cfs (3.81 ft); June 5 (0015) 192 cfs (3.63 ft); June 21 (0015) 241 cfs (3.79 ft); July 8 (0200) 222 cfs (3.74 ft).

DISCHARGE, IN CFS, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	4.5	2.1	2.2	2.3	2.8	4.0	7.8	130	68	51	17
2	13	5.7	2.4	2.4	2.2	2.8	4.5	13	150	68	46	15
3	12	5.3	2.0	2.5	2.2	2.8	4.4	17	190	83	60	19
4	11	4.8	1.9	2.5	2.2	2.8	3.8	22	199	87	56	24
5	13	4.1	2.0	2.5	2.2	2.8	3.7	26	196	88	49	20
6	16	3.9	2.1	2.5	2.2	2.9	3.5	24	193	80	64	18
7	18	3.7	1.9	2.5	2.1	3.0	3.6	20	162	93	117	16
8	15	3.6	2.1	2.5	2.1	3.0	3.4	15	113	101	70	14
9	14	3.2	2.0	2.7	2.1	2.8	3.3	14	78	120	72	13
10	13	3.0	2.1	2.7	2.1	2.8	3.2	17	67	102	106	12
11	12	2.6	2.2	2.7	2.1	3.0	3.1	16	61	99	69	11
12	11	2.5	1.9	2.5	2.2	3.0	3.6	17	82	91	56	10
13	9.1	2.7	2.2	2.5	2.2	3.0	4.4	18	141	89	45	10
14	8.3	2.6	2.0	2.5	2.2	3.0	4.3	15	143	86	70	12
15	7.5	2.5	1.9	2.5	2.3	3.0	3.9	15	119	83	101	15
16	6.9	2.5	2.1	2.5	2.2	3.0	4.0	14	138	75	51	16
17	6.6	2.4	2.1	2.5	2.1	3.0	3.8	12	167	65	37	15
18	6.4	2.3	2.0	2.5	2.2	3.0	4.0	11	185	65	31	14
19	6.1	2.4	2.0	2.3	2.3	3.0	4.3	10	194	67	26	15
20	5.2	2.4	2.0	2.2	2.2	2.6	3.9	14	197	61	25	14
21	5.1	2.8	2.0	2.2	2.2	2.4	3.8	18	219	59	24	13
22	5.2	2.8	2.1	2.2	2.3	2.0	4.0	39	190	59	23	12
23	4.9	2.8	2.2	2.1	2.4	2.0	3.8	46	178	63	26	11
24	4.4	2.6	2.2	2.1	2.5	1.9	3.6	33	166	60	23	10
25	4.5	2.5	2.3	2.1	2.8	1.9	3.9	25	142	51	18	8.7
26	4.2	1.5	2.3	2.1	2.8	1.9	4.4	24	107	49	16	8.1
27	4.1	1.6	2.2	2.1	2.8	2.0	4.8	23	129	52	17	7.5
28	4.5	1.9	2.2	2.3	2.8	2.1	4.3	31	152	57	24	6.8
29	4.4	2.0	2.2	2.4	2.8	2.3	4.1	61	149	54	24	6.8
30	4.3	2.1	2.2	2.5	-----	2.7	5.0	86	118	56	21	7.4
31	4.3	-----	2.1	2.3	-----	3.5	-----	123	-----	60	19	-----
TOTAL	269.0	89.3	65.0	74.1	67.1	82.8	118.4	826.8	4,455	2,291	1,437	391.3
MEAN	8.68	2.98	2.10	2.39	2.31	2.67	3.95	26.7	149	73.9	46.4	13.0
MAX	18	5.7	2.4	2.7	2.8	3.5	5.0	123	219	120	117	24
MIN	4.1	1.5	1.9	2.1	2.1	1.9	3.1	7.8	61	49	16	6.8
AC-FT	534	177	129	147	133	164	235	1,640	8,840	4,540	2,850	776

CAL YR 1967 TOTAL 11,104.8 MEAN 30.4 MAX 195 MIN 1.5 AC-FT 22,030
WTR YR 1968 TOTAL 10,166.8 MEAN 27.8 MAX 219 MIN 1.5 AC-FT 20,170

Peak discharge (base, 160 cfs).--June 3 (2400) 246 cfs (3.82 ft); June 21 (0200) 280 cfs (3.95 ft).

9-0553. Cataract Creek near Kremmling, Colo.

Location--Lat 39°50'05", long 106°18'35", in SW 1/4 sec.35, T.2 S., R.80 W., on right bank 70 ft downstream from lower Cataract Lake, 2.8 miles upstream from highwater line of Green Mountain Reservoir at elevation 7,950 ft, and 17 miles south of Kremmling.

Drainage area--12.0 sq mi.

Records available--October 1966 to September 1968.

Gage--Digital water-stage recorder. Altitude of gage is 8,605 ft (from topographic map).

Extremes--Maximum discharge during year, 235 cfs June 21 (gage height, 4.81 ft), minimum daily, 1.00 cfs Feb. 25.

1966-68: Maximum discharge, 321 cfs June 21, 1967 (gage height, 5.43 ft), from rating curve extended above 180 cfs; minimum daily, 0.60 cfs Mar. 6, 1967.

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

Note--The figures of peak discharge for water year 1967, not previously published, are given herewith:

Peak discharge (base, 160 cfs)--1967: June 21 (2100) 321 cfs (5.43 ft).

DISCHARGE, IN CFS, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	2.9	2.1	1.6	1.1	1.1	1.9	4.1	90	66	20	7.9
2	10	3.0	2.2	1.5	1.1	1.1	2.1	5.1	122	61	18	7.0
3	9.7	3.0	2.2	1.5	1.1	1.1	2.3	6.5	130	64	20	7.0
4	9.2	2.9	2.2	1.4	1.1	1.1	2.2	8.7	125	61	22	7.9
5	8.9	2.9	2.1	1.4	1.1	1.1	2.1	12	146	61	20	8.0
6	9.0	2.9	2.2	1.3	1.1	1.2	2.2	15	163	64	26	7.9
7	9.4	2.7	2.1	1.3	1.1	1.2	2.3	13	134	65	42	7.7
8	9.2	2.7	2.0	1.3	1.1	1.2	2.2	10	128	61	35	7.3
9	9.5	2.6	2.0	1.2	1.1	1.1	2.1	11	81	60	32	6.6
10	9.4	2.5	2.0	1.2	1.1	1.1	2.0	12	61	59	35	6.2
11	9.1	2.4	1.9	1.2	1.1	1.1	2.1	12	55	58	34	5.6
12	8.5	2.4	1.8	1.1	1.1	1.1	2.4	12	58	54	28	4.3
13	7.7	2.3	1.9	1.1	1.1	1.1	2.7	12	100	50	24	2.4
14	6.2	2.3	1.8	1.2	1.1	1.2	2.8	11	127	48	23	2.8
15	6.2	2.1	1.7	1.2	1.1	1.2	2.7	11	122	45	42	4.3
16	6.1	2.1	1.7	1.2	1.1	1.2	2.7	11	111	41	31	5.8
17	6.0	2.1	1.7	1.1	1.1	1.2	2.8	9.1	133	35	24	6.1
18	5.9	2.1	1.7	1.2	1.1	1.2	2.8	8.6	148	30	19	6.4
19	5.5	2.1	1.8	1.1	1.1	1.2	2.7	8.1	148	33	16	7.5
20	5.3	2.0	1.7	1.1	1.1	1.2	2.8	10	148	32	14	7.9
21	5.2	2.1	1.6	1.1	1.1	1.2	2.8	12	191	24	13	7.5
22	4.7	2.4	1.7	1.1	1.1	1.1	2.7	26	161	22	11	6.5
23	4.2	2.4	1.7	1.1	1.1	1.1	2.6	35	147	22	11	6.2
24	3.8	2.5	1.7	1.1	1.1	1.1	2.7	28	131	24	12	5.6
25	3.6	2.3	1.6	1.1	1.0	1.1	2.8	23	116	22	11	5.5
26	3.4	2.3	1.6	1.1	1.1	1.1	3.0	23	92	21	9.4	5.2
27	3.1	2.3	1.7	1.1	1.1	1.1	3.2	23	99	21	8.8	5.2
28	2.6	2.2	1.7	1.1	1.1	1.1	3.2	32	112	26	8.9	4.7
29	2.7	2.2	1.6	1.1	1.1	1.1	3.1	50	119	24	8.8	4.6
30	2.7	2.2	1.7	1.1	-----	1.2	3.4	60	98	21	8.8	4.5
31	2.9	-----	1.7	1.2	-----	1.5	-----	78	-----	21	8.5	-----
TOTAL	200.7	72.9	57.1	37.4	31.8	35.7	77.4	592.2	3,596	1,296	636.2	182.1
MEAN	6.47	2.43	1.84	1.21	1.10	1.15	2.58	19.1	120	41.8	20.5	6.07
MAX	11	3.0	2.2	1.6	1.1	1.5	3.4	78	191	66	42	8.0
MIN	2.6	2.0	1.6	1.1	1.0	1.1	1.9	4.1	55	21	8.5	2.4
AC-FT	398	145	113	74	63	71	154	1,170	7,130	2,570	1,260	361

CAL YR 1967 TOTAL 6,555.44 MEAN 18.0 MAX 146 MIN .60 AC-FT 13,000
WTR YR 1968 TOTAL 6,815.5 MEAN 18.6 MAX 191 MIN 1.0 AC-FT 13,520

Peak discharge (base, 160 cfs)--June 6 (0100) 182 cfs (4.43 ft); June 21 (1000) 235 cfs (4.81 ft).

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.--598 sq mi (includes 15.3 sq mi of Elliott Creek above diversion for Elliott Creek feeder canal).

Records available.--November 1942 to September 1968.

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, 146,200 acre-ft Aug. 2, 10 (elevation, 7,949.68 ft); minimum, 40,630 acre-ft May 5 (elevation, 7,877.74 ft).

1942-68: 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 1967 to September 1968

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	7,936.66	120,200	-
Oct. 31.....	7,930.38	108,800	-11,400
Nov. 30.....	7,924.87	99,400	-9,400
Dec. 31.....	7,919.72	91,180	-8,220
Calendar year 1967.....	-	-	+14,690
Jan. 31.....	7,914.07	82,740	-8,440
Feb. 29.....	7,908.68	75,190	-7,550
Mar. 31.....	7,900.57	64,720	-10,470
Apr. 30.....	7,878.62	41,430	-23,290
May 31.....	7,894.79	57,890	+16,460
June 30.....	7,943.32	133,100	+75,210
July 31.....	7,949.62	146,100	+13,000
Aug. 31.....	7,948.81	144,400	-1,700
Sept. 30.....	7,943.27	133,000	-11,400
Water year 1968.....	-	-	+12,800

† Elevation at 2400.

BLUE RIVER BASIN

9-0575. Blue River below Green Mountain Reservoir, Colo.

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.

Drainage area.--599 sq mi (includes 15.3 sq mi, of Elliott Creek above diversion for Elliott Creek feeder canal).

Records available.--October 1937 to September 1968. 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, 1,280 cfs Apr. 1 (gage height, 6.55 ft); minimum daily, 55 cfs May 11-23, 25-27, 29-31, June 25. 1937-68: 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, 19, 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).

DISCHARGE, IN CFS, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	363	311	254	255	238	231	672	378	56	619	490	397
2	365	311	255	252	235	229	635	374	56	620	545	395
3	360	311	250	255	237	230	631	377	56	537	590	397
4	365	309	246	254	236	226	631	377	56	414	591	398
5	362	309	311	254	235	231	631	378	56	417	591	397
6	368	315	252	253	235	232	630	379	57	415	586	396
7	368	310	253	250	230	229	630	379	56	413	588	398
8	366	309	253	252	232	228	631	376	56	411	588	398
9	370	314	254	251	232	229	630	377	56	412	588	399
10	362	314	252	253	234	228	630	264	56	413	699	398
11	365	312	253	248	235	227	631	55	57	410	884	400
12	368	313	214	250	233	229	592	55	57	410	883	399
13	369	313	251	249	231	232	535	55	57	411	889	500
14	370	311	251	246	231	233	533	55	56	407	894	603
15	370	309	248	246	234	235	533	55	56	435	707	604
16	373	312	251	248	233	232	532	55	56	507	593	603
17	370	310	251	245	235	232	533	55	57	507	747	491
18	369	308	254	243	234	233	532	55	57	504	752	403
19	368	309	252	243	233	231	531	55	59	503	586	387
20	371	311	251	246	234	231	533	55	56	506	491	437
21	370	308	251	243	232	234	533	55	56	506	441	501
22	370	308	252	243	233	231	444	55	56	502	394	504
23	340	307	255	243	232	231	373	55	56	453	339	506
24	305	308	253	242	230	230	378	56	56	404	290	508
25	304	161	254	242	229	231	376	55	55	401	295	506
26	304	307	251	239	231	230	379	55	401	403	293	559
27	306	263	252	238	231	231	379	55	616	402	292	610
28	306	253	253	238	231	293	377	57	617	403	292	615
29	302	256	254	239	232	392	383	55	617	441	293	613
30	304	256	255	235	-----	493	379	55	617	496	332	614
31	304	-----	253	236	-----	599	-----	55	-----	495	398	-----
TOTAL	10,857	8,948	7,839	7,631	6,758	8,003	15,837	4,817	4,276	14,177	16,941	14,336
1 JAN	350	298	253	246	233	258	528	155	143	457	546	478
1 MAX	373	315	311	255	238	599	672	379	617	620	894	615
1 MIN	302	161	214	235	229	226	373	55	55	401	290	387
1 AC-FT	21,530	17,750	15,550	15,140	13,400	15,870	31,410	9,550	8,480	28,120	33,600	28,440
CAL YR 1967	TOTAL 106,165		MEAN 291		MAX 929		MIN 43		AC-FT 210,600			
WTR YR 1968	TOTAL 120,420		MEAN 329		MAX 894		MIN 55		AC-FT 238,800			

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.--2,382 sq mi.

Records available.--July 1904 to September 1918 (published as Grand River near Kremmling), October 1961 to September 1968.

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, 2,050 cfs June 7 (gage height, 7.15 ft); minimum daily, 434 cfs Dec. 13.

1904-18, 1961-68: 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 CFS, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	604	569	522	520	520	539	1,110	874	1,530	1,040	1,060	743
2	604	581	504	520	520	540	1,130	954	1,670	1,040	1,160	739
3	614	569	497	530	530	541	1,080	1,040	1,770	1,020	1,240	762
4	587	563	537	544	530	541	1,010	1,100	1,870	830	1,210	782
5	608	560	537	540	520	543	1,000	1,160	1,890	895	1,170	802
6	670	533	595	540	520	550	1,030	1,190	1,900	950	1,150	773
7	656	536	573	540	520	546	1,020	1,170	1,950	891	1,150	750
8	633	549	564	540	520	539	988	1,060	1,910	859	1,140	737
9	627	582	558	540	520	537	961	1,040	1,790	829	1,130	727
10	640	604	574	540	530	536	972	1,050	1,660	844	1,250	715
11	650	597	589	540	540	539	1,030	765	1,570	843	1,510	711
12	643	593	503	530	540	535	1,110	748	1,420	884	1,490	697
13	636	592	434	520	540	542	1,030	801	1,320	906	1,440	742
14	617	596	488	520	530	546	992	782	1,300	919	1,440	896
15	614	590	500	520	540	535	977	786	1,260	905	1,390	897
16	614	591	510	520	540	511	998	795	1,130	987	1,170	918
17	608	590	510	530	540	510	1,000	740	1,100	964	1,210	894
18	611	581	510	540	540	513	983	689	987	942	1,230	766
19	611	576	510	540	530	528	968	674	947	920	1,120	728
20	614	579	506	540	530	555	946	702	933	929	914	730
21	611	595	508	540	530	552	892	817	877	936	881	814
22	608	589	495	540	540	490	848	908	882	930	801	811
23	599	584	510	540	540	457	731	1,060	814	958	777	807
24	554	561	510	540	538	460	738	1,110	761	916	683	817
25	557	437	510	540	542	463	744	1,040	828	878	682	840
26	554	483	510	540	541	476	799	997	846	879	668	847
27	560	475	510	530	540	472	767	996	1,190	879	671	925
28	554	473	510	530	552	505	756	935	1,150	905	688	920
29	551	503	500	530	541	636	741	1,000	1,110	915	673	917
30	566	501	500	540	-----	777	780	1,160	1,050	982	663	915
31	560	-----	470	530	-----	923	-----	1,330	-----	1,020	755	-----
TOTAL	18,735	16,732	16,054	16,554	15,464	16,937	28,131	29,473	39,415	28,595	32,516	24,122
MEAN	604	558	518	534	533	546	938	951	1,314	922	1,049	804
MAX	670	604	595	544	552	923	1,130	1,330	1,950	1,040	1,510	925
MIN	551	437	434	520	520	457	731	674	761	829	663	697
AC-FT	37,160	33,190	31,840	32,830	30,670	33,590	55,800	58,460	78,180	56,720	64,490	47,850
CAL YR 1967	TOTAL 254,415		MEAN 697		MAX 1,700		MIN 400		AC-FT 504,600			
WTR YR 1968	TOTAL 282,728		MEAN 772		MAX 1,950		MIN 434		AC-FT 560,800			

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 1968.

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.--12 years, 24.1 cfs (17,450 acre-ft per year).

Extremes.--Maximum discharge during year, 248 cfs June 21 (gage height, 5.31 ft); minimum daily, 1.3 cfs Feb. 14. 1947-54, 1963-68: Maximum discharge, 396 cfs June 11, 1952 (gage height, 5.47 ft); minimum not determined.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.4	3.6	2.3	2.2	1.6	1.8	2.8	8.4	118	60	26	4.9
2	5.5	3.8	2.2	2.2	1.6	1.8	2.7	13	144	61	26	4.3
3	4.9	2.8	2.2	2.2	1.6	1.8	2.5	16	178	64	42	6.8
4	4.3	3.0	2.3	2.0	1.6	1.8	2.6	20	158	63	38	10
5	4.9	2.9	2.4	2.0	1.6	1.8	2.8	22	165	60	31	10
6	6.4	2.8	2.2	2.2	1.6	1.8	3.4	20	165	69	40	10
7	7.8	2.8	2.2	2.0	1.6	2.0	2.8	18	139	68	90	8.6
8	7.8	2.8	2.2	2.0	1.6	2.0	2.8	15	92	76	54	7.3
9	7.8	2.9	2.2	2.2	1.6	2.0	2.8	16	65	102	53	6.0
10	6.8	3.0	2.2	2.2	1.6	2.0	2.8	17	58	70	66	5.2
11	6.0	3.0	2.3	2.0	1.6	1.8	2.8	19	49	64	52	4.9
12	5.2	3.0	2.2	2.0	1.6	1.6	2.7	20	58	56	42	4.3
13	4.6	3.0	2.1	2.0	1.4	1.6	2.7	18	126	51	32	4.3
14	4.6	3.0	2.0	2.0	1.3	1.8	2.7	17	134	48	38	4.9
15	4.3	3.0	2.2	2.0	1.4	1.8	2.9	18	96	46	58	5.5
16	3.7	3.1	2.2	2.0	1.4	2.0	3.2	14	118	44	39	6.4
17	3.4	3.1	2.2	2.0	1.4	2.0	3.4	12	147	34	28	6.8
18	3.4	2.8	2.2	2.0	1.6	2.0	3.5	12	162	34	23	6.8
19	3.4	2.5	2.4	1.8	1.6	2.0	3.5	12	167	34	19	9.6
20	3.1	2.5	2.4	1.8	1.6	2.0	3.4	16	158	29	15	8.6
21	3.1	2.5	2.2	1.8	1.6	1.8	3.2	23	181	27	13	7.8
22	3.1	2.8	2.0	1.8	1.6	1.8	3.1	41	155	25	12	6.8
23	2.8	3.4	2.0	1.8	1.8	1.8	3.1	45	139	28	12	6.0
24	2.5	3.4	2.1	1.8	1.8	2.0	3.1	37	129	30	12	5.5
25	2.4	3.1	2.2	1.8	1.8	2.0	3.1	29	102	26	10	4.9
26	2.4	2.8	2.4	1.6	1.8	2.1	3.2	26	77	24	8.2	4.3
27	2.2	2.5	2.3	1.6	1.8	2.2	3.5	24	100	29	7.8	4.0
28	2.5	2.4	2.2	1.6	1.8	2.2	4.0	34	118	34	9.6	3.7
29	2.7	2.6	2.2	1.6	1.8	2.3	4.7	59	120	27	8.2	3.7
30	3.0	2.5	2.1	1.6	2.6	2.6	6.0	79	94	24	6.8	4.0
31	3.3	- - - -	2.0	1.6	- - - -	2.9	- - - -	104	- - - -	26	5.5	- - - -
Total	134.3	87.4	68.3	59.4	46.7	61.1	95.8	824.4	3,712	1,433	907.1	195.9
Mean	4.33	2.91	2.20	1.92	1.61	1.97	3.19	26.6	124	46.2	29.3	6.20
Max	7.8	3.8	2.4	2.2	1.8	2.9	6.0	104	181	102	80	10
Min	2.2	2.4	2.0	1.6	1.3	1.6	2.5	8.4	49	24	5.5	3.7
Ac-ft	266	173	135	118	93	121	190	1,640	7,360	2,840	1,800	369

Cal yr 1967: Total 8,934.4 Mean 24.5 Max 193 Min 1.6 Ac-ft 17,720

Wtr yr 1968: Total 7,615.4 Mean 20.8 Max 181 Min 1.3 Ac-ft 15,100

Peak discharge (base, 150 cfs)

Note.--No gage-height record Nov. 29 to May 15.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
6-3	0600	5.11	212	6-21	0300	5.31	248
6-14	0530	4.97	172				

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 1968.

Gage.--Water-stage recorder. Altitude of gage is 9,250 ft (from topographic map).

Extremes.--Maximum discharge during year, 29 cfs June 5 (gage height, 2.84 ft); minimum not determined.
1964-68: Maximum discharge, 41 cfs June 13, 1965 (gage height, 3.13 ft); 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.3	1.3					3.0	2.9	18	5.0	2.9	1.5
2	1.3	1.2					2.9	3.3	20	4.6	2.9	1.5
3	1.3	1.1					2.6	4.0	23	4.4	2.8	2.5
4	1.3	1.0					2.4	3.5	26	4.4	2.9	2.1
5	1.6	1.0					2.2	3.5	26	5.0	2.3	1.8
6	1.8	1.0					2.0	3.1	27	4.2	3.1	1.5
7	2.2	1.1					1.7	2.9	25	3.7	3.1	1.4
8	2.0	1.1					1.6	2.8	23	3.7	2.8	1.4
9	1.8	1.1					1.8	2.8	20	3.7	2.6	1.4
10	1.6	1.1					2.0	2.9	20	3.3	2.5	1.4
11	1.4	1.1				0.80	2.0	2.9	18	3.1	2.6	1.4
12	1.3	1.1					1.8	2.9	18	3.3	2.3	1.5
13	1.3	1.1					1.6	2.6	20	3.1	2.2	1.5
14	1.3	1.1					1.8	2.5	20	3.1	3.1	1.6
15	1.3	1.2					1.8	2.8	18	2.9	2.5	1.8
16	1.3	1.2	0.80	0.60	0.60		1.8	3.1	18	2.9	2.1	1.9
17	1.5	1.0					1.8	2.8	17	3.1	1.9	1.8
18	1.5	1.0					1.8	3.1	16	2.5	2.1	1.8
19	1.5	1.1					1.8	4.0	15	2.6	2.1	1.6
20	1.5	1.1					1.8	4.4	14	2.6	1.9	1.4
21	1.5	1.0				.70	2.0	6.8	13	2.6	1.9	1.5
22	1.5	.80				.78	2.0	9.7	11	2.6	1.9	1.4
23	1.5	.80				.78	2.0	8.9	10	3.7	2.3	1.5
24	1.4	1.0				.78	2.0	7.8	9.3	2.9	1.8	1.5
25	1.4	1.1				.90	2.0	7.8	8.5	2.8	1.5	1.4
26	1.3	1.1				1.2	2.0	7.8	7.8	2.9	1.5	1.4
27	1.1	1.0				1.6	2.0	8.9	7.1	3.5	1.8	1.4
28	1.2	.90				2.0	2.2	11	6.4	2.9	1.8	1.5
29	1.2	.90				2.4	2.4	13	5.7	2.6	1.6	1.5
30	1.3	1.0				2.8	2.6	15	5.4	2.6	1.5	1.5
31	1.3	- - - -				3.0	- - - -	18	- - - -	2.8	1.5	- - - -
Total	44.8	31.60	24.80	18.60	17.40	32.94	61.4	177.5	486.2	103.1	69.8	47.4
Mean	1.45	1.05	0.80	0.60	0.60	1.06	2.05	5.73	16.2	3.33	2.25	1.58
Max	2.2	1.3	-	-	-	3.0	3.0	18	27	5.0	3.1	2.5
Min	1.1	0.80	-	-	-	-	1.6	2.5	5.4	2.5	1.5	1.4
Ac-ft	89	63	49	37	35	65	122	352	964	204	138	94

Cal yr 1967: Total 931.40 Mean 2.55 Max 16 Min - Ac-ft 1,850
Wtr yr 1968: Total 1,115.54 Mean 3.05 Max 27 Min - Ac-ft 2,210

Peak discharge (base, 25 cfs)---June 5 (1930) 29 cfs (2.84 ft).

Note.--No gage-height record Nov. 29 to Mar. 20.

PINEY RIVER BASIN

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 1968.

Gage.--Water-stage recorder. Altitude of gage is 9,360 ft (from topographic map).

Extremes.--Maximum discharge during year, 15 cfs (estimated) June 5; no flow for many days.

1964-68: Maximum discharge 29 cfs June 13, 1965; no flow for many days each year.

Remarks.--Records good except those for winter period and period of no gage-height record, which are poor. No regulator or diversion above station.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.10	0.17						0.25	6.0	1.4	0.62	0.15
2	.10	.14						.50	7.0	1.3	.62	.16
3	.10	.14						1.0	9.0	1.3	.66	.27
4	.12							1.3	11	1.3	.46	.27
5	.15							1.6	11	1.7	.44	.25
6	.22							1.3	12	1.6	.62	.21
7	.26							1.2	11	1.3	.90	.21
8	.22						0.10	1.1	10	1.3	.48	.21
9	.17							1.1	8.8	1.3	.46	.21
10	.15							1.2	8.5	1.2	.46	.21
11	.13							1.2	7.8	1.1	.54	.20
12	.12							1.2	6.9	1.1	.42	.20
13	.11							1.1	6.8	1.1	.36	.22
14	.13							1.0	6.6	.98	.56	.22
15	.14		0.05		0.02	0.04		1.3	6.1	.98	.42	.27
16	.12							1.4	5.6	.90	.26	.29
17	.12	.10						1.3	4.9	.94	.25	.29
18	.10							1.4	4.4	.86	.24	.30
19	.09							1.6	4.0	.82	.22	.29
20	.13							2.0	3.4	.82	.22	.27
21	.12							2.2	2.9	.74	.22	.29
22	.11						20	3.0	2.7	.74	.22	.29
23	.11							2.6	2.5	.94	.24	.29
24	.11							2.0	2.3	.86	.22	.27
25	.11							2.0	2.2	.74	.22	.27
26	.10							2.0	2.0	.82	.21	.27
27	.08							2.2	1.8	1.1	.21	.29
28	.10							2.8	1.6	.78	.21	.26
29	.12							3.6	1.5	.62	.18	.29
30	.14							5.0	1.4	.54	.18	.29
31	.17	-----			-----		-----	6.0	-----	.62	.16	-----
Total	4.05	3.15	1.55	0	0.58	1.24	4.50	57.45	171.7	31.80	11.50	7.51
Mean	0.13	0.10	0.05	0	0.02	0.04	0.15	1.85	5.72	1.03	0.37	0.25
Max	0.26	0.17	-	0	-	-	-	6.0	12	1.7	0.90	0.30
Min	0.08	-	-	0	-	-	-	0.25	1.4	0.54	0.16	0.15
Ac-ft	8.0	6.2	3.1	0	1.2	2.5	8.9	114	341	63	23	15

Cal yr 1967: Total 308.32 Mean 0.84 Max 9.3 Min 0 Ac-ft 612
Wtr yr 1968: Total 295.03 Mean 0.81 Max 12 Min 0 Ac-ft 585

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

Note.--No gage-height record Nov. 4 to May 15, May 19 to June 6.

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 1968.

Gage--Water-stage recorder. Altitude of gage is 9,420 ft (from topographic map).

Extremes--Maximum discharge during year, 60 cfs (estimated) June 5; minimum not determined.
1964-68: Maximum discharge, that of June 5, 1968; minimum daily determined, 0.45 cfs Jan 8, 1967.

Remarks--Records fair except those for winter period and period of no gage-height record, which are poor. No regulation or diversion above station.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.86							3.6	37	13	2.6	1.5
2	.86							4.4	41	11	2.8	1.5
3	.92							5.0	42	9.0	3.2	2.4
4	1.0							5.8	40	8.5	2.5	2.6
5	1.1							5.6	50	9.5	2.4	2.4
6	1.2							5.2	46	9.0	4.1	2.0
7	1.3							5.0	42	7.3	5.7	1.9
8	1.3							4.7	38	8.0	4.1	1.8
9	1.4							4.7	33	7.3	4.3	1.6
10	1.3							4.7	30	6.4	4.1	1.6
11	1.2							4.7	30	5.7	4.5	1.6
12	1.2							4.7	32	5.4	4.1	1.6
13	1.1							4.7	38	4.7	3.4	1.6
14	1.1							4.8	38	4.3	4.5	1.8
15	.98							4.9	38	4.1	4.1	2.0
16	1.1	1.0	0.80	0.70	0.60	0.80	1.6	4.5	39	3.6	3.2	2.0
17	1.2							4.1	40	3.2	3.0	2.0
18	1.2							4.0	38	3.0	2.8	2.4
19	1.1							4.2	38	3.0	2.5	2.5
20	1.2							5.8	40	2.8	2.4	1.9
21	1.2							7.8	33	2.6	2.2	1.8
22	1.2							10	32	2.6	2.1	1.8
23	1.2							10	29	3.0	2.5	1.8
24	1.3							8.8	26	2.8	2.2	1.6
25	1.1							8.0	23	2.6	2.0	1.6
26	1.1							8.0	19	2.6	1.9	1.5
27	.80							8.0	18	4.1	2.0	1.5
28	1.0							10	17	3.9	2.0	1.5
29	.80							14	16	2.8	1.9	1.5
30	1.0							21	15	2.5	1.8	1.8
31	1.2	-----			-----		-----	30	-----	2.6	1.6	-----
Total	34.52	30.0	24.80	21.70	17.40	24.80	48.0	230.7	998	160.9	92.5	55.1
Mean	1.11	1.0	0.80	0.70	0.60	0.80	1.6	7.44	33.3	5.19	2.98	1.84
Max	1.4	-	-	-	-	-	-	30	50	13	5.7	2.6
Min	0.80	-	-	-	-	-	-	3.6	15	2.5	1.6	1.5
Ac-ft	68	60	49	43	35	49	95	458	1,980	319	183	109

Cal yr 1967: Total 1,474.00 Mean 4.04 Max 28 Min 0.45 Ac-ft 2,920

Wtr yr 1968: Total 1,738.42 Mean 4.75 Max 50 Min - Ac-ft 3,450

Peak discharge (base, 40 cfs)--June 5 (time unknown) 60 cfs (estimated) (gage height unknown); June 20 (1830) 51 cfs (1.85 ft).

Note--No gage-height record Oct. 29 to June 20.

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.--86.2 sq mi.

Records available.--May 1944 to September 1968.

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.--24 years, 72.9 cfs (52,780 acre-ft per year).

Extremes.--Maximum discharge during year, 724 cfs June 5 (gage height, 4.89 ft); minimum daily, 8.6 cfs Nov. 29.
1944-68: 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 winter period, 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	18	12	13	12	14	20	51	495	179	52	20
2	20	18	13	15	11	14	18	71	540	167	50	19
3	18	16	12	14	11	14	16	87	605	164	65	26
4	18	15	12	13	12	14	19	118	600	157	64	30
5	19	15	12	12	11	14	22	128	634	155	50	27
6	24	14	13	13	11	15	20	122	646	162	57	24
7	24	14	13	13	11	16	19	98	570	152	109	23
8	24	14	13	13	12	16	20	84	480	146	77	22
9	24	16	13	14	13	15	21	86	394	179	71	20
10	22	17	13	13	12	14	22	91	362	143	91	18
11	20	16	14	12	12	14	21	93	338	135	79	18
12	20	15	13	11	12	13	20	98	362	120	65	18
13	18	16	13	12	12	14	19	94	485	111	52	18
14	18	16	12	13	13	15	19	84	515	102	58	18
15	18	16	13	13	14	15	22	89	445	100	87	20
16	16	16	12	14	14	15	24	77	450	91	61	22
17	16	16	12	14	13	14	25	65	495	75	47	24
18	16	15	12	13	14	13	24	65	505	71	42	23
19	16	15	13	12	15	12	23	72	495	68	38	27
20	16	16	14	12	16	11	23	87	465	64	34	25
21	16	16	13	12	16	12	24	118	495	59	31	25
22	16	16	12	12	16	13	23	200	445	54	28	24
23	15	17	11	12	16	14	22	214	394	59	32	23
24	15	18	12	12	15	15	22	177	362	62	30	22
25	15	16	12	12	15	15	22	155	323	53	26	22
26	15	12	13	12	15	14	23	148	267	51	23	21
27	13	9.8	14	13	15	14	24	155	267	59	24	20
28	16	9.0	14	13	15	15	27	217	270	65	26	19
29	16	8.6	13	12	15	16	30	302	260	54	24	20
30	17	10	12	12	- - - - -	18	34	366	228	48	22	20
31	16	- - - - -	12	12	- - - - -	20	- - - - -	460	- - - - -	50	22	- - - - -
Total	557	446.4	392	393	389	448	668	4,272	13,192	3,155	1,537	658
Mean	18.0	14.9	12.6	12.7	13.4	14.5	22.3	138	440	102	49.6	21.9
Max	24	18	14	15	16	20	34	460	646	179	109	30
Min	13	8.6	11	11	11	11	16	51	228	48	22	18
Ac-ft	1,100	885	778	780	772	889	1,320	8,470	26,170	6,260	3,050	1,310

Cal yr 1967: Total 23,884.4 Mean 65.4 Max 465 Min 8.6 Ac-ft 47,370
Wtr yr 1968: Total 26,107.4 Mean 71.3 Max 646 Min 8.6 Ac-ft 51,780

Peak discharge (base, 520 cfs)--June 5 (2130) 724 cfs (4.89 ft); June 21 (0600) 570 cfs (4.59 ft).

Note.--No gage-height record Nov. 29 to Apr. 29.

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.--47.6 sq mi.

Records available.--October 1952 to September 1968.

Gage.--Water-stage recorder. Altitude of gage is 8,544 ft (from topographic map).

Average discharge.--16 years, 30.9 cfs (22,370 acre-ft per year).

Extremes.--Maximum discharge during year, 391 cfs May 21 (gage height, 4.52 ft); minimum daily, 6.2 cfs Sept. 14, 24-27.

1952-68: 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 winter period, which are poor.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	11	8.8	8.4	7.6	8.2	14	80	300	39	20	7.4
2	10	11	8.4	8.5	7.4	7.6	18	90	320	34	18	7.0
3	11	9.5	8.4	8.3	7.4	7.4	15	174	330	32	35	11
4	11	9.0	8.6	7.8	7.8	7.2	13	212	320	30	25	10
5	11	10	8.8	8.0	7.8	7.4	13	188	350	38	16	8.6
6	11	10	8.6	8.6	7.4	7.8	13	161	310	53	20	7.4
7	12	10	8.4	8.0	7.2	8.2	12	120	270	32	20	7.4
8	11	10	8.4	7.6	7.0	8.4	12	110	220	29	15	7.8
9	9.4	10	8.4	7.8	7.0	8.6	12	130	200	31	14	7.4
10	9.4	9.4	8.6	8.2	6.8	8.4	11	142	190	30	22	7.4
11	9.4	10	8.6	7.8	7.0	8.0	13	158	180	33	44	6.8
12	9.4	10	8.4	7.4	7.2	7.6	17	154	180	29	21	7.0
13	9.0	10	8.0	7.8	7.6	7.6	22	135	190	25	13	7.0
14	9.8	10	7.6	8.2	7.8	8.0	21	120	200	22	22	6.2
15	10	11	8.0	8.2	8.0	8.6	19	120	210	22	33	6.8
16	9.0	10	8.2	8.2	8.2	8.8	20	95	200	25	15	13
17	9.4	10	8.2	8.0	8.2	8.4	29	92	170	19	11	12
18	9.8	10	8.4	7.8	8.2	8.2	36	110	140	16	9.8	12
19	10	10	8.6	7.6	8.4	7.8	47	130	120	16	9.0	13
20	9.8	9.6	8.8	7.6	8.4	7.6	42	156	110	15	8.6	7.8
21	9.0	9.4	8.8	7.6	8.4	8.0	32	222	93	15	9.0	7.4
22	9.0	9.0	8.4	7.6	8.2	8.6	29	282	85	15	8.2	6.5
23	9.0	9.0	8.0	7.8	8.1	8.8	29	252	77	17	11	6.8
24	9.8	9.0	8.2	8.0	8.0	9.0	29	228	75	22	9.4	6.2
25	11	9.0	8.6	8.0	7.6	9.0	29	199	76	22	7.8	6.2
26	13	8.8	8.8	8.0	7.6	8.4	29	194	62	17	7.4	6.2
27	8.6	8.0	8.6	8.2	8.2	8.0	29	192	55	18	8.6	6.2
28	8.0	8.6	8.6	8.6	8.6	8.4	29	209	48	16	13	6.5
29	8.5	9.4	8.6	8.8	8.6	8.6	29	248	44	17	14	6.8
30	9.5	9.2	8.2	8.6	- - - -	8.8	35	280	39	17	9.4	6.8
31	10	- - - -	8.0	8.0	- - - -	10	- - - -	290	- - - -	22	7.8	- - - -
Total	306.8	289.9	261.0	249.0	225.7	255.4	698	5,273	5,164	768	457.0	238.6
Mean	9.90	9.66	8.42	8.03	7.78	8.24	23.3	170	172	24.8	16.0	7.95
Max	13	11	8.8	8.8	8.6	10	47	290	350	53	44	13
Min	8.0	8.0	7.6	7.4	6.8	7.2	11	80	39	15	7.4	6.2
Ac-ft	609	575	518	494	448	507	1,380	10,460	10,240	1,520	986	473

Cal yr 1967: Total 9,743.0 Mean 26.7 Max 211 Min 6.0 Ac-ft 19,320
 Wtr yr 1968: Total 14,226.4 Mean 38.9 Max 350 Min 6.2 Ac-ft 28,220

Peak discharge (base, 200 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5- 3	1830	3.77	236	6- 5	-	4.48	383
5-21	1900	4.52	391	6-15	-	4.19	318

Note.--No gage-height record Nov. 3 to Mar. 29.

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 1968.

Gage--Water-stage recorder.

Extremes--Maximum discharge during year, 250 cfs (estimated) May 22 or 23; minimum daily, 1.9 cfs June 27.

1965-68: Maximum discharge, that of May 22 or 23, 1968; minimum daily, 0.3 cfs June 15, July 4-7, 1966.

Remarks--Records good except those for winter period, 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.5	3.9	5.8	5.2	4.9	4.3	7.6	15	50	4.0	4.9	5.5
2	4.0	4.2	5.5	5.2	4.7	4.2	7.2	22	52	4.0	4.6	5.5
3	3.7	4.3	5.4	5.1	4.7	4.1	6.8	28	55	3.6	5.5	6.7
4	3.5	3.8	5.4	4.9	4.8	4.0	6.4	30	58	6.4	3.4	6.4
5	3.5	4.2	5.4	5.0	5.0	4.1	6.8	41	60	11	3.8	6.1
6	3.5	4.3	5.4	5.2	4.9	4.1	7.2	40	56	9.8	6.4	5.8
7	3.8	4.4	5.2	4.9	4.7	4.2	7.0	33	50	5.8	5.2	5.5
8	3.5	4.4	5.1	4.7	4.6	4.3	6.8	30	40	5.2	4.0	5.5
9	3.3	4.4	5.1	4.7	4.5	4.4	6.4	37	35	5.8	6.1	4.6
10	3.3	4.5	5.2	4.9	4.5	4.4	6.0	52	37	6.1	9.4	4.3
11	3.2	4.6	5.2	4.8	4.5	4.3	6.6	52	35	6.7	16	4.3
12	3.1	4.7	5.0	4.5	4.5	4.2	8.0	54	28	7.0	8.2	4.6
13	3.0	5.0	4.7	4.7	4.6	4.2	10	57	23	7.0	7.4	4.6
14	3.2	5.0	4.5	4.8	4.7	4.3	9.0	52	21	6.4	14	4.6
15	3.0	5.2	4.7	4.9	4.9	4.4	8.0	54	19	6.1	12	5.5
16	3.0	5.3	4.8	4.9	5.0	4.6	8.6	46	17	5.8	7.0	6.7
17	3.0	5.4	4.9	4.7	5.0	4.6	9.5	43	14	4.3	6.1	6.1
18	3.0	5.4	4.9	4.6	4.9	4.5	12	49	9.4	3.8	6.7	5.5
19	3.0	5.5	4.9	4.5	4.7	4.4	14	52	6.7	4.0	6.4	4.9
20	3.0	5.5	5.2	4.5	4.7	4.2	9.8	68	6.7	3.8	6.4	4.6
21	2.8	5.4	4.9	4.5	4.6	4.3	8.6	99	4.6	3.8	6.1	4.6
22	2.8	5.2	4.7	4.4	4.5	4.5	7.0	120	4.0	3.2	6.4	4.6
23	2.8	4.9	4.7	4.5	4.4	4.7	7.0	130	3.0	3.4	7.4	4.6
24	3.5	4.8	4.8	4.6	4.3	4.9	7.0	90	2.6	3.0	6.4	4.6
25	3.4	4.7	5.1	4.7	4.2	4.9	7.0	70	2.6	2.6	5.8	4.6
26	3.8	4.8	5.2	4.8	4.1	4.7	7.0	60	2.0	3.4	5.8	4.6
27	3.4	5.0	5.2	5.1	4.3	4.6	6.4	55	1.9	7.8	6.1	4.6
28	3.8	5.2	5.2	5.4	4.3	5.1	7.2	50	4.3	4.3	7.0	4.6
29	3.6	5.8	5.0	5.2	4.3	6.2	8.4	50	4.0	3.2	7.0	4.8
30	3.8	6.2	4.7	5.1	- - - - -	7.4	10	50	4.3	4.3	6.1	5.0
31	3.6	- - - - -	5.0	5.0	- - - - -	8.0	- - - - -	50	- - - - -	5.5	5.8	- - - - -
Total	104.4	146.0	156.8	150.0	133.8	145.1	239.3	1,679	706.1	161.1	213.4	153.9
Mean	3.37	4.87	5.06	4.84	4.61	4.68	7.98	54.2	23.5	5.20	6.89	5.13
Max	4.5	6.2	5.8	5.4	5.0	8.0	14	130	60	11	16	6.7
Min	2.8	3.8	4.5	4.4	4.1	4.0	6.0	15	1.9	2.6	3.4	4.3
Ac-ft	207	290	311	298	265	288	475	3,330	1,400	320	423	305
Cal yr 1967: Total	2,253.89		Mean	6.18	Max	30	Min	0.53	Ac-ft	4,470		
Wtr yr 1968: Total	3,988.9		Mean	10.9	Max	130	Min	1.9	Ac-ft	7,910		

Note--No gage-height record Nov. 3 to Apr. 25, May 22 to June 8.

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.--70.0 sq mi.

Records available.--October 1910 to September 1925, May 1944 to September 1968. 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.--39 years, 51.4 cfs (37,210 acre-ft per year).

Extremes.--Maximum discharge during year, 408 cfs June 5 (gage height, 3.75 ft); minimum daily, 8.0 cfs Feb. 2.

1910-25, 1944-68: 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 period, 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	13	11	12	9.0	11	12	20	240	69	34	26
2	14	14	10	12	8.0	10	12	25	301	63	32	25
3	14	11	10	11	8.5	10	12	29	321	57	32	31
4	13	12	10	11	9.0	10	11	38	297	56	28	34
5	15	11	11	10	9.0	10	11	41	333	60	27	31
6	15	10	11	10	8.5	10	11	45	254	56	40	29
7	15	10	10	10	8.5	10	11	42	199	48	42	26
8	15	11	10	10	9.0	11	13	40	184	48	46	25
9	15	12	10	10	9.0	11	11	45	178	46	45	24
10	15	11	11	10	9.0	10	12	49	166	45	56	24
11	15	10	10	9.5	8.5	10	12	51	161	42	46	23
12	14	11	10	9.5	8.5	10	13	60	161	41	38	24
13	13	11	10	9.0	8.5	10	14	62	163	40	36	26
14	13	11	12	9.0	8.5	10	12	56	163	37	41	28
15	13	11	12	9.5	8.5	10	14	58	163	36	44	26
16	12	11	11	10	9.0	10	14	50	161	34	35	28
17	12	11	11	9.5	9.5	10	14	44	166	32	35	32
18	13	10	11	9.0	10	10	14	42	169	31	33	31
19	12	10	11	9.5	10	10	14	48	178	30	32	32
20	12	11	11	9.5	10	9.5	14	58	175	29	30	27
21	12	12	11	9.5	9.5	9.0	13	78	166	28	29	24
22	12	12	10	9.5	10	10	13	113	148	27	29	23
23	12	11	10	9.5	10	11	13	127	133	29	29	22
24	12	11	11	9.5	11	10	13	107	120	29	29	21
25	12	11	11	9.5	11	10	13	92	107	28	27	20
26	12	11	10	10	11	10	12	94	95	31	27	20
27	12	10	11	11	10	11	12	97	92	44	30	20
28	12	11	10	10	11	12	12	116	87	37	36	20
29	13	12	10	9.5	11	11	13	148	81	34	29	20
30	14	11	10	9.0	- - - -	11	16	169	74	29	28	20
31	13	- - - -	11	8.5	- - - -	12	- - - -	210	- - - -	34	29	- - - -
Total	410	334	328	305.5	273.0	319.5	381	2,254	5,236	1,250	1,074	762
Mean	13.2	11.1	10.6	9.85	9.41	10.3	12.7	72.7	175	40.3	34.6	25.4
Max	15	14	12	12	11	12	16	210	333	69	56	34
Min	12	10	10	8.5	8.0	9.0	11	20	74	27	27	20
Ac-ft	813	662	651	606	541	634	756	4,470	10,390	2,480	2,130	1,510

Cal yr 1967: Total 10,655.3 Mean 29.2 Max 163 Min 6.0 Ac-ft 21,130
 Wtr yr 1968: Total 12,927.0 Mean 35.3 Max 333 Min 8.0 Ac-ft 25,640

Peak discharge (base, 280 cfs)---June 5 (2200) 408 cfs (3.75 ft).

Note.--No gage-height record Jan. 16 to Mar. 21.

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 1968.

Gage.--Water-stage recorder. Altitude of gage is 9,250 ft (from topographic map).

Extremes.--Maximum discharge during year, 110 cfs June 20 (gage height, 3.08 ft), from rating curve extended above 75 cfs; minimum daily, 0.60 cfs Feb. 13.

1964-68: Maximum discharge, about 140 cfs June 18, 1965 (gage height, 3.23 ft); minimum daily, 0.30 cfs Feb. 21, 1957.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	2.1	1.6	1.3	0.80	1.2	1.2	1.9	24	31	9.1	7.7
2	2.5	2.0	1.6	1.4	.80	1.0	1.2	2.1	26	28	9.1	7.7
3	2.5	1.4	1.6	1.4	.70	.90	1.2	2.3	29	25	9.1	8.0
4	2.8	1.8	1.6	1.3	.70	1.0	1.1	2.6	31	23	8.3	8.0
5	2.9	2.0	1.6	1.2	.80	1.2	1.0	3.0	32	21	9.1	7.7
6	2.8	1.8	1.4	1.2	1.0	1.1	1.1	3.4	46	18	11	7.4
7	2.6	1.8	1.6	1.2	.90	1.0	1.1	3.4	43	17	11	7.0
8	2.6	1.8	1.6	1.2	.80	1.0	1.1	3.2	36	15	9.7	6.7
9	2.6	1.8	1.4	1.0	.80	1.0	1.0	3.2	29	15	10	6.1
10	2.6	1.8	1.6	1.0	.80	.90	1.0	3.2	22	17	10	5.8
11	2.6	2.0	1.6	1.0	.80	.80	1.1	3.3	19	16	11	5.5
12	2.5	2.0	1.6	1.0	.70	.90	1.2	3.4	14	15	11	5.5
13	2.5	2.0	1.6	1.1	.60	1.0	1.0	3.5	15	14	11	5.5
14	2.4	2.0	1.6	1.2	.80	1.0	.90	3.4	20	12	12	5.5
15	2.4	2.0	1.8	1.2	.90	.80	1.0	3.4	32	12	11	5.8
16	2.4	2.0	1.6	1.0	.90	1.0	1.1	3.3	47	13	11	5.8
17	2.2	1.9	1.6	.90	1.0	1.0	1.0	3.3	59	13	11	5.3
18	2.2	1.9	1.6	.80	1.0	.90	1.0	3.4	69	15	11	5.8
19	2.2	1.9	1.4	1.0	1.0	.80	1.0	3.6	74	15	10	5.5
20	2.1	1.9	1.4	1.0	1.0	.80	1.2	4.2	80	14	10	5.3
21	2.1	1.9	1.6	1.0	1.0	.90	1.1	5.3	88	13	11	5.1
22	2.1	1.9	1.6	1.0	1.0	1.2	1.0	7.0	77	13	10	5.1
23	2.1	1.9	1.6	1.0	1.0	1.2	1.1	8.0	70	13	10	4.9
24	2.2	1.9	1.6	1.2	1.0	1.2	1.2	8.3	74	12	9.7	4.9
25	2.2	1.9	1.5	1.0	1.0	1.2	1.0	8.3	66	12	9.7	4.4
26	2.1	1.9	1.4	1.0	1.1	1.2	1.1	8.3	56	11	9.1	4.4
27	1.8	1.6	1.4	1.0	.90	1.2	1.2	8.6	47	12	9.1	4.4
28	2.2	1.4	1.3	1.0	1.0	1.2	1.4	10	42	11	8.6	4.2
29	2.0	1.1	1.2	1.0	1.1	1.2	1.6	15	38	10	8.3	4.2
30	2.2	1.4	1.1	1.0	- - - -	1.2	1.7	17	34	9.7	8.3	4.2
31	2.1	- - - -	1.0	.90	- - - -	1.2	- - - -	20	- - - -	9.7	8.0	- - - -
Total	73.1	54.8	46.7	33.50	25.90	32.20	33.90	178.9	1,339	475.4	307.2	173.4
Mean	2.36	1.83	1.51	1.08	0.89	1.04	1.13	5.77	44.6	15.3	9.91	5.78
Max	2.9	2.1	1.8	1.4	1.1	1.2	1.7	20	88	31	12	8.0
Min	1.8	1.1	1.0	0.80	0.60	0.80	0.90	1.9	14	9.7	8.0	4.2
Ac-ft	145	109	93	66	51	64	67	355	2,660	943	609	344

Cal yr 1967: Total 2,499.95 Mean 6.85 Max 46 Min 0.30 Ac-ft 4,960
Wtr yr 1968: Total 2,774.0 Mean 7.58 Max 88 Min 0.60 Ac-ft 5,500

Peak discharge (base, 70 cfs).--June 20 (2130) 110 cfs (3.08 ft).

Note.--No gage-height record Dec. 1 to Mar. 21, Apr. 1 to May 14.

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 1968.

Gage.--Water-stage recorder. Altitude of gage is 8,885 ft (from topographic map).

Average discharge.--5 years, 19.1 cfs (13,830 acre-ft per year).

Extremes.--Maximum discharge during year, 320 cfs June 20 (gage height, 2.54 ft); minimum daily, 2.2 cfs Feb. 13.

1963-68: 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 winter period and those for period of no gage-height record, which are poor. No diversion above station.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.8	5.6	4.2	2.6	2.6	3.0	3.3	6.5	98	91	16	15
2	6.8	5.4	4.4	2.8	2.6	2.9	3.2	7.3	104	74	17	15
3	7.0	4.5	4.5	2.9	2.7	2.8	3.1	8.5	106	64	17	16
4	7.3	5.4	4.5	2.8	2.7	3.0	3.0	11	117	58	16	16
5	7.9	5.6	4.3	2.6	2.7	3.2	3.0	13	142	53	17	15
6	7.9	5.4	4.0	2.5	2.7	3.0	3.0	14	181	50	24	14
7	7.9	5.2	4.5	2.4	2.6	2.8	3.0	14	174	46	25	14
8	7.6	5.4	4.0	2.4	2.5	2.7	3.2	13	139	44	18	14
9	7.3	6.0	3.5	2.4	2.6	2.6	3.0	13	104	40	20	13
10	7.3	6.0	3.7	2.4	2.7	2.5	3.0	13	93	38	22	12
11	7.0	6.0	4.1	2.4	2.5	2.5	3.1	14	96	38	21	11
12	6.8	6.0	4.2	2.5	2.4	2.7	3.3	14	99	36	21	11
13	6.8	6.0	4.1	2.6	2.2	2.9	3.5	15	98	33	21	11
14	6.8	6.0	4.3	2.7	2.4	2.8	3.2	14	139	31	25	11
15	6.8	6.0	4.5	2.7	2.5	2.7	3.4	14	152	31	24	12
16	6.5	6.0	4.2	2.6	2.6	2.7	3.7	14	159	27	22	12
17	6.5	6.0	3.8	2.4	2.7	2.9	3.6	13	170	29	21	11
18	6.5	5.6	3.7	2.3	2.7	2.7	3.4	13	174	30	21	12
19	6.2	5.6	3.6	2.5	2.7	2.6	3.3	13	139	29	20	12
20	6.2	5.8	3.5	2.7	2.7	2.5	3.9	14	170	26	20	11
21	6.2	5.8	4.0	2.7	2.6	2.9	3.7	16	196	25	20	11
22	6.2	5.8	4.1	2.7	2.6	3.0	3.6	26	156	24	18	10
23	6.2	5.4	4.2	2.9	2.8	3.2	3.9	29	126	25	17	10
24	6.2	4.8	3.9	3.0	2.9	3.2	4.1	30	101	24	16	10
25	6.2	5.4	3.4	2.8	3.0	3.1	3.9	30	96	24	16	9.0
26	6.2	4.7	3.1	2.7	3.0	3.0	3.9	30	98	22	16	9.0
27	5.8	3.8	3.0	2.8	2.9	3.1	4.1	29	91	26	16	9.0
28	5.6	3.4	2.8	2.8	2.8	3.2	4.5	35	87	21	16	9.0
29	5.4	3.0	2.7	2.9	3.0	3.1	4.8	46	87	18	16	8.5
30	5.0	3.4	2.5	2.9	- - - -	3.1	5.2	61	98	17	16	8.5
31	5.4	- - - -	2.3	2.9	- - - -	3.2	- - - -	82	- - - -	18	16	- - - -
Total	204.3	159.0	117.6	82.3	77.4	99.6	106.9	665.3	3,780	1,112	591	352.0
Mean	6.59	5.30	3.79	2.65	2.67	2.89	3.56	21.5	126	35.9	19.1	11.7
Max	7.9	6.0	4.5	3.0	3.0	3.2	5.2	82	196	91	25	16
Min	5.0	3.0	2.3	2.3	2.2	2.5	3.0	6.5	87	17	16	8.5
Ac-ft	405	315	233	163	154	178	212	1,320	7,500	2,210	1,170	698

Cal yr 1967: Total 6,694.0 Mean 18.3 Max 126 Min 2.3 Ac-ft 13,280
Wtr yr 1968: Total 7,337.4 Mean 20.0 Max 196 Min 2.2 Ac-ft 14,550

Peak discharge (base, 160 cfs).--June 6 (2300) 209 cfs (2.14 ft); June 20 (2000) 320 cfs (2.54 ft).

Note.--No gage-height record Dec. 1 to Apr. 27, Aug. 27 to Sept. 30.

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.--58.3 sq mi.

Records available.--October 1910 to September 1918, May 1944 to September 1968. 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 (1910-18, 1944-67), 86.6 cfs (62,700 acre-ft per year) prior to diversions through Homestake Tunnel.

Extremes.--Maximum discharge during year, 400 cfs June 5 (gage height, 3.10 ft); minimum daily, 4.5 cfs Jan. 31.

1910-18, 1944-68: 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 winter period, which are poor. Flow regulated by Homestake Lake (capacity, 44,360 acre-ft) since June 7, 1966. Transmountain diversions above station through Homestake Tunnel (see elsewhere in this report) since June 6, 1967.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	15	8.5	7.5	6.0	5.5	20	20	203	45	37	37
2	17	13	8.0	8.0	5.5	5.5	20	35	250	43	35	37
3	16	13	7.5	8.0	5.5	6.0	19	50	270	41	35	49
4	16	13	7.5	7.5	5.5	6.0	18	60	245	41	30	55
5	18	13	7.5	7.0	5.5	6.0	17	70	260	43	32	53
6	19	13	7.5	6.5	5.5	6.0	15	70	265	41	47	45
7	20	13	7.0	6.5	5.5	6.0	14	65	212	35	68	30
8	19	13	7.0	6.5	6.0	6.0	13	55	149	34	92	29
9	19	13	7.0	7.0	6.0	6.0	12	55	110	34	75	29
10	17	13	7.0	7.0	6.0	6.0	13	55	101	34	86	28
11	16	13	7.5	6.5	5.5	5.5	14	55	92	32	70	32
12	15	13	8.0	5.5	5.5	5.5	16	60	107	32	58	35
13	15	10	7.5	6.0	6.0	5.5	18	58	157	34	49	37
14	14	7.6	7.0	6.5	6.0	6.0	18	53	157	29	49	39
15	14	7.0	6.5	6.5	6.0	6.5	18	55	153	28	49	41
16	14	9.4	6.5	7.0	6.0	7.0	17	53	161	28	41	43
17	15	13	6.5	7.0	6.5	7.0	16	47	173	23	39	47
18	15	11	7.0	7.0	6.5	7.0	15	43	177	23	37	45
19	15	12	7.5	6.5	6.5	7.0	15	45	173	24	34	45
20	14	12	7.5	6.5	6.5	7.0	15	49	185	26	34	41
21	14	10	7.0	6.5	6.5	6.5	15	49	190	23	34	39
22	14	9.0	6.5	6.5	6.5	7.0	15	80	149	22	34	35
23	14	8.5	6.5	6.5	6.0	7.5	15	120	131	20	32	34
24	13	8.5	6.5	7.0	6.0	7.5	15	110	114	24	30	32
25	12	9.0	7.0	7.0	6.0	8.0	15	95	95	23	30	32
26	12	8.0	7.5	7.0	5.5	9.0	15	89	70	28	30	30
27	13	7.0	7.5	7.0	5.5	10	15	98	72	41	30	30
28	13	6.5	7.5	6.5	5.5	11	15	124	80	47	35	28
29	13	6.5	7.5	6.0	5.5	13	15	149	70	35	34	28
30	14	7.0	7.0	5.0	- - - - -	15	15	157	55	34	30	28
31	15	- - - - -	6.5	4.5	- - - - -	17	- - - - -	190	- - - - -	35	29	- - - - -
Total	472	320.0	223.0	206.0	171.0	234.5	473	2,314	4,626	1,002	1,345	1,113
Mean	15.2	10.7	7.19	6.65	5.90	7.56	15.8	74.6	154	32.3	43.4	37.1
Max	20	15	8.5	8.0	6.5	17	20	190	270	47	92	55
Min	12	6.5	6.5	4.5	5.5	5.5	12	20	55	20	29	28
Ac-ft	936	635	442	409	339	465	938	4,590	9,180	1,990	2,670	2,210

Cal yr 1967: Total 11,075.4 Mean 30.3 Max 212 Min 4.4 Ac-ft 21,970
 Wtr yr 1968: Total 12,499.5 Mean 34.2 Max 270 Min 4.5 Ac-ft 24,790

Note.--No gage-height record Nov. 21 to May 6.

9-0651. Cross Creek near Minturn, Colo.

Location.--39°34'05", long 106°24'45", in SW¼ sec.36, T.5 S., R.81 W., on right bank 0.4 mile upstream from mouth and 1½ miles southeast of Minturn.

Drainage area.--33.5 sq mi.

Records available.--May 1956 to September 1963, October 1967 to September 1968.

Gage.--Digital water-stage recorder. Altitude of gage is 7,990 ft (from topographic map). Prior to July 18, 1956, staff gage at site 0.3 mile downstream at different datum. July 19, 1956, to Sept. 30, 1963, graphic water-stage recorder at present site and datum.

Average discharge.--8 years, 50.7 cfs (36,710 acre-ft per year).

Extremes.--Maximum discharge during year, 674 cfs June 21 (gage height, 5.35 ft); minimum daily, 1.1 cfs Jan. 12.

1956-63, 1967-68: Maximum discharge, 754 cfs June 30, 1957; maximum gage height, 5.54 ft July 18, 1957; minimum daily discharge, 0.1 cfs Dec. 27-31, 1962, Jan. 6-8, 11-15, 1963.

Remarks.--Records good except those for winter period, which are poor. Bolts ditch exports water above station to tailing ponds and recreation lake along Eagle River. Diversion above station for water supply of school (located a quarter of a mile above station) and for municipal supply of Minturn.

DISCHARGE, IN CFS, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	4.3	2.5	1.8	1.4	1.9	7.0	26	254	123	99	20
2	9.0	4.9	2.5	1.6	1.3	2.0	7.5	32	287	129	104	18
3	7.2	4.6	2.3	1.4	1.4	2.0	7.0	37	346	141	96	20
4	8.6	4.5	2.4	1.4	1.5	2.1	6.0	48	291	141	78	26
5	11	4.0	2.6	1.5	1.5	2.3	5.5	55	337	122	63	24
6	14	3.5	2.6	1.6	1.4	2.4	5.0	58	460	140	80	20
7	16	3.0	2.4	1.5	1.4	2.5	5.5	41	381	134	249	17
8	16	3.0	2.4	1.6	1.5	2.5	6.5	31	308	133	306	15
9	16	3.2	2.3	1.7	1.6	2.4	7.5	33	212	121	146	13
10	16	3.7	2.2	1.5	1.4	2.2	8.0	36	185	124	149	13
11	15	3.0	2.3	1.3	1.5	2.1	8.0	36	140	116	110	12
12	14	3.0	2.3	1.1	1.7	2.2	7.5	45	175	118	96	11
13	12	3.0	2.5	1.2	1.8	2.4	6.5	40	327	115	79	12
14	11	3.1	2.3	1.3	1.8	2.4	7.5	33	364	100	100	12
15	6.7	3.2	2.3	1.5	1.8	2.2	8.0	34	304	97	145	13
16	7.7	3.1	2.3	1.6	1.8	2.4	9.0	30	304	95	84	16
17	7.2	3.0	2.4	1.4	1.8	2.5	11	25	397	82	64	19
18	7.2	2.8	2.3	1.2	1.7	2.4	11	23	420	76	55	17
19	7.2	2.7	2.3	1.4	1.6	2.4	11	24	432	74	45	20
20	7.1	2.9	2.3	1.5	1.6	2.3	12	35	444	65	37	18
21	7.5	3.0	2.2	1.5	1.7	2.2	10	54	488	61	34	16
22	6.8	3.3	2.2	1.5	1.8	2.6	9.7	98	414	58	31	16
23	6.3	3.0	2.5	1.5	2.0	3.2	9.8	99	354	65	33	15
24	5.9	2.8	2.5	1.6	2.1	3.8	11	82	334	69	33	13
25	5.8	2.6	2.5	1.6	2.2	4.6	9.5	70	285	54	26	12
26	6.2	2.5	2.1	1.8	2.2	4.4	9.2	67	204	60	23	11
27	5.7	2.4	2.2	2.0	2.1	5.5	8.8	67	238	123	26	11
28	5.9	2.4	2.3	2.0	2.0	6.2	11	88	292	148	39	10
29	6.5	2.7	2.2	1.9	1.9	6.5	10	131	256	117	34	10
30	3.6	2.6	2.0	1.6	-----	6.0	16	161	202	88	28	10
31	4.2	-----	1.6	1.5	-----	6.2	-----	205	-----	111	23	-----
TOTAL	285.9	95.8	71.8	47.6	49.5	96.8	262.0	1,844	9,435	3,200	2,515	460
MEAN	9.22	3.19	2.32	1.54	1.71	3.12	8.73	59.5	315	103	81.1	15.3
MAX	16	4.9	2.6	2.0	2.2	6.5	16	205	488	148	306	26
MIN	3.6	2.4	1.6	1.1	1.3	1.9	5.0	23	140	54	23	10
AC-FT	567	190	142	94	98	192	520	3,660	18,710	6,350	4,990	912

CAL YR 1967 TOTAL
WTR YR 1968 TOTAL 18,363.4

MEAN

MEAN 50.2

MAX

MAX 488

MIN

MIN 1.1

AC-FT

AC-FT 36,420

PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
6- 6	0300	5.15	598	8- 8	0400	4.86	454
6-21	0400	5.35	674				

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.--14.3 sq mi.

Records available.--October 1947 to September 1956, October 1963 to September 1968.

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.--14 years, 27.4 cfs (19,840 acre-ft per year).

Extremes.--Maximum discharge during year, 400 cfs June 20, from rating curve extended above 180 cfs; maximum gage height, 3.95 ft June 5; minimum daily discharge, 2.4 cfs Feb. 23.

1947-56, 1963-68: 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 fair. No diversion above station.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.3	5.0	4.2	4.1	2.9	2.9	10	12	88	100	28	19
2	8.1	5.5	4.2	4.1	2.9	2.8	9.0	16	108	88	29	18
3	7.9	4.6	4.2	4.1	2.9	2.8	7.0	19	162	80	35	23
4	8.1	4.8	4.2	4.2	2.8	2.8	6.0	26	162	85	28	26
5	9.0	4.6	4.1	4.2	2.8	2.8	5.0	26	172	85	27	26
6	9.0	4.4	4.1	4.2	2.8	2.8	4.6	27	194	85	41	26
7	9.0	4.6	4.1	4.2	2.8	3.1	4.0	22	166	90	41	23
8	8.5	5.2	4.1	4.1	2.8	3.1	3.6	18	122	80	32	21
9	8.3	4.8	4.1	3.8	2.8	3.1	4.0	18	105	70	31	19
10	8.3	4.7	4.1	3.8	2.7	3.1	4.2	18	90	70	37	18
11	8.1	4.7	4.0	3.6	2.7	3.1	4.6	18	80	66	34	17
12	7.7	4.7	4.0	3.5	2.7	3.0	5.0	19	137	64	31	16
13	7.1	4.7	4.0	3.4	2.5	3.0	5.2	17	194	60	27	16
14	6.9	4.7	4.0	3.4	2.5	2.9	5.5	14	186	58	37	16
15	6.9	4.7	4.0	3.4	2.5	2.9	5.8	14	190	55	43	16
16	6.5	4.7	4.0	3.4	2.5	3.0	5.8	13	194	52	32	17
17	7.1	4.6	4.0	3.3	2.5	3.0	5.8	11	222	48	29	18
18	6.7	4.6	4.0	3.3	2.5	3.0	5.8	11	244	46	27	20
19	6.4	4.4	4.0	3.2	2.5	3.1	5.9	10	234	45	25	22
20	6.2	4.2	4.0	3.2	2.5	3.1	5.9	10	248	39	23	21
21	6.2	4.6	4.0	3.1	2.6	3.1	5.8	14	244	37	23	19
22	5.8	4.4	4.0	3.1	2.5	3.1	5.6	28	226	35	23	18
23	5.4	4.4	4.0	3.1	2.4	3.1	5.4	33	218	36	23	16
24	5.0	4.6	4.0	3.1	2.7	3.2	5.4	26	190	34	21	15
25	5.4	4.6	4.0	3.0	2.7	3.5	5.6	22	170	29	20	15
26	5.4	4.4	3.6	3.0	2.7	4.1	5.6	21	150	28	20	14
27	5.0	4.2	4.0	3.0	2.8	4.0	5.4	22	140	32	23	13
28	4.8	4.4	4.1	3.0	2.9	4.1	5.6	30	150	30	28	13
29	5.3	4.4	4.2	2.9	2.8	5.6	5.8	51	140	31	22	13
30	5.0	4.1	4.1	2.9	2.9	7.7	7.5	62	120	30	20	13
31	4.6	---	4.1	2.9	---	9.2	---	76	---	30	20	---
Total	212.0	138.3	125.5	107.6	77.7	110.1	170.4	724	5,046	1,718	800	547
Mean	6.84	4.61	4.05	3.47	2.68	3.55	5.68	23.4	168	55.4	28.4	18.2
Max	9.0	5.5	4.2	4.2	2.9	9.2	10	76	248	100	43	26
Min	4.6	4.1	3.6	2.9	2.4	2.8	3.6	10	80	28	20	13
Ac-ft	420	274	249	213	154	218	338	1,440	10,010	3,410	1,750	1,080

Cal yr 1967: Total 10,109.7 Mean 27.7 Max 248 Min 1.9 Ac-ft 20,050
 Wtr yr 1968: Total 9,856.6 Mean 26.9 Max 248 Min 2.4 Ac-ft 19,550

Peak discharge (base, 200 cfs).--June 6 (0100) 284 cfs (3.62 ft); June 20 (2000) 400 cfs (3.87 ft).

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 1968.

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.--14 years, 16.0 cfs (11,580 acre-ft per year).

Extremes.--Maximum discharge during year, 220 cfs June 5 (gage height, 4.35 ft), from rating curve extended above 140 cfs; maximum gage height, 6.00 ft Mar. 30 (backwater from ice); minimum daily discharge, 0.90 cfs Feb. 22.
1947-56, 1963-68: Maximum discharge, 365 cfs June 7, 1952 (gage height, 5.42 ft); maximum gage height, that of Mar. 30, 1968; minimum daily discharge, that of Feb. 22, 1968.

Remarks.--Records good except those for the winter period, 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.7	2.7	2.8	3.3	1.7	1.0	3.5	10	103	39	10	4.5
2	2.7	3.0	2.7	3.1	1.6	1.0	3.2	15	124	36	10	4.3
3	2.5	2.6	2.7	3.1	1.6	1.0	3.0	18	142	33	10	6.3
4	3.1	2.4	2.5	2.9	1.6	1.0	2.9	20	145	31	9.2	6.6
5	3.3	2.6	2.4	2.5	1.6	1.0	2.7	20	162	30	10	5.7
6	3.3	2.5	2.3	2.4	1.6	1.1	2.7	16	160	28	16	4.8
7	3.1	2.5	2.4	2.2	1.5	1.3	2.6	12	133	26	16	4.3
8	2.9	2.4	2.4	2.1	1.5	1.4	2.6	12	114	25	12	4.3
9	2.7	2.2	2.3	2.0	1.4	1.4	3.0	11	110	24	12	4.1
10	2.5	2.2	2.4	2.0	1.4	1.4	3.2	11	97	21	13	3.9
11	2.4	2.2	2.4	1.9	1.4	1.4	3.6	11	88	21	11	3.9
12	2.3	2.2	2.3	1.8	1.3	1.4	3.8	12	110	20	9.6	3.9
13	2.3	2.2	2.3	1.8	1.2	1.4	4.3	12	135	19	9.2	4.1
14	2.4	2.2	2.4	2.0	1.1	1.3	4.4	11	138	18	11	4.1
15	2.4	2.2	2.4	2.0	1.1	1.2	4.5	12	135	16	10	5.1
16	2.2	2.2	2.3	2.2	1.0	1.3	4.5	11	133	15	8.6	5.4
17	2.3	2.2	2.3	2.0	1.0	1.5	4.3	10	138	14	8.2	5.1
18	2.2	2.3	2.3	1.7	1.0	1.6	4.3	9.6	140	13	7.8	5.7
19	2.2	2.3	2.3	1.8	1.0	1.8	4.3	10	133	12	7.2	5.7
20	2.2	2.4	2.4	1.9	1.0	1.5	4.8	12	128	12	6.6	4.8
21	2.2	2.2	2.4	2.0	1.0	1.4	4.8	17	121	11	6.3	4.5
22	2.2	2.6	2.4	2.0	.90	1.4	4.8	28	112	11	6.3	4.5
23	2.2	3.1	2.4	2.0	1.0	1.5	5.0	33	101	12	6.0	4.3
24	2.2	3.5	2.4	2.0	1.0	1.6	5.0	29	88	11	5.7	4.1
25	2.2	2.9	2.4	2.0	1.0	1.6	5.0	26	77	11	5.4	4.1
26	2.2	2.7	2.1	1.8	1.0	2.2	5.0	26	68	11	5.1	3.9
27	2.1	3.4	2.5	1.7	1.0	2.0	5.2	26	63	12	6.3	3.7
28	2.3	3.0	2.4	1.7	1.0	2.4	5.4	35	58	11	6.3	3.7
29	2.4	3.2	2.7	1.7	1.0	2.8	6.5	51	52	10	5.4	4.1
30	2.5	3.0	3.0	1.7	- - - -	3.2	8.0	65	45	9.6	4.8	4.3
31	2.6	- - - -	2.6	1.7	- - - -	3.4	- - - -	82	- - - -	10	4.5	- - - -
Total	76.8	77.1	75.6	65.0	35.50	49.5	126.9	673.6	3,353	572.6	269.5	137.8
Mean	2.48	2.57	2.44	2.10	1.22	1.60	4.23	21.7	112	18.5	8.69	4.59
Max	3.3	3.5	3.0	3.3	1.7	3.4	8.0	82	162	39	16	6.6
Min	2.1	2.2	2.1	1.7	0.90	1.0	2.6	9.6	45	9.6	4.5	3.7
Ac-ft	152	153	150	129	70	98	252	1,340	6,650	1,140	535	273

Cal yr 1967: Total 5,134.5 Mean 14.1 Max 165 Min 1.0 Ac-ft 10,180
Wtr yr 1968: Total 5,512.9 Mean 15.1 Max 162 Min 0.90 Ac-ft 10,930

Peak discharge (base, 150 cfs).--June 5 (2100) 220 cfs (4.35 ft); June 13 (1930) 170 cfs (4.14 ft).

Note.--No gage-height record Jan. 9 to Mar. 19.

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 1968.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 8,600 ft (from topographic map).

Average discharge.--5 years, 7.48 cfs (5,420 acre-ft per year).

Extremes.--Maximum discharge during year, 110 cfs (estimated) June 20 (gage height, 3.34 ft); minimum daily, 0.30 cfs Mar. 12. 1963-68: Maximum discharge, that of June 20, 1968; maximum gage height, 3.43 ft June 7, 1964; minimum daily discharge determined, 0.10 cfs Feb. 8, 1967.

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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.9	1.3	1.0	0.80	0.70	0.50	1.7	4.2	42	22	9.0	3.3
2	2.9	1.2	1.0	.70	.60	.50	1.6	6.3	50	22	9.4	3.1
3	2.6	1.0	1.0	.70	.70	.50	1.4	7.2	55	23	13	4.1
4	2.7	1.2	1.0	.70	.70	.50	1.2	9.0	59	21	11	4.1
5	3.0	1.4	.90	.70	.70	.50	1.2	9.4	70	20	9.8	3.9
6	3.0	1.4	.90	.70	.70	.50	1.1	9.8	55	22	14	4.2
7	2.9	1.4	.90	.70	.70	.50	1.0	7.8	45	22	14	4.1
8	2.7	1.2	.90	.70	.70	.50	1.0	6.3	36	22	13	3.7
9	2.5	1.0	.90	.70	.70	.60	1.0	5.9	32	18	16	3.4
10	2.5	1.0	.90	.80	.70	.50	1.0	5.9	28	18	19	3.4
11	2.4	1.0	.80	.70	.70	.50	1.3	5.9	26	16	18	3.3
12	2.3	1.0	.80	.60	.70	.30	1.6	6.5	30	14	14	3.1
13	2.1	1.0	.80	.70	.60	.40	1.7	6.3	40	14	12	3.1
14	2.0	1.0	.80	.80	.60	.50	1.6	5.9	50	14	13	3.3
15	2.0	1.0	.80	.80	.60	.50	1.7	6.1	46	13	12	3.3
16	1.9	1.2	.80	.80	.60	.50	1.6	5.5	50	11	10	3.3
17	1.8	1.2	.80	.80	.60	.50	1.6	4.7	55	11	8.8	3.0
18	1.9	1.1	.80	.70	.60	.40	1.7	4.4	60	11	7.6	3.0
19	1.8	1.0	.80	.60	.60	.40	1.7	4.1	60	11	6.7	3.7
20	1.8	.80	.80	.60	.60	.40	1.6	4.4	65	9.0	6.5	3.9
21	1.6	1.0	.80	.60	.60	.40	1.4	5.7	85	8.8	6.0	3.7
22	1.6	1.0	.80	.60	.50	.40	1.4	12	75	9.0	5.7	3.4
23	1.5	1.0	.80	.60	.50	.40	1.4	16	70	9.4	5.9	3.1
24	1.4	1.2	.80	.60	.60	.40	1.4	13	65	8.5	4.7	2.9
25	1.5	1.2	.80	.60	.60	.40	1.4	10	60	7.8	4.4	2.7
26	1.4	1.2	.70	.60	.60	.40	1.4	9.0	50	7.6	4.4	2.6
27	1.4	.90	.60	.70	.60	.40	1.3	8.8	55	8.8	4.7	2.3
28	1.5	1.1	.70	.70	.70	.64	1.4	12	60	8.3	4.7	2.3
29	1.4	1.2	.80	.70	.60	.82	1.7	22	55	8.5	4.4	2.1
30	1.5	1.0	.80	.70	- - - -	1.2	2.6	28	40	9.8	4.1	2.1
31	1.2	- - - -	.70	.70	- - - -	1.5	- - - -	34	- - - -	10	3.6	- - - -
Total	63.7	33.20	25.70	21.40	18.40	16.46	43.7	296.1	1,569	430.5	289.4	97.5
Mean	2.05	1.11	0.83	0.69	0.63	0.53	1.46	9.55	52.3	13.9	9.34	3.25
Max	3.0	1.4	1.0	0.80	0.70	1.5	2.6	34	85	23	19	4.2
Min	1.2	0.80	0.60	0.60	0.50	0.30	1.0	4.1	26	7.6	3.6	2.1
Ac-ft	126	66	51	42	36	33	87	587	3,110	854	574	193

Cal yr 1967: Total 2,543.00 Mean 6.97 Max 47 Min 0.10 Ac-ft 5,040
Wtr yr 1968: Total 2,905.06 Mean 7.94 Max 85 Min 0.30 Ac-ft 5,760

Peak discharge (base, 50 cfs).--June 5 (2100) 80 cfs (estimated) (3.30 ft); June 20 (1930) 110 cfs (estimated) (3.34 ft).

Note.--No gage-height record Nov. 1 to Mar. 19.

9-0661.5. Pitkin Creek near Minturn, Colo.

Location.--Lat 39°38'35", long 106°18'10", on left bank 100 ft downstream from Pitkin ditch headgate, 800 ft upstream from U. S. Highway 6, 900 ft upstream from mouth, and 8 miles northeast of Minturn, Eagle County.

Drainage area.--5.39 sq mi.

Records available.--Annual maximum and occasional low-flow measurements water years 1965-66. October 1966 to September 1968.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 8,600 ft (from topographic map). Oct. 1, 1964, to Sept. 30, 1966, crest-stage gage at same site at datum 0.98 ft lower.

Extremes (combined flow).--Maximum discharge during year, 123 cfs June 20 (gage height, 2.79 ft); minimum daily, 0.90 cfs Mar. 19. 1964-68: Maximum discharge, that of June 20, 1968. 1966-68: Minimum daily, 0.50 cfs Jan. 8, 1967.

Remarks.--Records good except those for period of no gage-height record, which are poor. Records show combined flow of creek and Pitkin ditch. Pitkin ditch diverts water above station for irrigation below station.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.4	2.6	1.8	1.6	1.3	1.4	2.0	4.5	46	36	14	4.9
2	4.4	2.5	1.8	1.8	1.1	1.4	2.0	7.0	53	36	15	4.6
3	4.0	2.2	1.8	1.8	1.2	1.4	1.8	8.0	66	38	20	5.8
4	4.1	2.4	1.8	1.8	1.2	1.4	1.8	9.0	68	32	15	6.8
5	4.5	2.4	1.8	1.8	1.2	1.4	1.7	9.5	75	29	14	7.3
6	4.6	2.4	1.6	1.8	1.1	1.4	1.5	10	68	35	19	7.3
7	4.4	2.4	1.6	1.8	1.2	1.6	1.5	8.5	59	35	29	6.8
8	4.1	2.2	1.6	1.8	1.4	1.8	1.8	7.0	45	34	20	6.4
9	3.8	2.1	1.6	1.7	1.4	1.8	1.8	6.4	35	33	24	6.0
10	3.8	1.8	1.7	1.6	1.4	1.5	1.7	6.4	32	33	26	5.5
11	3.7	1.8	1.8	1.5	1.3	1.4	2.0	6.4	28	29	19	5.2
12	3.6	1.8	1.8	1.4	1.3	1.4	2.1	6.8	39	27	17	5.2
13	3.4	1.8	1.7	1.5	1.2	1.4	2.1	6.4	55	26	14	5.5
14	3.3	1.8	1.7	1.6	1.1	1.4	2.1	6.0	55	26	17	6.0
15	3.2	1.8	1.7	1.6	1.1	1.4	2.1	6.0	51	25	18	6.0
16	3.2	1.8	1.6	1.6	1.0	1.4	2.1	5.5	57	21	14	6.0
17	3.2	2.0	1.6	1.6	1.0	1.2	2.1	5.0	62	18	12	6.0
18	3.2	1.8	1.6	1.4	1.0	1.0	2.1	4.7	62	17	11	6.8
19	3.0	1.8	1.7	1.4	1.0	.90	2.1	4.4	62	17	10	7.3
20	3.0	1.7	1.8	1.2	1.0	.92	2.1	4.7	68	15	9.2	6.8
21	3.0	1.8	1.7	1.2	1.2	.92	2.1	6.4	95	14	7.5	6.0
22	2.8	1.8	1.6	1.2	1.1	.92	2.1	11	92	14	7.6	5.5
23	2.8	2.0	1.6	1.2	1.0	1.0	1.8	12	92	15	10	5.5
24	2.8	2.0	1.7	1.2	1.1	1.0	1.8	11	72	14	8.3	5.2
25	2.8	2.0	1.8	1.2	1.2	1.0	1.8	9.6	64	12	6.3	5.0
26	2.6	1.8	1.7	1.2	1.3	1.1	1.8	9.1	59	12	6.2	4.7
27	2.6	1.6	1.6	1.4	1.3	.92	1.6	9.1	62	15	6.4	4.4
28	2.8	1.8	1.6	1.4	1.3	.92	1.8	11	64	13	6.9	4.4
29	2.6	1.8	1.7	1.2	1.3	1.2	2.3	20	60	14	6.0	4.4
30	2.8	1.8	1.8	1.0	- - - - -	1.7	3.0	29	45	15	5.6	4.4
31	2.5	- - - - -	1.6	1.2	- - - - -	1.8	- - - - -	39	- - - - -	15	5.0	- - - - -
Total	105.0	59.5	52.5	45.7	34.3	40.00	58.6	299.4	1,771	715	413.0	171.7
Mean	3.39	1.98	1.69	1.47	1.18	1.29	1.95	9.66	59.0	23.1	13.3	5.72
Max	4.6	2.6	1.8	1.8	1.4	1.8	3.0	39	95	38	29	7.3
Min	2.5	1.6	1.6	1.0	1.0	0.90	1.5	4.4	28	12	5.0	4.4
Ac-ft	208	118	104	91	68	79	116	594	3,510	1,420	819	341

Cal yr 1967: Total 3,260.60 Mean 8.93 Max 62 Min 0.50 Ac-ft 6,470

Wtr yr 1968: Total 3,765.70 Mean 10.3 Max 95 Min 0.90 Ac-ft 7,470

Peak discharge (base, 60 cfs).--June 5 (2230) 88 cfs (2.71 ft); June 20 (2230) 123 cfs (2.79 ft).

Note.--No gage-height record Oct. 1 to Nov. 1, Nov. 25 to Mar. 19.

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 1968.

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

Extremes.--Maximum discharge during year, 182 cfs June 21 (gage height, 3.98 ft); minimum daily, 0.30 cfs Jan. 30. 1964-68: Maximum discharge, that of June 21, 1968; minimum daily, 0.20 cfs Feb. 8, 1967.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.1	0.96	0.70	0.77	0.50	0.74	3.2	7.9	90	50	11	3.5
2	1.9	.96	.70	.77	.40	.77	2.7	10	103	50	12	3.3
3	1.7	.80	.70	.80	.50	.77	2.3	12	112	46	17	5.0
4	1.8	1.0	.70	.80	.60	.80	2.0	18	110	40	14	6.2
5	1.6	.65	.70	.80	.60	.88	1.7	19	105	36	12	6.0
6	2.4	.80	.60	.80	.50	.96	1.7	18	99	38	17	5.8
7	2.4	.74	.60	.80	.60	.96	1.7	16	76	34	25	5.1
8	2.6	.59	.60	.80	.60	.92	1.6	13	63	32	17	4.5
9	2.4	.71	.60	.70	.60	.88	1.7	12	52	28	20	4.2
10	2.1	.71	.60	.70	.60	.88	1.7	13	47	26	23	3.9
11	2.0	.71	.70	.60	.60	.84	2.2	13	44	24	19	3.5
12	1.8	.71	.80	.60	.60	.92	2.9	14	48	22	16	3.8
13	1.6	.71	.70	.60	.60	.80	2.7	13	54	22	14	4.0
14	1.6	.74	.70	.70	.60	.80	2.5	12	56	20	17	4.6
15	1.6	.74	.70	.70	.60	.88	2.5	12	71	20	17	4.8
16	1.5	.77	.70	.70	.60	.88	2.6	10	84	18	14	5.1
17	1.7	.77	.70	.70	.60	.84	2.5	9.1	86	17	11	5.1
18	1.6	.77	.70	.60	.60	.80	2.5	8.5	90	16	9.8	5.6
19	1.6	.77	.80	.50	.70	.84	2.5	8.1	88	15	8.3	5.6
20	1.5	.77	.80	.40	.70	.92	2.4	8.9	132	12	7.5	5.0
21	1.5	.77	.70	.40	.71	1.2	2.4	12	148	12	6.7	4.6
22	1.4	.77	.70	.40	.80	.80	2.3	23	110	11	6.0	4.2
23	1.2	.68	.60	.40	.96	.80	2.2	24	90	12	6.7	3.9
24	1.1	.74	.68	.40	1.2	.92	2.3	21	95	12	5.8	3.8
25	1.1	.80	.68	.40	.96	1.0	2.3	19	75	9.5	5.1	3.5
26	1.1	.50	.74	.40	.80	1.1	2.2	18	70	9.5	4.6	3.3
27	1.0	.77	.71	.50	.77	1.0	2.2	17	75	13	5.1	3.0
28	1.2	1.0	.71	.50	.74	1.2	2.2	21	80	12	5.3	2.9
29	1.2	.92	.74	.50	.74	1.6	2.6	41	75	11	4.5	3.0
30	.84	.80	.71	.30	- - - -	2.6	4.5	56	60	11	4.2	3.2
31	.92	- - - -	.74	.50	- - - -	2.9	- - - -	71	- - - -	12	3.8	- - - -
Total	50.06	23.13	21.51	18.54	19.38	32.20	70.8	570.5	2,468	691.0	359.4	130.0
Mean	1.61	0.77	0.69	0.60	0.67	1.04	2.36	18.4	82.3	22.3	11.6	4.33
Max	2.6	1.0	0.80	0.80	1.2	2.9	4.5	71	148	50	25	6.2
Min	0.84	0.50	0.60	0.30	0.40	0.74	1.6	7.9	44	9.5	3.8	2.9
Ac-ft	99	46	43	37	38	64	140	1,130	4,900	1,370	713	258

Cal yr 1967: Total 3,417.77 Mean 9.36 Max 76 Min 0.20 Ac-ft 6,780
 Wtr yr 1968: Total 4,454.52 Mean 12.2 Max 148 Min 0.30 Ac-ft 8,840

Peak discharge (base, 80 cfs).--June 3 (2200) 152 cfs (3.78 ft); June 21 (2000) 182 cfs (3.98 ft).

Note.--No gage-height record Jan. 5 to Feb. 20.

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 1968.

Gage.--Water-stage recorder. Altitude of gage is 8,300 ft (from topographic map).

Extremes.--Maximum discharge during year, 112 cfs June 20 (gage height, 2.60 ft), from rating curve extended above 70 cfs; no flow for many days.

1964-68: Maximum discharge, that of June 20, 1968; no flow at times during 1965, 1967, 1968.

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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.88	0.62	0.30	0	0.20	0.30	0.50	1.2	17	28	4.4	1.9
2	.82	.62	.30	0	.10	.30	.40	1.7	22	26	4.6	1.9
3	.76	.60	.30	0	.10	.30	.30	1.8	26	23	5.0	2.8
4	.82	.50	.30	0	.10	.30	.40	2.5	28	20	4.6	2.2
5	.94	.40	.20	0	.10	.30	.40	2.6	33	18	4.0	1.8
6	1.0	.40	.20	0	.10	.30	.40	2.6	38	18	4.6	1.6
7	1.0	.40	.20	0	.10	.20	.30	2.5	35	15	6.8	1.3
8	1.0	.40	.20	0	.10	.20	.30	2.3	30	13	5.8	1.2
9	1.0	.40	.10	0	.10	.20	.40	2.5	26	11	7.0	1.1
10	.94	.40	.10	0	.10	.20	.60	2.6	23	9.0	7.0	1.1
11	.82	.50	.10	0	.10	.20	.80	2.6	23	8.0	6.6	1.1
12	.76	.50	.10	0	.10	.20	.80	2.7	28	8.0	6.0	1.1
13	.70	.58	0	0	.10	.20	.60	2.7	38	7.0	5.4	1.1
14	.70	.54	0	0	.10	.20	.60	2.6	42	6.5	7.5	1.2
15	.66	.54	0	0	.10	.20	.80	2.7	44	6.0	7.0	1.1
16	.54	.54	0	0	.20	.20	.80	2.6	50	5.5	6.0	1.2
17	.66	.46	0	0	.20	.20	.70	2.3	54	5.2	5.0	1.2
18	.66	.46	0	0	.20	.20	.66	2.2	59	5.0	4.5	1.3
19	.66	.46	0	0	.20	.20	.66	2.1	64	4.6	3.8	1.3
20	.58	.46	0	.10	.20	.20	.66	2.5	73	4.4	3.0	1.1
21	.62	.46	0	.10	.30	.30	.66	3.1	92	4.2	2.6	1.0
22	.58	.40	0	.20	.30	.40	.66	5.1	83	4.4	2.6	.94
23	.58	.40	0	.20	.30	.40	.66	5.8	75	4.8	3.0	.88
24	.50	.30	0	.20	.30	.40	.66	5.1	67	4.6	2.8	.82
25	.58	.30	0	.30	.30	.40	.62	4.7	58	4.4	2.6	.82
26	.62	.30	0	.30	.20	.40	.58	4.7	48	4.2	2.4	.76
27	.26	.30	0	.40	.10	.50	.54	4.9	46	5.5	2.6	.70
28	.58	.30	0	.40	.20	.50	.54	6.2	46	5.0	2.0	.70
29	.58	.30	0	.40	.20	.60	.62	8.4	42	4.6	1.9	.76
30	.66	.30	0	.30	-----	.60	.88	10	33	4.2	1.8	.70
31	.66	-----	0	.20	-----	.60	-----	14	-----	4.4	1.8	-----
Total	22.12	13.14	2.40	3.10	4.80	9.70	17.50	119.3	1,343	291.5	134.7	36.68
Mean	0.71	0.44	0.077	0.10	0.17	0.31	0.58	3.85	44.8	9.40	4.35	1.22
Max	1.0	0.62	0.30	0.40	0.30	0.60	0.88	14	92	28	7.5	2.8
Min	0.26	0.30	0	0	0.10	0.20	0.30	1.2	17	4.2	1.8	0.70
Ac-ft	44	26	4.8	6.1	9.5	19	35	237	2,660	578	267	73

Cal yr 1967: Total 1,429.60 Mean 3.92 Max 42 Min 0 Ac-ft 2,840

Wtr yr 1968: Total 1,997.94 Mean 5.46 Max 92 Min 0 Ac-ft 3,960

Peak discharge (base, 60 cfs).--June 20 (2030) 112 cfs (2.60 ft).

Note.--No gage-height record Nov. 22 to Apr. 17.

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 1968.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 9,150 ft (from topographic map).

Average discharge.--5 years, 7.88 cfs (5,700 acre-ft per year).

Extremes.--Maximum discharge during year, 116 cfs June 5 (gage height, 4.10 ft); minimum daily, 0.60 cfs Jan. 12.

1963-68: Maximum discharge, 139 cfs June 17, 1965 (gage height, 4.22 ft), from rating curve extended above 80 cfs; minimum daily determined, 0.30 cfs Jan. 8, 1967.

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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.6	1.5	1.4	1.0	0.90	1.0	2.4	5.2	57	22	5.5	2.7
2	1.6	1.6	1.4	1.0	.80	1.0	2.2	6.2	70	20	5.5	2.7
3	1.6	1.4	1.4	.90	.90	1.0	2.1	7.4	71	18	7.0	4.7
4	1.7	1.2	1.4	.80	1.0	1.0	1.8	7.8	68	18	5.3	4.2
5	1.8	1.2	1.4	.70	1.0	1.0	1.6	7.4	86	19	4.7	3.4
6	2.2	1.0	1.4	.70	1.0	1.0	1.5	6.8	84	17	6.0	2.9
7	2.3	1.2	1.4	.70	1.0	1.1	1.3	6.4	74	14	8.9	2.6
8	2.4	1.3	1.4	.70	1.0	1.2	1.2	6.2	62	14	7.6	2.6
9	2.2	1.3	1.4	.90	1.2	1.2	1.3	6.1	52	14	9.2	2.3
10	2.0	1.4	1.4	.80	1.0	1.2	1.4	6.2	44	12	8.9	2.2
11	1.8	1.3	1.4	.70	1.0	1.1	1.5	6.2	44	11	8.6	2.2
12	1.7	1.5	1.4	.60	1.0	1.0	1.7	6.3	53	10	7.8	2.2
13	1.6	1.5	1.4	.70	1.0	1.1	1.8	6.6	64	9.5	7.6	2.4
14	1.6	1.4	1.4	.80	1.1	1.2	1.9	6.7	62	8.6	9.5	2.4
15	1.5	1.5	1.3	.80	1.1	1.2	2.0	7.0	61	7.8	9.2	2.6
16	1.3	1.5	1.3	.90	1.0	1.2	2.1	6.0	64	7.3	7.8	2.6
17	1.3	1.4	1.3	1.2	1.0	1.2	2.2	5.3	65	6.7	7.0	3.0
18	1.4	1.4	1.3	1.1	1.0	1.2	2.2	5.1	66	6.0	6.5	3.7
19	1.3	1.4	1.3	.90	1.1	1.2	2.2	5.3	61	5.8	6.0	2.7
20	1.3	1.4	1.3	.90	1.2	1.2	2.2	6.2	62	5.3	5.5	2.5
21	1.2	1.4	1.3	1.0	1.0	1.1	2.1	9.5	67	5.1	5.3	2.3
22	1.2	1.6	1.3	1.0	1.0	1.0	2.1	17	61	5.1	4.9	2.2
23	1.2	1.5	1.3	1.0	1.0	1.0	2.1	17	53	6.0	5.8	2.1
24	1.1	1.5	1.3	1.0	1.1	1.1	2.0	14	48	5.8	4.9	2.1
25	1.3	1.4	1.3	1.1	1.2	1.2	2.0	12	40	5.1	3.8	2.0
26	1.2	1.4	.90	1.2	1.3	1.4	2.0	12	36	5.3	3.7	2.0
27	1.4	1.5	.90	1.4	1.0	1.4	2.1	13	33	7.8	4.2	1.8
28	1.3	1.5	1.2	1.6	.90	1.4	2.2	20	33	7.0	4.2	1.8
29	1.4	1.4	1.0	1.4	1.0	1.6	2.5	27	30	5.3	3.5	2.0
30	1.5	1.4	1.0	1.4	- - - -	1.9	3.5	33	24	4.9	3.0	2.0
31	1.5	- - - -	.80	1.0	- - - -	2.2	- - - -	47	- - - -	5.5	2.9	- - - -
Total	48.5	42.0	39.70	29.90	29.80	37.6	59.2	347.9	1,695	308.9	190.3	76.7
Mean	1.56	1.40	1.28	0.96	1.03	1.21	1.97	11.2	56.5	9.96	6.14	2.56
Max	2.4	1.6	1.4	1.6	1.3	2.2	3.5	47	86	22	9.5	4.7
Min	1.1	1.0	0.80	0.60	0.80	1.0	1.2	5.1	24	4.9	2.9	1.8
Ac-ft	96	83	79	59	59	75	117	690	3,360	613	377	152

Cal yr 1967: Total 2,795.75 Mean 7.66 Max 76 Min 0.30 Ac-ft 5,550
 Wtr yr 1968: Total 2,905.50 Mean 7.94 Max 86 Min 0.60 Ac-ft 5,760

Peak discharge (base, 70 cfs).--June 5 (1900) 116 cfs (4.10 ft); June 20 (2100) 83 cfs (3.89 ft).

Note.--No gage-height record Dec. 28 to May 14.

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 1968.

Gage.--Water-stage recorder. Altitude of gage is 9,050 ft (from topographic map).

Extremes.--Maximum discharge during year, 282 cfs June 20 (gage height, 2.30 ft); minimum daily, 1.3 cfs Jan. 12.
1965-68: Maximum discharge, that of June 20, 1968; minimum daily, that of Jan. 12, 1968.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.4	4.0	2.6	1.4	2.0	2.2	2.8	6.2	75	40	23	6.7
2	6.2	4.0	2.4	1.5	1.6	2.1	2.8	7.2	98	39	22	6.2
3	5.6	3.8	2.4	1.6	1.8	2.0	2.7	8.3	98	37	23	6.7
4	5.3	3.8	2.4	1.4	1.8	2.0	2.6	9.5	92	37	20	7.2
5	5.3	3.5	2.4	1.4	1.8	2.0	2.6	9.9	103	37	17	7.2
6	6.2	3.4	2.4	1.4	1.8	2.0	2.6	9.9	98	37	22	6.4
7	6.2	3.4	2.4	1.4	1.8	2.0	2.6	7.9	69	33	42	5.9
8	5.9	3.4	2.4	1.4	1.8	2.1	2.6	6.7	57	35	43	5.9
9	6.2	3.4	2.4	1.4	1.8	2.1	2.5	7.0	43	36	37	5.6
10	5.9	3.4	2.2	1.4	1.8	2.1	2.6	7.0	35	32	32	5.3
11	5.6	3.4	2.2	1.4	2.0	2.1	2.8	6.7	30	31	27	5.3
12	5.3	3.4	2.2	1.3	2.0	2.1	3.2	6.7	53	31	25	5.3
13	5.1	3.4	2.1	1.4	2.0	2.1	3.4	6.4	94	30	20	5.3
14	4.8	3.5	2.0	1.4	2.0	2.1	3.1	6.2	90	27	30	5.6
15	4.6	3.5	2.0	1.4	2.0	2.1	3.1	6.4	77	25	25	5.9
16	4.5	3.4	2.0	1.4	2.0	2.1	3.1	6.2	90	24	23	5.9
17	4.5	3.4	2.0	1.4	2.0	2.1	3.2	5.9	110	22	17	6.4
18	4.5	3.4	2.0	1.4	2.0	2.1	3.2	5.9	126	20	15	6.2
19	4.2	3.4	2.0	1.6	2.0	2.1	3.1	6.4	132	19	12	6.4
20	4.0	3.4	2.0	1.8	2.0	2.1	3.1	9.5	144	17	11	6.2
21	3.8	3.5	2.0	1.8	2.1	2.1	3.2	13	165	17	10	6.2
22	3.8	3.5	1.8	1.8	2.2	2.1	3.1	24	135	16	9.9	6.2
23	3.7	3.2	1.6	1.8	2.2	2.1	3.1	24	120	18	10	6.2
24	3.5	3.0	1.6	1.8	2.2	2.1	3.1	18	98	20	9.5	5.9
25	3.5	3.2	1.6	2.0	2.2	2.1	3.2	14	74	20	9.1	5.6
26	3.5	2.8	1.6	2.1	2.2	2.1	3.2	13	71	20	8.7	5.6
27	3.2	2.4	1.6	2.1	2.2	2.1	3.2	14	75	28	8.7	5.3
28	3.5	2.6	1.6	2.1	2.2	2.1	3.1	24	83	33	11	5.1
29	3.5	2.6	1.6	2.1	2.2	2.3	3.5	40	74	29	9.1	4.8
30	3.8	2.6	1.5	2.1	2.5	2.5	4.5	51	53	24	7.9	5.1
31	3.8	- - - -	1.4	2.1	2.5	2.5	- - - -	63	- - - -	25	7.0	- - - -
Total	145.9	99.7	62.4	50.6	57.7	65.7	90.9	443.9	2,662	859	586.9	177.6
Mean	4.71	3.32	2.01	1.63	1.99	2.12	3.03	14.3	88.7	27.7	18.9	5.92
Max	6.4	4.0	2.6	2.1	2.2	2.5	4.5	63	165	40	43	7.2
Min	3.2	2.4	1.4	1.3	1.6	2.0	2.5	5.9	30	16	7.0	4.8
Ac-ft	289	198	124	100	114	130	180	880	5,280	1,700	1,160	352

Cal yr 1967: Total 4,753.6 Mean 13.0 Max 93 Min 1.4 Ac-ft 9,430
Wtr yr 1968: Total 5,302.3 Mean 14.5 Max 165 Min 1.3 Ac-ft 10,520

Peak discharge (base, 110 cfs).--June 5 (2330) 171 cfs (2.02 ft); June 20 (2300) 282 cfs (2.30 ft).

Note.--No gage-height record Nov. 24 to Mar. 27.

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 Creel, 1½ miles downstream from confluence of East and West Brush Creeks, and 7½ miles southeast of Eagle.

Drainage area.--69.7 sq mi.

Records available.--October 1950 to September 1968.

Gage.--Water-stage recorder. Altitude of gage is 7,450 ft (estimated from nearby level line).

Average discharge.--18 years, 43.0 cfs (31,130 acre-ft per year).

Extremes.--Maximum discharge during year, 400 cfs (estimated) June 20 (gage height, 4.06 ft); maximum gage height, 4.17 ft Jan. 8 (backwater from ice); minimum daily discharge, 12 cfs Feb. 2.

1950-68: 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 period, 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	20	20	16	14	14	17	23	138	94	59	35
2	28	22	18	16	12	14	16	26	162	90	53	35
3	27	20	18	16	13	14	16	29	183	85	56	36
4	27	20	19	15	13	14	16	32	172	87	53	37
5	28	19	19	15	13	14	15	33	189	87	48	38
6	29	18	19	15	13	14	16	35	207	83	55	37
7	30	18	18	15	13	14	15	30	168	74	115	36
8	28	19	19	15	13	14	14	28	145	69	122	34
9	27	19	17	15	13	14	14	29	120	71	118	32
10	27	20	18	15	13	14	15	30	110	65	105	27
11	25	19	18	14	14	14	16	29	94	68	87	27
12	26	19	18	13	14	16	16	30	108	68	80	26
13	25	19	16	14	14	14	18	31	168	60	68	25
14	25	19	16	14	14	14	16	29	175	58	90	26
15	23	19	16	14	14	14	16	30	168	50	118	27
16	23	19	16	14	14	14	16	28	165	44	80	30
17	23	19	16	15	14	14	16	26	217	42	63	30
18	23	18	16	14	15	14	16	26	240	40	56	30
19	22	18	16	14	15	14	16	27	260	41	51	30
20	21	18	16	14	14	14	16	33	280	40	50	30
21	20	19	15	15	15	16	15	44	300	39	46	30
22	20	19	15	16	15	14	15	68	260	38	43	30
23	20	19	16	16	14	14	14	74	240	41	45	30
24	19	17	16	16	14	14	14	62	230	44	44	30
25	19	19	16	16	14	14	15	53	160	44	42	30
26	19	16	16	16	14	14	14	49	148	43	41	31
27	19	17	16	16	14	14	14	48	152	58	41	30
28	19	18	16	16	14	14	14	62	158	85	42	30
29	20	20	16	15	14	16	16	87	150	71	39	30
30	20	20	16	14	-----	16	19	112	122	60	36	30
31	19	-----	15	16	-----	17	-----	128	-----	62	36	-----
Total	731	566	522	465	400	445	466	1,371	5,389	1,901	1,982	929
Mean	23.6	18.9	16.8	15.0	13.8	14.4	15.5	44.2	180	61.3	63.9	31.0
Max	30	22	20	16	15	17	19	128	300	94	122	38
Min	19	16	15	13	12	14	14	23	94	38	36	25
Ac-ft	1,450	1,120	1,040	922	793	883	924	2,720	10,690	3,770	3,930	1,840
Cal yr 1967: Total	13,582		Mean 37.2	Max 195	Min 13	Ac-ft 26,940						
Wtr yr 1968: Total	15,167		Mean 41.4	Max 300	Min 12	Ac-ft 30,080						

Peak discharge (base, 160 cfs).--June 6 (0230) 245 cfs (3.75 ft); June 20 (2400) about 400 cfs (4.06 ft).

Note.--No gage-height record Jan. 8 to Feb. 19.

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.--63.4 sq mi.

Records available.--October 1950 to September 1955. October 1965 to September 1968.

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.--8 years (1950-55, 1965-68), 30.7 cfs (22,230 acre-ft per year).

Extremes.--Maximum discharge during year, 143 cfs June 21 (gage height, 3.81 ft); minimum daily, 13 cfs Jan. 12.

1950-55, 1965-68: 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, 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	22	19	18	15	15	18	18	29	67	37	27
2	22	22	18	18	14	15	18	19	40	62	37	26
3	22	22	17	18	15	15	16	19	54	59	37	28
4	23	22	17	16	16	16	16	20	65	55	34	27
5	23	22	19	14	17	15	16	20	79	55	37	26
6	23	23	18	15	17	16	16	20	103	52	42	26
7	22	26	17	14	16	16	16	19	112	49	43	26
8	22	22	18	14	16	16	16	18	110	49	40	26
9	21	20	18	15	17	16	16	18	99	47	39	26
10	21	20	17	16	17	16	16	18	83	44	39	26
11	22	20	18	16	17	16	17	18	72	42	38	26
12	21	20	18	13	16	15	18	18	73	40	37	26
13	22	20	16	14	16	16	18	20	92	37	35	26
14	22	20	16	15	16	17	17	18	108	34	39	26
15	23	20	16	16	16	16	18	18	108	33	38	26
16	23	20	18	17	16	15	18	18	115	33	34	25
17	24	20	18	16	16	16	18	18	115	33	33	25
18	25	20	18	16	16	16	18	17	133	33	34	25
19	23	20	18	17	16	15	18	16	133	31	33	25
20	24	20	17	17	16	16	16	17	130	31	33	25
21	25	21	15	16	17	16	16	18	135	30	33	26
22	24	20	14	15	17	16	16	18	130	30	32	25
23	24	20	14	15	17	16	16	19	122	33	33	25
24	24	20	17	16	16	16	16	18	117	33	32	25
25	24	20	19	16	16	16	16	18	110	33	31	26
26	23	20	18	16	15	17	16	18	96	36	30	26
27	23	17	17	16	16	16	16	17	98	38	28	26
28	23	15	16	16	15	17	17	18	94	43	27	26
29	23	15	16	15	16	18	18	20	77	35	26	25
30	23	18	17	14	-----	18	18	22	72	36	28	25
31	23	-----	18	15	-----	18	-----	25	-----	42	27	-----
Total	709	607	532	485	466	498	505	578	2,894	1,275	1,066	774
Mean	22.9	20.2	17.2	15.6	16.1	16.1	16.8	18.6	96.1	41.1	34.4	25.8
Max	25	26	19	18	17	18	18	25	135	67	43	28
Min	21	15	14	13	14	15	16	16	29	30	26	25
Ac-ft	1,410	1,200	1,060	962	924	988	1,000	1,150	5,720	2,530	2,110	1,540

Cal yr 1967: Total 9,947 Mean 27.3 Max 99 Min 14 Ac-ft 19,730

Wtr yr 1968: Total 10,379 Mean 28.4 Max 135 Min 13 Ac-ft 20,590

Peak discharge (base, 100 cfs).--June 7 (0430) 127 cfs (3.74 ft); June 21 (0900) 143 cfs (3.81 ft).

Note.--No gage-height record Dec. 12 to Feb. 21.

9-0700. 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.--944 sq mi.

Records available.--October 1946 to September 1968.

Gage.--Water-stage recorder. Altitude of gage is 6,270 ft.

Average discharge.--22 years, 563 cfs (407,600 acre-ft per year).

Extremes.--Maximum discharge during year, 3,920 cfs June 6 (gage height, 7.27 ft); minimum daily, 140 cfs Mar. 24.

1946-68: 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 1968 are published in Part 2 of this report as "at Gypsum."

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	275	242	212	184	150	168	240	300	2,010	1,260	568	300
2	260	228	190	184	150	158	238	398	2,420	1,060	560	300
3	256	212	175	170	160	162	215	433	2,880	1,090	584	328
4	256	208	175	172	170	160	198	528	2,930	1,140	560	364
5	265	215	187	148	168	158	187	584	2,930	1,190	464	370
6	290	204	201	152	162	162	194	618	3,430	1,150	504	352
7	300	201	172	150	170	170	190	592	3,110	1,210	897	328
8	290	204	198	143	170	172	175	520	2,680	942	1,140	300
9	285	208	190	149	170	175	175	504	2,240	906	1,000	305
10	285	208	170	170	172	165	178	528	1,940	879	1,010	305
11	285	204	178	160	170	162	194	536	1,640	852	990	270
12	285	204	190	155	168	154	208	576	1,650	834	834	256
13	280	204	172	154	162	160	238	609	2,320	807	726	256
14	270	204	155	154	162	172	228	560	2,520	735	753	256
15	260	204	172	170	165	165	233	568	2,380	681	1,040	270
16	256	204	190	170	160	158	242	552	2,420	636	780	280
17	251	204	190	165	165	160	242	504	2,660	568	663	295
18	251	201	187	165	162	160	246	456	2,800	536	592	285
19	265	201	187	165	160	155	260	440	2,840	512	552	285
20	256	201	190	168	162	150	233	480	2,840	480	512	290
21	256	215	184	168	165	150	220	560	3,170	440	464	285
22	251	208	158	165	168	160	215	870	2,910	412	433	275
23	238	208	172	162	162	150	204	1,090	2,680	426	426	265
24	233	198	201	158	170	140	201	970	2,480	472	399	251
25	224	204	201	158	172	145	204	843	2,260	412	364	256
26	224	187	187	158	162	150	212	798	1,910	405	340	256
27	224	160	180	160	165	150	212	753	1,820	496	340	256
28	224	152	184	160	158	150	201	807	1,950	726	370	246
29	251	194	184	155	168	160	201	1,170	1,850	645	358	251
30	233	208	184	150	- - - -	200	228	1,430	1,600	528	329	246
31	242	- - - -	190	150	- - - -	230	- - - -	1,720	- - - -	544	310	- - - -
Total	8,021	6,095	5,706	4,992	4,768	5,031	6,412	21,297	73,270	22,974	18,860	8,582
Mean	259	203	184	161	164	162	214	687	2,442	741	608	286
Max	300	242	212	184	172	230	260	1,720	3,430	1,260	1,140	370
Min	224	152	155	143	150	140	175	300	1,600	405	310	246
Ac-ft	15,910	12,090	11,320	9,900	9,460	9,980	12,720	42,240	145,300	45,570	37,410	17,020

Cal yr 1967: Total 161,538 Mean 443 Max 2,400 Min 130 Ac-ft 320,400
Wtr yr 1968: Total 186,008 Mean 508 Max 3,430 Min 140 Ac-ft 368,900

Peak discharge (base, 3,500 cfs) June 6 (0830) 3,920 cfs (7.27 ft); June 21 (0830) 3,720 cfs (7.22 ft).

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.--4,394 sq mi.

Gage.--Water-stage recorder. Altitude of gage is 6,130 ft (from topographic map).

Records available.--October 1940 to September 1968.

Average discharge.--28 years, 2,070 cfs (1,499,000 acre-ft per year).

Extremes.--Maximum discharge during year, 9,270 cfs June 6 (gage height, 7.72 ft); minimum daily, 660 cfs Jan. 14.

1940-68: 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 period, 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.100	1.070	1.020	800	820	880	1.510	1.450	5.750	3.070	2.010	1.310
2	1.090	1.110	923	860	800	900	1.700	1.770	6.350	2.860	2.050	1.290
3	1.080	1.040	800	920	820	900	1.620	2.050	7.190	2.790	2.240	1.320
4	1.070	1.020	820	740	840	880	1.510	2.380	7.430	2.680	2.280	1.400
5	1.080	1.020	800	700	840	840	1.440	2.680	7.650	2.500	2.100	1.420
6	1.120	993	950	700	840	900	1.470	2.840	8.530	2.670	2.090	1.400
7	1.190	979	850	760	800	920	1.510	2.670	8.020	2.570	2.460	1.320
8	1.190	986	950	700	740	940	1.430	2.440	7.270	2.430	2.760	1.270
9	1.140	1.020	880	680	860	940	1.390	2.400	6.250	2.380	2.670	1.240
10	1.140	1.030	860	680	800	920	1.390	2.520	5.610	2.300	2.630	1.220
11	1.120	1.060	850	900	760	900	1.430	2.500	5.260	2.260	2.900	1.190
12	1.110	1.050	950	800	880	880	1.560	2.340	4.940	2.260	2.920	1.170
13	1.100	1.030	850	720	860	880	1.670	2.460	5.510	2.240	2.680	1.160
14	1.070	1.020	700	660	820	900	1.550	2.340	5.830	2.130	2.660	1.200
15	1.070	1.020	750	680	840	940	1.490	2.220	5.590	2.060	3.030	1.370
16	1.060	1.030	1.000	700	860	940	1.530	2.180	5.550	1.990	2.640	1.400
17	1.060	1.020	900	760	840	900	1.610	2.060	5.720	1.970	2.270	1.470
18	1.060	1.010	800	780	860	940	1.610	1.920	5.880	1.880	2.260	1.420
19	1.070	1.000	880	760	860	920	1.620	1.860	5.790	1.800	2.140	1.280
20	1.070	1.000	950	740	900	900	1.570	1.970	5.670	1.750	1.950	1.250
21	1.070	1.050	900	740	900	860	1.510	2.220	6.040	1.710	1.740	1.230
22	1.070	1.040	800	720	960	880	1.440	3.020	5.580	1.680	1.630	1.320
23	1.070	1.060	800	760	880	850	1.310	3.560	5.100	1.740	1.570	1.310
24	1.060	1.010	900	840	920	838	1.220	3.450	4.740	1.780	1.510	1.290
25	1.050	993	1.000	820	920	850	1.240	3.230	4.360	1.680	1.370	1.300
26	1.040	881	1.100	840	900	874	1.270	3.010	3.820	1.620	1.320	1.320
27	1.040	764	1.000	860	880	862	1.300	2.940	3.780	1.710	1.290	1.320
28	1.040	909	900	880	860	868	1.230	3.070	4.020	2.010	1.330	1.390
29	1.080	958	900	940	840	915	1.210	3.570	3.890	1.920	1.330	1.380
30	1.050	958	940	860	- - - -	1.110	1.260	4.230	3.520	1.840	1.270	1.360
31	1.060	- - - -	800	840	- - - -	1.280	- - - -	5.120	- - - -	1.950	1.220	- - - -
Total	33,610	30,131	27,523	24,140	24,700	28,307	43,600	82,470	170,640	66,230	64,320	39,320
Mean	1,084	1,004	888	779	852	913	1,453	2,660	5,688	2,136	2,075	1,311
Max	1,190	1,110	1,100	940	960	1,280	1,700	5,120	8,530	3,070	3,030	1,470
Min	1,040	764	700	660	740	838	1,210	1,450	3,520	1,620	1,220	1,160
Ac-ft	66,660	59,760	54,590	47,880	48,990	56,150	86,480	163,600	338,500	131,400	127,600	77,990

Cal yr 1967: Total 555,754 Mean 1,523 Max 5,780 Min 620 Ac-ft 1,102,000
Wtr yr 1968: Total 634,991 Mean 1,735 Max 8,530 Min 660 Ac-ft 1,259,000

Note.--No gage-height record Dec. 6 to Feb. 19.

ROARING FORK RIVER BASIN

9-0734. Roaring Fork River near Aspen, Colo.

Location.--Lat 39°10'48", long 106°48'05", on right bank 25 ft upstream from private bridge, 115 ft upstream from Salvation ditch headgate, 1 mile southeast of Aspen, and 2 miles upstream from Hunter Creek, Pitkin County. Prior to Apr. 25, 1968, at site 85 ft upstream.

Drainage area.--108 sq mi.

Records available.--October 1964 to September 1968.

Gage.--Water-stage recorder. Datum of gage is 8,014.01 ft above mean sea level, datum of 1929. Prior to Apr. 25, 1968, at site 85 ft upstream at datum 1.16 ft higher.

Extremes.--Maximum discharge during year, 1,050 cfs June 6 (gage height, 4.15 ft); minimum daily, 19 cfs Jan. 30.
1964-67: Maximum discharge, 1,310 cfs July 1, 1965 (gage height, 5.20 ft, site and datum then in use), from rating curve extended above 770 cfs; minimum daily, 16 cfs Mar. 3, 4, 1965.

Remarks.--Records fair. Transmountain diversion 14 miles upstream through Twin Lakes tunnel to Arkansas River basin since May 24, 1935 (see elsewhere in this report).

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	27	31	24	20	26	27	60	384	167	86	43
2	49	28	30	24	20	25	27	75	425	157	108	41
3	49	25	28	24	20	26	24	85	620	147	111	50
4	45	27	29	24	20	24	23	90	516	141	88	65
5	57	26	29	24	20	24	23	85	696	139	78	62
6	55	23	27	24	20	25	25	90	825	129	97	55
7	46	24	27	23	21	25	23	80	652	117	86	50
8	42	28	30	24	21	24	23	70	500	113	76	48
9	45	29	27	23	21	24	23	90	330	111	76	46
10	41	30	27	23	21	23	24	95	272	106	82	44
11	37	30	29	24	22	22	28	95	272	102	76	48
12	36	30	27	23	23	23	33	106	295	97	76	54
13	34	30	27	23	23	23	36	100	408	93	65	57
14	32	32	27	23	21	23	30	95	432	95	72	70
15	31	32	27	23	23	23	32	100	492	85	82	70
16	29	31	26	22	23	22	36	90	512	82	62	68
17	29	29	26	22	23	23	35	77	632	77	55	71
18	30	27	25	21	23	22	35	70	704	72	53	58
19	29	29	26	21	24	21	34	68	672	71	49	47
20	29	29	26	22	24	21	34	88	620	67	46	39
21	28	29	24	21	24	21	37	108	724	64	43	38
22	28	31	24	21	25	22	36	190	584	62	41	55
23	26	31	24	21	24	21	36	215	397	77	41	55
24	27	29	24	21	25	21	35	185	351	68	41	55
25	31	30	24	20	26	21	34	139	298	65	40	54
26	30	29	24	21	25	21	32	141	245	65	38	52
27	25	25	24	20	28	21	30	135	242	85	39	49
28	30	25	24	20	26	20	29	175	235	104	60	47
29	29	28	24	20	25	22	31	255	212	92	50	47
30	26	30	24	19	- - - -	25	40	300	187	77	50	48
31	29	- - - -	24	20	- - - -	26	- - - -	360	- - - -	93	47	- - - -
Total	1,104	853	815	685	661	710	915	3,912	13,734	3,020	2,014	1,586
Mean	35.6	28.4	26.3	22.1	22.8	22.9	30.5	126	458	97.4	65.0	52.9
Max	57	32	31	24	28	26	40	360	825	167	111	71
Min	25	23	24	19	20	20	23	60	187	62	38	38
Ac-ft	2,190	1,690	1,620	1,360	1,310	1,410	1,810	7,760	27,240	5,990	3,990	3,150

Cal yr 1967: Total 25,464 Mean 69.8 Max 434 Min 19 Ac-ft 50,510
Wtr yr 1968: Total 30,009 Mean 82.0 Max 825 Min 19 Ac-ft 59,520

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 1968.Gage.--Water-stage recorder. Altitude of gage is 10,500 ft (from topographic map).Extremes.--Maximum discharge during year, 408 cfs June 20 (gage height, 2.86 ft), from rating curve extended above 70 cfs; minimum not determined.

1964-68: Maximum discharge, that of June 20, 1968; maximum gage height recorded, 3.02 May 2, 1965 (backwater from ice); 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.7						2.2	3.0	55	36	23	6.2
2	3.5						2.2	4.5	60	39	27	5.7
3	3.1						2.1	5.5	80	37	24	11
4	3.5						2.0	6.5	100	33	16	13
5	4.4						2.0	7.0	120	37	22	14
6	4.4						2.0	7.5	150	31	31	12
7	4.6						2.0	7.0	140	31	22	11
8	4.6						2.0	6.5	130	33	29	9.5
9	4.0						2.0	7.5	120	32	39	7.8
10	4.4						2.0	8.0	100	31	43	6.9
11	4.4						2.1	8.0	110	27	34	6.4
12	3.7						2.2	8.5	110	25	36	6.2
13	3.1						2.1	9.0	139	22	27	6.4
14	2.9						2.1	8.5	120	20	40	6.9
15	2.6						2.1	9.0	106	19	32	6.6
16	2.5	2.0	1.8	1.6	1.6	1.8	2.0	8.0	132	16	21	6.6
17	2.3						2.0	7.5	160	14	16	6.4
18	2.2						2.0	7.5	168	14	14	7.2
19	2.2						2.0	7.0	158	16	12	6.9
20	2.1						1.9	8.0	185	14	11	5.7
21	2.0						1.9	10	172	12	11	5.1
22	2.0						1.9	12	130	16	9.5	4.8
23	2.0						1.9	15	116	19	9.2	4.6
24	1.9						1.9	12	104	14	7.5	4.2
25	1.8						1.9	11	87	12	6.6	4.0
26	1.7						1.9	13	63	17	6.4	3.7
27	1.6						1.9	16	75	26	12	3.3
28	1.6						1.9	20	72	27	12	3.1
29	1.8						2.0	30	58	18	9.2	3.5
30	1.7						2.4	40	42	19	7.8	4.6
31	1.6							50		23	6.9	
Total	87.9	60.0	55.8	49.6	46.4	55.8	60.6	373.0	3,362	730	617.1	203.3
Mean	2.84	2.0	1.8	1.6	1.6	1.8	2.02	12.0	112	23.5	19.9	6.78
Max	4.6	-	-	-	-	-	2.4	50	185	39	43	14
Min	1.6	-	-	-	-	-	1.9	3.0	42	12	6.4	3.1
Ac-ft	174	119	111	98	92	111	120	740	6,670	1,450	1,220	403

Cal yr 1967: Total 4,828.3 Mean 13.2 Max 135 Min - Ac-ft 9,580

Wtr yr 1968: Total 5,701.5 Mean 15.6 Max 185 Min - Ac-ft 11,310

Peak discharge (base, 80 cfs).--June 5 (time unknown) 280 cfs (estimated) (gage height unknown); June 20 (2100) 408 cfs (2.86 ft).

Note.--No gage-height record Nov. 1 to June 11.

ROARING FORK RIVER BASIN

9-0772. Fryingspan River near Ivanhoe Lake, Colo.

Location.--Lat 39°14'55", long 106°31'55", on right bank 1,100 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 1968.

Gage.--Water-stage recorder. Datum of gage is 9,892.49 ft above mean sea level (Bureau of Reclamation bench mark). Prior to May 15, 1967, at site 900 ft upstream at different datum. May 16, to Aug. 24, 1967, at site 37 ft upstream at datum 2.52 ft higher.

Average discharge.--5 years, 32.4 cfs (23,460 acre-ft per year).

Extremes.--Maximum discharge during year, 271 cfs June 20 (gage height, 4.38 ft), from rating curve extended above 170 cfs; minimum daily, 3.8 cfs Feb. 2.

1963-68: Maximum discharge, 391 cfs June 22, 1965 (gage height, 3.02 ft, site and datum then in use), from rating curve extended above 230 cfs; minimum discharge not determined.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	9.7	8.2	6.2	3.9	4.8	7.0	8.2	147	91	71	30
2	14	9.7	8.5	6.4	3.8	4.8	7.0	9.7	164	89	71	30
3	13	9.4	7.9	6.4	3.9	5.0	6.5	11	184	88	68	38
4	14	9.7	8.2	6.0	4.1	5.2	6.2	15	192	83	61	39
5	16	9.4	7.9	5.8	4.3	5.4	5.6	16	208	89	61	37
6	16	8.5	7.9	5.6	4.4	5.4	5.4	18	196	83	70	35
7	16	9.1	7.9	5.4	4.3	5.4	5.3	15	182	83	70	32
8	15	9.1	7.9	5.4	4.2	5.2	5.2	14	160	91	71	31
9	14	9.1	7.6	5.6	4.2	5.1	5.2	16	141	82	76	30
10	14	9.1	7.6	5.8	4.3	5.0	5.4	16	128	78	82	29
11	15	9.1	7.3	5.6	4.6	4.8	5.9	16	118	76	82	28
12	13	9.1	7.6	5.4	4.5	4.8	6.2	20	147	70	80	28
13	13	9.1	7.6	5.2	4.4	4.8	5.9	19	176	66	70	29
14	12	9.1	7.6	4.8	4.2	5.1	5.7	19	176	66	76	30
15	12	9.1	7.3	4.8	4.3	5.2	5.7	20	174	64	71	29
16	11	8.8	7.3	4.9	4.5	5.0	5.7	17	178	59	61	29
17	11	8.5	7.3	5.1	4.7	5.2	5.6	14	190	56	57	28
18	11	8.2	7.2	5.1	5.1	5.2	5.4	14	200	54	55	29
19	10	8.2	7.0	5.0	5.0	5.0	5.4	14	194	54	49	29
20	10	8.5	6.8	4.8	4.9	5.0	5.3	19	205	50	47	26
21	10	8.8	6.6	4.6	4.7	5.0	5.3	32	198	48	44	26
22	10	8.8	6.8	4.5	4.6	5.2	5.1	50	184	55	42	26
23	9.1	8.5	7.2	4.4	4.6	5.6	5.1	51	164	59	40	24
24	8.8	8.5	7.6	4.4	4.8	5.6	5.3	44	162	52	36	22
25	10	8.5	7.4	4.3	5.0	5.4	5.1	44	147	49	34	22
26	9.4	8.5	7.6	4.3	5.0	5.4	5.3	50	128	55	33	21
27	8.8	8.2	7.4	4.3	5.0	5.4	5.1	59	135	72	40	20
28	10	8.5	7.2	4.4	5.0	5.5	5.3	70	139	67	44	20
29	9.4	8.2	7.0	4.6	4.9	5.8	5.4	89	129	58	37	21
30	10	8.2	6.4	4.2	-----	6.3	6.8	114	107	62	33	21
31	10	-----	6.0	4.0	-----	6.8	-----	135	-----	71	32	-----
Total	369.5	265.2	229.8	157.3	131.2	163.4	169.4	1,048.9	4,953	2,120	1,764	839
Mean	11.9	8.84	7.41	5.07	4.52	5.27	5.65	33.8	165	68.4	56.9	28.0
Max	16	9.7	8.5	6.4	5.1	6.8	7.0	135	208	91	82	39
Min	8.8	8.2	6.0	4.0	3.8	4.8	5.1	8.2	107	48	32	20
Ac-ft	733	526	456	312	260	324	336	2,080	9,820	4,200	3,500	1,660

Cal yr 1967: Total 10,282.8 Mean 28.2 Max 198 Min 4.0 Ac-ft 20,400
 Wtr yr 1968: Total 12,210.7 Mean 33.4 Max 208 Min 3.8 Ac-ft 24,220

Peak discharge (base, 250 cfs).--June 20 (2030) 271 cfs (4.38 ft).

Note.--No gage-height record Dec. 21 to Apr. 10.

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 1968.

Gage.--Water-stage recorder. Altitude of gage is 10,350 ft (from topographic map).

Average discharge.--5 years, 8.16 cfs (5,910 acre-ft per year).

Extremes.--Maximum discharge during year, 134 cfs June 5 (gage height, 5.54 ft), from rating curve extended above 90 cfs; minimum daily, 0.80 cfs Mar. 12.

1963-68: 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, 0.35 cfs Oct. 1, 2, 1966.

Remarks.--Records good except those for winter period, 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.3	1.2	1.1	1.0	1.6	1.3	2.6	3.4	64	9.1	4.5	4.1
2	1.3	1.1	1.2	1.0	1.4	1.2	2.4	4.8	75	8.0	4.3	3.8
3	1.3	1.1	1.3	1.1	1.3	1.1	2.2	5.7	79	7.5	4.1	7.0
4	1.3	1.2	1.5	1.1	1.2	1.1	2.0	7.7	74	6.6	3.2	9.7
5	2.0	1.3	1.6	1.2	1.2	1.1	1.8	8.3	82	7.7	3.3	8.3
6	2.0	1.3	1.6	1.2	1.2	1.1	1.6	7.7	81	6.8	7.0	6.6
7	2.1	1.2	1.5	1.2	1.3	1.0	1.5	7.3	66	5.7	6.6	5.0
8	2.3	1.1	1.4	1.3	1.4	.90	1.5	6.6	58	6.6	9.1	4.3
9	2.4	1.2	1.3	1.4	1.4	.90	1.4	6.4	49	5.7	7.7	4.1
10	2.3	1.3	1.2	1.4	1.4	.90	1.5	5.7	39	5.2	9.7	3.8
11	2.1	1.2	1.1	1.3	1.3	.90	1.8	5.9	43	4.5	9.7	3.5
12	1.8	1.1	1.1	1.2	1.2	.80	2.0	6.4	52	4.3	9.7	3.4
13	1.6	1.1	1.1	1.1	1.1	.90	2.0	6.4	61	4.1	6.2	3.7
14	1.6	1.1	1.2	1.0	1.0	1.0	1.8	7.0	54	3.8	9.7	4.1
15	1.6	1.2	1.2	1.0	1.0	1.1	1.8	6.6	47	3.4	8.8	4.1
16	1.6	1.3	1.2	1.0	1.0	1.1	1.8	5.7	49	3.2	5.7	4.1
17	1.4	1.3	1.1	1.0	1.0	1.0	1.6	5.2	52	2.9	4.6	4.5
18	1.4	1.2	1.0	1.0	.90	.90	1.6	4.3	53	2.6	4.1	4.5
19	1.3	1.2	1.0	1.0	.90	.90	1.6	4.5	46	3.3	3.5	4.1
20	1.3	1.2	1.0	1.0	.90	.90	1.5	6.6	54	3.3	3.4	3.4
21	1.3	1.1	1.0	1.0	.90	1.0	1.5	1.2	55	2.5	3.3	3.3
22	1.3	1.1	1.0	1.0	.90	1.1	1.4	2.5	44	2.6	2.9	3.2
23	1.3	1.2	1.0	1.1	.90	1.1	1.4	3.0	34	3.4	3.0	3.2
24	1.2	1.3	.90	1.2	.90	1.1	1.5	2.5	29	2.9	2.8	2.9
25	1.2	1.3	1.0	1.3	.90	1.0	1.5	2.0	24	2.8	2.5	2.8
26	1.2	1.2	1.1	1.3	1.0	1.0	1.5	1.9	19	3.4	4.0	2.6
27	1.2	1.1	1.1	1.2	1.2	1.2	1.5	1.9	18	7.3	6.8	2.4
28	1.2	1.2	1.0	1.3	1.3	1.6	1.5	3.0	17	5.3	9.9	2.2
29	1.3	1.3	.90	1.5	1.3	2.0	2.0	4.4	14	4.0	5.7	2.5
30	1.3	1.2	.90	1.8	-----	2.3	2.9	5.3	1.1	3.4	5.2	2.9
31	1.3	-----	1.0	1.8	-----	2.5	-----	6.0	-----	5.0	4.5	-----
Total	47.8	35.9	35.60	37.0	33.00	36.00	52.7	459.2	1,443	146.9	175.5	124.1
Mean	1.54	1.20	1.15	1.19	1.14	1.16	1.76	14.8	48.1	4.74	5.66	4.14
Max	2.4	1.3	1.6	1.8	1.6	2.5	2.9	60	82	9.1	9.9	9.7
Min	1.2	1.1	0.90	1.0	0.90	0.80	1.4	3.4	11	2.5	2.5	2.2
Ac-ft	95	71	71	73	65	71	105	911	2,860	291	348	246

Cal yr 1967: Total 2,572.50 Mean 7.05 Max 108 Min 0.50 Ac-ft 5,100
Wtr yr 1968: Total 2,626.70 Mean 7.18 Max 82 Min 0.80 Ac-ft 5,210

Note.--No gage-height record Oct. 30 to Apr. 23.

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 1968.

Gage.--Water-stage recorder. Altitude of gage is 9,960 ft (from topographic map).

Average discharge.--5 years, 20.4 cfs (14,770 acre-ft per year).

Extremes.--Maximum discharge during year, 236 cfs June 20 (gage height, 3.20 ft), from rating curve extended above 110 cfs; minimum daily, 2.0 cfs Mar. 14.

1963-68: Maximum discharge, 266 cfs June 19, 1965 (gage height, 3.25 ft), from rating curve extended above 150 cfs; minimum daily, 2.0 cfs Mar. 14, 1968.

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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.2	4.4	4.0	3.2	2.9	2.2	3.0	4.8	108	53	32	16
2	6.9	4.3	3.8	3.3	2.8	2.2	2.8	5.1	120	54	33	15
3	6.6	4.0	3.8	3.2	2.8	2.2	2.8	5.1	113	52	31	21
4	7.5	4.4	3.8	3.1	2.8	2.5	2.5	6.3	125	50	24	23
5	8.6	4.2	3.9	3.1	2.9	2.5	2.5	6.9	152	57	26	23
6	7.8	3.9	4.0	3.2	3.0	2.2	2.5	7.2	135	49	38	21
7	8.2	4.0	4.0	3.2	3.1	2.2	2.8	7.2	118	47	34	19
8	7.8	4.1	4.0	3.3	3.1	2.2	2.8	7.5	102	51	38	18
9	7.5	4.2	3.9	3.3	3.1	2.2	2.8	8.2	82	49	46	16
10	7.8	4.2	3.8	3.3	3.1	2.2	2.8	7.5	74	47	51	16
11	7.8	4.2	3.7	3.2	2.9	2.2	3.0	7.8	74	42	48	15
12	7.5	4.2	3.7	3.1	2.7	2.2	3.2	8.2	111	40	50	15
13	6.9	4.2	3.7	3.2	2.6	2.2	3.0	8.2	130	36	39	16
14	6.9	4.1	3.7	3.3	2.6	2.0	3.0	8.6	128	35	49	16
15	6.3	4.2	3.8	3.4	2.7	2.2	3.0	8.6	122	34	42	16
16	6.0	4.2	3.9	3.4	2.9	2.2	3.0	8.2	130	31	34	16
17	6.3	4.1	3.9	3.3	2.9	2.2	3.0	6.9	140	28	29	15
18	6.0	4.0	3.8	3.2	2.9	2.2	3.0	6.9	140	26	26	16
19	5.7	4.0	3.7	3.2	2.9	2.5	3.0	6.9	135	28	24	16
20	5.7	4.1	3.6	3.4	2.8	2.5	3.0	7.5	146	25	22	15
21	5.4	4.1	3.5	3.4	2.8	2.5	3.0	11	135	23	21	14
22	5.4	4.1	3.6	3.3	2.8	2.5	3.0	26	115	28	19	14
23	5.1	4.0	3.6	3.3	2.8	2.5	3.0	36	106	30	19	13
24	4.5	3.9	3.5	3.4	2.8	2.5	3.0	28	104	24	17	12
25	5.4	3.8	3.4	3.4	2.8	2.5	3.2	17	95	22	16	12
26	4.5	3.7	3.5	3.3	2.7	2.5	3.2	18	82	26	16	12
27	4.2	3.6	3.5	3.2	2.6	2.5	3.2	21	88	36	25	11
28	4.8	3.7	3.4	3.2	2.5	2.8	3.2	37	86	31	24	11
29	4.2	3.9	3.3	3.3	2.5	2.8	3.5	59	77	25	20	12
30	4.8	4.0	3.2	3.1	- - - - -	3.0	4.2	71	60	27	18	12
31	4.5	- - - - -	3.2	3.0	- - - - -	2.8	- - - - -	91	- - - - -	32	17	- - - - -
Total	193.8	121.8	114.2	100.8	81.8	73.9	90.0	558.6	3,333	1,138	928	467
Mean	6.25	4.06	3.68	3.25	2.82	2.38	3.00	18.0	111	36.7	29.9	15.6
Max	8.6	4.4	4.0	3.4	3.1	3.0	4.2	91	152	57	51	23
Min	4.2	3.6	3.2	3.0	2.5	2.0	2.5	4.8	60	22	16	11
Ac-ft	384	242	227	200	162	147	179	1,110	6,610	2,260	1,840	926

Cal yr 1967: Total 6,620.5 Mean 18.1 Max 140 Min 2.8 Ac-ft 13,130

Wtr yr 1968: Total 7,200.9 Mean 19.7 Max 152 Min 2.0 Ac-ft 14,280

Peak discharge (base, 200 cfs).--June 5 (2030) 205 cfs (3.08 ft); June 20 (2000) 236 cfs (3.20 ft).

Note.--No gage-height record Oct. 31 to Feb. 27.

9-0779.5. Chapman Gulch near Norrie, Colo.

Location.--Lat 39°16'00", long 106°38'00", on right bank a quarter of a mile above Sawyer Lake Creek, 3½ miles upstream from mouth, and 4½ miles south of Norrie, Pitkin County.

Drainage area.--6.38 sq mi.

Records available.--October 1966 to September 1968.

Gage.--Water-stage recorder. Altitude of gage is 9,920 ft (from topographic map).

Extremes.--Maximum discharge during year, 132 cfs June 20 (gage height, 4.07 ft), from rating curve extended above 60 cfs; minimum daily, 0.70 cfs Mar. 14.

1966-68: Maximum discharge, that of June 20, 1968; minimum daily, 0.50 cfs Feb. 17, 1967.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.3	1.8	1.4	1.2	1.1	1.0	1.2	3.0	51	28	19	7.0
2	3.3	1.6	1.4	1.2	1.0	.80	1.3	3.3	60	28	20	6.6
3	3.1	1.4	1.3	1.2	1.0	.90	1.4	3.1	58	28	18	12
4	3.3	1.8	1.3	1.2	1.2	1.0	1.4	3.4	58	26	13	14
5	3.5	1.8	1.3	1.2	1.4	1.2	1.5	3.7	65	29	15	13
6	3.9	1.6	1.4	1.3	1.5	1.0	1.5	3.5	66	24	24	11
7	3.8	1.8	1.4	1.3	1.6	.90	1.5	3.0	59	24	19	9.4
8	3.9	2.0	1.4	1.3	1.6	.90	1.5	2.9	50	24	24	8.4
9	3.9	2.0	1.4	1.3	1.6	.80	1.5	3.0	43	23	26	7.3
10	3.9	2.0	1.4	1.2	1.4	.80	1.6	3.0	36	23	27	6.6
11	3.7	1.8	1.3	1.2	1.4	.80	1.7	2.9	34	20	24	6.4
12	3.5	1.8	1.3	1.2	1.4	.80	1.7	2.9	48	20	26	6.0
13	3.3	1.6	1.3	1.2	1.4	.80	1.6	3.0	64	18	20	6.6
14	3.2	1.5	1.3	1.2	1.4	.70	1.6	2.8	61	16	30	7.3
15	3.0	1.4	1.3	1.4	1.4	.80	1.6	3.0	59	16	25	7.0
16	2.8	1.4	1.3	1.4	1.5	.80	1.5	2.8	64	15	19	6.6
17	2.8	1.4	1.3	1.3	1.6	.80	1.5	2.5	74	12	15	6.6
18	2.6	1.4	1.3	1.3	1.6	.80	1.5	2.2	75	11	15	6.8
19	2.6	1.4	1.3	1.2	1.6	.80	1.5	2.5	71	12	13	6.6
20	2.6	1.4	1.4	1.2	1.6	1.0	1.6	3.7	81	11	11	5.6
21	2.6	1.3	1.4	1.3	1.6	1.0	1.6	6.8	81	10	11	5.2
22	2.5	1.3	1.4	1.4	1.6	1.0	1.5	17	72	12	10	4.9
23	2.3	1.3	1.4	1.4	1.6	1.0	1.5	15	66	15	10	4.8
24	2.4	1.3	1.4	1.4	1.6	1.0	1.5	13	63	12	8.9	4.6
25	2.4	1.2	1.3	1.4	1.5	1.0	1.5	9.2	55	9.4	7.5	4.3
26	2.2	1.2	1.3	1.3	1.5	.90	1.5	10	44	12	7.8	4.3
27	2.0	1.2	1.3	1.2	1.5	.90	1.5	14	47	20	13	4.1
28	2.4	1.3	1.3	1.2	1.4	1.0	1.5	24	47	22	17	4.0
29	2.0	1.4	1.2	1.2	1.2	1.0	1.7	32	39	17	11	4.2
30	1.8	1.4	1.2	1.8	- - - -	1.0	2.2	40	31	14	9.2	4.8
31	1.8	- - - -	1.2	1.4	- - - -	1.1	- - - -	50	- - - -	19	8.1	- - - -
Total	90.4	45.8	41.2	40.0	41.8	28.30	46.2	291.2	1,722	570.4	516.5	206.0
Mean	2.92	1.53	1.33	1.29	1.44	0.91	1.54	9.39	57.4	18.4	16.7	6.87
Max	3.9	2.0	1.4	1.8	1.6	1.2	22	50	81	29	30	14
Min	1.8	1.2	1.2	1.2	1.0	0.70	1.2	2.2	31	9.4	7.5	4.0
Ac-ft	179	91	82	79	83	56	92	578	3,420	1,130	1,020	409

Cal yr 1967: Total 3,506.60 Mean 9.61 Max 72 Min 0.50 Ac-ft 6,960
Wtr yr 1968: Total 3,639.80 Mean 9.94 Max 81 Min 0.70 Ac-ft 7,220

Peak discharge (base, 120 cfs).--June 20 (1930) 132 cfs (4.07 ft).

Note.--No gage-height record Nov. 27 to Mar. 27.

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.--90.6 sq mi.

Records available.--October 1910 to March 1917, October 1947 to September 1968. 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.--27 years (1910-16, 1947-68), 123 cfs (89,050 acre-ft per year).

Extremes.--Maximum discharge during year, 866 cfs June 6; maximum gage height, 4.31 ft June 20; minimum daily discharge, 14 cfs Feb. 3. 1910-17, 1947-68: Maximum discharge, 1,780 cfs June 30, 1957; maximum gage height, 5.55 ft June 28, 1957; minimum daily discharge, 8.0 cfs Dec. 26, 1962, but may have been less during periods of no gage-height record.

Remarks.--Records good except those for winter period, 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	27	23	22	17	19	30	74	590	263	179	76
2	35	27	21	23	15	19	27	85	665	256	176	68
3	34	25	22	23	14	20	25	90	705	246	168	99
4	34	29	23	22	16	20	22	101	680	232	138	127
5	42	26	24	21	18	21	23	96	725	252	130	116
6	47	24	25	20	19	21	23	99	740	224	218	106
7	44	26	24	20	19	21	22	83	665	207	179	94
8	41	26	25	21	18	20	22	72	585	221	214	85
9	40	26	24	22	16	20	24	81	498	207	242	77
10	38	26	22	23	18	18	22	87	440	207	266	74
11	38	26	21	21	18	17	25	87	390	193	242	70
12	35	26	21	20	17	17	31	94	494	172	252	68
13	32	26	21	19	16	18	31	99	625	159	204	68
14	31	26	22	18	17	19	27	92	610	153	242	77
15	31	26	24	18	18	19	29	103	585	144	238	74
16	27	26	26	20	19	18	33	92	605	135	182	72
17	28	25	25	20	19	19	31	77	640	122	156	74
18	29	25	24	19	20	19	31	74	665	111	141	72
19	29	25	24	18	21	19	29	77	640	116	124	76
20	27	25	25	18	20	18	29	106	655	111	116	65
21	29	25	23	19	18	19	30	159	675	99	111	62
22	27	25	22	19	16	19	29	260	615	101	101	60
23	27	25	23	19	18	21	29	282	550	153	99	59
24	26	24	23	19	19	20	30	238	526	113	92	56
25	27	24	22	19	20	19	32	190	503	101	83	55
26	27	23	22	19	20	19	30	207	408	116	79	52
27	23	21	22	19	20	20	29	228	413	186	94	48
28	27	22	23	20	19	21	29	294	422	182	165	47
29	26	24	24	23	18	22	36	395	396	144	108	50
30	26	25	23	20	-----	26	52	467	318	132	92	56
31	29	-----	22	19	-----	26	-----	535	-----	179	81	-----
Total	992	756	715	623	523	614	862	5,024	17,018	5,237	4,912	2,183
Mean	32.0	25.2	23.1	20.1	18.0	19.8	28.7	162	567	169	158	72.8
Max	47	29	26	23	21	26	52	535	740	263	266	127
Min	23	21	21	18	14	17	22	72	318	99	79	47
Ac-ft	1,970	1,500	1,420	1,240	1,040	1,220	1,710	9,960	33,750	10,390	9,740	4,330

Cal yr 1967: Total 37,254 Mean 102 Max 730 Min 14 Ac-ft 73,890
 Wtr yr 1968: Total 39,459 Mean 108 Max 740 Min 14 Ac-ft 78,270

Peak discharge (base, 760 cfs).--June 6 (0030) 866 cfs (4.29 ft); June 20 (2400) 848 cfs (4.31 ft).

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 1968.

Gage.--Water-stage recorder. Altitude of gage is 9,410 ft (from topographic map).

Average discharge.--5 years, 19.7 cfs (14,260 acre-ft per year).

Extremes.--Maximum discharge during year, 251 cfs June 20 (gage height, 3.77 ft); minimum not determined.

1963-68: 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, 0.70 cfs Jan. 26, 1967.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.1						4.5	11	124	55	30	9.4
2	4.0						4.3	13	152	55	28	8.7
3	3.6						4.1	15	160	57	27	12
4	3.8						3.9	18	156	49	22	14
5	4.2						3.7	17	170	48	21	13
6	5.0						3.5	16	181	51	36	12
7	5.9						3.5	14	163	46	52	10
8	6.2						3.5	12	131	51	57	9.4
9	6.8						3.7	11	104	42	42	8.7
10	6.5						3.8	12	82	43	47	7.7
11	5.9						4.0	12	76	40	35	7.1
12	5.3						4.0	12	104	39	32	6.8
13	4.6						3.8	12	148	37	25	7.1
14	4.4						3.9	10	146	30	36	7.7
15	4.2						4.3	10	141	30	47	7.4
16	3.6	2.8	2.7	2.6	2.6	3.0	4.6	9.0	156	27	29	7.4
17	3.6						4.6	7.4	163	22	23	8.0
18	3.3						4.5	7.4	162	21	20	8.0
19	3.2						4.5	8.0	154	20	18	8.0
20	3.2						4.0	11	170	18	16	7.4
21	3.1						3.5	21	181	18	16	6.5
22	3.1						3.4	45	169	16	14	6.2
23	3.0						3.4	41	154	18	15	5.9
24	2.6						3.4	32	139	17	13	5.3
25	3.0						3.5	22	116	15	11	5.0
26	2.6						3.5	20	91	20	10	4.7
27	2.2						3.5	23	103	41	12	4.4
28	2.4						3.6	44	116	42	16	4.1
29	2.6						3.8	76	102	29	14	4.1
30	2.8						5.3	96	78	25	12	4.6
31	2.9	-----			-----		-----	113	-----	33	10	-----
Total	121.7	84.0	83.7	80.6	75.4	93.0	117.6	770.8	4,092	1,055	786	230.6
Mean	3.93	2.8	2.7	2.6	2.6	3.0	3.92	24.9	136	34.0	25.4	7.69
Max	6.8	-	-	-	-	-	5.3	113	181	57	57	14
Min	2.2	-	-	-	-	-	3.4	7.4	76	15	10	4.1
Ac-ft	241	167	166	160	150	184	233	1,530	8,120	2,090	1,560	457

Cal yr 1967: Total 6,397.40 Mean 17.5 Max 150 Min 0.70 Ac-ft 12,690

Wtr yr 1968: Total 7,590.4 Mean 20.7 Max 181 Min - Ac-ft 15,060

Peak discharge (base, 150 cfs).--June 5 (2200) 238 cfs (3.69 ft); June 20 (2200) 251 cfs (3.77 ft).

Note.--No gage-height record Oct. 31 to Apr. 22.

ROARING FORK RIVER BASIN

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 1968.

Gage.--Water-stage recorder. Altitude of gage is 9,600 ft (from topographic map).

Average discharge.--5 years, 10.4 cfs (7,530 acre-ft per year).

Extremes.--Maximum discharge during year, 146 cfs June 20 (gage height, 2.32 ft), from rating curve extended above 90 cfs; maximum gage height, 2.83 ft May 17 (backwater from ice); minimum discharge not determined.

1963-67: 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, 0.50 cfs Feb. 8, 1967.

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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.8						3.0	12	74	29	7.5	2.7
2	1.8						2.4	15	84	27	7.5	2.6
3	1.7						2.1	16	90	26	7.5	4.3
4	1.8						2.0	18	88	24	5.8	6.0
5	2.2						1.8	15	98	24	5.8	5.3
6	2.7						1.6	13	90	22	13	4.3
7	2.8						1.6	11	80	19	11	3.3
8	2.8						1.8	10	68	20	17	3.1
9	3.1						2.1	7.5	62	19	14	2.7
10	3.2						2.3	8.0	53	17	15	2.4
11	2.8						2.4	8.0	51	15	11	2.3
12	2.7						2.4	7.5	67	13	11	2.2
13	2.3						2.3	7.5	92	11	9.0	2.6
14	2.2						2.6	7.0	76	11	13	3.2
15	2.1						3.0	6.4	72	9.0	14	2.8
16	1.8	1.3	1.2	1.0	0.90	1.0	3.0	5.8	78	7.9	9.0	2.7
17	1.6						3.0	5.2	86	7.1	7.5	3.0
18	1.8						2.9	4.8	86	6.0	6.8	3.0
19	1.8						2.7	8.0	84	6.0	5.5	3.0
20	1.8						2.4	10	100	5.8	5.0	2.6
21	1.7						2.1	17	92	5.3	4.8	2.3
22	1.6						2.2	30	84	4.8	4.1	2.2
23	1.5						2.3	27	76	6.0	5.0	2.2
24	1.6						2.4	20	74	5.5	4.5	2.2
25	1.6						2.6	17	65	5.3	3.5	2.1
26	1.6						2.6	16	56	9.0	3.2	2.0
27	1.2						2.6	20	57	16	4.6	1.9
28	1.3						3.0	33	56	14	8.5	1.8
29	1.4						5.0	48	50	9.4	5.0	2.0
30	1.4						7.0	60	40	7.5	3.5	2.2
31	1.5							68		9.0	3.1	
Total	61.2	39.0	37.2	31.0	26.10	31.0	79.2	551.7	2,219	410.6	246.1	85.0
Mean	1.97	1.3	1.2	1.0	0.90	1.0	2.64	17.8	74.0	13.2	7.94	2.83
Max	3.2	-	-	-	-	-	7.0	6.8	100	29	17	6.0
Min	1.2	-	-	-	-	-	1.6	4.8	40	4.8	3.1	1.8
Ac-ft	121	77	74	61	52	61	157	1,090	4,400	814	488	169

Cal yr 1967: Total 3,553.00 Mean 9.73 Max 90 Min 0.50 Ac-ft 7,050

Wtr yr 1968: Total 3,817.10 Mean 10.4 Max 100 Min - Ac-ft 7,570

Peak discharge (base, 100 cfs).--June 5 (2100) 140 cfs (2.30 ft); June 20 (2000) 146 cfs (2.32 ft).

Note.--No gage-height record Oct. 29 to May 1.

9-0783, North Fork Fryingpan 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 1968 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 8,770 ft (from topographic map).

Average discharge.--5 years, 33.1 cfs (23,960 acre-ft per year).

Extremes.--Maximum discharge during year, 418 cfs June 5 (gage height, 2.54 ft); maximum gage height, 2.69 ft Mar. 30 (backwater from ice); minimum daily discharge, 3.6 cfs Oct. 27, Nov. 20, 21.

1963-68: Maximum discharge, 561 cfs June 17, 1965 (gage height, 2.96 ft), from rating curve extended above 360 cfs; minimum daily, 2.8 cfs Oct. 1, 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.4	5.8	4.5	4.1	3.9	4.5	15	52	198	81	42	11
2	6.0	5.2	4.0	4.5	3.8	4.5	14	61	239	81	42	9.6
3	5.6	5.0	4.3	4.5	3.7	4.5	13	63	269	83	42	16
4	6.0	5.4	4.7	4.3	3.7	4.6	11	73	260	77	36	21
5	6.4	4.8	5.1	4.0	3.9	4.6	10	67	290	75	33	18
6	8.7	4.4	5.0	3.9	4.0	4.4	9.0	61	299	77	56	16
7	9.4	5.0	4.6	3.8	4.0	4.3	9.0	36	272	71	71	12
8	9.4	5.0	4.9	3.9	4.1	4.2	10	25	221	77	89	11
9	9.4	4.8	4.5	4.0	4.1	4.1	11	27	179	67	63	11
10	9.4	4.8	4.0	4.2	4.1	4.1	12	28	150	65	71	9.4
11	8.7	4.5	3.8	4.0	4.0	4.1	13	29	137	61	52	8.8
12	7.6	3.9	3.7	3.9	3.9	4.1	12	30	176	56	48	8.8
13	7.2	3.8	3.8	3.8	3.9	4.3	12	30	227	52	40	8.8
14	6.8	3.8	3.9	3.7	4.0	4.4	14	28	236	42	52	11
15	6.4	3.8	4.4	3.7	4.0	4.4	15	28	215	40	65	10
16	6.0	4.1	4.3	3.9	4.0	4.4	15	27	248	39	42	10
17	5.5	4.3	4.1	3.9	4.1	4.3	15	21	263	37	36	11
18	5.2	4.2	4.1	3.9	4.2	4.3	15	20	269	34	33	11
19	5.2	3.9	4.1	3.8	4.3	4.4	14	22	254	33	28	11
20	4.8	3.6	4.3	3.7	4.5	4.4	13	34	275	32	24	10
21	4.4	3.6	4.2	3.8	4.6	4.4	11	58	284	29	22	9.4
22	4.4	3.9	4.2	3.9	4.6	4.5	12	100	254	27	19	9.4
23	4.0	4.3	4.2	4.0	4.7	4.7	12	97	218	30	21	9.4
24	3.8	4.4	4.1	4.0	4.7	4.7	13	77	198	28	18	8.2
25	3.8	4.7	4.0	4.0	4.7	4.5	14	58	165	24	15	7.6
26	3.8	4.5	4.0	4.0	4.8	4.4	14	58	134	33	13	7.0
27	3.6	3.7	4.1	4.1	4.8	5.0	14	63	144	58	15	7.0
28	3.8	4.0	4.2	4.2	4.7	6.0	16	95	150	60	28	6.7
29	4.2	4.3	4.2	4.3	4.6	7.0	18	139	134	42	19	6.7
30	5.0	4.6	4.0	4.2	9.0	9.0	33	163	108	39	15	7.6
31	5.2	- - - -	3.8	4.0	- - - -	11	- - - -	184	- - - -	44	12	- - - -
Total	186.1	132.1	131.1	124.0	122.4	152.1	409.0	1,854	6,466	1,594	1,162	314.4
Mean	6.00	4.40	4.23	4.00	4.22	4.91	13.6	59.8	216	51.4	37.5	10.5
Max	9.4	5.8	5.1	4.5	4.8	11	33	184	299	83	89	21
Min	3.6	3.6	3.7	3.7	3.7	4.1	9.0	20	108	24	12	6.7
Ac-ft	369	262	260	246	243	302	811	3,680	12,830	3,160	2,300	624

Cal yr 1967: Total 10,528.6 Mean 28.8 Max 232 Min 3.0 Ac-ft 20,880
Wtr yr 1968: Total 12,647.2 Mean 34.6 Max 299 Min 3.6 Ac-ft 25,090

Peak discharge (base, 250 cfs).--June 5 (2300) 418 cfs (2.54 ft); June 20 (2315) 410 cfs (2.53 ft).

Note.--No gage-height record Jan. 8 to Mar. 28.

9-0785. North Fork Fryingspan 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.--42.0 sq mi.

Records available.--October 1910 to March 1917, October 1947 to September 1968. Prior to October 1962, published as North Fork Fryingspan 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.--27 years (1910-16, 1947-68), 51.6 cfs (37,360 acre-ft per year).

Extremes.--Maximum discharge during year, 560 cfs June 21 (gage height, 4.23 ft); minimum daily, 4.7 cfs Oct. 27. 1910-17, 1947-68: 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 period, which are poor. One small diversion bypasses station for domestic use and irrigation of pasture.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.8	10	7.8	4.8	5.6	7.4	14	25	283	117	54	24
2	7.0	9.0	7.0	5.0	5.5	7.2	16	35	344	110	49	23
3	6.8	8.2	7.4	5.2	5.4	7.0	14	60	370	110	54	24
4	6.8	8.6	8.2	5.4	5.4	7.0	12	73	357	101	42	25
5	8.6	8.0	8.6	5.4	5.4	7.0	11	70	386	98	36	25
6	11	7.3	8.4	5.3	5.6	6.8	10	62	426	100	61	24
7	13	7.5	8.0	5.2	5.8	6.6	11	52	370	89	83	23
8	13	7.8	7.6	5.3	6.0	6.2	11	44	288	94	115	22
9	14	7.8	7.0	5.6	6.2	6.0	11	52	241	84	84	20
10	13	7.6	6.6	5.6	6.2	6.0	12	52	194	80	93	20
11	13	7.2	6.2	5.4	6.2	6.0	12	53	164	78	78	19
12	12	6.6	6.0	5.2	6.2	6.0	15	55	218	73	64	17
13	10	6.4	6.0	5.1	6.2	6.2	16	54	312	70	50	16
14	9.8	6.5	6.2	5.0	6.1	6.4	17	45	324	57	66	16
15	9.2	6.8	6.4	4.8	6.0	6.6	16	46	305	53	93	16
16	7.8	7.0	6.0	4.9	6.1	6.6	16	43	344	47	67	16
17	7.6	7.4	5.6	5.0	6.2	6.6	16	37	386	41	46	17
18	7.4	7.2	5.6	5.0	6.4	6.6	15	34	402	37	41	17
19	7.2	6.8	5.8	4.9	6.6	6.6	16	36	370	35	35	16
20	7.0	6.6	6.0	4.8	7.0	6.6	16	48	402	34	31	15
21	6.8	6.6	5.9	5.1	7.2	6.6	17	73	442	31	30	14
22	6.8	6.8	5.8	5.2	7.4	6.8	17	129	394	30	28	13
23	6.8	7.2	5.6	5.2	7.4	7.2	17	142	331	32	27	13
24	5.8	7.7	5.3	5.1	7.4	7.4	18	112	300	32	26	13
25	7.0	8.0	5.2	5.2	7.4	7.2	19	89	241	28	25	12
26	6.8	7.2	5.4	5.3	7.4	7.0	19	83	180	36	25	11
27	4.7	6.6	5.5	5.4	7.4	7.0	19	84	188	69	25	11
28	7.5	7.2	5.6	5.4	7.4	7.6	20	120	205	80	28	11
29	6.8	7.8	5.2	5.2	7.4	8.4	20	177	184	64	27	11
30	7.6	8.2	5.0	5.0	9.6	9.6	22	210	150	44	26	12
31	8.8	- - - -	4.8	5.4	- - - -	11	- - - -	266	- - - -	58	26	- - - -
Total	267.4	223.6	195.7	160.4	186.5	217.2	465	2,461	9,101	2,012	1,535	516
Mean	8.63	7.45	6.31	5.17	6.43	7.01	15.5	79.4	303	64.9	49.5	17.2
Max	14	10	8.6	5.6	7.4	11	22	266	442	117	115	25
Min	4.7	6.4	4.8	4.8	5.4	6.0	10	25	150	28	25	11
Ac-ft	530	444	388	318	370	431	922	4,880	18,050	3,990	3,040	1,020

Cal yr 1967: Total 15,299.7 Mean 41.9 Max 364 Min 4.7 Ac-ft 30,350
 Wtr yr 1968: Total 17,340.8 Mean 47.4 Max 442 Min 4.7 Ac-ft 34,390

Peak discharge (base, 420 cfs).--June 6 (0230) 513 cfs (4.23 ft); June 21 (0200) 560 cfs (4.23 ft).

Note.--No gage-height record Oct. 30 to Apr. 10.

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 1968 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 10,080 ft (from topographic map).

Average discharge.--5 years, 10.2 cfs (7,380 acre-ft per year).

Extremes.--Maximum discharge during year, 153 cfs June 20 (gage height, 3.22 ft), from rating curve extended above 80 cfs; minimum daily not determined.

1963-68: Maximum discharge, that of June 20, 1968; minimum daily determined, 0.80 cfs Mar. 9, 1967.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.4							4.0	55	30	26	4.0
2	2.2							4.5	75	30	26	3.6
3	2.1							5.5	76	31	27	3.6
4	2.1							6.5	67	29	24	4.2
5	2.1							6.0	77	26	21	4.2
6	2.3							5.5	79	27	25	3.7
7	2.5							5.0	60	26	54	3.2
8	2.6							4.5	52	27	50	3.1
9	2.8							4.0	43	26	33	2.6
10	2.8							4.2	34	26	36	2.4
11	2.6							4.5	28	26	29	2.3
12	2.5							4.0	41	26	26	2.1
13	2.2							3.0	79	26	22	2.0
14	2.2							3.0	71	24	28	2.0
15	2.1							3.0	67	23	41	2.1
16	1.9	12	1.1	1.0	0.90	1.0	1.0	2.8	77	22	26	2.3
17	1.8							2.6	85	20	20	2.4
18	1.7							2.6	83	20	16	2.3
19	1.7							3.1	83	20	13	2.2
20	1.6							4.4	93	18	11	2.1
21	1.6							8.1	95	17	11	2.0
22	1.6							16	83	17	10	2.1
23	1.5							17	76	17	10	2.0
24	1.2							15	70	17	9.7	1.9
25	1.2							11	56	15	8.0	1.7
26	1.2							10	44	17	7.0	1.6
27	1.0							11	52	26	7.5	1.6
28	1.0							18	60	29	6.0	1.4
29	1.1							30	53	25	5.6	1.4
30	1.0							42	43	22	5.2	1.4
31	1.0							50		27	4.4	
Total	57.6	36.0	34.1	31.0	26.10	31.0	30.0	310.8	1,957	732	638.4	73.5
Mean	1.86	1.2	1.1	1.0	0.90	1.0	1.0	10.0	65.2	23.6	20.6	2.45
Max	2.8	-	-	-	-	-	-	50	95	31	54	4.2
Min	1.0	-	-	-	-	-	-	2.6	28	15	4.4	1.4
Ac-ft	114	71	68	61	52	61	60	616	3,880	1,450	1,270	146

Cal yr 1967: Total 3,320.70 Mean 9.10 Max 72 Min 0.80 Ac-ft 6,590

Wtr yr 1968: Total 3,957.50 Mean 10.8 Max 95 Min - Ac-ft 7,850

Peak discharge (base, 80 cfs)

Note.--No gage-height record Nov. 6 to May 12.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
6-5	2030	2.98	118	6-28	0100	2.69	81
6-20	2100	3.22	153				

ROARING FORK RIVER BASIN

9-0801. Fryingspan River at Meredith, Colo.

Location.--Lat 39°21'45", long 106°44'00", in NE¼ sec.14, T.8 S., R.84 W., on left bank at Meredith, 0.1 mile downstream from Waterbury Creek and 0.7 mile downstream from Jakeman Gulch.

Drainage area.--191 sq mi.

Records available.--October 1966 to September 1968.

Gage.--Water-stage recorder. Altitude of gage is 7,780 ft (from topographic map).

Extremes.--Maximum discharge during year, 1,660 cfs June 6 (gage height, 5.29 ft); minimum daily, 22 cfs Feb. 3.
1966-68: Maximum discharge, that of June 6, 1968; minimum daily, that of Feb. 3, 1968.

Remarks.--Records good except those for winter period, which are poor. Diversion for irrigation of several hundred acres and small transmountain diversion above station to Arkansas River basin.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	57	41	36	32	27	30	52	102	1,050	466	273	118
2	55	45	31	36	25	30	53	142	1,190	434	270	111
3	53	37	33	36	22	30	51	160	1,330	426	270	135
4	51	44	34	34	28	30	46	196	1,290	403	226	175
5	59	42	37	34	27	30	41	200	1,360	412	210	163
6	68	37	40	35	27	31	42	203	1,420	394	312	153
7	68	42	36	35	27	30	38	166	1,260	358	316	135
8	65	42	40	34	27	30	38	147	1,100	380	412	125
9	65	42	36	34	28	29	36	166	938	354	408	115
10	62	41	34	35	27	30	38	178	797	336	426	109
11	62	41	33	35	27	30	43	178	697	328	372	102
12	58	41	32	33	28	30	53	193	821	300	362	98
13	54	41	32	31	28	29	55	196	1,120	285	292	100
14	51	40	33	31	28	29	49	178	1,140	266	340	111
15	49	40	35	30	28	29	52	190	1,080	248	385	107
16	43	39	40	31	28	29	58	172	1,090	233	312	107
17	46	38	38	34	28	29	57	153	1,190	213	254	107
18	46	36	36	28	28	28	57	140	1,210	193	216	102
19	44	36	36	32	28	29	53	150	1,140	187	196	105
20	42	38	38	27	28	29	51	200	1,150	187	175	90
21	43	40	34	27	28	28	52	289	1,240	175	163	88
22	43	39	34	27	26	28	48	510	1,120	163	155	87
23	43	41	36	26	28	28	47	580	998	219	155	85
24	38	35	36	26	28	29	49	485	918	187	142	81
25	42	33	35	26	28	29	53	403	857	163	127	78
26	42	36	33	26	30	30	51	390	697	178	123	74
27	33	31	34	26	31	29	48	398	686	281	132	71
28	42	34	36	25	30	30	46	515	719	312	216	70
29	42	37	36	25	29	34	54	702	675	266	160	71
30	39	38	35	26	-----	40	72	815	575	216	137	78
31	44	-----	34	25	-----	44	-----	964	-----	270	127	-----
Total	1,549	1,167	1,093	942	802	940	1,483	9,461	30,858	8,833	7,664	3,151
Mean	50.0	38.9	35.3	30.4	27.7	30.3	49.4	305	1,029	285	247	105
Max	68	45	40	36	31	44	72	964	1,420	466	426	175
Min	33	31	31	25	22	28	36	102	575	163	123	70
Ac-ft	3,070	2,310	2,170	1,870	1,590	1,860	2,940	18,770	61,210	17,520	15,200	6,250

Cal yr 1967: Total 58,361 Mean 160 Max 1,130 Min 26 Ac-ft 115,800
Wtr yr 1968: Total 67,943 Mean 186 Max 1,420 Min 22 Ac-ft 134,800

Peak discharge (base, 1,350 cfs).--June 6 (0130) 1,660 cfs (5.29 ft); June 21 (0130) 1,500 cfs (5.13 ft).

Note.--No gage height record Dec. 2 to Jan. 2.

9-0801.9. Ruedi Reservoir near Basalt, Colo.

Location.--Lat 39°21'50", long 106°49'05", in NW¼ sec.18, T.8 S., R.84 W., in gatehouse of Ruedi Dam just upstream from Rocky Fork Creek and 13 miles east of Basalt.

Drainage area.--223 sq mi.

Records available.--May to September 1968.

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

Extremes.--Maximum contents observed during period, 45,140 acre-ft Sept. 30 (elevation, 7,694.5 ft); no storage prior to May 28.

Remarks.--Reservoir is formed by an earthfill dam. Dam completed by Bureau of Reclamation in 1968. Usable storage began May 28, 1968. Capacity of reservoir, 100,000 acre-ft between elevations 7,536 ft (sill of auxiliary outlet) and 7,762 ft (crest of spillway). Dead storage, 1,000 acre-ft. Figures given are usable contents. Reservoir is used to store water for replacement and beneficial use.

Cooperation.--Records furnished by Bureau of Reclamation.

Month-end elevation and contents, May to September 1968

Date	Elevation (feet) †	Contents (acre-feet)	Change in contents (acre-feet)
May 27.....	-	-	-
May 31.....	7,581.6	3,130	+3,130
June 30.....	7,661.2	27,720	+24,590
July 31.....	7,684.2	39,240	+11,520
Aug. 31.....	7,693.2	44,360	+5,120
Sept. 30.....	7,694.5	45,140	+780
Water year 1968.....	-	-	+45,140

† Elevation at 0800.

ROARING FORK RIVER BASIN

9-0804. Fryingpan 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.--244 sq mi.

Records available.--October 1964 to September 1968.

Gage.--Water-stage recorder. Altitude of gage is 7,300 ft (from topographic map).

Extremes.--Maximum discharge during year, 1,390 cfs June 21 (gage height, 3.29 ft); minimum daily, 16 cfs Feb. 2 (result of storage in Ruedi Reservoir).
1964-68: Maximum discharge, 2,690 cfs June 18, 1965 (gage height, 5.16 ft); minimum daily, that of Feb. 2, 1968; minimum daily prior to construction of Ruedi Reservoir, 28 cfs Mar. 4, 1966.

Remarks.--Records good except those for winter period, which are poor. Diversions for irrigation of several hundred acres and small transmountain diversions above station to Arkansas River basin. Flow regulated by Ruedi Reservoir (see sta. 9-0801.9) since May 28, 1968.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	72	50	39	39	38	36	79	118	568	446	236	124
2	70	52	34	44	16	38	79	150	598	280	252	124
3	67	48	36	48	35	36	73	177	634	186	272	118
4	65	52	38	44	43	36	66	218	670	186	272	118
5	73	50	42	44	41	40	55	229	705	153	264	118
6	82	48	44	46	40	40	65	236	733	127	260	116
7	87	50	40	44	39	40	56	210	754	124	280	120
8	80	50	46	41	39	40	53	180	761	122	360	120
9	78	50	44	42	37	38	51	190	866	120	423	118
10	79	49	42	45	39	36	56	203	929	114	455	118
11	78	48	39	46	38	40	62	207	810	114	475	116
12	73	48	37	44	37	38	76	222	761	110	298	114
13	69	47	39	41	37	38	79	236	1,060	109	101	112
14	65	46	41	39	38	42	69	222	1,250	109	105	116
15	65	46	45	38	39	40	74	229	1,090	107	109	118
16	58	46	44	39	40	42	80	225	1,120	107	114	118
17	57	45	42	41	39	42	79	193	1,190	105	114	118
18	60	44	41	39	39	40	78	180	1,240	105	116	118
19	57	44	42	37	40	40	76	173	1,230	105	114	118
20	56	45	45	42	38	40	72	218	1,150	105	114	118
21	56	46	42	42	36	41	72	288	1,150	105	114	118
22	56	44	40	42	36	42	70	392	1,270	105	120	114
23	56	40	45	42	34	42	65	432	1,040	105	120	105
24	51	39	47	42	33	44	69	450	950	103	118	96
25	51	38	46	42	34	45	73	450	852	103	118	91
26	53	41	43	42	36	47	72	455	677	103	122	88
27	45	36	42	42	36	46	69	460	490	105	124	84
28	53	39	46	39	36	47	65	470	495	107	127	78
29	53	43	47	38	38	55	72	485	505	107	127	78
30	50	44	46	36	- - - -	64	91	510	510	140	127	78
31	52	- - - -	43	38	- - - -	73	- - - -	540	- - - -	218	127	- - - -
Total	1,967	1,368	1,307	1,288	1,071	1,328	2,096	8,948	26,058	4,235	6,078	3,290
Mean	63.5	45.6	42.2	41.5	36.9	42.8	69.9	289	869	137	196	110
Max	87	52	47	48	43	73	91	540	1,270	446	475	124
Min	45	36	34	36	16	36	51	118	490	103	101	78
Ac-ft	3,900	2,710	2,590	2,550	2,120	2,630	4,160	17,750	51,690	8,400	12,060	6,530
Cal yr 1967: Total	75,796		Mean 208	Max 1,490	Min 32	Ac-ft 150,300						
Wtr yr 1968: Total	59,034		Mean 161	Max 1,270	Min 16	Ac-ft 117,100						

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 1968 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 7,210 ft (from topographic map).

Average discharge.--5 years, 3.94 cfs (2,850 acre-ft per year).

Extremes.--Maximum discharge during year, 42 cfs May 22 (gage height, 2.58 ft); minimum daily, 0.68 cfs Nov. 8.

1963-68: Maximum discharge, 52 cfs May 22, 1965 (gage height, 2.79 ft), from rating curve extended above 35 cfs; minimum daily, 0.50 cfs Dec. 29, 1966.

Remarks.--Records good except those for winter period, 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	1.3	1.5	1.0	0.90	1.0	3.2	4.4	33	10	6.3	2.8
2	2.4	1.3	1.2	1.1	.80	1.0	2.6	5.1	33	8.9	6.7	2.8
3	2.4	1.1	1.2	1.2	.85	1.0	2.3	5.6	34	8.0	6.1	2.8
4	2.4	1.2	1.3	1.1	.90	1.0	2.1	5.8	31	8.3	5.2	2.6
5	2.3	1.2	1.4	1.0	.90	1.0	2.3	6.5	30	8.0	5.6	2.6
6	2.4	1.2	1.5	1.1	.90	1.1	2.8	7.0	29	6.8	5.2	2.4
7	2.3	.82	1.4	1.0	.90	1.1	2.3	7.5	25	7.0	4.8	2.3
8	1.9	.68	1.3	.95	.90	1.1	2.2	8.0	23	7.2	4.4	2.3
9	1.7	1.2	1.1	.90	1.0	1.3	2.1	8.3	20	7.2	5.1	2.3
10	1.5	1.3	1.2	.95	.90	1.5	2.4	10	19	7.5	4.9	2.2
11	1.5	1.5	1.2	1.0	.85	1.5	3.0	12	18	6.8	4.8	1.9
12	1.3	1.5	1.3	.90	.90	1.2	3.5	13	18	6.7	4.4	1.9
13	1.3	1.6	1.2	1.0	1.0	1.5	3.8	15	18	6.7	4.3	1.9
14	1.3	1.6	1.3	1.0	.90	1.6	3.4	14	19	5.6	4.6	2.1
15	1.3	1.6	1.4	1.0	.90	1.6	3.6	14	18	5.4	4.3	2.1
16	1.3	1.6	1.3	1.1	.90	1.6	3.8	14	19	5.2	4.4	2.1
17	1.2	1.6	1.3	1.1	.90	1.6	4.1	12	20	5.2	4.1	2.2
18	1.3	1.6	1.3	1.0	.95	1.6	4.0	12	20	5.2	3.8	2.2
19	1.3	1.6	1.3	.90	1.0	1.5	4.0	12	19	5.6	3.4	2.2
20	1.3	1.6	1.4	.90	1.0	1.4	3.6	16	18	5.9	3.5	1.9
21	1.3	1.5	1.3	.90	1.1	1.4	3.6	22	18	5.8	3.2	1.9
22	1.3	1.5	1.1	.90	1.1	1.5	3.4	36	18	6.1	3.2	2.1
23	1.2	1.5	1.0	.90	1.0	1.6	3.4	34	18	6.3	3.6	2.1
24	1.2	1.3	1.1	.95	1.0	1.7	3.2	24	17	5.8	3.2	2.1
25	1.2	1.5	1.2	1.0	1.0	1.8	3.4	20	16	5.2	3.2	2.1
26	1.2	1.3	1.2	1.0	1.0	1.8	3.5	20	16	5.8	3.0	2.1
27	1.2	1.2	1.1	1.0	1.0	1.8	3.6	22	15	6.5	3.0	1.9
28	1.2	1.3	1.2	1.1	.95	1.9	3.5	27	14	6.8	3.0	1.9
29	1.5	1.4	1.1	1.0	1.0	2.3	3.6	31	12	6.5	2.9	1.9
30	1.5	1.5	1.0	.90	- - - -	2.6	4.0	32	11	6.8	2.9	1.9
31	1.5	- - - -	.90	1.0	- - - -	3.0	- - - -	31	- - - -	6.8	2.8	- - - -
Total	49.3	41.10	38.30	30.85	27.40	47.6	96.3	501.2	619	205.6	129.9	65.6
Mean	1.59	1.37	1.24	1.00	0.94	1.54	3.21	16.2	20.6	6.63	4.19	2.19
Max	2.6	1.6	1.5	1.2	1.1	3.0	4.1	36	34	10	6.7	2.8
Min	1.2	0.68	0.90	0.90	0.80	1.0	2.1	4.4	11	5.2	2.8	1.9
Ac-ft	98	82	76	61	54	94	191	994	1,230	408	258	130

Cal yr 1967: Total 867.60 Mean 2.38 Max 9.7 Min 0.60 Ac-ft 1,720
 Wtr yr 1968: Total 1,852.15 Mean 5.06 Max 36 Min 0.68 Ac-ft 3,670

Peak discharge (base, 40 cfs).--May 22 (2300) 42 cfs (2.58 ft).

Note.--No gage-height record Nov. 25 to Mar. 7.

ROARING FORK RIVER BASIN

9-0815.5. Crystal River at Placita, Colo.

Location.--Lat 39°08'35", long 107°15'25", 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 1968.

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.--9 years, 209 cfs (151,300 acre-ft per year).

Extremes.--Maximum discharge during year, 1,880 cfs June 20 (gage height, 6.00 ft); minimum daily, 24 cfs Jan. 4.
1959-68: Maximum discharge, that of June 20, 1968; minimum daily, 12 cfs Mar. 3, 1965.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	89	56	44	34	38	31	83	123	1,220	762	257	114
2	88	56	30	32	30	31	75	168	1,310	748	282	107
3	85	50	35	28	36	32	67	208	1,420	734	282	119
4	85	52	40	24	35	33	61	257	1,530	692	236	114
5	88	50	42	27	32	34	56	245	1,670	620	230	106
6	93	46	50	38	34	36	59	227	1,530	602	426	98
7	89	48	41	38	35	35	55	190	1,340	590	326	93
8	83	48	50	35	37	34	50	175	1,250	614	318	89
9	80	45	40	38	35	34	49	179	948	608	275	89
10	78	44	40	47	34	33	50	195	790	584	260	88
11	77	44	45	39	30	33	55	221	727	530	248	86
12	75	45	50	34	38	31	67	245	964	495	227	85
13	72	45	42	30	36	33	81	239	1,280	430	208	85
14	71	45	42	34	35	32	74	205	1,360	426	330	88
15	69	45	46	45	36	33	72	186	1,360	398	334	89
16	68	45	46	46	36	33	74	179	1,320	370	263	86
17	69	45	43	46	36	33	76	162	1,440	334	227	88
18	68	45	40	39	36	33	74	160	1,470	310	202	93
19	66	45	44	36	36	32	74	195	1,410	296	181	80
20	64	46	41	40	38	33	69	272	1,450	275	170	78
21	62	48	34	43	40	33	69	398	1,550	260	166	81
22	62	46	30	43	37	33	68	632	1,440	251	158	78
23	61	47	31	42	34	32	64	578	1,400	269	166	77
24	57	48	34	41	33	33	66	470	1,350	236	152	74
25	61	48	37	40	34	35	66	402	1,200	236	141	72
26	60	40	44	40	33	37	68	422	1,080	260	134	69
27	56	30	44	40	36	37	64	500	1,120	310	137	68
28	59	40	42	40	30	40	64	699	1,160	378	150	67
29	58	50	38	39	31	48	69	916	1,100	306	137	67
30	55	46	36	36	- - - -	61	88	1,020	924	260	128	69
31	58	- - - -	33	44	- - - -	71	- - - -	1,150	- - - -	306	121	- - - -
Total	2,206	1,388	1,254	1,178	1,011	1,119	2,007	11,218	38,113	13,490	6,872	2,587
Mean	71.2	46.3	40.5	38.0	34.9	36.1	66.9	362	1,270	435	222	86.2
Max	93	56	50	47	40	71	88	1,150	1,670	762	426	119
Min	55	30	30	24	30	31	49	123	727	236	121	67
Ac-ft	4,380	2,750	2,490	2,340	2,010	2,220	3,980	22,250	75,600	26,760	13,630	5,130

Cal yr 1967: Total 79,681 Mean 218 Max 1,450 Min 25 Ac-ft 158,000
Wtr yr 1968: Total 82,443 Mean 225 Max 1,670 Min 24 Ac-ft 163,500

Peak discharge (base, 1,200 cfs).--June 5 (2200) 1,830 cfs (5.81 ft); June 20 (2230) 1,880 cfs (6.00 ft).

Note.--No gage-height record Dec. 10 to Mar. 7.

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 ¾ miles north of Redstone.

Drainage area.--167 sq mi.

Records available.--October 1955 to September 1968.

Gage.--Water-stage recorder. Altitude of gage is 6,905 ft (from river-profile map).

Average discharge.--13 years, 288 cfs (208,500 acre-ft per year).

Extremes.--Maximum discharge during year, 2,690 cfs June 21 (gage height, 5.18 ft); minimum daily, 38 cfs Jan. 4, Feb. 2.
1955-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	110	72	57	45	45	45	140	230	1,670	936	306	135
2	110	76	40	44	38	46	125	322	1,830	915	335	130
3	108	68	44	40	46	44	106	415	1,980	901	350	145
4	108	74	50	38	46	50	90	490	1,990	852	286	142
5	110	70	52	41	40	55	82	454	2,150	775	266	130
6	120	61	59	49	44	59	88	415	2,060	747	520	122
7	113	64	48	49	44	57	78	326	1,720	733	405	118
8	106	66	61	45	48	55	74	306	1,620	740	395	113
9	101	61	50	51	45	50	70	345	1,160	733	365	108
10	101	61	50	56	44	46	76	400	992	705	335	108
11	101	59	57	50	40	44	88	436	936	640	326	106
12	99	61	61	45	50	45	108	466	1,170	604	298	104
13	97	61	52	40	46	50	127	454	1,600	526	266	106
14	93	62	53	46	45	48	118	365	1,690	520	380	106
15	90	59	57	52	46	44	118	318	1,750	472	442	108
16	88	59	57	56	46	45	120	302	1,730	436	340	108
17	88	57	55	54	46	46	122	270	1,920	395	286	110
18	84	57	50	46	46	44	120	274	1,930	370	258	104
19	82	57	55	49	46	44	122	345	1,860	345	226	97
20	80	59	52	50	50	44	113	496	1,920	322	210	95
21	80	62	45	52	53	39	113	712	2,120	306	210	97
22	78	61	40	52	46	42	106	978	1,940	318	198	95
23	78	61	43	51	46	46	101	922	1,880	326	213	90
24	76	53	48	50	45	55	101	761	1,780	282	192	88
25	78	61	50	50	48	59	101	646	1,500	286	175	86
26	78	53	56	50	46	57	101	670	1,330	310	166	86
27	74	39	58	50	52	55	101	796	1,380	380	164	84
28	78	42	54	49	46	66	97	1,030	1,420	448	178	82
29	78	62	48	47	46	86	108	1,280	1,340	360	166	80
30	74	57	45	45	- - - -	108	150	1,410	1,140	306	153	84
31	76	- - - -	43	50	- - - -	125	- - - -	1,570	- - - -	365	142	- - - -
Total	2,837	1,815	1,590	1,492	1,329	1,699	3,164	18,204	49,508	16,354	5,552	3,167
Mean	91.5	60.5	51.3	48.1	45.8	54.8	105	587	1,650	528	276	106
Max	120	76	61	56	53	125	150	1,570	2,150	936	520	145
Min	74	39	40	38	38	39	70	230	936	282	142	80
Ac-ft	5,630	3,600	3,150	2,960	2,640	3,370	6,280	36,110	98,200	32,440	16,960	6,280

Cal yr 1967: Total 105,845 Mean 290 Max 2,040 Min 29 Ac-ft 209,900

Wtr yr 1968: Total 109,711 Mean 300 Max 2,150 Min 38 Ac-ft 217,600

Peak discharge (base, 2,000 cfs).--June 5 (2400) 2,650 cfs (5.18 ft); June 21 (0100) 2,690 cfs (5.18 ft).

Note.--No gage-height record Dec. 20 to Jan. 31.

ROARING FORK RIVER BASIN

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 1968.

Gage.--Water-stage recorder. Altitude of gage is 8,120 ft (from topographic map).

Average discharge.--5 years, 16.3 cfs (11,800 acre-ft per year).

Extremes.--Maximum discharge during year, 302 cfs May 31 (gage height, 3.85 ft), from rating curve extended above 170 cfs; minimum daily, 0.60 cfs Nov. 29.

1963-68: Maximum discharge, 322 cfs May 17, 1964 (gage height, 4.05 ft), from rating curve extended above 190 cfs; minimum daily, 0.09 cfs Sept. 6, 7, 1967.

Remarks.--Records fair except those for winter period, 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.0	1.2	1.2	1.4	1.4	1.4	1.5	2.5	233	19	5.0	2.2
2	.91	1.0	1.0	1.6	1.2	1.0	1.3	2.7	227	18	1.0	2.2
3	1.0	.70	.80	1.6	1.0	1.1	1.2	3.0	205	16	1.8	3.1
4	1.0	1.0	.90	1.5	1.1	1.5	1.1	4.1	197	17	5.7	2.8
5	1.6	1.4	1.0	1.6	1.2	1.9	1.0	4.4	209	15	8.0	2.5
6	2.8	1.2	1.0	1.7	1.3	1.9	1.0	4.6	203	15	1.0	2.2
7	3.1	1.2	1.1	1.5	1.3	1.9	1.1	4.0	175	12	1.2	1.9
8	1.3	1.0	1.2	1.3	1.3	1.9	1.2	3.3	154	12	1.0	1.9
9	.91	1.1	1.3	1.2	1.2	1.7	1.3	3.8	129	12	5.0	1.6
10	.91	1.2	1.5	1.3	1.1	1.6	1.2	4.3	114	12	1.4	1.6
11	.82	1.0	1.8	1.4	1.1	1.8	1.2	5.0	104	11	8.0	1.6
12	.82	.80	1.9	1.4	1.1	1.9	1.3	5.6	102	9.7	7.5	1.6
13	.82	1.0	1.9	1.4	1.1	1.6	1.5	5.4	111	8.5	5.5	1.9
14	.82	1.1	1.8	1.3	1.2	2.1	1.4	4.5	111	8.0	5.0	2.5
15	.73	1.3	1.6	1.2	1.3	2.2	1.3	4.3	107	9.7	1.0	3.4
16	.82	1.4	1.7	1.2	1.2	2.1	1.3	4.4	105	8.0	6.0	2.2
17	.91	1.4	1.8	1.2	1.1	2.1	1.3	4.4	104	7.5	4.5	2.5
18	.91	1.3	1.6	1.2	1.1	2.1	1.4	5.6	100	7.5	3.7	2.2
19	.82	1.1	1.6	1.2	1.2	2.1	1.3	7.2	96	6.5	3.4	1.9
20	.91	1.2	1.8	1.3	1.3	2.2	1.2	9.8	98	7.0	3.1	1.9
21	.82	1.3	1.8	1.4	1.3	2.3	1.2	14.8	87	5.5	3.1	2.2
22	.82	1.3	1.6	1.5	1.5	2.5	1.1	21.9	63	5.0	3.1	1.9
23	.82	1.3	1.6	1.6	1.6	2.6	1.1	19.3	57	6.5	6.0	1.9
24	.80	1.3	1.8	1.6	1.6	2.8	1.0	13.5	53	9.7	4.0	1.9
25	.80	1.2	1.8	1.6	1.6	3.1	1.0	12.4	45	9.7	3.4	1.9
26	.80	1.1	1.7	1.5	1.6	3.5	1.0	12.6	36	9.7	3.1	1.9
27	1.0	1.0	1.7	1.4	1.6	3.4	1.1	15.2	28	10	3.1	1.9
28	1.3	.80	1.7	1.3	1.5	3.6	1.2	18.7	28	12	3.4	1.6
29	1.3	.60	1.6	1.1	1.5	4.4	1.4	21.9	26	9.7	3.1	1.6
30	1.0	.90	1.4	1.3	- - - -	5.5	2.0	22.9	22	10	2.8	1.9
31	1.4	- - - -	1.3	1.6	- - - -	9.0	- - - -	23.1	- - - -	12	2.5	- - - -
Total	33.77	33.40	46.50	43.4	37.6	78.8	37.2	288.2	3,329	331.2	208.0	62.4
Mean	1.09	1.11	1.50	1.40	1.30	2.54	12.4	93.0	111	10.7	6.71	2.08
Max	3.1	1.4	1.9	1.7	1.6	9.0	20	231	233	19	18	3.4
Min	0.73	0.60	0.80	1.1	1.0	1.0	10	25	22	5.0	2.5	1.6
Ac-ft	67	66	92	86	75	156	738	5,720	6,600	657	413	124
(†)	0	0	0	0	0	0	0	0	403	231	0	0

Cal yr 1967: Total 3,217.45 Mean 8.81 Max 69 Min 0.09 Ac-ft 6,380

Wtr yr 1968: Total 7,458.07 Mean 20.4 Max 233 Min 0.60 Ac-ft 14,790

Peak discharge (base, 160 cfs)--May 22 (2030) 251 cfs (3.64 ft); May 31 (2000) 302 cfs (3.85 ft).

† Diversions, in acre-feet, by Thompson Creek feeder ditch; furnished by State engineer of Colorado.

Note.--No gage-height record Oct. 31 to Apr. 1.

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 1968 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 6,450 ft (from topographic map).

Average discharge.--14 years, 37.0 cfs (26,790 acre-ft per year).

Extremes.--Maximum discharge during year, 600 cfs (estimated) May 31; minimum daily, 2.6 cfs Nov. 29.

1950-60, 1964-68: 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 good except those for winter period and those for May 29 to June 6, 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.9	5.2	4.0	4.2	3.6	4.5	20	30	480	61	18	8.0
2	3.9	5.0	3.5	4.6	3.5	4.5	19	40	460	52	17	7.7
3	3.9	4.3	3.2	4.8	3.7	4.5	16	44	440	47	25	9.5
4	4.1	6.5	3.2	4.7	3.9	4.8	14	59	400	45	16	9.0
5	4.6	5.9	3.9	4.6	3.7	5.4	14	80	420	45	14	8.0
6	4.6	5.4	4.2	4.8	3.8	6.0	14	93	360	43	16	7.7
7	4.6	5.6	4.6	4.2	4.0	5.8	12	88	292	37	18	7.4
8	4.3	5.0	5.0	4.0	4.0	5.9	12	75	220	36	16	6.8
9	4.3	5.2	5.0	3.8	3.9	5.6	11	90	224	36	17	6.5
10	4.6	5.3	5.3	3.8	3.8	5.4	12	110	196	34	29	6.2
11	4.3	4.7	5.6	4.1	3.8	6.2	14	140	185	32	21	6.2
12	4.3	4.2	5.6	4.3	4.4	5.6	18	130	193	30	20	6.2
13	4.3	4.8	5.3	4.3	4.3	5.2	20	110	214	29	16	6.5
14	4.3	4.8	4.8	4.3	4.2	6.5	18	110	228	26	19	7.1
15	4.3	5.3	4.8	4.1	4.5	6.2	19	95	220	25	25	9.0
16	4.1	4.7	4.8	4.1	4.3	6.0	20	90	217	23	16	7.4
17	4.3	4.7	5.0	4.1	4.2	6.5	20	81	217	20	14	7.4
18	4.3	4.3	4.8	4.1	4.3	6.4	20	98	244	19	12	7.4
19	4.6	4.5	4.8	4.1	4.2	6.4	19	140	232	19	11	7.1
20	4.6	4.6	5.0	4.1	4.5	6.2	18	202	248	17	10	6.5
21	4.6	4.4	5.0	4.1	4.6	6.0	18	292	240	16	10	7.1
22	4.6	4.4	4.6	4.1	4.7	6.5	17	440	205	16	9.5	6.8
23	4.6	4.5	5.0	4.1	4.8	7.4	16	374	182	18	15	6.8
24	4.6	3.9	5.0	4.1	4.8	8.0	16	240	168	16	14	6.5
25	4.8	4.3	5.0	4.1	4.7	9.5	16	190	138	17	10	6.2
26	5.0	3.7	5.0	4.3	4.6	9.5	16	185	114	18	9.0	6.2
27	4.6	3.1	5.0	4.3	4.6	9.0	16	240	93	18	9.0	6.2
28	5.3	2.8	4.8	4.3	4.5	9.5	16	296	91	21	10	6.2
29	5.6	2.6	4.8	4.0	4.5	12	18	380	83	16	9.0	6.2
30	4.3	3.2	4.6	3.7	- - - -	14	23	440	74	17	8.5	6.2
31	5.9	- - - -	4.0	4.1	- - - -	17	- - - -	480	- - - -	20	8.0	- - - -
Total	140.1	136.9	145.2	130.3	122.4	222.0	502	5,462	7,078	869	462.0	212.0
Mean	4.52	4.56	4.68	4.20	4.22	7.16	16.7	176	236	28.0	14.9	7.07
Max	5.9	6.5	5.6	4.8	4.8	17	23	480	480	61	29	9.5
Min	3.9	2.6	3.2	3.7	3.5	4.5	11	30	74	16	8.0	6.2
Ac-ft	278	272	288	258	243	440	996	10,830	14,040	1,720	916	420

Cal yr 1967: Total 7,579.1 Mean 20.8 Max 190 Min 2.6 Ac-ft 15,030
Wtr yr 1968: Total 15,481.9 Mean 42.3 Max 480 Min 2.6 Ac-ft 30,710

Peak discharge (base, 200 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-22	2100	3.85	528	6-20	1900	3.49	288
5-31	-	-	†600				

† Estimated.

Note.--No gage-height record Jan. 29 to Mar. 7, May 29 June 6.

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 1968 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 7,880 ft (from topographic map).

Average discharge.--5 years, 5.26 cfs (3,810 acre-ft per year).

Extremes.--Maximum discharge during year, 14 cfs June 25 (gage height, 2.24 ft); minimum daily, 2.2 cfs Feb. 2.
1963-68: Maximum discharge, 22 cfs July 17, 1965 (gage height, 2.35 ft); no flow Oct. 13, 1963.

Remarks.--Records good except those for winter period, which are poor. Water imported above station from Dinkle Lake in West Sopris Creek drainage.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.0	4.3	3.5	3.3	2.4	2.5	3.3	3.6	9.9	11	9.3	6.2
2	5.0	4.3	3.0	3.5	2.2	2.6	3.0	3.8	9.6	11	9.6	6.2
3	5.0	3.6	3.0	3.5	2.4	2.6	2.6	4.1	9.9	10	9.6	6.5
4	5.0	4.0	3.1	3.3	2.5	2.6	2.6	4.4	10	9.9	9.3	6.5
5	5.0	4.3	3.3	3.2	2.5	2.7	2.6	4.8	11	9.6	8.9	9.3
6	5.3	4.0	3.7	3.3	2.5	2.8	2.8	5.5	12	9.3	9.9	9.3
7	4.3	4.0	3.8	3.5	2.5	2.8	2.5	6.5	12	9.3	9.9	9.3
8	4.0	4.3	3.3	3.6	2.5	2.8	2.4	7.5	12	8.9	9.3	9.3
9	4.0	4.3	2.9	3.5	2.7	2.8	2.4	8.3	11	8.6	9.3	8.9
10	4.0	4.3	3.0	3.4	2.5	2.8	2.4	8.6	11	8.0	10	8.9
11	4.0	4.3	3.0	3.3	2.4	2.8	2.6	8.9	11	9.3	9.6	8.9
12	4.0	4.3	3.1	3.1	2.6	2.6	2.8	8.9	11	9.9	8.6	8.0
13	4.0	4.3	3.1	3.0	2.7	2.8	2.8	9.6	11	9.9	7.7	6.8
14	4.0	4.3	3.2	3.0	2.6	2.8	2.8	8.3	11	9.6	8.6	6.2
15	4.0	4.3	3.2	3.1	2.5	2.8	3.3	8.3	11	9.6	8.6	6.2
16	4.0	4.3	3.1	3.2	2.5	2.8	3.6	8.0	11	9.6	7.1	6.2
17	4.0	4.3	3.0	3.2	2.5	2.8	3.6	7.7	11	9.3	7.1	6.2
18	4.3	4.3	3.0	3.3	2.5	2.8	3.3	7.7	11	8.6	7.1	6.2
19	4.3	4.3	3.1	3.2	2.5	2.8	3.0	7.4	11	8.0	7.1	6.2
20	4.3	4.3	3.1	3.1	2.6	2.6	3.0	8.0	12	8.0	6.8	6.2
21	4.3	4.3	3.0	2.9	2.7	2.6	3.0	8.6	12	8.3	6.8	6.2
22	4.3	4.3	2.8	2.8	2.8	2.6	3.0	9.6	12	8.9	6.5	6.2
23	4.3	4.3	2.8	2.8	2.7	2.6	3.0	9.3	12	9.3	7.4	6.2
24	4.3	3.6	3.0	2.8	2.6	2.6	2.8	9.6	13	9.3	7.4	6.2
25	4.3	3.8	3.1	2.8	2.5	2.8	3.0	9.3	13	8.9	7.4	6.2
26	4.3	3.4	3.2	2.7	2.5	2.8	3.2	9.3	13	9.3	7.1	6.2
27	4.3	3.0	3.2	2.8	2.5	2.8	3.2	8.9	12	8.9	6.8	6.2
28	4.3	3.1	3.2	3.0	2.5	2.8	3.0	8.9	12	9.6	6.5	6.2
29	4.3	3.3	3.1	2.7	2.4	3.0	3.2	9.6	12	9.6	6.5	6.2
30	4.0	3.5	3.0	2.4	- - - - -	3.0	3.5	9.9	12	9.6	6.2	6.2
31	4.3	- - - - -	3.1	2.5	- - - - -	3.3	- - - - -	9.9	- - - - -	9.3	6.2	- - - - -
Total	134.5	121.0	97.0	95.8	73.3	85.5	88.3	242.8	342.4	288.4	248.2	209.5
Mean	4.34	4.03	3.13	3.09	2.53	2.76	2.94	7.83	11.4	9.30	8.01	6.98
Max	5.3	4.3	3.8	3.6	2.8	3.3	3.6	9.9	13	11	10	9.3
Min	4.0	3.0	2.8	2.4	2.2	2.5	2.4	3.6	9.6	8.0	6.2	6.2
Ac-ft	267	240	192	190	145	170	175	482	679	572	492	416
Cal yr 1967: Total	2,135.9			Mean 5.85	Max 14	Min 1.6		Ac-ft 4,240				
Wtr yr 1968: Total	2,026.7			Mean 5.54	Max 13	Min 2.2		Ac-ft 4,020				

Note.--No gage-height record Nov. 26 to Mar. 7.

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 1968.

Gage.--Water-stage recorder. Altitude of gage is 7,640 ft (from topographic map).

Average discharge.--11 years, 14.6 cfs (10,570 acre-ft per year).

Extremes.--Maximum discharge during year, 223 cfs June 5 (gage height, 4.24 ft); minimum daily, 2.4 cfs Dec. 31. 1950-55, 1962-68: 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 fair except those for winter period, which are poor. Small diversions for irrigation of hay meadows above station.

Cooperation.--One discharge measurement furnished by Bureau of Reclamation.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.3	3.6	3.4	2.9	2.9	5.5	6.7	28	165	19	7.3	6.4
2	3.4	3.6	2.8	3.1	2.8	5.0	6.2	38	175	18	7.9	7.7
3	3.4	3.1	3.2	3.5	2.9	4.8	5.4	46	192	18	7.5	10
4	3.5	3.5	3.2	3.1	2.9	4.6	5.8	56	182	16	7.1	12
5	3.8	3.5	3.2	3.0	3.0	4.4	5.9	57	190	16	8.3	12
6	4.2	3.2	3.0	3.1	3.0	5.0	5.8	55	178	15	9.6	7.9
7	4.1	3.0	2.8	2.9	3.0	4.8	5.5	45	151	14	11	5.6
8	4.0	3.1	2.8	2.8	3.0	4.6	6.0	43	135	14	9.6	3.6
9	4.0	3.4	2.8	3.0	3.4	4.7	6.5	46	111	14	6.9	3.6
10	4.0	3.4	2.8	3.1	3.0	4.4	6.5	48	86	13	6.9	4.8
11	4.0	3.3	3.0	3.2	2.8	4.2	7.7	48	74	14	8.3	5.8
12	3.8	3.4	3.2	3.0	3.0	4.0	9.2	51	78	13	6.9	5.8
13	3.8	3.4	3.0	3.2	3.6	4.2	9.9	52	91	12	6.7	4.8
14	3.8	3.4	3.0	3.2	3.1	4.2	9.0	44	93	11	8.1	5.0
15	3.6	3.4	3.2	3.2	3.1	4.2	10	41	86	10	7.9	4.8
16	3.6	3.4	3.0	3.5	3.0	4.6	12	36	86	9.6	6.2	5.2
17	3.5	3.4	3.0	3.6	3.0	3.6	12	32	86	8.8	5.9	4.0
18	3.5	3.3	3.0	3.5	3.1	3.6	13	30	85	8.3	5.8	3.5
19	3.5	3.4	3.0	3.0	3.3	4.0	13	30	80	8.1	5.4	4.1
20	3.5	3.3	3.2	3.0	3.5	4.0	12	37	78	8.1	5.4	4.1
21	3.5	3.5	3.0	3.0	3.6	4.0	12	65	77	7.9	5.4	4.2
22	3.5	3.4	2.8	3.0	3.6	4.0	11	109	70	7.9	5.2	4.1
23	3.5	3.3	2.6	3.0	3.4	3.8	11	96	61	8.5	6.2	4.2
24	3.5	3.3	2.8	3.0	3.3	3.4	12	68	52	7.7	5.2	4.2
25	3.5	3.3	3.0	3.2	3.5	3.8	12	52	43	7.5	5.0	4.8
26	3.5	2.9	3.0	3.4	4.0	3.5	12	49	34	7.5	4.7	4.0
27	3.5	2.8	2.8	3.4	4.4	3.8	13	58	30	8.1	5.0	4.2
28	4.0	2.6	3.0	3.5	4.6	4.2	13	91	26	7.3	5.4	5.4
29	4.0	3.4	2.9	3.4	4.8	4.8	15	125	24	6.4	5.3	5.3
30	3.5	3.2	2.7	3.1	- - - - -	5.4	19	153	22	6.4	4.8	5.4
31	3.6	- - - - -	2.4	3.3	- - - - -	5.9	- - - - -	158	- - - - -	8.1	5.8	- - - - -
Total	113.9	98.8	91.6	98.2	96.6	135.0	298.1	1,887	2,841	343.2	206.7	166.5
Mean	3.67	3.29	2.95	3.17	3.33	4.35	9.94	60.9	94.7	11.1	6.67	5.55
Max	4.2	3.6	3.4	3.6	4.8	5.9	19	158	192	19	11	12
Min	3.3	2.6	2.4	2.8	2.8	3.4	5.4	28	22	6.4	4.7	3.5
Ac-ft	226	196	182	195	192	268	591	3,740	5,640	681	410	330

Cal yr 1967: Total 4,387.5 Mean 12.0 Max 111 Min 2.4 Ac-ft 8,700
Wtr yr 1968: Total 6,376.6 Mean 17.4 Max 192 Min 2.4 Ac-ft 12,650

Peak discharge (base, 100 cfs)

Note.--No gage-height record Jan. 4 to Mar. 6.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-22	1930	3.52	131	6-13	2230	3.32	102
6-5	2200	4.24	223				

ROARING FORK RIVER BASIN

9-0850. Roaring Fork River at Glenwood Springs, Colo.

Location.--Lat 39°32'37", long 107°19'44", in SW¼SE¼ sec.9, T.6 S., R.89 W., on left bank at Glenwood Springs, 2,100 ft upstream from mouth.

Drainage area.--1,451 sq mi.

Records available.--October 1905 to September 1909, September 1910 to September 1968. 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.--62 years, 1,371 cfs (992,600 acre-ft per year).

Extremes.--Maximum discharge during year, 7,680 cfs June 21 (gage height, 5.56 ft); minimum daily, 285 cfs Feb. 2. 1905-9, 1910-68: 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).

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	579	558	495	388	335	310	502	707	4,670	3,010	1,490	707
2	544	544	430	400	285	315	516	932	5,130	2,700	1,550	672
3	509	523	418	380	310	320	460	1,100	5,830	2,540	1,800	672
4	502	530	448	364	335	305	418	1,340	5,780	2,420	1,530	689
5	509	530	448	335	315	310	394	1,360	6,420	2,310	1,380	680
6	558	509	481	376	320	330	424	1,390	6,900	2,200	1,920	656
7	586	502	436	376	325	340	418	1,200	5,900	2,110	1,710	648
8	544	509	495	346	335	335	376	1,080	5,410	2,080	1,780	632
9	544	509	454	388	335	330	364	1,070	4,250	2,080	1,860	600
10	537	509	448	412	315	325	392	1,170	3,870	2,060	2,010	600
11	544	502	467	390	315	315	406	1,250	3,390	1,970	1,960	586
12	530	495	474	376	346	305	448	1,300	3,770	1,920	1,870	572
13	516	495	467	330	330	310	516	1,390	5,020	1,740	1,390	579
14	516	495	442	388	325	330	495	1,190	5,460	1,680	1,430	579
15	516	495	420	430	330	315	481	1,120	5,480	1,540	1,870	593
16	530	495	420	430	325	305	488	1,080	5,300	1,500	1,480	600
17	530	488	430	454	320	320	509	1,000	6,020	1,350	1,330	624
18	558	481	424	394	315	325	516	950	6,300	1,270	1,250	632
19	544	474	400	358	315	305	523	1,010	6,180	1,180	1,150	608
20	523	474	420	394	325	305	488	1,280	5,880	1,180	1,070	579
21	523	495	424	376	335	300	488	1,620	6,700	1,120	1,020	572
22	523	502	364	370	325	315	474	2,560	6,500	1,080	970	579
23	523	488	388	364	325	310	467	2,760	5,980	1,230	950	596
24	516	460	400	358	320	320	460	2,340	5,550	1,150	896	551
25	523	495	420	358	325	330	474	2,010	5,020	1,080	878	530
26	516	474	440	364	315	346	481	1,990	4,310	1,120	824	516
27	509	412	442	364	335	330	481	2,100	4,070	1,240	779	488
28	495	394	442	358	315	335	460	2,600	4,150	1,570	851	481
29	537	481	412	346	320	358	474	3,410	4,030	1,470	824	481
30	523	495	412	315	- - - -	424	544	3,810	3,590	1,270	779	488
31	551	- - - -	376	340	- - - -	460	- - - -	4,370	- - - -	1,500	752	- - - -
Total	16,458	14,813	13,437	11,622	9,371	10,183	13,927	52,489	156,860	52,670	41,353	17,780
Mean	531	494	433	375	323	328	464	1,693	5,229	1,699	1,334	593
Max	586	558	495	454	346	460	544	4,370	6,900	3,010	2,010	707
Min	495	394	364	315	285	300	364	707	3,390	1,080	752	481
Ac-ft	32,640	29,380	26,650	23,050	18,590	20,200	27,620	104,100	311,100	104,500	82,020	35,270

Cal yr 1967: Total 379,163 Mean 1,039 Max 5,410 Min 260 Ac-ft 752,100

Wtr yr 1968: Total 410,963 Mean 1,123 Max 6,900 Min 285 Ac-ft 815,100

Peak discharge (base, 6,300 cfs).--June 6 (0600) 7,650 cfs (5.52 ft); June 21 (0600) 7,680 cfs (5.56 ft).

9-0851. Colorado River below Glenwood Springs, Colo.

Location--Lat 39°33'18", long 107°20'13", in NW¼ sec. 9, T.6 S., R.89 W., on left bank 0.6 mile downstream from Roaring Fork River and 1 mile northwest of Post Office in Glenwood Springs.

Drainage area--6,013 sq mi.

Records available--October 1966 to September 1968.

Gage--Digital water-stage recorder. Datum of gage is 5,700.75 ft above mean sea level (State Highway Department bench mark).

Extremes--Maximum discharge during year, 17,400 cfs June 6 (gage height, 7.89 ft); minimum daily, 1,090 cfs Jan. 5, 14. 1966-68: Maximum discharge, that of Jan. 6, 1968; minimum daily, 924 cfs Jan. 9, 1967.

Remarks--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, and diversions for irrigation of 110,000 acres.

DISCHARGE, IN CFS, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,860	1,820	1,610	1,240	1,280	1,270	2,040	2,190	10,900	6,180	3,480	1,990
2	1,790	1,800	1,440	1,350	1,180	1,280	2,390	2,820	11,900	5,610	3,540	2,000
3	1,740	1,780	1,280	1,430	1,180	1,280	2,270	3,270	13,600	5,360	3,930	2,020
4	1,730	1,720	1,330	1,250	1,250	1,300	2,090	3,800	13,800	5,120	3,780	2,080
5	1,740	1,750	1,300	1,090	1,210	1,220	2,010	4,170	14,700	4,780	3,460	2,120
6	1,800	1,740	1,530	1,120	1,230	1,350	2,050	4,380	16,200	4,800	3,910	2,090
7	1,850	1,600	1,340	1,160	1,220	1,280	2,080	4,090	14,800	4,700	3,960	2,040
8	1,900	1,680	1,530	1,110	1,150	1,360	1,980	3,690	13,600	4,510	4,460	2,000
9	1,870	1,710	1,420	1,100	1,240	1,340	1,900	3,560	11,100	4,440	4,430	1,930
10	1,850	1,740	1,380	1,150	1,180	1,330	1,910	3,780	9,900	4,360	4,510	1,880
11	1,840	1,730	1,370	1,390	1,150	1,290	1,950	3,960	9,100	4,220	4,640	1,850
12	1,820	1,790	1,510	1,200	1,300	1,270	2,110	3,800	9,090	4,160	4,700	1,760
13	1,780	1,650	1,370	1,100	1,250	1,290	2,320	3,970	11,000	3,970	4,020	1,760
14	1,790	1,720	1,210	1,090	1,230	1,340	2,200	3,700	12,100	3,840	3,970	1,780
15	1,820	1,710	1,260	1,160	1,260	1,360	2,140	3,440	11,900	3,630	4,740	1,970
16	1,790	1,660	1,530	1,210	1,260	1,330	2,160	3,370	11,600	3,520	4,110	2,020
17	1,710	1,670	1,390	1,280	1,240	1,290	2,270	3,230	12,400	3,370	3,570	2,120
18	1,790	1,660	1,310	1,270	1,270	1,400	2,270	3,060	12,800	3,210	3,420	2,130
19	1,840	1,640	1,440	1,190	1,250	1,350	2,310	3,010	12,700	3,070	3,250	1,970
20	1,800	1,630	1,550	1,180	1,290	1,290	2,210	3,380	12,200	2,970	3,020	1,870
21	1,810	1,670	1,410	1,190	1,310	1,240	2,150	3,930	13,300	2,900	2,720	1,860
22	1,810	1,710	1,180	1,180	1,360	1,280	2,060	5,680	12,700	2,820	2,590	1,870
23	1,790	1,670	1,210	1,230	1,250	1,230	1,980	6,540	11,400	3,040	2,500	1,900
24	1,770	1,610	1,390	1,280	1,330	1,240	1,890	6,010	10,600	3,010	2,440	1,860
25	1,750	1,660	1,500	1,270	1,310	1,350	1,840	5,380	9,600	2,820	2,300	1,830
26	1,700	1,590	1,570	1,270	1,270	1,320	1,860	5,010	8,370	2,790	2,200	1,800
27	1,680	1,220	1,480	1,310	1,330	1,300	1,890	5,050	7,890	2,940	2,120	1,790
28	1,780	1,270	1,450	1,340	1,220	1,280	1,880	5,680	8,270	3,550	2,190	1,810
29	1,880	1,460	1,380	1,370	1,270	1,410	1,850	6,990	8,020	3,450	2,190	1,870
30	1,750	1,620	1,470	1,250	-----	1,650	1,920	8,130	7,220	3,130	2,150	1,860
31	1,710	-----	1,270	1,310	-----	1,800	-----	9,670	-----	3,430	2,040	-----
TOTAL	55,540	49,680	43,410	38,070	36,270	41,320	61,980	138,740	342,760	119,700	104,340	57,830
MEAN	1,792	1,656	1,400	1,228	1,251	1,333	2,066	4,475	11,430	3,861	3,366	1,928
MAX	1,900	1,820	1,610	1,430	1,360	1,800	2,390	9,670	16,200	6,180	4,740	2,130
MIN	1,680	1,220	1,180	1,090	1,150	1,220	1,840	2,190	7,220	2,790	2,040	1,760
AC-FT	110,200	98,540	86,100	75,510	71,940	81,960	122,900	275,200	679,900	237,400	207,000	114,700
CAL YR 1967	TOTAL	989,254	MEAN	2,710	MAX	12,400	MIN	924	AC-FT	1,962,000		
WTR YR 1968	TOTAL	1,089,640	MEAN	2,977	MAX	16,200	MIN	1,090	AC-FT	2,161,000		

9-0876. Colorado River at New Castle, Colo.

Location.--Lat 39°34'06", long 107°32'26", in SW¼ sec.31, T.5 S., R.90 W., on left bank at southwest edge of New Castle, 50 ft downstream from county bridge, and 600 ft downstream from Elk Creek.

Drainage area.--6,308 sq mi.

Records available.--July 1966 to September 1968.

Gage.--Water-stage recorder. Altitude of gage is 5,515 ft (from topographic map).

Extremes.--Maximum discharge during year, 18,100 cfs June 6 (gage height, 10.43 ft); minimum daily, 1,150 cfs Jan. 5. 1966-68: Maximum discharge, that of June 6, 1968; minimum daily, 1,000 cfs Jan. 9, 1967.

Remarks.--Records good. Natural flow of stream affected by transmountain diversion, storage reservoirs, power development, and diversions for irrigation of about 115,000 acres.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.890	1.820	1.580	1.290	1.320	1.310	2.030	2.130	12.700	6.330	3.640	2.100
2	1.790	1.820	1.410	1.380	1.300	1.330	2.420	2.760	13.700	5.740	3.670	2.140
3	1.760	1.820	1.290	1.450	1.260	1.350	2.310	3.280	15.100	5.440	4.090	2.160
4	1.740	1.760	1.350	1.300	1.340	1.380	2.140	3.830	15.400	5.220	3.950	2.220
5	1.740	1.780	1.320	1.150	1.330	1.300	2.050	4.290	16.200	4.890	3.620	2.270
6	1.870	1.740	1.470	1.200	1.300	1.410	2.050	4.510	17.200	4.890	4.070	2.250
7	1.880	1.630	1.380	1.200	1.270	1.360	2.090	4.190	16.200	4.780	4.150	2.160
8	1.960	1.680	1.480	1.250	1.260	1.450	1.990	3.800	15.000	4.600	4.620	2.130
9	1.950	1.720	1.440	1.200	1.300	1.410	1.910	3.650	12.400	4.530	4.600	2.040
10	1.890	1.700	1.400	1.200	1.260	1.370	1.890	3.850	10.900	4.460	4.680	2.010
11	1.870	1.730	1.390	1.400	1.230	1.360	1.920	4.070	9.930	4.340	4.800	1.960
12	1.860	1.780	1.500	1.300	1.340	1.360	2.100	3.930	10.100	4.270	4.880	1.890
13	1.790	1.670	1.450	1.200	1.320	1.390	2.340	4.120	12.100	4.070	4.190	1.880
14	1.810	1.720	1.360	1.200	1.300	1.400	2.220	3.890	13.200	3.920	4.190	1.890
15	1.870	1.680	1.360	1.200	1.320	1.400	2.130	3.620	13.200	3.730	4.920	2.070
16	1.830	1.670	1.520	1.300	1.330	1.350	2.140	3.520	12.900	3.600	4.320	2.150
17	1.730	1.680	1.410	1.300	1.320	1.430	2.270	3.350	13.600	3.460	3.760	2.230
18	1.820	1.670	1.330	1.350	1.350	1.420	2.280	3.160	14.000	3.270	3.600	2.240
19	1.860	1.640	1.450	1.300	1.300	1.390	2.310	3.160	13.900	3.120	3.440	2.050
20	1.820	1.630	1.520	1.250	1.390	1.340	2.190	3.520	13.400	3.080	3.200	1.980
21	1.830	1.640	1.460	1.250	1.400	1.350	2.150	4.150	14.300	3.000	2.900	1.930
22	1.840	1.700	1.290	1.250	1.440	1.320	2.080	6.040	13.900	2.930	2.750	1.930
23	1.830	1.660	1.290	1.300	1.320	1.300	1.960	7.090	12.500	3.120	2.690	1.970
24	1.800	1.590	1.500	1.350	1.400	1.400	1.890	6.550	11.700	3.110	2.610	1.930
25	1.790	1.620	1.600	1.360	1.390	1.390	1.830	5.900	10.600	2.930	2.450	1.900
26	1.730	1.580	1.650	1.370	1.350	1.320	1.840	5.500	8.890	2.920	2.330	1.880
27	1.730	1.240	1.550	1.420	1.390	1.300	1.870	5.520	8.270	3.040	2.270	1.870
28	1.780	1.270	1.490	1.400	1.280	1.340	1.870	6.310	8.540	3.640	2.330	1.890
29	1.910	1.470	1.440	1.430	1.360	1.440	1.820	7.980	8.270	3.560	2.380	1.930
30	1.800	1.520	1.480	1.310	- - - -	1.650	1.890	9.460	7.430	3.270	2.290	1.910
31	1.720	- - - -	1.360	1.340	- - - -	1.720	- - - -	11.600	- - - -	3.570	2.180	- - - -
Total	56,490	49,630	44,520	40,200	38,470	43,040	61,980	148,720	375,530	122,810	109,570	60,960
Mean	1,822	1,654	1,436	1,297	1,327	1,388	2,066	4,797	12,520	3,962	3,535	2,032
Max	1,960	1,820	1,650	1,450	1,440	1,720	2,420	11,600	17,200	6,330	4,920	2,270
Min	1,720	1,240	1,290	1,150	1,230	1,300	1,820	2,130	7,430	2,920	2,180	1,870
Ac-ft	112,000	98,440	88,300	79,740	76,300	85,370	122,900	295,000	744,900	243,600	217,300	120,900
Cal yr 1967: Total	1,048,680		Mean 2,873	Max 13,700	Min 1,000	Ac-ft 2,080,000						
Wtr yr 1968: Total	1,151,920		Mean 3,147	Max 17,200	Min 1,150	Ac-ft 2,285,000						

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 1968.

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.--14 years, 26.8 cfs (19,400 acre-ft per year).

Extremes.--Maximum discharge during year, 506 cfs May 21 (gage height, 4.66 ft); minimum daily, 0.20 cfs Feb. 3, 12.

1938-47, 1963-68: 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 period, which are poor. Records include water imported from Gunnison and Roaring Fork River basins.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.42	0.86	1.1	0.50	0.40	0.40	8.0	64	308	62	7.5	1.4
2	.38	.86	1.0	.60	.30	.50	6.5	80	298	56	9.4	1.3
3	.34	.66	.80	.50	.20	.50	5.5	98	275	52	14	1.9
4	.27	.78	1.0	.40	.30	.50	4.5	136	260	48	7.2	1.9
5	.38	.70	1.2	.30	.30	.50	5.0	136	270	50	6.3	1.3
6	.46	.58	1.5	.40	.30	.60	5.5	127	268	47	6.6	1.2
7	.46	.66	1.4	.50	.30	.70	6.0	92	240	41	6.6	1.0
8	.42	.62	1.5	.40	.40	.70	5.5	96	215	39	5.8	.94
9	.34	.70	1.4	.60	.40	.70	5.0	133	170	37	9.0	.86
10	.30	.86	1.4	.70	.40	.60	4.5	160	140	37	24	.86
11	.34	.86	1.3	.70	.30	.60	6.0	170	125	32	9.9	.78
12	.30	.86	1.3	.50	.20	.60	7.0	175	122	30	9.4	.78
13	.30	.94	1.3	.30	.40	.70	8.0	155	133	28	7.2	1.0
14	.34	1.0	1.3	.50	.50	.78	9.0	122	127	24	9.0	1.2
15	.34	1.2	1.3	.70	.50	.70	8.0	118	120	17	11	1.3
16	.30	.94	1.2	.80	.60	.66	10	125	116	14	7.5	1.2
17	.34	.94	1.2	.80	.50	.66	11	118	107	13	6.0	1.0
18	.38	.94	1.2	.80	.40	.66	11	145	103	11	5.5	1.0
19	.38	1.1	1.2	.70	.40	.70	10	195	94	9.0	4.5	.86
20	.42	.94	1.0	.70	.50	.66	9.9	225	92	8.7	4.0	.78
21	.46	1.3	.80	.70	.50	.70	9.4	320	109	7.5	4.0	.94
22	.50	1.4	.60	.60	.40	.70	7.8	320	111	7.5	3.5	.86
23	.50	1.3	.50	.50	.40	1.0	7.6	265	105	10	5.8	.86
24	.46	1.4	.60	.40	.40	1.5	7.5	210	107	10	5.0	.78
25	.50	1.3	.70	.30	.50	2.5	8.1	185	94	8.4	3.8	.70
26	.50	1.0	.90	.40	.50	3.5	9.0	202	85	7.8	2.9	.70
27	.54	1.0	.90	.40	.50	4.0	9.0	225	91	8.1	2.9	.70
28	.66	.80	.90	.40	.50	4.5	11	260	99	9.0	3.3	.66
29	.78	1.0	.80	.30	.50	5.0	13	295	80	6.6	2.5	.70
30	.54	1.2	.70	.30	---	6.0	34	298	71	7.8	1.9	.86
31	.70	---	.60	.40	---	7.0	---	302	---	8.4	1.7	---
Total	13.35	28.70	32.60	16.10	11.80	48.82	262.3	5,552	4,525	746.8	207.7	30.32
Mean	0.43	0.96	1.05	0.52	0.41	1.57	8.74	179	151	24.1	6.70	1.01
Max	0.78	1.4	1.5	0.80	0.60	7.0	34	320	308	62	24	1.9
Min	0.27	0.58	0.50	0.30	0.20	0.40	4.5	64	71	6.6	1.7	0.66
Ac-ft	26	57	65	32	23	97	520	11,010	8,980	1,480	412	60
(†)	0	0	0	0	0	0	0	0	654	1,010	25	0

Cal yr 1967: Total 5,185.48 Mean 14.2 Max 140 Min 0.20 Ac-ft 10,290
 Wtr yr 1968: Total 11,475.49 Mean 31.4 Max 320 Min 0.20 Ac-ft 22,760

Peak discharge (base, 150 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-11	1900	3.45	200	5-29	2100	4.14	370
5-21	2130	4.66	506				

† Imports, in acre-feet, from Gunnison and Roaring Fork River basins; furnished by State engineer of Colorado.
 Note.--No gage-height record Feb. 2 to Mar. 13.

DIVIDE CREEK BASIN

9-0895. West Divide Creek near Raven, Colo.

Location.--Lat 39°19'52", long 107°34'46", in W $\frac{1}{2}$ 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.--64.6 sq mi.

Records available.--October 1955 to September 1968.

Gage.--Water-stage recorder. Altitude of gage is 7,050 ft (from topographic map).

Average discharge.--13 years, 28.1 cfs (20,340 acre-ft per year).

Extremes.--Maximum discharge during year, 547 cfs May 21 (gage height, 5.20 ft); minimum daily, 0.40 cfs Jan. 13.

1955-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.0	0.88	0.90	0.70	1.1	1.6	7.0	58	423	80	10	2.1
2	.96	1.1	.90	.70	1.1	1.6	9.0	76	409	70	13	1.9
3	.86	1.0	.96	.60	1.0	1.6	6.5	100	384	65	21	2.1
4	.88	1.0	.96	.60	1.0	1.6	5.0	130	346	60	12	2.3
5	.96	1.0	.96	.70	1.2	1.8	5.0	160	350	60	8.8	2.1
6	1.2	.90	.88	.70	1.1	2.0	5.0	150	328	60	8.8	1.8
7	1.4	1.0	.86	.60	1.1	2.2	4.6	130	276	55	9.4	1.6
8	1.3	.90	.90	.70	1.2	2.4	5.0	110	236	50	7.9	1.4
9	1.3	.86	.90	.70	1.4	2.5	4.6	140	199	48	9.4	1.3
10	1.3	.80	1.0	.80	1.4	2.5	4.5	180	166	44	30	1.3
11	1.3	.82	1.2	.80	1.4	2.5	6.0	200	143	40	12	1.2
12	1.2	.84	1.2	.60	1.4	2.4	7.0	210	128	35	9.7	1.2
13	1.2	.84	1.2	.40	1.5	2.2	9.5	200	134	35	7.6	1.2
14	1.1	.88	1.1	.50	1.4	2.1	9.5	160	137	28	10	1.5
15	1.1	1.1	1.0	.60	1.3	2.7	9.0	130	143	20	14	1.6
16	1.2	1.1	1.0	.60	1.3	2.5	11	140	141	18	10	1.6
17	1.3	.88	1.0	.70	1.3	2.1	12	130	130	16	6.1	1.4
18	1.2	.88	1.1	.80	1.3	2.4	13	160	124	13	5.0	1.4
19	1.3	.90	1.2	.90	1.4	2.6	12	200	118	11	4.5	1.3
20	1.3	.96	1.2	.90	1.5	2.8	11	250	108	9.7	4.0	1.2
21	1.2	1.1	1.0	.90	1.6	2.8	11	350	100	8.5	4.2	1.2
22	1.3	1.0	.80	1.0	1.4	2.6	9.1	402	120	7.6	4.0	1.2
23	1.6	1.1	.80	1.0	1.4	3.0	9.1	342	110	14	5.5	1.3
24	1.6	1.1	.80	.90	1.4	3.4	8.5	252	115	12	5.2	1.2
25	1.2	1.1	1.0	.80	1.6	3.0	9.4	236	110	12	3.8	1.1
26	1.1	1.0	1.2	.90	1.8	2.9	10	258	100	10	3.1	1.0
27	1.2	.80	1.2	1.0	1.8	3.5	10	306	100	10	3.0	1.0
28	1.2	.78	1.2	.90	1.7	4.8	9.4	374	95	13	3.2	.96
29	1.2	.86	1.2	.90	1.6	4.8	14	439	90	9.7	2.9	.96
30	1.1	.90	1.0	.90	---	5.7	33	439	85	12	2.5	1.0
31	.90	---	.80	1.0	---	6.0	---	435	---	12	2.4	---
Total	36.96	28.38	31.42	23.80	39.7	86.6	279.7	6.847	5.448	938.5	253.0	42.42
Mean	1.19	0.95	1.01	0.77	1.37	2.79	9.32	221	182	30.3	8.16	1.41
Max	1.6	1.1	1.2	1.0	1.8	6.0	33	439	423	80	30	2.3
Min	0.86	0.78	0.80	0.40	1.0	1.6	4.5	58	85	7.6	2.4	0.96
Ac-ft	73	56	62	47	79	172	555	13,580	10,810	1,860	502	84
(†)	0	0	0	0	0	0	0	0	1,110	1,330	25	0

Cal yr 1967: Total 5,615.79 Mean 15.4 Max 141 Min 0 Ac-ft 11,140
Wtr yr 1968: Total 14,055.48 Mean 38.4 Max 439 Min 0.40 Ac-ft 27,880

Peak discharge (base, 160 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-11	-	-	*250	5-29	2300	4.96	543
5-21	2000	5.20	547				

† 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. 13, May 3-21.

* Estimated.

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 1968.

Gage.--Digital water-stage recorder and plank control. Altitude of gage is 6,685 ft (from topographic map). Prior to Oct. 1, 1966, graphic water-stage recorder at same site and datum.

Average discharge.--16 years, 4.30 cfs (3,110 acre-ft per year).

Extremes.--Maximum discharge during year, 63 cfs June 5 (gage height, 3.80 ft); minimum daily, 0.44 cfs Jan. 5.
1952-68: 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. Diversions above station for irrigation of about 170 acres below station and about 380 acres in Mamm Creek basin.

DISCHARGE, IN CFS, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.4	1.2	.96	.82	.96	1.7	3.0	36	9.1	4.2	3.1
2	1.2	1.4	1.1	.96	.82	.96	1.5	3.3	38	8.3	4.3	3.0
3	1.2	1.6	1.1	.96	.82	.96	1.3	3.8	42	7.7	4.9	3.5
4	1.2	2.3	1.1	.62	.82	.96	.96	4.3	41	7.5	3.9	3.1
5	1.2	1.5	1.1	.44	.82	.96	.96	4.7	46	8.3	3.7	2.9
6	1.2	2.5	1.1	.75	.82	.99	1.1	4.7	51	8.5	3.4	2.7
7	1.2	2.5	1.0	1.0	.82	.96	.96	3.9	42	7.7	3.5	2.7
8	1.2	1.5	1.1	1.2	.82	.96	.96	4.0	34	7.4	3.8	2.6
9	1.2	1.3	1.1	1.2	.82	.99	1.2	4.4	25	6.8	3.8	2.6
10	1.2	1.4	1.1	1.2	.82	.96	.96	4.8	23	6.4	4.3	2.6
11	1.2	1.4	1.1	1.2	.82	.96	1.3	5.7	22	6.1	4.0	2.6
12	1.2	1.3	1.1	1.0	.82	.96	1.4	5.9	25	5.9	4.2	2.7
13	1.1	1.4	1.1	1.0	.82	.96	1.6	6.2	26	5.6	4.0	2.9
14	1.1	1.4	1.1	.80	.91	.83	1.5	5.8	26	5.3	6.4	2.7
15	1.2	1.4	1.1	.80	.98	.82	1.5	5.6	24	5.0	6.4	3.3
16	1.1	1.4	1.1	.80	.96	.82	1.6	5.7	24	4.6	5.3	2.9
17	1.2	1.4	1.1	.80	1.1	.82	1.7	5.4	25	4.2	4.8	3.2
18	1.3	1.3	1.1	.82	1.1	.82	1.5	6.0	26	4.0	4.4	3.1
19	1.2	1.3	1.1	.82	1.1	.82	1.4	7.1	25	3.9	4.1	2.9
20	1.2	1.3	1.1	.82	1.0	.81	1.3	8.4	25	3.8	4.3	2.8
21	1.2	1.3	1.1	.82	1.0	.81	1.3	11	25	3.7	4.2	3.0
22	1.3	1.4	1.1	.82	.97	.85	1.3	17	24	3.5	4.0	2.9
23	1.2	1.4	1.1	.82	.96	.89	1.2	18	22	3.6	4.6	2.9
24	.94	1.2	1.1	.82	1.0	1.0	1.3	19	21	3.9	3.8	2.8
25	1.3	1.0	1.1	.82	1.0	.97	1.3	16	18	4.1	3.5	2.5
26	1.2	1.0	1.1	.82	.97	1.0	1.3	14	15	3.9	3.6	2.6
27	.87	1.0	1.1	.82	1.0	.91	1.3	18	13	4.0	5.5	2.6
28	1.5	1.0	1.1	.82	.96	1.0	1.2	29	12	3.3	5.0	2.5
29	1.2	1.1	1.0	.82	1.0	1.3	1.5	37	11	3.6	3.9	2.5
30	1.3	1.3	.97	.82	-----	1.5	2.4	41	9.8	4.8	3.5	2.6
31	1.4	-----	.96	.82	-----	1.7	-----	39	-----	5.5	3.3	-----
TOTAL	37.21	42.7	33.73	27.17	26.67	30.21	40.50	361.7	796.8	170.0	132.6	84.8
MEAN	1.20	1.42	1.09	.88	.92	.97	1.35	11.7	26.6	5.48	4.28	2.83
MAX	1.5	2.5	1.2	1.2	1.1	1.7	2.4	41	51	9.1	6.4	3.5
MIN	.87	1.0	.96	.44	.82	.81	.96	3.0	9.8	3.3	3.3	2.5
AC-FT	74	85	67	54	53	60	80	717	1,580	337	263	168

CAL YR 1967 TOTAL 1,647.11 MEAN 4.51 MAX 40 MIN .80 AC-FT 3,270
WTR YR 1968 TOTAL 1,784.09 MEAN 4.87 MAX 51 MIN .44 AC-FT 3,540

Peak discharge (base, 25 cfs).--June 5 (2200) 63 cfs (3.80 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.--141 sq mi.

Records available.--October 1948 to September 1954, October 1964 to September 1968.

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.--10 years, 17.9 cfs (12,960 acre-ft per year).

Extremes.--Maximum discharge during year, 513 cfs July 27 (gage height, 4.18 ft); minimum daily, 0.50 cfs Dec. 3.

1948-54, 1964-68: 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, 1967.

Remarks.--Records fair. 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.6	2.2	0.90	0.70	1.2	1.4	4.8	19	170	20	14	3.7
2	1.8	2.0	.70	.70	1.2	1.4	5.4	24	160	20	14	3.3
3	1.8	1.6	.50	.70	1.2	1.4	4.2	30	150	19	13	3.5
4	2.1	1.2	.60	.70	1.2	1.4	4.2	35	140	19	11	3.5
5	2.0	1.1	.80	.70	1.2	1.4	4.8	40	130	19	10	3.1
6	2.6	1.0	.80	.80	1.3	1.4	6.6	42	110	19	9.4	2.4
7	2.1	1.0	.70	.80	1.4	1.5	5.1	44	100	18	8.8	1.9
8	2.0	1.0	.70	.80	1.4	1.5	5.7	46	90	17	15	1.9
9	1.8	.90	.70	.90	1.4	1.5	6.0	50	80	17	18	1.9
10	1.6	.90	.70	.90	1.4	1.6	6.6	55	70	17	45	2.2
11	1.6	.90	.70	.90	1.4	1.6	7.2	60	60	17	20	2.2
12	1.8	.90	.70	.90	1.5	1.6	9.0	75	55	19	19	2.4
13	1.8	.90	.70	.80	1.5	1.6	10	85	50	18	15	2.4
14	1.8	.90	.70	.80	1.6	1.8	9.3	100	45	17	20	2.5
15	1.8	.90	.70	.80	1.6	1.8	11	115	42	16	18	2.9
16	1.8	.90	.80	.80	1.5	2.0	13	110	39	14	15	3.3
17	1.8	.90	.80	.80	1.5	2.0	14	110	37	13	13	3.3
18	1.8	.90	.80	.80	1.3	2.0	14	120	35	13	13	2.9
19	1.8	1.0	.80	.80	1.3	2.0	14	130	33	12	12	2.7
20	1.8	1.0	.80	.80	1.5	2.0	14	140	31	12	11	2.9
21	1.8	1.0	.70	.90	1.4	2.0	15	170	29	11	11	3.1
22	2.0	1.0	.60	1.0	1.4	2.1	15	270	25	11	11	3.1
23	2.0	1.0	.60	1.0	1.4	2.2	11	290	22	11	11	3.1
24	1.8	.90	.60	1.0	1.4	2.2	9.9	310	24	11	9.4	3.1
25	2.2	.90	.60	1.0	1.5	2.2	11	260	22	10	7.6	2.9
26	2.2	.80	.70	1.1	1.5	2.4	11	220	22	11	6.8	2.7
27	2.0	.80	.70	1.2	1.5	2.1	12	173	22	37	6.5	2.9
28	2.4	.80	.70	1.2	1.5	2.6	12	168	21	17	6.5	2.7
29	2.4	.90	.80	1.2	1.4	2.8	13	178	20	14	5.8	2.7
30	1.6	.90	.80	1.1	- - - -	3.3	16	190	20	17	5.0	2.9
31	2.0	- - - -	.60	1.2	- - - -	3.9	- - - -	180	- - - -	16	4.5	- - - -
Total	59.6	31.10	22.00	27.80	40.6	60.7	294.8	3,839	1,854	502	399.3	84.1
Mean	1.92	1.04	0.71	0.90	1.40	1.96	9.83	124	61.8	16.2	12.9	2.80
Max	2.6	2.2	0.90	1.2	1.6	3.9	16	310	170	37	45	3.7
Min	1.6	0.80	0.50	0.70	1.2	1.4	4.2	19	20	10	4.5	1.9
Ac-ft	118	62	44	55	81	120	585	7,610	3,680	996	792	167

Cal yr 1967: Total 2,084.17 Mean 5.71 Max 24 Min 0 Ac-ft 4,130
 Wtr yr 1968: Total 7,215.00 Mean 19.7 Max 310 Min 0.50 Ac-ft 14,310

Peak discharge (base, 150 cfs)

Note.--No gage-height record Nov. 27 to Feb. 13.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-24	-	-	†320	8-10	1500	2.90	272
7-27	1730	4.18	513				

† Estimated.

9-0937. Colorado River near De Beque, Colo.

Location.--Lat 39°21'45", long 108°09'05", in NE¼SW¼ sec.7, T.8 S., R.96 W., on left bank 3 miles downstream from Alkali Creek and 3.8 miles northeast of De Beque.

Drainage area.--7,370 sq mi.

Records available.--October 1966 to September 1968.

Gage.--Water-stage recorder. Altitude of gage is 4,940 ft (from topographic map).

Extremes.--Maximum discharge during water year, 18,600 cfs June 6 (gage height, 10.24 ft); minimum daily, 1,200 cfs Jan. 5.
1966-68: Maximum discharge, that of June 6, 1968; minimum daily, 1,050 cfs Dec. 11, 1966.

Remarks.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversion, storage reservoirs, power development, and diversions for irrigation of about 158,000 acres.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.820	1.710	1.660	1.400	1.380	1.600	1.950	2.030	12.800	7.190	3.660	2.030
2	1.770	1.780	1.640	1.490	1.350	1.520	2.300	2.570	13.800	6.310	3.620	2.000
3	1.680	1.810	1.310	1.510	1.310	1.510	2.300	3.090	15.200	5.930	3.960	2.040
4	1.670	1.720	1.370	1.350	1.390	1.500	2.220	3.610	16.000	5.570	4.080	2.060
5	1.660	1.730	1.430	1.200	1.380	1.520	2.090	4.210	16.600	5.230	3.790	2.110
6	1.820	1.720	1.490	1.250	1.330	1.550	2.030	4.670	17.600	5.090	3.710	2.120
7	1.800	1.630	1.570	1.250	1.310	1.480	2.120	4.600	16.900	5.110	4.060	2.080
8	1.820	1.640	1.520	1.300	1.300	1.580	2.050	4.080	15.600	4.820	4.450	2.030
9	1.930	1.710	1.610	1.250	1.360	1.610	1.940	3.750	13.300	4.670	4.780	1.970
10	1.880	1.710	1.500	1.300	1.360	1.610	1.910	3.900	11.600	4.540	4.780	1.910
11	1.810	1.720	1.500	1.450	1.340	1.500	1.920	4.270	10.600	4.400	4.920	1.880
12	1.810	1.740	1.490	1.350	1.410	1.490	2.000	4.210	10.200	4.430	5.090	1.810
13	1.740	1.720	1.500	1.300	1.400	1.440	2.230	4.450	11.500	4.120	4.510	1.790
14	1.760	1.690	1.470	1.300	1.390	1.410	2.320	4.360	13.100	3.940	4.340	1.780
15	1.740	1.710	1.470	1.300	1.400	1.490	2.190	3.900	13.100	3.730	4.970	1.880
16	1.820	1.710	1.590	1.350	1.410	1.480	2.150	3.750	12.800	3.570	4.820	2.010
17	1.720	1.680	1.510	1.450	1.450	1.450	2.270	3.680	13.300	3.430	4.020	2.090
18	1.710	1.660	1.440	1.500	1.400	1.460	2.330	3.370	13.800	3.210	3.640	2.190
19	1.810	1.660	1.500	1.420	1.350	1.470	2.360	3.370	13.900	3.100	3.540	2.090
20	1.800	1.660	1.600	1.400	1.460	1.440	2.300	3.700	13.400	2.990	3.330	1.990
21	1.760	1.660	1.500	1.390	1.550	1.370	2.230	4.400	14.000	2.900	3.040	1.930
22	1.770	1.730	1.400	1.390	1.550	1.330	2.160	6.340	13.900	2.840	2.800	1.880
23	1.760	1.730	1.540	1.400	1.550	1.390	2.050	8.130	12.800	2.900	2.670	1.920
24	1.740	1.690	1.760	1.420	1.600	1.300	1.970	8.130	11.800	3.040	2.610	1.910
25	1.740	1.640	1.860	1.430	1.500	1.350	1.880	7.320	10.900	2.880	2.470	1.890
26	1.690	1.670	1.720	1.460	1.570	1.420	1.860	6.550	9.690	2.790	2.340	1.860
27	1.670	1.460	1.650	1.490	1.550	1.380	1.890	6.430	8.880	2.850	2.230	1.850
28	1.660	1.240	1.570	1.490	1.590	1.360	1.890	6.990	8.990	3.300	2.220	1.850
29	1.810	1.370	1.520	1.470	1.460	1.350	1.870	8.440	8.880	3.610	2.230	1.910
30	1.840	1.670	1.600	1.430	- - - - -	1.580	1.870	9.920	8.180	3.450	2.190	1.920
31	1.680	- - - - -	1.420	1.400	- - - - -	1.730	- - - - -	11.400	- - - - -	3.500	2.090	- - - - -
Total	54,690	49,970	47,710	42,890	41,400	45,670	62,650	159,620	383,120	125,440	110,960	58,780
Mean	1,764	1,666	1,539	1,384	1,428	1,473	2,088	5,149	12,770	4,046	3,579	1,959
Max	1,930	1,810	1,860	1,510	1,600	1,730	2,360	11,400	17,600	7,190	5,090	2,190
Min	1,660	1,240	1,310	1,200	1,300	1,300	1,860	2,030	8,180	2,790	2,090	1,780
Ac-ft	108,500	99,110	94,630	85,070	82,120	90,590	124,300	316,600	759,900	248,800	220,100	116,600

Cal yr 1967: Total 1,056,820 Mean 2,895 Max 13,700 Min 1,070 Ac-ft 2,096,000
Wtr yr 1968: Total 1,182,900 Mean 3,232 Max 17,600 Min 1,200 Ac-ft 2,346,000

Note.--No gage-height record Dec. 14 to Jan. 19.

9-0942. Roan Creek above Clear Creek, near De Beque, Colo.

Location.--Lat 39°29'30", long 108°21'15", in SE¼ sec.32, T.6 S., R.98 W., on left bank 1.7 miles upstream from Clear Creek and 14 miles northwest of De Beque.

Drainage area.--151 sq mi.

Records available.--October 1962 to September 1968 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 5,560 ft (from topographic map).

Average discharge.--6 years, 17.2 cfs (12,450 acre-ft per year).

Extremes.--Maximum discharge during year, 340 cfs May 23 (gage height, 6.06 ft); minimum daily, 3.1 cfs Oct. 21, 22.
1962-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.6	6.0	6.9	6.9	6.3	9.5	11	22	245	29	18	13
2	7.2	6.0	4.5	7.5	5.4	9.5	12	25	216	29	21	13
3	6.6	6.3	4.5	6.3	6.9	9.1	12	27	192	27	21	13
4	6.6	6.3	4.5	4.3	6.6	9.1	11	30	174	27	18	13
5	6.6	6.0	4.8	5.1	6.3	9.5	12	36	154	27	17	13
6	6.9	6.0	5.1	4.8	6.6	9.5	15	48	129	29	19	12
7	6.6	6.0	4.8	4.8	7.2	12	14	56	115	36	25	12
8	5.7	6.0	5.4	4.8	7.2	11	14	60	106	37	24	11
9	5.4	5.4	5.4	5.4	7.2	11	13	64	99	38	24	11
10	4.5	5.4	5.4	5.4	7.2	10	13	69	92	35	79	10
11	4.3	5.4	5.4	6.0	7.2	9.5	13	71	84	39	67	9.2
12	4.1	5.4	5.0	4.8	7.5	8.7	14	86	72	30	39	9.2
13	4.3	5.1	4.3	5.4	7.9	9.5	15	117	63	27	31	8.9
14	4.1	5.1	5.0	5.4	7.9	10	15	129	57	25	43	7.8
15	3.9	5.4	5.7	6.0	7.9	9.5	16	133	52	22	41	7.0
16	3.9	5.4	6.0	6.3	7.9	9.9	18	133	48	22	30	7.2
17	3.7	5.4	6.0	6.6	7.9	10	20	129	45	20	25	7.4
18	3.5	5.4	6.0	5.4	8.3	9.9	20	132	42	20	25	8.0
19	3.5	5.4	6.6	5.7	8.7	9.1	20	139	39	22	23	8.0
20	3.3	4.5	6.0	6.6	9.5	9.1	20	151	38	21	21	8.3
21	3.1	4.8	5.0	6.3	9.9	9.1	20	200	36	21	21	8.0
22	3.1	5.1	4.0	6.6	10	9.1	20	292	34	20	21	8.9
23	3.3	5.1	4.8	6.3	9.5	9.9	20	318	35	20	21	8.9
24	3.9	5.1	5.4	6.3	9.9	9.9	20	326	35	21	18	8.9
25	4.1	5.2	5.7	6.3	9.9	10	21	297	34	21	16	8.9
26	4.5	5.5	6.9	6.9	9.5	9.9	21	258	35	21	16	9.5
27	4.8	5.7	6.3	6.6	9.5	9.5	22	242	36	25	18	9.8
28	5.4	5.7	6.9	7.5	9.1	9.5	21	245	35	30	16	10
29	5.7	7.2	6.6	6.9	9.5	10	21	261	33	24	15	9.8
30	5.7	7.2	6.9	6.9	-----	11	21	270	31	20	14	9.5
31	5.7	-----	4.8	7.2	-----	11	-----	265	-----	20	14	-----
Total	150.6	168.5	170.6	187.3	234.4	304.3	505	4,631	2,406	805	802	294.2
Mean	4.86	5.62	5.50	6.04	8.08	9.82	16.8	149	80.2	26.0	25.9	9.81
Max	7.2	7.2	6.9	7.5	10	12	22	326	245	39	79	13
Min	3.1	4.5	4.0	4.3	5.4	8.7	11	22	31	20	14	7.0
Ac-ft	299	334	338	372	465	604	1,000	9,190	4,770	1,600	1,550	584

Cal yr 1967: Total 4,234.8 Mean 11.6 Max 35 Min 3.1 Ac-ft 8,400
Wtr yr 1968: Total 10,658.9 Mean 29.1 Max 326 Min 3.1 Ac-ft 21,140

Peak discharge (base, 80 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-23	2130	6.06	340	8-10	0100	5.49	256
7-11	1700	4.82	141				

9-0944. Clear Creek near De Beque, Colo.

Location--Lat 39°29'00", long 108°19'35", in SE $\frac{1}{4}$ Sec.33, T.6 S., R.98 W., on left bank 100 ft below road bridge, 0.4 mile above mouth, and 12 miles northwest of De Beque.

Drainage area--111 sq mi.

Records available--July 1966 to September 1968 (discontinued).

Gage--Water-stage recorder. Altitude of gage is 5,475 ft (from topographic map). Prior to Sept. 15, 1967, at site 270 ft upstream at different datum.

Extremes--Maximum discharge during year, 51 cfs May 23 (gage height, 1.37 ft); no flow for many days.

1966-68: Maximum discharge, 1,540 cfs Aug. 31, 1967 (gage height, 10.93 ft, from floodmarks, site and datum then in use), from rating curve extended above 5.1 cfs on basis of slope-area measurement of peak flow; no flow for many days.

Remarks--Records fair except those for winter period, which are poor. Several diversions for hay meadows above and one diversion from Roan Creek for irrigation above and below station.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.5	1.1	3.0	2.3	1.7	1.9	1.7	11	18	0	0.84	0
2	4.2	1.2	2.3	2.2	1.9	1.9	1.7	15	18	0	.90	0
3	4.0	.40	2.2	2.0	2.0	1.9	1.7	18	26	0	.96	0
4	4.0	.60	2.2	1.8	1.7	1.9	1.7	18	23	0	.90	0
5	3.8	.80	2.3	2.0	1.6	1.8	1.7	12	13	0	.90	0
6	4.0	1.1	2.4	2.0	1.6	1.8	1.7	13	12	0	.84	.02
7	3.4	1.3	2.4	2.0	1.7	1.9	1.7	11	9.8	0	.78	.16
8	3.0	1.4	2.4	2.1	1.9	1.9	1.7	10	6.6	0	.66	.14
9	3.0	1.6	2.4	2.3	2.0	1.9	1.7	8.2	6.0	0	.78	.08
10	2.6	1.8	2.3	2.6	2.0	1.9	1.7	7.2	5.7	0	1.0	.01
11	2.8	1.8	2.2	2.4	2.0	1.9	1.7	8.2	5.4	0	.96	0
12	3.0	1.9	2.1	2.2	2.0	1.9	1.8	13	4.5	0	.10	0
13	3.0	1.9	2.0	2.1	2.0	2.0	1.9	21	3.5	0	0	0
14	3.2	1.9	2.1	2.2	2.0	2.0	2.0	25	2.0	.19	0	0
15	6.9	2.0	2.2	2.3	1.9	2.0	2.0	20	1.8	.60	.36	0
16	7.2	2.0	2.2	2.4	1.7	2.0	2.4	20	1.5	.60	0	0
17	6.3	1.9	2.2	2.1	1.6	2.0	3.2	24	1.4	.56	0	0
18	5.4	1.8	2.2	1.6	1.7	2.1	3.0	27	1.3	.66	0	.18
19	5.7	1.6	2.1	1.8	1.8	2.1	3.2	29	1.5	.48	0	.20
20	4.0	1.4	2.0	2.0	1.9	2.0	3.0	32	1.6	.14	0	.48
21	1.4	1.6	1.8	2.1	2.0	2.1	3.0	32	.72	.06	0	.72
22	1.2	1.8	1.6	2.2	2.1	2.1	3.4	39	.44	0	0	.84
23	1.2	2.1	2.0	2.2	2.0	2.1	3.4	46	.40	0	0	.78
24	1.9	2.3	2.1	2.2	2.1	2.2	4.2	45	.36	0	0	.41
25	1.9	2.6	2.2	2.2	2.1	2.0	5.1	44	.36	0	0	0
26	1.6	2.9	2.3	2.2	2.0	1.9	5.1	37	.26	.07	0	0
27	1.5	2.7	2.4	2.2	2.0	1.8	5.7	29	0	.26	0	0
28	1.2	2.6	2.4	2.2	2.0	1.7	5.7	25	0	1.7	0	0
29	1.0	3.2	2.4	2.1	1.9	1.7	6.3	22	0	.78	0	0
30	.80	3.3	2.4	2.0	---	1.7	8.2	24	0	1.1	0	0
31	1.0	---	2.4	1.8	---	1.7	---	20	---	1.1	0	---
Total	98.70	54.60	69.2	65.8	54.9	59.8	91.3	705.6	165.14	8.30	9.98	4.02
Mean	3.18	1.82	2.23	2.12	1.89	1.93	3.04	22.8	5.50	0.27	0.32	0.13
Max	7.2	3.3	3.0	2.6	2.1	2.2	8.2	46	26	1.7	1.0	0.84
Min	0.80	0.40	1.6	1.6	1.6	1.7	1.7	7.2	0	0	0	0
Ac-ft	196	108	137	131	109	119	181	1,400	328	16	20	8.0

Cal yr 1967: Total 860.01 Mean 2.36 Max 70 Min 0 Ac-ft 1,710
Wtr yr 1968: Total 1,387.34 Mean 3.79 Max 46 Min 0 Ac-ft 2,750

Note--No gage-height record Nov. 3 to Feb. 14.

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.

Drainage area.--321 sq mi.

Records available.--April 1921 to September 1926, October 1962 to September 1968.

Gage.--Digital water-stage recorder. Altitude of gage is 5,380 ft (from topographic map). Prior to October 1962, chain gage at present site at different datum. Oct. 1, 1962, to Oct. 4, 1966, graphic water-stage recorder at present site and datum.

Average discharge.--11 years, 39.6 cfs (28,670 acre-ft per year).

Extremes.--Maximum discharge during year, 407 cfs May 24 (gage height, 3.65 ft); minimum daily, 7.9 cfs Dec. 13.

1921-26, 1962-68: Maximum discharge, 1,220 cfs Aug. 31, 1967 (gage height, 6.09 ft), from rating curve extended above 130 cfs on basis of slope-area measurements at gage heights 4.30 and 6.09 ft; minimum daily discharge, 3.2 cfs Nov. 25, 1963, but may have been less during periods of no gage-height record.

Remarks.--Records good. Diversions above station for irrigation of about 2,800 acres above and about 570 acres below station.

DISCHARGE, IN CFS, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	10	15	14	11	16	18	35	229	25	29	20
2	14	10	9.6	15	9.1	16	19	36	210	24	31	17
3	14	11	9.8	14	11	15	19	43	194	24	33	14
4	15	11	10	13	11	15	18	46	171	23	30	14
5	15	11	11	10	11	15	19	48	150	24	29	19
6	16	11	12	11	11	15	23	53	137	24	29	26
7	16	11	11	10	12	18	20	59	125	29	34	26
8	14	11	12	10	12	18	19	64	118	31	32	26
9	14	11	12	10	12	19	18	67	110	32	31	25
10	13	11	12	11	12	17	19	70	101	31	60	24
11	12	11	12	11	12	15	19	78	93	33	58	23
12	12	12	12	10	13	14	19	98	83	34	50	22
13	12	12	7.9	9.5	13	15	20	126	74	31	40	20
14	12	12	8.5	9.5	13	16	20	146	63	27	47	19
15	13	13	11	10	13	15	21	149	59	25	48	16
16	13	12	13	10	12	15	21	150	54	27	39	16
17	14	12	13	11	12	16	25	156	51	27	34	16
18	13	12	12	8.6	13	16	26	161	49	27	34	18
19	13	12	13	8.7	13	15	27	168	46	30	32	18
20	11	11	13	9.7	14	14	28	184	42	29	31	19
21	8.8	11	10	11	15	14	28	223	37	28	28	18
22	8.5	10	8.0	11	16	15	28	317	29	26	26	18
23	8.7	11	9.3	11	15	15	28	378	27	25	26	17
24	9.5	10	9.7	11	15	16	28	391	30	26	23	16
25	9.8	10	10	11	15	15	28	358	27	26	20	14
26	9.6	12	12	11	15	16	29	308	26	26	18	15
27	9.2	11	14	11	16	15	30	280	26	31	16	15
28	9.7	12	14	12	15	15	30	269	28	38	20	16
29	10	15	14	11	16	16	31	267	27	31	18	16
30	10	15	14	11	-----	17	32	267	26	29	18	14
31	10	-----	14	12	-----	17	-----	253	-----	32	19	-----
TOTAL	372.8	344	358.8	339.0	378.1	486	710	5,248	2,442	875	983	557
MEAN	12.0	11.5	11.6	10.9	13.0	15.7	23.7	169	81.4	28.2	31.7	18.6
MAX	16	15	15	15	16	19	32	391	229	38	60	26
MIN	8.5	10	7.9	8.6	9.1	14	18	35	26	23	16	14
AC-FT	739	682	712	672	750	964	1,410	10,410	4,840	1,740	1,950	1,100

CAL YR 1967 TOTAL 5,723.3 MEAN 15.6 MAX 82 MIN 6.9 AC-FT 11,350

WTR YR 1968 TOTAL 13,093.7 MEAN 35.8 MAX 391 MIN 7.9 AC-FT 25,970

Peak discharge (base, 100 cfs).--May 24 (0800) 407 cfs (3.65 ft); Aug. 11 (1830) 107 cfs (2.91 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 1968.

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.--35 years, 3,819 cfs (2,765,000 acre-ft per year).

Extremes.--Maximum discharge during year, 18,400 cfs June 6 (gage height, 9.58 ft); minimum daily, 1,250 cfs Jan. 5.

1933-68: 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 cfs Dec. 29, 1939.

Remarks.--Records good except those for winter period, 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 1968 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.920	1.800	1.700	1.500	1.500	1.610	2.020	2.200	12.600	7.330	3.620	2.130
2	1.880	1.850	1.690	1.540	1.490	1.570	2.320	2.800	13.500	6.470	3.640	2.110
3	1.830	1.870	1.570	1.630	1.430	1.580	2.410	3.400	14.900	6.010	3.960	2.140
4	1.810	1.830	1.570	1.400	1.500	1.570	2.360	3.770	15.700	5.720	4.030	2.130
5	1.790	1.800	1.580	1.250	1.480	1.600	2.200	4.430	16.200	5.420	3.720	2.200
6	1.920	1.830	1.570	1.300	1.470	1.540	2.160	4.910	17.300	5.240	3.660	2.250
7	1.900	1.790	1.710	1.300	1.450	1.640	2.230	4.870	17.100	5.280	4.100	2.210
8	1.900	1.750	1.570	1.350	1.430	1.630	2.230	4.360	15.700	5.020	4.490	2.140
9	1.990	1.790	1.700	1.300	1.490	1.740	2.130	3.960	13.600	4.840	4.890	2.110
10	1.940	1.810	1.630	1.350	1.480	1.590	2.040	4.160	11.500	4.760	4.890	2.040
11	1.920	1.790	1.640	1.500	1.420	1.550	2.110	4.540	10.400	4.620	5.240	2.020
12	1.920	1.810	1.650	1.400	1.530	1.530	2.180	4.560	10.000	4.650	5.240	1.980
13	1.870	1.810	1.730	1.350	1.500	1.490	2.380	4.730	11.200	4.430	4.730	1.940
14	1.870	1.760	1.600	1.350	1.470	1.520	2.470	4.760	13.000	4.160	4.470	1.960
15	1.880	1.790	1.500	1.350	1.490	1.580	2.320	4.210	13.200	3.940	4.950	2.010
16	1.920	1.780	1.600	1.400	1.520	1.550	2.290	4.050	12.700	3.770	4.980	2.130
17	1.840	1.740	1.670	1.500	1.520	1.540	2.410	3.960	13.200	3.600	4.100	2.230
18	1.810	1.740	1.500	1.600	1.490	1.530	2.470	3.700	13.800	3.380	3.680	2.340
19	1.870	1.740	1.560	1.500	1.460	1.570	2.500	3.620	14.000	3.200	3.580	2.250
20	1.880	1.720	1.640	1.490	1.500	1.540	2.430	3.940	13.500	3.100	3.360	2.140
21	1.870	1.720	1.680	1.470	1.600	1.510	2.360	4.670	14.100	2.980	3.060	2.090
22	1.870	1.780	1.440	1.470	1.690	1.460	2.270	6.440	14.200	2.940	2.820	2.040
23	1.870	1.760	1.410	1.480	1.600	1.480	2.200	8.150	13.000	2.920	2.700	2.080
24	1.860	1.740	1.600	1.500	1.660	1.440	2.110	8.080	11.900	3.080	2.650	2.060
25	1.860	1.700	1.860	1.510	1.630	1.460	2.020	7.380	11.000	3.000	2.520	2.040
26	1.810	1.710	1.800	1.520	1.590	1.550	1.990	6.610	9.720	2.900	2.390	2.010
27	1.800	1.600	1.700	1.530	1.610	1.490	2.040	6.520	8.840	2.980	2.300	2.010
28	1.790	1.400	1.680	1.570	1.650	1.480	2.080	6.920	8.890	3.280	2.230	1.990
29	1.850	1.480	1.620	1.540	1.530	1.490	2.080	8.150	8.810	3.620	2.290	2.040
30	1.950	1.630	1.650	1.530	- - - -	1.630	2.100	9.500	8.220	3.480	2.270	2.080
31	1.800	- - - -	1.590	1.520	- - - -	1.810	- - - -	11.000	- - - -	3.500	2.210	- - - -
Total	57.990	52.320	50.410	45.000	44.180	48.270	66.910	164.350	381.780	129.620	112.770	62.900
Mean	1.871	1.744	1.626	1.452	1.523	1.557	2.230	5.302	12.730	4.181	3.638	2.097
Max	1.990	1.870	1.860	1.630	1.690	1.810	2.500	11.000	17.300	7.330	5.240	2.340
Min	1.790	1.400	1.410	1.250	1.420	1.440	1.990	2.200	8.220	2.900	2.210	1.940
Ac-ft	115,000	103,800	99,990	89,260	87,630	95,740	132,700	326,000	757,200	257,100	223,700	124,800

Cal yr 1967: Total 1,080,900 Mean 2,961 Max 13,500 Min 1,180 Ac-ft 2,144,000
Wtr yr 1968: Total 1,216,500 Mean 3,324 Max 17,300 Min 1,250 Ac-ft 2,413,000

Note.--No gage-height record Dec. 23 to Jan. 30.

PLATEAU CREEK BASIN

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 1968.

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, 34,300 acre-ft June 19 (elevation, 7,985.5 ft); minimum observed, 946 acre-ft Oct. 17-25 (elevation, 7,915.3 ft).

1960-68: Maximum contents observed, 34,570 acre-ft June 16-20, 1965 (elevation, 7,985.8 ft); minimum observed, that of Oct. 17-25, 1967.

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 elevation and contents, water year October 1967 to September 1968

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	7,918.5	1,420	-
Oct. 31.....	7,915.7	1,000	-420
Nov. 30.....	7,917.0	1,190	+190
Dec. 31.....	7,919.6	1,590	+400
Calendar year 1967.....	-	-	-4,430
Jan. 31.....	7,921.7	1,960	+370
Feb. 29.....	7,924.1	2,410	+450
Mar. 31.....	7,926.7	2,960	+550
Apr. 30.....	7,931.9	4,230	+1,270
May 31.....	7,962.3	16,780	+12,550
June 30.....	7,983.4	32,400	+15,620
July 31.....	7,972.4	23,470	-8,930
Aug. 31.....	7,961.7	16,430	-7,040
Sept. 30.....	7,946.4	9,000	-7,430
Water year 1968.....	-	-	+7,580

† Elevation at 0800.

PLATEAU CREEK BASIN

263

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 1968. 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, 866 cfs June 5 (gage height, 4.46 ft); minimum daily, 5.0 cfs Dec. 3.

1921-68: 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 period, 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	6.5	6.0	6.6	8.0	7.0	7.8	6.3	215	43	83	18
2	9.2	6.5	5.4	6.9	6.4	7.0	7.5	6.7	342	45	79	18
3	9.2	6.0	5.0	6.9	6.4	6.8	7.1	7.1	337	44	56	22
4	10	6.7	5.2	6.4	6.1	6.8	7.0	6.9	299	44	39	22
5	10	6.9	5.6	6.0	6.0	6.6	7.0	7.3	470	48	33	20
6	10	6.8	6.0	6.6	6.0	6.6	7.1	7.1	508	46	44	20
7	11	7.0	6.5	6.2	6.0	6.7	7.0	7.3	338	44	50	18
8	10	7.0	7.1	6.0	6.1	6.7	6.8	6.5	145	43	70	18
9	10	6.8	7.1	6.0	6.1	6.7	6.8	6.5	46	43	67	18
10	10	6.9	6.9	6.2	6.0	6.6	7.0	6.3	37	48	63	18
11	9.8	6.8	6.9	6.6	5.8	6.7	7.0	6.3	44	53	44	18
12	9.5	6.9	6.9	6.2	6.3	6.4	7.3	6.3	96	50	44	18
13	9.2	6.7	6.9	7.0	6.3	6.4	6.5	6.3	120	50	36	27
14	9.2	6.7	6.9	6.6	6.3	6.7	6.2	6.1	89	44	81	26
15	8.8	6.7	6.9	6.6	6.3	6.8	6.3	6.1	80	37	83	29
16	8.0	6.7	6.9	6.6	6.3	6.8	6.3	6.1	94	33	37	28
17	8.2	6.7	6.9	6.4	6.3	6.9	6.5	8.0	133	29	26	30
18	9.0	6.7	6.7	6.2	6.3	6.9	6.5	9.5	170	28	29	32
19	9.2	6.7	6.7	6.0	6.3	6.8	6.3	9.5	175	28	28	32
20	9.0	6.5	6.9	5.7	6.3	6.6	5.9	11	161	26	29	28
21	6.9	6.4	6.4	5.8	6.5	6.6	5.9	12	149	27	32	30
22	6.3	6.4	6.0	5.7	6.7	7.0	5.7	22	136	29	29	28
23	6.3	6.2	6.4	5.8	6.5	7.0	5.5	30	107	35	35	27
24	6.3	6.0	6.6	5.7	6.5	7.0	5.5	30	81	37	30	24
25	6.3	6.0	6.9	5.7	6.5	7.1	5.5	28	59	31	28	22
26	6.3	5.6	6.9	5.7	6.4	7.1	5.5	29	38	38	27	19
27	6.3	5.2	6.9	5.7	6.7	6.0	5.5	30	34	53	27	20
28	6.3	5.4	6.9	5.7	6.6	5.5	5.4	35	37	69	28	20
29	6.5	5.8	6.9	5.7	6.7	7.3	5.5	57	37	42	25	20
30	6.5	5.2	6.9	5.4	-----	7.5	6.1	79	39	59	19	18
31	6.5	-----	6.4	5.7	-----	7.8	-----	140	-----	79	19	-----
Total	259.8	192.4	202.6	190.3	184.7	210.4	192.0	635.2	4616	1,325	1,320	688
Mean	8.38	6.41	6.54	6.14	6.37	6.79	6.40	20.5	154	42.7	42.6	22.9
Max	11	7.0	7.1	7.0	8.0	7.8	7.8	140	508	79	83	32
Min	6.3	5.2	5.0	5.4	5.8	5.5	5.4	6.1	34	26	19	18
Ac-ft	515	382	402	377	366	417	381	1,260	9,160	2,630	2,620	1,360
Cal yr 1967: Total	6,581.6		Mean	18.0	Max	246	Min	3.5	Ac-ft	13,050		
Wtr yr 1968: Total	10,016.4		Mean	27.4	Max	508	Min	5.0	Ac-ft	19,870		

PLATEAU CREEK BASIN

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.--49.7 sq mi.

Records available.--October 1955 to September 1968.

Gage.--Water-stage recorder. Altitude of gage is 8,206 ft (from topographic map).

Average discharge.--13 years, 24.0 cfs (17,380 acre-ft per year).

Extremes.--Maximum discharge during year, 488 cfs May 21 (gage height, 5.29 ft); minimum daily, 0.30 cfs Sept. 2. 1955-68: Maximum discharge, 636 cfs June 4, 1957 (gage height, 5.82 ft); no flow at times in most years.

Remarks.--Records fair except those for periods of no gage-height record, which are poor. Transbasin diversion above station by Owens Creek ditch for irrigation in West Divide Creek basin.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.5	1.8	1.7	1.8	1.9	1.4	18	80	310	11	11	0.40
2	1.8	2.0	1.6	1.7	2.0	1.4	15	110	300	9.8	16	.30
3	2.2	1.1	1.5	1.6	2.1	1.4	12	130	284	8.9	11	.60
4	2.5	1.5	1.5	1.5	2.0	1.4	12	140	268	7.5	7.0	1.0
5	2.5	1.1	1.5	1.4	1.8	1.4	11	160	286	9.8	4.8	.90
6	2.7	.80	1.5	1.4	1.6	1.6	13	180	292	9.5	5.0	.80
7	1.7	.70	1.6	1.5	1.4	1.7	10	120	246	6.5	7.2	.50
8	1.1	.70	1.6	1.6	1.4	1.8	12	100	184	5.8	11	.40
9	1.4	.70	1.6	1.6	1.5	1.6	9.0	140	134	10	11	.40
10	1.1	.80	1.6	1.6	1.6	1.5	10	160	116	9.2	13	.50
11	1.1	.80	1.6	1.6	1.8	1.4	14	150	113	13	9.2	.60
12	1.1	1.1	1.5	1.6	1.9	1.3	20	160	120	6.5	7.5	.70
13	1.4	1.1	1.4	1.6	2.0	1.4	30	170	140	5.5	5.3	.80
14	.80	1.6	1.4	1.7	2.0	1.6	25	140	140	4.8	8.3	1.0
15	.90	1.2	1.4	1.8	1.8	1.4	28	140	107	3.8	16	1.4
16	1.0	1.5	1.5	1.9	1.8	1.4	30	160	90	3.3	7.2	1.5
17	1.2	1.4	1.6	1.8	1.8	1.5	35	130	77	2.5	4.5	1.5
18	1.6	1.2	1.6	1.6	1.8	1.6	30	150	71	2.0	3.3	1.6
19	1.7	1.5	1.6	1.5	1.9	1.6	26	220	67	1.7	2.5	1.6
20	1.6	1.4	1.6	1.6	2.0	2.0	23	280	62	1.2	2.1	1.5
21	1.5	1.5	1.6	1.6	2.0	2.1	23	330	62	.90	2.1	2.0
22	1.6	1.7	1.6	1.7	2.1	2.2	20	388	52	.90	2.0	2.0
23	1.6	2.0	1.7	1.7	2.1	2.3	16	292	43	1.6	2.1	1.7
24	1.5	2.4	1.8	1.7	2.1	2.5	16	224	40	2.0	2.2	1.5
25	1.5	2.2	1.8	1.6	2.0	2.7	18	200	32	3.0	1.7	1.5
26	1.8	1.8	1.9	1.6	1.9	3.0	20	240	26	5.0	1.2	1.5
27	1.5	1.2	1.9	1.7	1.8	3.2	20	254	22	8.9	1.2	1.5
28	2.0	1.1	1.9	1.7	1.7	2.2	18	300	18	7.2	1.4	1.5
29	2.4	1.6	1.8	1.7	1.6	6.2	24	350	15	5.5	1.0	1.5
30	2.1	1.8	1.8	1.8	- - - - -	10	50	342	13	6.2	.90	1.5
31	1.8	- - - - -	1.8	1.8	- - - - -	15	- - - - -	324	- - - - -	10	.60	- - - - -
Total	51.20	41.30	50.5	51.0	53.4	81.8	608.0	6,264	3,730	183.50	179.30	34.20
Mean	1.65	1.38	1.63	1.65	1.84	2.64	20.3	202	124	5.92	5.7*	1.14
Max	2.7	2.4	1.9	1.9	2.1	15	50	388	310	13	16	2.0
Min	0.80	0.70	1.4	1.4	1.4	1.3	9.0	80	13	0.90	0.60	0.30
Ac-ft	102	82	100	101	106	162	1,210	12,420	7,400	364	35*	68
(†)	0	0	0	0	0	0	0	0	455	319	0	0

Cal yr 1967: Total 4,283.10 Mean 11.7 Max 136 Min 0 Ac-ft 8,500
Wtr yr 1968: Total 11,328.20 Mean 31.0 Max 388 Min 0.30 Ac-ft 22,470

Peak discharge (base, 200 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-6	-	-	*220	5-21	2100	5.29	488
5-13	-	-	*210	5-29	2230	5.15	478

† Diversions, in acre-feet, by Owens Creek ditch; furnished by State engineer of Colorado.

Note.--No gage-height record Dec. 4 to Mar. 25, Mar. 30 to May 21.

* Estimated.

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 1968. 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.--47 years, 46.2 cfs (33,450 acre-ft per year).

Extremes.--Maximum discharge during year, 860 cfs May 22 (gage height, 5.63 ft); minimum daily, 1.6 cfs Nov. 6, 7.
1921-68: 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 poor Oct. 1 to May 1, fair thereafter. 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).

Cooperation.--One discharge measurement furnished by Bureau of Reclamation.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.7	3.3	4.0	4.4	5.1	4.0	35	134	410	19	16	52
2	3.5	3.1	4.0	4.5	5.0	3.8	34	179	378	18	22	48
3	3.5	2.5	4.0	4.5	4.8	3.8	24	202	364	16	27	5.0
4	3.5	2.0	4.0	4.4	4.6	3.8	24	234	320	15	16	5.0
5	3.5	1.9	4.0	4.3	4.5	3.8	23	248	320	17	11	5.5
6	3.5	1.6	4.1	4.3	4.4	4.0	28	300	330	17	11	4.8
7	3.5	1.6	4.1	4.4	4.4	4.1	20	171	286	14	9.0	4.3
8	3.5	1.8	4.1	4.5	4.4	4.2	24	158	234	13	13	3.5
9	3.7	2.2	4.1	4.5	4.4	4.2	18	238	166	16	23	3.1
10	3.3	2.5	4.2	4.5	4.5	4.1	19	258	133	20	32	2.9
11	3.3	2.5	4.2	4.5	5.0	3.9	30	248	120	22	24	2.7
12	3.3	3.1	4.3	4.5	5.2	3.9	52	276	130	21	21	2.9
13	3.3	3.3	4.3	4.5	5.2	3.9	66	298	158	21	17	4.3
14	3.5	3.3	4.3	4.5	5.1	3.9	53	214	155	18	21	6.0
15	3.7	3.3	4.3	4.5	5.0	3.9	58	220	117	15	36	9.0
16	3.7	3.5	4.3	4.7	4.8	4.1	69	266	101	13	21	9.8
17	3.7	3.7	4.3	4.9	4.8	4.3	74	210	90	12	14	11
18	3.7	3.7	4.3	4.8	5.0	4.6	70	230	88	8.2	11	11
19	3.3	3.9	4.3	4.5	5.1	5.0	55	302	79	5.8	9.8	11
20	3.7	4.1	4.3	4.8	5.2	5.2	47	384	70	4.5	7.8	12
21	3.7	4.1	4.3	4.8	5.6	5.5	48	472	70	4.5	6.8	12
22	3.7	4.0	4.2	5.0	5.6	5.7	42	671	63	3.9	6.5	13
23	3.7	3.9	4.1	4.8	5.6	5.8	35	551	55	3.9	7.8	14
24	4.1	3.8	4.2	4.8	5.5	5.8	37	370	50	4.8	8.6	13
25	3.9	3.7	4.3	5.0	5.3	7.4	39	324	43	3.9	7.8	8.6
26	3.9	3.7	4.3	5.0	5.1	10	43	362	36	4.1	6.8	8.2
27	3.7	3.7	4.3	5.2	4.9	7.4	42	382	33	7.8	6.5	8.2
28	3.7	3.8	4.3	5.0	4.8	7.4	37	422	27	14	6.2	7.0
29	3.9	3.9	4.3	5.0	4.6	13	51	490	24	16	6.2	7.0
30	3.7	3.9	4.3	5.2	---	21	88	512	20	14	6.0	7.8
31	3.5	---	4.3	5.2	---	30	---	452	---	16	5.8	---
Total	111.9	95.4	130.4	145.5	143.5	201.5	1285	9,778	4,470	398.4	437.6	222.6
Mean	3.61	3.18	4.21	4.69	4.95	6.50	42.8	315	149	12.9	14.1	7.42
Max	4.1	4.1	4.3	5.2	5.6	30	88	671	410	22	36	14
Min	3.3	1.6	4.0	4.3	4.4	3.8	18	134	20	3.9	5.8	2.7
Ac-ft	232	189	259	289	285	400	2,550	19,390	8,870	790	868	442

Cal yr 1967: Total 6,493.00 Mean 17.8 Max 150 Min 0.70 Ac-ft 12,880
Wtr yr 1968: Total 17,419.8 Mean 47.6 Max 671 Min 1.6 Ac-ft 34,550

Peak discharge (base, 350 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-6	0130	3.87	384	5-22	0300	5.63	860
5-13	0200	3.85	376	5-30	0330	5.19	728

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.--592 sq mi.

Records available.--October 1935 to September 1968. 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.--33 years, 182 cfs (131,800 acre-ft per year).

Extremes.--Maximum discharge during year, 1,780 cfs July 28 (gage height, 5.67 ft); minimum daily, 49 cfs July 24.

1935-68: 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 period, 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	76	106	103	90	95	79	139	184	774	106	168	87
2	74	116	100	85	100	79	148	249	858	108	178	87
3	74	108	90	80	104	76	134	276	972	102	170	97
4	79	118	85	75	100	71	116	324	725	102	132	111
5	77	118	80	75	98	76	119	340	900	113	104	108
6	85	114	82	80	102	74	114	424	1300	122	102	108
7	79	106	86	80	100	85	98	303	1010	113	120	102
8	76	97	90	75	102	81	85	267	640	106	138	100
9	77	97	94	85	102	79	90	318	318	93	194	102
10	95	99	96	90	102	76	98	351	259	108	226	84
11	101	92	100	85	102	72	112	351	226	111	170	82
12	104	99	100	75	100	58	112	365	241	106	172	80
13	104	114	95	80	72	66	144	400	326	95	208	93
14	103	128	90	85	76	72	127	324	350	87	370	102
15	101	124	90	85	79	68	136	309	265	78	378	102
16	88	97	90	80	72	72	163	340	259	69	259	104
17	80	92	95	80	71	74	176	291	259	69	214	100
18	85	90	90	80	79	78	181	282	277	78	190	104
19	85	90	85	85	87	69	171	344	294	72	175	100
20	82	92	90	90	123	69	148	466	268	71	150	93
21	84	95	90	85	130	79	151	547	247	71	152	89
22	84	104	85	80	127	90	141	816	238	61	142	95
23	82	106	95	85	92	79	132	720	208	50	148	102
24	79	97	90	90	88	74	141	508	180	49	125	104
25	82	99	90	100	88	78	110	428	165	68	115	104
26	85	95	90	100	81	110	88	449	142	72	113	104
27	87	87	95	100	92	96	98	488	122	80	108	106
28	92	90	95	95	76	100	92	544	115	237	108	122
29	99	103	90	95	81	94	102	646	111	130	100	100
30	95	103	85	100	- - - - -	98	134	750	102	82	89	104
31	97	- - - - -	80	110	- - - - -	112	- - - - -	740	- - - - -	196	89	- - - - -
Total	2,691	3,076	2,816	2,680	2,721	2,484	3,800	13,144	12,151	3,005	5,107	2,976
Mean	86.8	103	90.8	86.5	93.8	80.1	127	424	405	96.9	165	99.2
Max	104	128	103	110	130	112	181	816	1,300	237	378	122
Min	74	87	80	75	71	58	85	184	102	49	89	80
Ac-ft	5,340	6,100	5,590	5,320	5,400	4,930	7,540	26,070	24,100	5,960	10,130	5,900
Cal yr 1967: Total	36,301		Mean 99.5	Max 505	Min 42	Ac-ft 72,000						
Wtr yr 1968: Total	56,651		Mean 155	Max 1,300	Min 49	Ac-ft 112,400						

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 1968. 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, 94,560 acre-ft Oct. 1 (elevation, 9,324.20 ft); minimum, 51,000 acre-ft Apr. 20-29 (elevation, 9,296.70 ft).

1937-68: 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 1967 to September 1968

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	9,324.30	94,750	-
Oct. 31.....	9,319.70	86,420	-8,330
Nov. 30.....	9,306.30	63,870	-22,550
Dec. 31.....	9,300.70	56,040	-7,830
Calendar year 1967.....	-	-	+13,810
Jan. 31.....	9,299.50	54,520	-1,520
Feb. 29.....	9,298.20	52,890	-1,630
Mar. 31.....	9,297.20	51,630	-1,260
Apr. 30.....	9,296.80	51,130	-500
May 31.....	9,303.40	59,600	+8,470
June 30.....	9,321.90	90,320	+30,720
July 31.....	9,323.90	93,990	+3,670
Aug. 31.....	9,320.30	87,480	-6,510
Sept. 30.....	9,308.50	67,420	-20,060
Water year 1967-68.....	-	-	-27,330

† 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 1968.

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.--35 years, 187 cfs (135,400 acre-ft per year).

Extremes.--Maximum discharge during year, 604 cfs Sept. 26 (gage height, 4.91 ft); minimum daily, 87 cfs Mar. 22 to Apr. 29.

1938-68: 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 except those for period of no gage-height record, which are fair. Flow regulated by Taylor Park Reservoir (see preceding page) since 1937. One small diversion for irrigation from Willow Creek above reservoir.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	238	416	444	106	97	97	87	100	262	164	422	405
2	238	436	448	91	97	97	87	100	265	164	418	405
3	238	436	444	106	97	97	87	130	268	164	418	405
4	235	436	444	106	97	97	87	153	268	164	418	402
5	235	436	444	106	96	97	87	153	268	164	416	402
6	235	433	444	92	96	97	87	153	296	164	416	402
7	235	433	398	92	96	97	87	153	268	164	418	402
8	235	433	342	92	96	97	87	153	268	164	418	402
9	235	433	304	92	96	97	87	153	268	166	418	402
10	235	430	253	92	96	97	87	153	268	166	418	394
11	235	436	202	92	96	97	87	153	268	166	418	394
12	235	436	155	92	96	97	87	153	268	166	416	394
13	235	436	103	94	96	97	87	153	268	166	408	394
14	235	436	103	94	96	97	87	151	268	168	412	394
15	235	436	105	94	96	97	87	153	268	166	412	394
16	235	433	105	94	96	97	87	192	272	166	412	391
17	235	436	105	94	96	97	87	247	276	166	416	402
18	232	444	106	94	96	97	87	247	279	166	416	408
19	232	444	106	94	96	97	87	247	279	166	416	408
20	232	444	106	96	96	97	87	250	223	166	412	476
21	232	444	106	96	96	92	87	253	159	166	412	564
22	232	444	108	96	96	87	87	256	159	180	412	560
23	232	440	108	96	96	87	87	256	162	238	412	588
24	232	444	108	96	96	87	87	256	162	293	412	596
25	226	444	94	96	97	87	87	256	162	296	412	592
26	220	444	94	96	97	87	87	256	162	296	412	600
27	220	444	94	97	97	87	87	259	162	296	412	596
28	220	444	102	97	97	87	87	259	162	296	408	596
29	226	444	105	97	97	87	87	259	164	296	408	596
30	232	444	105	97	- - - - -	87	90	259	164	374	408	596
31	300	- - - - -	106	97	- - - - -	87	- - - - -	262	- - - - -	430	408	- - - - -
Total	7,272	13,139	6,291	2,974	2,793	2,902	2,613	6,178	6,986	6,467	12,833	13,960
Mean	235	438	203	95.9	96.3	93.6	87.1	199	233	209	414	465
Max	300	444	448	106	97	97	90	262	296	430	422	600
Min	220	416	94	92	96	87	87	100	159	164	405	391
Ac-ft	14,420	26,060	12,480	5,900	5,540	5,760	5,180	12,250	13,860	12,830	25,450	27,690
Cal yr 1967: Total	61,654			Mean 169	Max 448	Min 36		Ac-ft 122,300				
Wtr yr 1968: Total	84,408			Mean 231	Max 600	Min 87		Ac-ft 167,400				

Note.--No gage-height record Mar. 10 to May 6.

9-1100. Taylor River at Almont, Colo.

Location.--Lat 38°39'55", long 106°50'40", in SE¼ 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 1968. 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.--58 years, 339 cfs (245,400 acre-ft per year).

Extremes.--Maximum discharge during year, 926 cfs June 6 (gage height, 3.02 ft); minimum daily, 121 cfs Mar. 23, 27, 28.

1910-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	330	460	540	140	130	130	132	171	790	330	623	525
2	326	510	540	150	130	130	130	195	812	317	606	520
3	326	510	540	130	130	130	128	226	842	312	618	540
4	326	515	540	140	130	130	125	294	820	304	596	535
5	330	515	540	140	130	130	128	299	835	322	584	520
6	330	510	540	130	130	130	130	322	867	326	606	515
7	330	520	520	130	130	130	125	282	805	312	645	510
8	326	520	480	130	130	130	125	278	742	304	645	510
9	326	515	400	130	130	130	125	304	664	308	634	505
10	326	515	340	130	130	130	125	290	628	304	652	500
11	326	515	260	130	130	130	128	290	606	294	730	485
12	322	520	180	130	130	130	130	299	618	290	671	485
13	322	520	140	130	130	130	132	299	640	290	645	485
14	312	520	140	130	130	130	130	278	634	286	671	485
15	304	510	150	130	130	130	132	294	623	278	697	490
16	299	510	150	130	130	130	138	322	612	274	640	485
17	299	510	150	130	130	130	135	390	612	270	623	485
18	304	515	150	130	130	130	132	405	601	266	618	495
19	304	520	150	130	130	130	132	420	590	262	606	495
20	304	525	150	140	140	130	130	445	552	262	596	540
21	304	530	150	140	140	130	132	480	470	262	590	652
22	304	520	150	140	140	123	132	530	445	262	584	658
23	299	520	150	140	140	121	128	530	425	317	579	678
24	299	515	140	140	140	123	132	505	410	385	568	697
25	294	525	130	140	130	123	132	485	400	400	562	697
26	290	520	130	140	130	123	132	480	375	405	552	704
27	282	540	130	140	130	121	132	495	360	435	568	710
28	290	540	140	130	130	121	132	540	350	475	574	710
29	290	540	140	130	130	123	135	618	350	505	557	710
30	294	540	140	130	- - - - -	128	148	704	345	535	540	710
31	345	- - - - -	140	130	- - - - -	130	- - - - -	762	- - - - -	623	530	- - - - -
Total	9,663	15,545	8,140	4,160	3,820	3,966	3,927	12,232	17,823	10,515	18,910	17,036
Mean	312	518	263	134	132	128	131	395	594	339	610	568
Max	345	540	540	150	140	130	148	762	867	623	730	710
Min	282	460	130	130	130	121	125	171	345	262	530	485
Ac-ft	19,170	30,830	16,150	8,250	7,580	7,870	7,790	24,260	35,350	20,860	37,510	33,790

Cal yr 1967: Total 101,441 Mean 278 Max 562 Min 85 Ac-ft 201,200
Wtr yr 1968: Total 125,737 Mean 344 Max 867 Min 121 Ac-ft 249,400

Note.--No gage-height record Nov. 27 to Mar. 20.

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 1968.

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

Average discharge--5 years, 319 cfs (230,900 acre-ft per year).

Extremes--Maximum discharge during year, 2,640 cfs June 6 (gage height, 7.92 ft); minimum daily, 49 cfs Mar. 21.

1963-68: Maximum discharge, 2,650 cfs June 21, 1965 (gage height, 7.96 ft); minimum daily, 38 cfs Jan. 14, 1964.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	126	86	76	72	56	54	110	242	2,190	851	374	169
2	139	90	76	71	56	54	113	332	2,280	795	412	164
3	139	74	75	68	56	52	106	448	2,390	760	462	185
4	135	85	74	65	58	50	98	615	2,290	718	370	180
5	144	82	72	60	60	50	100	704	2,320	725	329	167
6	135	74	72	55	62	52	106	660	2,380	684	404	159
7	133	74	72	50	66	54	96	535	2,070	654	444	152
8	126	77	75	50	68	56	94	510	1,930	648	426	146
9	122	79	73	54	67	52	88	620	1,540	648	378	141
10	119	80	72	58	68	50	94	666	1,330	605	390	139
11	106	72	72	60	68	50	102	746	1,250	580	374	137
12	98	76	74	58	68	50	109	781	1,420	540	340	135
13	96	76	72	55	68	52	119	697	1,650	480	294	139
14	100	74	72	55	67	54	115	555	1,720	453	370	141
15	94	72	74	55	66	52	119	535	1,730	412	453	150
16	91	74	74	50	67	52	124	565	1,690	386	350	139
17	91	74	71	50	68	54	119	545	1,760	343	294	148
18	93	71	74	50	68	52	119	600	1,770	312	284	144
19	86	74	72	50	66	50	117	732	1,700	298	262	133
20	83	74	70	50	70	50	117	921	1,660	290	245	126
21	83	75	70	55	67	49	119	1,090	1,740	273	242	124
22	83	74	65	55	68	50	119	1,420	1,680	290	233	119
23	82	67	60	55	68	52	115	1,460	1,560	329	230	119
24	83	65	65	55	65	53	117	1,260	1,500	315	221	113
25	90	70	72	54	60	56	122	1,030	1,380	315	212	111
26	90	75	72	54	56	58	124	1,040	1,220	304	209	109
27	83	70	71	56	56	56	122	1,140	1,200	417	221	106
28	90	72	70	58	56	56	117	1,340	1,210	530	233	106
29	88	76	72	60	54	60	128	1,690	1,130	386	209	109
30	80	79	70	60	- - - -	70	167	1,880	998	336	194	115
31	90	- - - -	65	67	- - - -	80	- - - -	2,060	- - - -	422	182	- - - -
Total	3,198	2,261	2,214	1,765	1,843	1,680	3,415	27,419	50,698	15,099	9,641	4,125
Mean	103	75.4	71.4	56.9	63.6	54.2	114	884	1,690	487	311	138
Max	144	90	76	72	70	80	167	2,060	2,390	851	462	185
Min	80	65	60	50	54	49	88	242	998	273	182	106
Ac-ft	6,340	4,480	4,390	3,500	3,660	3,330	6,770	54,380	100,600	29,950	19,120	8,180

Cal yr 1967: Total 109,816 Mean 301 Max 1,930 Min 48 Ac-ft 217,800
 Wtr yr 1968: Total 123,358 Mean 337 Max 2,390 Min 49 Ac-ft 244,700

Peak discharge (base, 1,500 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-22	2330	6.97	1,630	6-18	0600	7.29	1,870
6-6	0500	7.92	2,640				

9-1125. East River at Almont, Colo.

Location.--Lat 38°39'55", long 106°50'50", in SE¼ 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.

Records available.--April to October 1905, July 1910 to September 1922, October 1934 to September 1968. 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.--46 years, 341 cfs (246,900 acre-ft per year).

Extremes.--Maximum discharge during year, 2,650 cfs June 6 (gage height, 6.26 ft); minimum daily, 51 cfs Mar. 21.
1905, 1910-22, 1934-68: Maximum discharge observed, 6,500 cfs June 15, 1921 (gage height, 6.6 ft, site and datum then in use), from rating curve extended above 3,000 cfs; minimum daily, 19 cfs Aug. 13, 1913.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	128	90	90	70	56	58	116	232	2,140	769	427	185
2	134	85	89	74	56	55	116	330	2,240	714	431	176
3	140	78	90	72	58	58	107	423	2,360	672	491	194
4	137	89	90	70	60	53	95	580	2,210	636	464	194
5	140	89	90	65	62	53	101	696	2,270	636	415	182
6	134	80	89	60	66	55	113	678	2,380	618	491	173
7	134	80	92	55	68	58	95	535	1,990	600	530	161
8	128	83	95	55	70	58	92	505	1,870	595	500	155
9	122	86	95	60	70	58	80	585	1,440	595	447	152
10	116	86	95	65	70	53	86	636	1,190	560	455	149
11	110	78	90	65	68	53	104	696	1,080	535	455	143
12	101	83	89	60	68	53	113	720	1,240	478	415	143
13	100	80	85	55	70	55	128	690	1,520	451	393	143
14	110	80	82	55	68	58	122	565	1,630	431	403	146
15	100	78	78	55	70	55	128	545	1,680	411	491	152
16	95	78	75	54	68	53	134	550	1,640	387	411	146
17	95	78	75	54	70	60	131	525	1,720	368	358	149
18	100	75	75	52	70	55	128	555	1,750	344	336	152
19	95	78	72	52	70	53	125	630	1,670	326	322	131
20	90	80	70	54	70	53	125	790	1,600	305	302	104
21	90	83	70	56	70	51	125	988	1,700	298	302	101
22	90	83	65	56	70	55	128	1,380	1,600	291	280	98
23	90	80	62	56	65	53	128	1,390	1,480	330	277	98
24	90	70	64	56	70	58	128	1,190	1,410	319	260	92
25	95	70	66	54	65	60	131	948	1,280	336	242	83
26	95	70	70	56	58	62	134	964	1,130	326	238	83
27	90	70	72	58	65	58	131	1,080	1,090	403	242	80
28	95	75	72	60	53	62	128	1,290	1,100	510	270	80
29	95	85	74	62	60	68	137	1,630	1,020	439	238	86
30	85	90	70	62	- - - - -	78	164	1,830	892	403	214	95
31	95	- - - - -	65	60	- - - - -	98	- - - - -	1,980	- - - - -	473	197	- - - - -
Total	3,319	2,410	2,456	1,838	1,904	1,810	3,573	26,136	48,322	14,559	11,287	4,026
Mean	107	80.3	79.2	59.3	65.7	58.4	119	843	1,611	470	364	134
Max	140	90	95	74	70	98	164	1,980	2,380	769	530	194
Min	85	70	62	52	53	51	80	232	892	291	197	80
Ac-ft	6,580	4,780	4,870	3,650	3,780	3,590	7,090	51,840	95,850	28,880	22,390	7,990

Cal yr 1967: Total 112,064 Mean 307 Max 1,980 Min 50 Ac-ft 222,300
Wtr yr 1968: Total 121,640 Mean 332 Max 2,380 Min 51 Ac-ft 241,300

Peak discharge (base, 1,600 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-23	0130	5.06	1,610	6-18	0730	5.43	1,890
6-6	0730	6.26	2,650				

GUNNISON RIVER BASIN

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.--47.2 sq mi.

Records available.--October 1958 to September 1968.

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

Average discharge.--10 years, 45.4 cfs (32,870 acre-ft per year).

Extremes.--Maximum discharge during year, 526 cfs June 5 (gage height, 3.42 ft); maximum gage height, 3.84 ft Mar. 24 (backwater from ice); minimum daily discharge, 6.5 cfs Jan. 7.

1958-68: Maximum discharge, about 550 cfs May 9, 1962; maximum gage height, that of Mar. 24, 1968; minimum daily discharge determined, 3.8 cfs July 29, 1963.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	9.5	9.0	8.0	8.0	8.0	23	57	425	104	91	25
2	16	10	8.5	9.0	7.0	8.5	23	77	430	99	92	24
3	16	11	8.0	9.0	7.5	8.5	22	105	415	94	80	33
4	16	10	8.5	8.5	8.0	8.0	23	126	395	84	65	27
5	14	9.5	8.5	7.5	8.0	8.0	23	130	420	78	74	24
6	12	9.0	9.0	7.0	8.0	8.5	19	128	395	90	94	23
7	11	8.5	8.5	6.5	8.0	9.0	18	101	338	74	97	21
8	11	9.0	8.0	7.0	8.0	9.0	18	105	285	75	95	19
9	10	9.0	8.0	8.0	8.0	9.0	18	126	215	75	83	19
10	10	9.0	8.5	9.0	8.0	8.5	18	128	182	71	78	18
11	9.8	9.0	9.0	9.0	8.0	8.5	20	126	178	61	68	18
12	9.0	9.0	9.0	8.5	8.5	8.0	22	119	218	65	60	17
13	9.0	9.0	8.5	8.0	8.5	8.5	22	119	293	59	55	17
14	8.7	9.0	8.5	8.5	8.0	9.0	21	106	309	52	83	19
15	8.4	9.5	8.0	9.0	8.0	8.5	22	106	321	46	71	22
16	8.5	9.5	8.0	10	8.0	8.0	23	108	343	41	59	19
17	8.4	9.0	8.0	10	8.0	8.5	22	111	338	38	53	19
18	8.2	8.5	8.0	9.5	8.0	8.5	24	125	330	34	48	18
19	8.2	8.5	7.5	9.0	8.0	8.0	23	155	321	31	44	17
20	8.8	8.5	8.0	8.5	8.0	8.0	22	188	338	30	40	16
21	9.0	9.0	7.0	9.0	8.5	8.0	23	264	325	30	39	16
22	9.2	9.0	7.0	9.0	8.5	8.5	22	366	301	34	37	16
23	9.0	9.0	7.0	8.5	8.0	8.5	22	352	285	40	37	16
24	9.2	8.0	7.5	8.0	8.0	8.5	22	274	271	38	33	15
25	9.0	8.5	8.0	8.0	8.0	9.0	22	232	209	36	31	14
26	9.4	8.5	8.0	8.5	8.5	9.0	22	243	185	38	30	12
27	9.0	8.0	8.5	8.5	8.5	9.5	22	289	191	59	31	12
28	9.8	8.0	8.5	8.0	8.5	11	23	361	192	49	30	12
29	9.5	8.5	8.0	8.0	8.5	14	27	400	158	73	28	12
30	8.5	9.0	7.5	7.5	---	17	40	415	119	70	29	13
31	9.0	---	7.5	8.0	---	22	---	405	---	93	26	---
Total	319.6	269.5	251.5	260.5	234.5	293.5	671	5,947	8,715	1,841	1,781	553
Mean	10.3	8.98	8.11	8.40	8.09	9.47	22.4	192	290	59.4	57.5	18.4
Max	16	11	9.0	10	8.5	22	40	415	430	104	97	33
Min	8.2	8.0	7.0	6.5	7.0	8.0	18	57	119	30	26	12
Ac-ft	634	535	499	517	465	582	1,330	11,800	17,290	3,650	3,530	1,100

Cal yr 1967: Total 15,074.1 Mean 41.3 Max 245 Min 6.5 Ac-ft 29,900
 Wtr yr 1968: Total 21,137.1 Mean 57.8 Max 430 Min 6.5 Ac-ft 41,920

Peak discharge (base, 300 cfs)

Note.--No gage-height record Nov. 27 to Mar. 19.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-22	1900	3.28	455	6-25	2300	3.09	380
6-5	1600	3.42	526				

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.--121 sq mi.

Records available.--April 1940 to September 1950, October 1958 to September 1968. 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.--20 years, 87.4 cfs (63,270 acre-ft per year).

Extremes.--Maximum discharge during year, 772 cfs June 3 (gage height, 3.23 ft); minimum daily, 13 cfs Jan. 7.

1940-50, 1958-68: Maximum discharge, 1,260 cfs May 19, 1948 (gage height, 4.65 ft), from rating curve extended above 560 cfs; minimum daily, 6.9 cfs Sept. 12, 1960.

Floods in May 1952 and June 1957 reached a stage of 5.5 ft, from floodmarks (discharge, about 1,500 cfs).

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	19	18	16	15	17	35	120	649	157	147	42
2	26	21	17	18	15	17	35	160	656	149	155	40
3	26	20	16	18	15	17	33	200	656	137	130	56
4	27	19	17	16	16	16	35	240	573	132	98	48
5	27	19	17	15	16	17	33	250	607	128	106	42
6	24	19	18	14	15	18	29	220	603	125	139	40
7	26	18	17	13	15	18	26	180	500	121	141	38
8	25	18	16	14	16	18	25	188	459	136	145	36
9	24	18	16	16	16	18	24	227	355	136	120	33
10	24	18	17	18	16	18	27	232	316	128	120	29
11	24	18	18	18	16	17	30	243	281	120	113	28
12	23	18	18	17	17	16	36	232	313	116	100	28
13	22	17	18	16	17	17	44	224	383	111	91	29
14	21	17	17	17	16	18	41	183	406	100	134	31
15	21	17	16	18	16	17	46	176	422	88	120	38
16	21	17	16	20	16	16	59	183	445	72	96	31
17	21	18	16	20	15	17	60	179	429	67	87	31
18	21	18	16	18	15	17	64	195	432	58	80	30
19	21	17	15	17	16	17	60	232	435	54	73	29
20	21	17	16	18	16	16	64	304	439	54	68	27
21	21	18	15	18	17	16	72	393	439	54	65	26
22	21	18	14	17	17	17	64	522	387	72	62	26
23	20	18	14	17	16	16	58	500	358	91	60	25
24	20	18	15	16	16	17	67	422	334	84	56	24
25	20	17	16	16	17	16	73	352	291	80	52	23
26	20	17	17	17	17	14	73	362	240	93	50	20
27	20	16	17	17	18	18	68	406	248	137	71	19
28	21	16	17	17	17	23	65	490	240	143	68	18
29	21	17	16	16	17	25	70	558	214	151	54	17
30	19	19	15	15	15	29	90	603	183	137	50	21
31	17	---	15	16	---	32	---	630	---	145	45	---
Total	692	537	506	519	467	565	1,506	9,406	12,283	3,376	2,896	925
Mean	22.3	17.9	16.3	16.7	16.1	18.2	50.2	303	409	109	93.4	30.8
Max	27	21	18	20	18	32	90	630	656	157	155	56
Min	17	16	14	13	15	14	24	120	183	54	45	17
Ac-ft	1,370	1,070	1,000	1,030	926	1,120	2,990	18,660	24,360	6,700	5,740	1,830

Cal yr 1967: Total 25,195 Mean 69.0 Max 374 Min 11 Ac-ft 49,970
 Wtr yr 1968: Total 33,678 Mean 92.0 Max 656 Min 13 Ac-ft 66,800

Peak discharge (base, 450 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-22	2200	2.82	630	6-21	0130	2.50	511
6-3	0100	3.23	772				

Note.--No gage-height record Jan. 6 to Mar. 20.

GUNNISON RIVER BASIN

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.--1,012 sq mi.

Records available.--October 1910 to December 1928, October 1944 to September 1968. 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. Oct. 1, 1944, to Mar. 23, 1965, water-stage recorder at site 70 ft upstream at same datum.

Average discharge.--42 years, 775 cfs (561,100 acre-ft per year).

Extremes.--Maximum discharge during year, 4,280 cfs June 3 (gage height, 4.72 ft); minimum daily, 200 cfs Mar. 12. 1910-28, 1944-68: Maximum discharge observed, 11,400 cfs June 13, 1918 (gage height, 4.05 ft, site and datum then in use), from rating curve extended above 5,000 cfs; minimum daily, 80 cfs Dec. 27, 1962.

Remarks.--Records good except those for winter period, which are poor. Flow regulated by Taylor Park Reservoir (see sta. no. 9-1085), 37 miles above station. Diversions for irrigation of about 22,000 acres above station.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	426	522	700	260	250	216	340	488	3,490	1,210	1,290	722
2	432	603	690	270	240	216	320	677	3,630	1,110	1,250	704
3	438	589	690	280	230	210	320	870	3,900	1,020	1,300	749
4	438	617	690	280	230	204	314	1,140	3,580	960	1,270	758
5	438	624	690	260	230	204	318	1,210	3,700	980	1,190	713
6	432	603	700	250	230	207	338	1,240	3,880	960	1,320	668
7	426	610	690	230	240	207	303	1,040	3,260	930	1,400	650
8	420	617	660	230	240	204	296	940	3,020	920	1,410	626
9	426	617	600	230	240	210	282	1,060	2,430	940	1,270	618
10	426	624	560	230	240	210	292	1,050	2,070	870	1,280	586
11	414	610	510	230	240	210	303	1,150	1,860	812	1,370	542
12	396	617	450	230	240	200	326	1,190	1,950	758	1,280	507
13	396	617	360	230	250	210	346	1,190	2,340	731	1,210	494
14	396	617	320	230	250	220	330	960	2,540	686	1,250	500
15	384	610	290	230	260	220	342	900	2,610	642	1,430	521
16	378	603	280	230	260	210	354	940	2,610	602	1,240	507
17	378	603	280	230	260	210	346	930	2,700	556	1,130	521
18	402	603	300	240	250	220	338	980	2,720	514	1,070	542
19	414	617	300	250	250	220	330	1,070	2,660	476	1,030	535
20	396	624	290	260	250	210	326	1,320	2,490	458	990	528
21	396	638	280	260	260	210	330	1,570	2,580	452	970	659
22	390	638	280	250	260	220	326	2,160	2,400	470	920	668
23	378	624	270	250	250	210	310	2,230	2,210	618	910	677
24	378	603	260	250	250	210	318	1,950	2,070	695	870	704
25	384	638	260	260	250	220	330	1,600	1,910	722	840	704
26	384	631	260	260	268	230	330	1,560	1,680	785	830	695
27	384	603	250	260	264	240	326	1,680	1,580	990	830	695
28	408	610	260	260	234	260	314	1,950	1,540	1,170	920	695
29	414	620	270	260	228	280	334	2,430	1,470	1,130	830	713
30	402	670	270	250	- - - -	300	390	2,820	1,340	1,100	785	740
31	438	- - - -	260	250	- - - -	320	- - - -	3,120	- - - -	1,350	758	- - - -
Total	12,612	18,422	12,970	7,690	7,144	6,918	9,772	43,415	76,220	25,617	34,443	18,941
Mean	407	614	418	248	246	223	326	1,400	2,541	826	1,111	631
Max	438	670	700	280	268	320	390	3,120	3,900	1,350	1,430	758
Min	378	522	250	230	228	200	282	488	1,340	452	758	494
Ac-ft	25,020	36,540	25,730	15,250	14,170	13,720	19,380	86,110	151,200	50,810	68,320	37,570
Cal yr 1967: Total	223,454		Mean 612	Max 2,640	Min 135	Ac-ft 443,200						
Wtr yr 1968: Total	274,164		Mean 749	Max 3,900	Min 200	Ac-ft 543,800						

Note.--No gage-height record Nov. 28 to Jan. 30.

9-1155. Tomichi Creek at Sargents, Colo.

Location.--Lat 38°23'45", long 106°25'20", 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.--149 sq mi.

Records available.--October 1916 to September 1922, October 1937 to September 1968. Monthly discharge only for some periods, published in WSP 1313.

Gage.--Water-stage recorder. Altitude of gage is 8,416 ft (from topographic map). May 12 to Oct. 5, 1917, 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.--37 years, 62.0 cfs (44,890 acre-ft per year).

Extremes.--Maximum discharge during year, 344 cfs June 3 (gage height, 2.22 ft); minimum daily, 10 cfs Jan. 7.

1916-22, 1937-68: 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 winter period, which are poor. Diversion for irrigation of about 1,900 acres above station. Larkspur ditch diverts water above station to Arkansas River basin (see elsewhere in this report).

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	24	24	16	16	24	34	48	274	47	84	42
2	24	26	22	18	14	24	36	57	296	44	76	40
3	23	26	20	16	16	22	34	60	316	40	80	60
4	24	26	20	14	16	22	34	58	290	40	63	55
5	31	24	20	14	16	24	34	55	296	44	58	45
6	28	22	22	12	16	26	31	63	312	48	63	42
7	27	20	20	10	16	26	27	55	280	43	72	39
8	26	22	20	12	18	26	31	51	248	44	78	38
9	26	22	20	14	18	26	33	54	215	45	106	37
10	29	24	18	16	18	24	36	55	192	43	128	37
11	30	24	20	16	16	22	38	55	170	40	154	36
12	28	24	20	14	18	24	45	55	160	39	131	36
13	26	24	20	14	20	24	45	71	162	37	121	37
14	26	27	22	16	20	26	42	64	157	32	123	37
15	25	28	22	16	18	24	42	72	147	32	134	36
16	26	27	22	16	20	24	43	72	144	29	108	34
17	25	27	20	18	20	26	40	69	134	28	96	36
18	25	27	18	16	22	26	39	78	123	28	88	34
19	25	28	20	16	20	24	36	74	113	30	82	33
20	25	28	18	16	22	24	34	88	104	29	76	33
21	25	23	16	16	24	22	34	104	96	27	76	32
22	24	22	16	16	26	24	32	141	90	28	68	32
23	25	22	16	16	24	24	34	157	84	31	63	34
24	24	21	18	16	24	24	33	154	80	34	60	33
25	25	20	18	16	24	26	34	149	72	29	57	32
26	24	18	18	16	24	24	32	149	66	30	54	32
27	24	16	18	18	24	22	30	160	60	64	54	31
28	24	22	18	18	24	24	30	184	55	68	54	31
29	25	22	16	16	24	26	32	215	50	50	51	32
30	24	22	16	14	---	30	40	248	47	50	44	36
31	22	---	16	16	---	32	---	261	---	55	43	---
Total	791	708	594	478	578	766	1,065	3,176	4,833	1,228	2,545	1,112
Mean	25.5	23.6	19.2	15.4	19.9	24.7	35.5	102	161	39.6	82.1	37.1
Max	31	28	24	18	26	32	45	261	316	68	154	60
Min	22	16	16	10	14	22	27	48	47	27	43	31
Ac-ft	1,570	1,400	1,180	948	1,150	1,520	2,110	6,300	9,590	2,440	5,050	2,210

Cal yr 1967: Total 10,204 Mean 28.0 Max 101 Min 8.0 Ac-ft 20,240
Wtr yr 1968: Total 17,874 Mean 48.8 Max 316 Min 10 Ac-ft 35,450

Peak discharge (base, 200 cfs).--June 3 (0400) 344 cfs (2.22 ft).

Note.--No gage-height record Nov. 28 to Mar. 18.

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 1968.

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.--12 years, 58.0 cfs (41,990 acre-ft per year).

Extremes.--Maximum discharge during year, 280 cfs June 4 (gage height, 4.34 ft); minimum daily, 15 cfs May 22.

1944-51, 1963-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	34	28	24	26	34	179	28	191	22	84	49
2	18	39	26	26	22	34	136	26	208	21	104	47
3	17	32	24	26	24	32	98	22	214	19	109	51
4	18	31	24	22	26	34	75	24	254	17	97	77
5	19	30	26	20	24	34	76	20	249	16	83	63
6	25	26	28	20	24	36	82	21	246	16	89	55
7	31	22	26	18	24	38	62	23	249	19	101	50
8	34	24	30	20	26	40	49	24	243	21	93	48
9	34	24	26	24	28	38	48	24	216	25	99	45
10	34	26	24	24	26	36	57	28	196	26	123	43
11	35	28	26	26	24	34	63	36	170	26	180	42
12	38	28	28	22	28	34	71	41	149	31	185	40
13	34	30	26	20	30	34	79	43	127	31	180	42
14	32	30	30	24	28	36	68	38	112	29	172	42
15	30	31	28	26	28	36	65	28	103	31	191	41
16	29	31	26	28	30	34	73	29	84	27	173	39
17	28	29	24	26	30	34	65	29	75	26	143	39
18	30	29	24	26	32	36	62	27	70	24	127	39
19	34	28	26	26	32	36	38	27	63	22	113	37
20	35	28	24	28	32	34	42	26	50	21	104	36
21	34	30	22	28	36	34	36	18	38	19	99	29
22	33	30	20	28	38	34	32	15	34	18	102	31
23	32	30	22	26	36	36	30	40	34	18	90	33
24	30	26	22	26	34	36	30	82	31	18	80	34
25	29	28	24	26	34	34	30	94	28	20	76	34
26	28	24	24	28	36	30	30	87	28	21	72	34
27	29	22	26	30	38	30	30	86	32	54	67	33
28	28	18	26	28	38	34	31	89	30	143	68	33
29	31	20	26	26	36	40	29	119	28	154	68	33
30	29	24	24	26	-----	59	28	162	25	145	58	32
31	26	-----	22	28	-----	105	-----	197	-----	71	51	-----
Total	903	832	782	776	870	1,176	1,794	1,553	3,577	1,151	3,381	1,251
Mean	29.1	27.7	25.2	25.0	30.0	37.9	59.8	50.1	119	37.1	105	41.7
Max	38	39	30	30	38	105	179	197	254	154	191	77
Min	17	18	20	18	22	30	28	15	25	16	51	29
Ac-ft	1,790	1,650	1,550	1,540	1,730	2,330	3,560	3,080	7,090	2,280	6,710	2,480

Cal yr 1967: Total 8,268.9 Mean 22.7 Max 84 Min 4.0 Ac-ft 16,400
 Wtr yr 1968: Total 18,046 Mean 49.3 Max 254 Min 15 Ac-ft 35,790

Peak discharge (base, 250 cfs).--June 4 (2230) 280 cfs (4.34 ft).

Note.--No gage-height record Jan. 6 to Feb. 27.

9-1180. Quartz Creek near Ohio, Colo.

Location--Lat 38°33'35", long 106°38'10", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ 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, and 1.4 miles downstream from Gold Creek.

Drainage area--106 sq mi.

Records available--October 1937 to September 1950, October 1959 to September 1968. Monthly discharge only for some periods, published in WSP 1313. Published as "near Ohio City," 1959-66.

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

Average discharge--22 years, 52.9 cfs (38,300 acre-ft per year).

Extremes--Maximum discharge during year, 347 cfs June 6 (gage height, 3.22 ft); minimum daily, 14 cfs Jan.6, Feb. 3. 1937-50, 1959-68: Maximum discharge, 640 cfs May 26, 1942 (gage height, 5.90 ft, present datum), from rating curve extended above 470 cfs; maximum gage height, 7.73 ft (present datum) July 31, 1945 (backwater from Flick Gulch, 225 ft below station); minimum daily discharge, 8.5 cfs Sept. 30, 1950.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	29	22	18	18	22	27	44	255	67	86	73
2	36	30	20	20	16	22	26	48	271	64	95	70
3	32	25	18	22	14	22	24	50	287	59	103	85
4	34	25	18	20	16	20	23	54	255	54	88	78
5	40	24	20	18	16	22	24	58	267	73	85	73
6	37	23	22	14	16	22	24	62	279	70	90	68
7	36	22	20	16	16	24	23	54	248	60	101	62
8	34	23	22	16	18	26	23	48	208	59	104	58
9	33	24	20	18	18	26	22	52	159	47	132	58
10	36	24	20	18	18	24	22	48	146	34	136	54
11	36	24	20	20	16	22	25	47	136	34	196	54
12	33	26	22	18	18	22	29	48	154	32	176	53
13	32	27	22	16	20	24	28	47	170	31	162	53
14	32	27	22	16	22	24	28	43	168	30	179	52
15	31	26	24	18	22	24	29	44	165	27	170	52
16	31	27	22	18	22	20	31	43	165	25	146	48
17	31	27	20	20	22	20	31	37	157	24	134	46
18	31	27	18	20	24	20	31	36	152	24	123	46
19	31	27	20	18	24	18	28	39	141	24	116	44
20	30	27	18	20	26	20	27	48	134	24	110	43
21	30	29	16	18	26	20	27	62	129	22	108	41
22	30	26	18	18	24	20	27	92	118	22	103	41
23	30	24	18	18	24	20	25	93	112	23	97	40
24	28	22	18	18	24	18	27	88	106	25	93	34
25	29	24	20	20	22	19	28	83	99	23	90	37
26	29	22	22	20	22	20	27	83	90	24	88	37
27	27	20	22	20	22	20	25	90	85	44	86	37
28	28	16	22	22	22	20	25	114	81	73	88	37
29	28	18	20	20	22	21	28	179	75	97	83	37
30	23	20	18	16	- - - -	24	34	220	72	91	78	39
31	30	- - - -	16	18	- - - -	27	- - - -	241	- - - -	80	76	- - - -
Total	994	735	620	572	590	673	798	2,295	4,884	1,376	3,522	1,550
Mean	31.7	24.5	20.0	18.5	20.3	21.7	26.6	74.0	163	44.4	114	51.7
Max	40	30	24	22	26	27	34	241	287	97	196	85
Min	23	16	16	14	14	18	22	36	72	22	76	34
Ac-ft	1,950	1,460	1,230	1,130	1,170	1,330	1,580	4,550	9,690	2,730	6,990	3,070
Cal yr 1967: Total	15,907		Mean	43.6	Max	230	Min	13	Ac-ft	31,550		
Wtr yr 1968: Total	18,599		Mean	50.8	Max	287	Min	14	Ac-ft	36,890		

Peak discharge (base, 220 cfs)--June 6 (0200) 347 cfs (3.22 ft).

Note--No gage-height record Nov. 28 to Mar. 18.

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.--1,061 sq mi.

Records available.--November and December 1910 (gage heights and discharge measurements only), October 1937 to September 1968. 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.--31 years, 166 cfs (120,200 acre-ft per year).

Extremes.--Maximum discharge during year, 696 cfs June 7 (gage height, 2.51 ft); minimum daily, 48 cfs Oct. 17, 24. 1937-68: Maximum discharge, 1,900 cfs June 8, 1957 (gage height, 4.10 ft); minimum daily, 4.5 cfs Apr. 30, 1967.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	69	90	70	55	75	284	114	545	104	380	192
2	52	76	80	75	50	70	252	123	565	87	356	186
3	50	71	75	75	55	70	207	111	610	93	356	207
4	50	73	70	65	55	70	165	104	630	73	320	244
5	54	73	70	60	55	70	162	107	640	76	276	213
6	53	76	75	55	55	75	174	107	640	100	308	192
7	56	75	70	50	60	80	159	116	665	116	352	177
8	58	76	75	55	60	90	138	98	625	125	348	165
9	59	87	70	55	65	90	125	91	560	150	372	159
10	58	95	65	60	65	90	132	95	490	145	404	140
11	62	95	75	65	65	85	142	116	440	125	530	132
12	67	104	70	60	70	80	171	138	400	111	525	130
13	66	109	75	50	70	90	186	138	368	116	475	138
14	66	114	75	55	70	95	174	125	360	118	485	142
15	54	104	75	55	70	90	162	111	360	111	525	135
16	50	102	70	55	75	90	171	93	352	100	470	130
17	48	100	70	60	80	85	171	76	336	91	408	120
18	50	95	65	55	80	85	159	60	324	87	372	111
19	50	98	70	55	75	80	148	56	296	82	340	104
20	54	95	65	55	80	80	128	60	276	84	328	95
21	59	104	60	60	85	80	120	62	244	80	320	80
22	67	111	55	60	90	90	116	69	225	78	308	76
23	50	102	55	60	90	90	107	145	213	91	288	78
24	48	85	55	60	85	95	107	207	204	120	276	76
25	59	90	60	60	75	95	109	228	195	123	260	69
26	67	95	70	60	70	100	109	231	156	125	248	73
27	52	85	70	65	75	110	109	237	150	174	244	76
28	54	75	75	70	75	116	107	252	130	348	248	76
29	66	80	75	60	75	132	107	348	120	450	240	80
30	60	85	70	55	- - - -	159	109	440	111	340	259	84
31	62	- - - -	65	60	- - - -	201	- - - -	515	- - - -	304	204	- - - -
Total	1,753	2,699	2,160	1,855	2,030	2,908	4,510	4,773	11,230	4,327	10,785	3,880
Mean	56.6	90.0	69.7	59.8	70.0	93.8	150	154	374	140	348	129
Max	67	114	90	75	90	201	284	515	665	450	530	244
Min	48	69	55	50	50	70	107	56	111	73	204	69
Ac-ft	3,480	5,350	4,280	3,680	4,030	5,770	8,950	9,470	22,270	8,580	21,390	7,700

Cal yr 1967: Total 30,050.5 Mean 82.3 Max 276 Min 4.5 Ac-ft 59,600
Wtr yr 1968: Total 52,910 Mean 145 Max 665 Min 48 Ac-ft 104,900

Note.--No gage-height record Nov. 28 to Mar. 19.

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--334 sq mi.

Records available--October 1937 to September 1968. 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, 1933, at datum 2.00 ft higher and Oct. 1, 1938, to Sept. 30, 1945, at datum 1.00 ft higher.

Average discharge--31 years, 242 cfs (175,200 acre-ft per year).

Extremes--Maximum discharge during year, 2,230 cfs June 6 (gage height, 3.70 ft); minimum daily, 31 cfs Feb. 2.
1937-68: Maximum discharge, 2,700 cfs June 29, 1957 (gage height, 4.30 ft); minimum daily determined, 25 cfs Dec. 5, 1955, Jan. 10, 17, 18, 1957.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64	57	46	40	35	32	65	132	1,660	642	425	144
2	60	56	44	42	31	34	80	170	1,970	594	425	134
3	59	48	38	42	34	34	80	219	1,810	576	400	148
4	62	54	40	40	36	32	70	276	1,720	546	350	143
5	63	53	46	38	34	32	62	304	1,880	510	332	134
6	64	49	50	40	34	34	65	300	1,960	490	380	132
7	63	48	46	40	36	35	60	256	1,720	485	485	125
8	62	48	50	36	36	35	55	225	1,430	490	505	117
9	62	51	50	40	34	35	52	232	1,080	485	540	112
10	62	52	46	44	34	34	63	264	892	520	490	109
11	62	53	48	42	34	34	70	268	790	515	535	109
12	58	55	50	38	36	32	80	272	1,040	505	515	106
13	57	53	48	36	34	32	85	272	1,300	490	460	106
14	56	53	46	38	34	37	80	239	1,340	455	460	101
15	56	54	46	44	34	34	82	216	1,380	420	460	98
16	55	53	45	46	34	32	90	222	1,400	385	410	96
17	55	54	45	46	34	34	92	222	1,460	345	365	96
18	55	53	45	44	34	34	89	242	1,460	324	324	93
19	54	52	44	38	34	32	85	292	1,450	308	296	92
20	54	53	45	40	34	32	77	415	1,430	288	272	90
21	55	53	44	40	35	32	80	546	1,460	276	256	90
22	56	54	40	38	34	34	77	776	1,360	268	236	89
23	54	52	40	38	34	32	76	832	1,230	280	219	89
24	52	50	40	36	34	34	74	727	1,180	284	207	88
25	52	46	44	36	34	36	78	612	1,020	272	195	86
26	53	42	46	38	34	36	81	576	940	292	185	85
27	52	36	46	38	33	35	80	684	932	320	185	85
28	53	40	46	38	34	35	80	932	940	430	185	82
29	58	46	44	36	33	38	81	1,270	892	475	170	80
30	49	46	42	34	- - - -	42	95	1,410	748	470	161	78
31	54	- - - -	42	35	- - - -	50	- - - -	1,550	- - - -	435	152	- - - -
Total	1,771	1,514	1,392	1,221	991	1,074	2,284	14,953	39,774	13,175	10,580	3,137
Mean	57.1	50.5	44.9	39.4	34.2	34.6	76.1	482	1,326	425	341	105
Max	64	57	50	46	36	50	95	1,550	1,960	642	540	148
Min	49	36	38	34	31	32	52	132	748	268	152	78
Ac-ft	3,510	3,000	2,760	2,420	1,970	2,130	4,530	29,660	78,890	26,130	20,990	6,220

Cal yr 1967: Total 51,844 Mean 142 Max 1,190 Min 36 Ac-ft 102,800

Wtr yr 1968: Total 91,866 Mean 251 Max 1,960 Min 31 Ac-ft 182,200

Peak discharge (base, 1,400 cfs)--June 6 (0415) 2,230 cfs (3.70 ft); June 21 (0245) 1,640 cfs (3.14 ft).

Note--No gage-height record Mar. 2 to Apr. 2.

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 1968.

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

Extremes.--Maximum contents observed during year, 796,900 acre-ft Aug. 30 (elevation, 7,503.0 ft); minimum, 336,200 acre-ft Apr. 30 (elevation, 7,432.8 ft).

1965-68: Maximum contents observed, that of Aug. 30, 1968; minimum (after first year's storage), 299,000 acre-ft Oct. 10-17, 1966.

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 1967 to September 1968

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	7,469.2	541,300	-
Oct. 31.....	7,467.2	528,100	-13,200
Nov. 30.....	7,465.2	515,100	-13,000
Dec. 31.....	7,451.6	432,700	-82,400
Calendar year 1967.....	-	-	+72,600
Jan. 31.....	7,442.7	384,000	-48,700
Feb. 29.....	7,436.7	354,500	-29,500
Mar. 31.....	7,435.3	347,500	-7,000
Apr. 30.....	7,432.8	336,200	-11,300
May 31.....	7,453.4	442,700	+106,500
June 30.....	7,489.8	690,500	+247,800
July 31.....	7,495.2	733,300	+42,800
Aug. 31.....	7,502.8	795,500	+62,200
Sept. 30.....	7,499.6	768,900	-26,600
Water year 1967-68.....	-	-	+227,600

† Elevation at 0800.

9-1247. Gunnison River below Blue Mesa Dam, Colo.

Location.--Lat 38°27'08", long 107°20'52", in NE 1/4 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 June 1968 (discontinued).

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 period October to June, 3,010 cfs Jan. 3 (gage height, 11.15 ft); minimum daily, 214 cfs Nov. 2. 1963-68: Maximum discharge, 8,880 cfs June 21, 1965 (gage height, 17.71 ft, present datum); minimum daily, 10 cfs Nov. 29, Dec. 20, 21, 1965.

Remarks.--Records good. 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	861	383	1,320	2,870	1,040	402	608	874	796			
2	834	214	1,320	2,730	1,000	400	727	1,180	734			
3	845	445	1,320	2,830	978	408	772	1,090	848			
4	832	933	1,340	2,940	1,090	406	748	1,100	772			
5	840	1,020	1,350	1,920	1,150	675	844	1,100	1,370			
6	855	694	1,350	1,020	1,060	420	994	1,440	1,000			
7	840	643	1,350	998	1,040	290	884	858	805			
8	832	1,000	1,340	1,040	1,040	728	982	926	789			
9	858	975	1,360	1,040	955	616	846	940	770			
10	865	1,230	1,360	1,020	994	516	902	832	758			
11	923	1,160	1,720	1,020	1,020	516	974	820	810			
12	869	1,030	1,760	1,020	992	1,050	992	848	780			
13	880	1,130	1,770	938	1,020	1,380	1,060	881	750			
14	844	1,110	2,190	966	1,110	508	972	777	670			
15	836	1,180	2,150	980	1,090	731	1,300	811	640			
16	830	1,170	1,590	978	1,070	544	996	840	740			
17	825	1,110	1,390	998	1,090	560	878	844	750			
18	820	1,080	1,840	1,020	902	569	999	827	790			
19	845	1,070	1,980	1,010	1,130	458	1,110	849	780			
20	825	1,080	1,690	978	962	562	1,020	876	580			
21	825	1,080	1,820	1,000	1,060	558	1,050	848	560			
22	842	1,180	2,190	964	782	588	1,110	874	470			
23	825	1,270	2,820	987	804	640	1,050	1,460	480			
24	818	1,330	2,880	328	846	588	934	977	750			
25	860	1,320	2,830	884	800	576	914	851	480			
26	825	1,340	2,770	1,040	724	648	976	611	460			
27	816	1,340	2,880	974	807	840	1,020	836	840			
28	813	1,320	2,690	1,040	568	517	1,020	850	1,130			
29	813	1,340	2,760	830	410	650	1,260	868	1,030			
30	808	1,330	2,780	835	- - - - -	624	926	766	1,090			
31	820	- - - - -	2,750	1,050	- - - - -	590	- - - - -	803	- - - - -			- - - - -
Total	26,024	31,507	60,660	38,248	27,534	18,558	28,868	28,457	23,212			
Mean	839	1,050	1,957	1,234	949	599	962	918	774			
Max	923	1,340	2,880	2,940	1,150	1,380	1,300	1,460	1,370			
Min	808	214	1,320	328	410	290	608	611	460			
Ac-ft	51,620	62,490	120,300	75,860	54,610	36,810	57,260	56,440	46,040			
Cal yr 1967: Total	333,378		Mean 913	Max 2,880	Min 193	Ac-ft 661,200						
Wtr yr - : Total	-		Mean -	Max -	Min -	Ac-ft -						

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 1968. 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---23 years, 32.5 cfs (23,530 acre-ft per year).

Extremes--Maximum discharge during year, 315 cfs June 5 (gage height, 3.82 ft); minimum daily, 2.8 cfs Jan. 12.

1945-68: 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 winter period, which are poor. One diversion above station for irrigation in Smith Fork drainage.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.1	3.8	3.8	3.8	3.6	5.4	20	83	247	58	21	5.9
2	4.8	4.4	3.2	4.1	3.6	5.2	18	115	259	49	30	5.7
3	4.8	4.0	3.4	3.8	3.8	5.0	17	120	279	43	29	8.9
4	5.4	3.8	3.6	3.6	4.0	5.0	15	136	279	40	25	8.0
5	5.4	3.6	3.8	3.4	3.5	5.0	15	128	283	38	22	6.1
6	5.4	3.8	3.8	3.1	3.5	5.2	16	120	275	36	21	5.7
7	5.4	3.8	3.8	3.0	3.6	5.5	14	95	247	34	18	5.3
8	5.1	3.8	3.8	3.1	3.8	5.5	18	86	227	34	16	5.3
9	4.8	3.8	3.8	3.4	4.0	5.5	19	103	181	39	15	5.1
10	5.1	4.1	3.6	3.6	4.2	5.4	19	105	148	35	15	5.1
11	5.1	4.1	3.8	3.4	4.2	5.0	18	103	125	35	16	4.9
12	4.8	4.1	4.0	2.8	4.4	5.0	24	98	150	31	14	4.9
13	4.6	3.9	4.0	3.0	4.2	5.0	26	93	152	28	12	5.1
14	4.6	3.9	4.2	3.2	4.0	5.2	26	76	173	24	25	5.3
15	4.3	3.9	4.2	3.4	3.8	5.5	28	74	179	19	24	5.5
16	4.3	4.1	4.0	3.4	4.4	5.8	32	79	179	17	18	5.3
17	4.6	4.1	3.9	3.4	4.4	6.0	33	93	179	15	16	5.7
18	4.3	4.0	3.9	3.4	4.6	6.0	38	100	179	14	14	5.7
19	4.3	3.8	4.0	3.6	4.6	6.0	37	120	188	12	12	5.3
20	4.3	3.6	4.1	3.8	5.0	5.8	35	164	182	12	12	5.1
21	4.3	3.8	3.6	3.8	5.5	5.6	34	199	188	11	12	4.9
22	4.6	4.0	3.0	3.6	5.5	5.6	32	243	176	11	11	4.9
23	4.6	4.0	3.4	3.6	5.5	6.0	29	219	161	12	11	5.1
24	4.3	3.2	3.6	3.6	5.2	6.2	29	170	152	11	9.2	5.1
25	4.3	3.4	3.8	3.6	5.2	6.5	29	148	150	10	8.3	4.9
26	4.8	3.2	4.0	3.7	5.2	6.2	27	151	105	14	7.7	4.9
27	3.7	3.0	4.0	3.8	5.5	6.5	25	194	95	18	7.7	4.7
28	3.5	3.5	4.0	4.0	5.5	7.0	25	231	93	17	7.7	5.3
29	3.3	4.8	3.8	4.2	5.5	9.0	31	263	90	13	6.8	5.1
30	3.2	4.4	3.8	4.0	- - - - -	14	51	251	80	12	6.3	7.1
31	3.6	- - - - -	3.8	3.8	- - - - -	17	- - - - -	255	- - - - -	18	5.9	- - - - -
Total	140.7	115.7	117.5	110.0	129.8	197.6	780	4,395	5,361	760	468.6	165.9
Mean	4.54	3.86	3.79	3.55	4.48	6.37	26.0	142	179	24.5	15.1	5.53
Max	5.4	4.8	4.2	4.2	5.5	17	51	263	283	58	30	8.9
Min	3.2	3.0	3.0	2.8	3.5	5.0	14	74	80	10	5.5	4.7
Ac-ft	279	229	233	218	257	392	1,550	8,720	10,630	1,510	925	329

Cal yr 1967: Total 7,057.3 Mean 19.3 Max 125 Min 3.0 Ac-ft 14,000

Wtr yr 1968: Total 12,741.8 Mean 34.8 Max 283 Min 2.8 Ac-ft 25,270

Peak discharge (base, 250 cfs)--May 21 (2400) 291 cfs (3.79 ft); June 5 (2330) 315 cfs (3.82 ft).

Note--No gage-height record Oct. 30 to Mar. 21.

9-1254. Morrow Point Reservoir near Cimarron, Colo.

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

Drainage area.--3,637 sq mi.

Records available.--January to September 1968.

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

Extremes.--Maximum contents observed during period, 69,980 acre-ft Sept. 28 (elevation, 7,091.4 ft); no storage prior to Jan. 24, 1968.

Remarks.--Reservoir is formed by double-curvature thin concrete arch dam. Storage began Jan. 24, 1968. Capacity, 121,300 acre-ft at elevation 7,165.0 ft (crest of dam). Dead storage, 165 acre-ft below elevation 6,808.0 ft (invert of steel liner in outlet works). Reservoir is used for power development. Figures given herein represent total contents.

Cooperation.--Records furnished by Bureau of Reclamation.

Month-end elevation and contents, January to September 1968

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Jan. 23.....	-	-	-
Jan. 31.....	6,924.8	9,750	+9,750
Feb. 29.....	6,914.7	8,020	-1,730
Mar. 31.....	6,954.0	15,710	+7,690
Apr. 30.....	6,968.4	19,170	+3,460
May 31.....	7,010.2	32,130	+12,960
June 30.....	7,075.3	60,990	+28,860
July 31.....	7,057.9	52,140	-8,850
Aug. 31.....	7,071.2	58,820	+6,680
Sept. 30.....	7,086.5	67,170	+8,350
Water year 1968.....	-	-	+67,170

† Elevation at 0800.

GUNNISON RIVER BASIN

9-1260. Cimarron River 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.--66.6 sq mi.

Records available.--October 1954 to September 1968. 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.--14 years, 86.7 cfs (62,770 acre-ft per year).

Extremes.--Maximum discharge during year, 1,070 cfs June 5 (gage height, 6.82 ft); minimum daily, 11 cfs Feb. 18, 21.

1954-68: Maximum discharge, 1,790 cfs June 28, 1957 (gage height, 8.32 ft); minimum daily, 8.0 cfs Dec. 27, 28, 1962, Jan. 13, 1963.

Remarks.--Records fair. Diversion above station through Owl Creek ditch into Uncompahgre River basin.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	20	16	16	12	16	25	59	602	233	144	40
2	21	20	16	16	13	15	23	58	750	222	148	39
3	21	16	14	16	14	14	22	62	715	210	116	59
4	21	18	15	16	14	12	21	78	695	182	107	47
5	21	20	16	16	13	12	22	96	795	176	95	40
6	26	18	16	16	13	14	22	110	795	172	144	38
7	23	18	15	16	13	15	16	98	638	160	139	35
8	21	18	16	16	13	14	21	128	522	156	135	33
9	21	18	16	15	13	12	24	132	434	154	173	31
10	21	19	16	14	12	12	20	130	390	176	193	31
11	21	19	18	13	12	14	20	128	322	174	166	29
12	21	19	18	13	13	12	22	152	442	172	144	30
13	20	19	18	13	13	14	22	116	558	162	124	29
14	20	19	18	13	12	12	21	102	538	150	164	29
15	20	19	18	13	12	12	22	148	498	138	130	27
16	19	18	18	13	12	13	22	126	602	126	110	27
17	20	19	18	13	12	14	23	110	554	120	92	26
18	20	18	17	13	11	14	26	132	594	114	80	26
19	20	18	17	13	13	13	24	158	582	104	74	25
20	20	18	17	13	12	14	25	198	582	100	70	24
21	19	18	16	13	11	14	21	245	562	98	65	24
22	20	18	16	13	12	14	19	318	478	92	61	24
23	20	18	17	13	16	14	19	298	458	98	59	26
24	19	16	17	13	18	15	19	236	434	100	55	23
25	19	18	17	14	20	16	18	212	366	90	55	24
26	19	16	17	14	18	14	18	233	346	124	54	23
27	18	14	17	14	20	14	17	334	362	150	55	22
28	20	14	17	14	20	16	18	422	374	138	55	22
29	20	16	17	13	18	16	24	478	334	124	47	23
30	16	16	16	12	-----	20	41	502	266	114	44	24
31	14	-----	16	14	-----	22	-----	530	-----	120	42	-----
Total	622	535	516	434	405	443	657	6,129	15,588	4,449	3,145	900
Mean	20.1	17.8	16.6	14.0	14.0	14.3	21.9	198	520	144	101	30.0
Max	26	20	18	16	20	22	41	530	795	233	193	59
Min	14	14	14	12	11	12	16	58	266	90	42	22
Ac-ft	1,230	1,060	1,020	861	803	879	1,300	12,160	30,920	8,820	6,240	1,790

Cal yr 1967: Total 18,923 Mean 51.8 Max 410 Min 10 Ac-ft 37,530

Wtr yr 1968: Total 33,823 Mean 92.4 Max 795 Min 11 Ac-ft 67,090

Peak discharge (base, 400 cfs) June 5 (2100) 1,070 cfs (6.82 ft); June 20 (2300) 765 cfs (6.19 ft).

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 1968.

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.--17 years, 28.2 cfs (20,420 acre-ft per year).

Extremes.--Maximum discharge during year, 412 cfs June 2 (gage height, 3.44 ft); minimum daily, 3.0 cfs Nov. 11.

1945-54, 1960-68: 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, 1.6 cfs Aug. 25, 1967.

Remarks.--Records good except those for winter period, 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Avg.	Sept.
1	3.7	4.4	5.6	4.6	5.5	6.0	1.8	89	350	37	1.8	6.8
2	3.7	5.2	5.6	4.8	5.2	5.5	1.6	11.0	364	40	2.1	6.8
3	3.7	4.5	4.5	4.8	5.0	5.5	1.5	14.5	352	37	1.7	1.0
4	4.0	4.8	4.6	4.5	4.8	5.8	1.3	16.5	322	35	1.5	1.1
5	4.4	4.4	4.8	4.2	4.6	6.2	1.5	14.8	31.8	31	1.4	2.0
6	4.4	4.2	5.0	4.0	4.5	6.6	1.6	11.2	282	29	1.5	1.9
7	4.4	5.0	5.5	3.8	4.5	6.6	1.4	8.9	240	28	1.3	1.6
8	4.4	5.0	5.5	3.8	4.5	6.6	1.2	9.0	21.0	26	1.2	1.5
9	4.4	4.2	4.6	4.0	4.6	6.4	1.1	10.6	14.5	27	1.2	1.2
10	4.4	3.1	5.0	4.5	4.8	6.4	1.0	11.2	11.2	24	1.1	6.4
11	4.4	3.0	5.5	4.2	5.0	6.0	1.5	10.4	10.5	24	1.6	4.8
12	4.0	3.1	5.8	3.6	5.5	5.8	2.0	10.8	12.8	22	1.5	5.1
13	3.7	3.1	5.5	3.6	5.2	6.2	2.2	9.5	16.8	20	1.2	5.4
14	4.0	3.1	5.4	3.8	5.0	6.6	2.0	7.6	19.2	19	2.4	5.1
15	3.4	3.1	5.0	4.2	5.0	7.0	2.4	8.0	19.2	17	2.0	5.7
16	3.4	3.1	4.8	4.2	5.2	7.2	2.8	8.7	17.8	16	1.6	5.4
17	3.7	3.1	4.8	4.2	5.4	7.4	2.9	8.6	17.8	15	1.4	6.4
18	4.4	3.1	4.8	4.2	5.5	7.4	3.3	10.2	17.2	14	1.3	6.0
19	4.4	3.4	5.0	4.2	5.6	7.4	3.0	12.8	17.0	13	1.2	5.7
20	4.0	3.4	5.2	4.4	6.0	7.2	2.9	19.4	16.0	12	1.1	5.4
21	4.0	4.4	4.6	4.6	5.8	7.0	2.9	28.0	14.8	12	1.2	5.7
22	4.0	4.8	4.0	4.6	5.5	7.2	2.6	34.0	12.8	13	1.0	5.1
23	4.0	4.8	4.0	4.6	5.5	7.4	2.4	27.5	11.2	14	1.1	5.1
24	4.0	4.5	4.4	4.6	5.8	7.8	2.3	21.5	9.9	12	1.0	5.1
25	4.4	4.0	4.6	4.6	6.5	8.0	2.3	19.8	8.0	11	8.4	5.1
26	4.4	3.8	5.0	4.6	7.0	7.8	2.3	20.5	6.6	13	8.8	5.7
27	3.4	4.5	5.0	4.8	5.0	7.6	2.2	25.5	5.7	17	8.8	4.8
28	4.4	5.5	5.0	4.8	4.5	8.5	2.3	30.5	5.4	1.8	8.8	4.5
29	4.0	6.0	4.8	5.0	5.0	1.0	3.1	35.0	4.7	13	8.0	5.4
30	3.6	5.8	4.6	5.0	- - - -	1.2	5.6	34.2	4.2	14	7.2	6.8
31	3.5	- - - -	4.6	5.5	- - - -	1.5	- - - -	34.0	- - - -	18	7.2	- - - -
Total	124.6	124.4	153.1	136.3	152.0	228.1	67.0	532.1	517.1	641	401.2	231.3
Mean	4.02	4.15	4.94	4.40	5.24	7.36	22.3	17.2	17.2	20.7	12.9	7.71
Max	4.4	6.0	5.8	5.5	7.0	15	56	350	364	40	24	20
Min	3.4	3.0	4.0	3.6	4.5	5.5	10	76	42	11	7.2	4.5
Ac-ft	247	247	304	270	301	452	1,330	10,550	10,260	1,270	796	459

Cal yr 1967: Total 5,211.1 Mean 14.3 Max 95 Min 1.6 Ac-ft 10,340
 Wtr yr 1968: Total 13,354.0 Mean 36.5 Max 364 Min 3.0 Ac-ft 26,490

Peak discharge (base, 160 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-3	1800	3.00	257	6-2	1900	3.44	412
5-12	2145	2.70	168	6-14	2230	2.77	228
5-21	2230	3.44	394				

9-1280. Gunnison River below Gunnison tunnel, Colo.

Location.--Lat 38°31'50", long 107°38'54", in NW¼ sec.10, T.49 N., R.7 W., 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.--3,965 sq mi.

Records available.--October 1903 to September 1968. 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.--65 years, 1,415 cfs, unadjusted (1,024,000 acre-ft per year).

Extremes.--Maximum discharge during year, 3,040 cfs Jan. 3 (gage height, 5.80 ft); minimum daily, 71 cfs Oct. 14.

1903-68: Maximum discharge observed, 19,000 cfs June 15, 1921 (gage height, about 15.8 ft, present datum), from rating curve extended above 14,000 cfs; no flow Sept. 25, 26, 1936, Oct. 8, 1949, Sept. 5, 6, 15, 16, 1950.

Remarks.--Records good. Natural flow of stream affected by transmountain diversions, transbasin diversion through Gunnison tunnel for irrigation of about 75,000 acres in Uncompahgre Valley, Taylor Park Reservoir (see sta. 9-1085), Blue Mesa Reservoir (see sta. 9-1246, Morrow Point Reservoir (see sta. 9-1254), diversions for irrigation of about 63,000 acres, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	240	598	1,450	2,940	1,120	1,120	118	376	1,340	190	240	356
2	244	292	1,440	2,800	1,120	1,120	77	396	1,420	230	264	359
3	222	288	1,440	2,950	1,120	1,120	124	420	1,650	193	193	366
4	226	1,070	1,480	2,970	1,130	1,120	198	448	1,220	163	154	366
5	236	1,040	1,490	2,540	1,130	1,120	371	448	1,110	135	140	352
6	264	922	1,490	1,140	1,130	1,120	348	464	1,200	132	196	345
7	250	582	1,490	1,120	1,130	763	334	428	1,050	128	261	342
8	236	1,100	1,490	1,170	1,130	598	216	412	910	130	193	342
9	250	1,080	1,500	1,140	1,140	548	228	444	528	125	306	338
10	247	1,180	1,490	1,140	1,140	548	247	310	300	122	233	348
11	314	1,280	1,780	1,190	1,150	482	260	193	615	169	320	348
12	142	1,200	1,800	1,090	1,150	325	380	205	250	163	278	338
13	100	1,230	1,820	1,160	1,150	530	373	212	444	163	247	334
14	71	1,220	2,000	1,130	1,160	770	348	151	636	142	484	328
15	74	1,260	2,240	1,140	1,160	485	359	187	685	125	244	324
16	94	1,290	1,740	1,190	1,160	108	356	199	730	107	138	324
17	169	1,200	1,610	1,110	1,170	243	300	145	784	111	125	342
18	151	1,170	1,840	1,130	1,170	495	310	190	766	111	113	345
19	175	1,170	2,100	1,120	1,170	391	289	236	796	102	151	84
20	154	1,190	1,720	1,110	1,190	199	264	342	832	145	157	317
21	154	1,200	1,860	1,110	1,190	186	264	552	880	226	163	362
22	163	1,280	2,290	1,120	1,120	417	258	970	1,210	212	140	380
23	163	1,420	2,820	1,140	1,190	312	261	958	1,130	219	187	388
24	145	1,440	2,900	465	1,170	394	261	808	878	222	240	384
25	190	1,450	2,880	107	1,170	393	258	808	296	216	236	384
26	278	1,470	2,870	278	1,160	305	260	690	202	212	247	388
27	328	1,450	2,910	157	1,160	311	240	826	250	314	250	404
28	334	1,430	2,780	157	1,140	404	236	988	328	314	244	404
29	342	1,480	2,800	594	1,120	420	268	1,260	286	258	240	404
30	317	1,480	2,870	1,100	- - - -	96	320	1,290	196	196	289	500
31	482	- - - -	2,840	1,120	- - - -	109	- - - -	1,280	- - - -	240	352	- - - -
Total	6,755	34,462	63,240	38,628	33,340	16,552	8,116	16,636	22,922	5,515	7,025	10,596
Mean	218	1,149	2,040	1,246	1,150	534	271	537	764	178	227	353
Max	482	1,480	2,910	2,970	1,190	1,120	380	1,290	1,650	314	484	500
Min	71	288	1,440	107	1,120	96	77	145	196	102	113	84
Ac-ft	13,400	68,350	125,400	76,620	66,130	32,830	16,100	33,000	45,470	10,940	13,930	21,020
(†)	39,830	0	0	0	0	8,420	48,230	58,080	35,040	58,530	47,590	54,290

Cal yr 1967: Total 177,114 Mean 485 Max 2,910 Min 27 Ac-ft 351,300
Wtr yr 1968: Total 263,787 Mean 721 Max 2,970 Min 71 Ac-ft 523,200

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

9-1285. Smith Fork near Crawford, Colo.

Location.--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.--43.7 sq mi.

Records available.--October 1935 to September 1968. Monthly discharge only for some periods, published in WSP 1313.

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

Average discharge.--33 years, 41.6 cfs (30,120 acre-ft per year).

Extremes.--Maximum discharge during year, 387 cfs June 4 (gage height, 4.92 ft); minimum daily, 5.2 cfs Jan. 7.

1935-68: Maximum discharge, about 1,050 cfs June 6, 1957; maximum gage height, 5.56 ft June 8, 1957; minimum daily discharge determined, 1.8 cfs July 30, 31, Aug. 1, 1963.

Remarks.--Records good except those for winter period, which are 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.0	6.9	6.4	5.5	6.5	7.5	51	98	302	62	33	15
2	9.0	6.9	5.8	5.5	6.5	8.5	41	139	329	50	33	14
3	9.0	6.5	5.8	6.0	6.5	9.5	32	163	365	44	29	15
4	8.4	6.9	6.0	6.0	6.5	11	24	177	362	41	25	14
5	8.4	6.9	6.5	6.0	7.0	12	22	183	320	35	24	13
6	8.4	6.2	7.0	5.5	7.0	13	21	171	300	33	24	12
7	8.4	7.0	6.5	5.2	7.0	15	20	137	250	31	20	9.4
8	7.5	6.5	6.0	5.5	7.5	14	18	133	220	32	20	8.4
9	7.5	6.0	5.5	6.2	7.5	13	18	157	161	34	18	8.1
10	7.5	6.3	6.0	6.2	7.0	11	20	167	125	31	24	7.8
11	7.2	5.7	6.2	6.2	7.0	9.0	28	161	115	32	27	8.4
12	7.2	5.4	6.6	6.0	7.0	10	40	151	125	24	22	7.5
13	7.2	5.4	6.2	5.8	6.5	10	46	145	129	20	19	7.5
14	7.2	5.4	6.0	5.8	6.5	9.0	42	115	127	17	27	6.9
15	7.2	5.4	6.6	5.8	6.0	9.0	45	103	125	15	26	6.6
16	6.9	5.7	6.6	6.2	6.0	9.5	48	108	120	11	22	6.6
17	6.9	5.7	6.6	6.0	6.0	10	48	108	115	9.0	20	6.9
18	6.6	5.4	6.0	6.0	6.5	10	51	133	118	8.1	19	6.3
19	6.6	5.7	6.5	5.8	6.0	10	49	149	120	9.0	17	6.0
20	6.0	5.7	7.0	6.0	6.5	11	51	195	115	9.0	16	5.6
21	6.0	6.0	6.5	5.8	6.5	11	46	235	108	8.7	15	5.6
22	6.3	6.0	6.0	5.8	6.5	11	40	305	102	12	13	5.8
23	6.3	5.8	6.5	5.8	6.5	11	37	262	96	11	16	5.8
24	6.3	5.8	7.0	5.8	6.5	13	37	220	90	9.4	17	5.8
25	6.6	5.8	7.0	5.8	7.5	17	38	183	78	9.4	15	5.8
26	6.6	6.0	6.5	5.8	7.2	17	37	187	78	12	15	5.8
27	6.6	5.8	6.2	6.0	7.0	16	35	228	80	17	15	5.6
28	6.6	5.5	5.8	6.0	7.2	17	35	258	74	15	15	5.6
29	7.2	6.6	5.5	6.0	6.8	26	45	270	69	13	14	5.6
30	6.6	6.5	5.5	5.8	- - - - -	37	69	282	66	15	15	5.8
31	6.6	- - - - -	6.0	6.5	- - - - -	43	- - - - -	298	- - - - -	20	15	- - - - -
Total	223.8	181.4	194.3	182.3	194.7	431.0	1,134	5,621	4,784	6,89.6	630	242.2
Mean	7.22	6.05	6.27	5.88	6.71	13.9	37.8	181	159	22.2	20.3	8.07
Max	9.0	7.0	7.0	6.5	7.5	43	69	305	365	62	33	15
Min	6.0	5.4	5.5	5.2	6.0	7.5	18	98	66	8.1	13	5.6
Ac-ft	444	360	385	362	386	855	2,250	11,150	9,490	1,370	1,250	480

Cal yr 1967: Total 8,462.1 Mean 23.2 Max 123 Min 5.0 Ac-ft 16,780

Wtr yr 1968: Total 14,508.3 Mean 39.6 Max 365 Min 5.2 Ac-ft 28,780

Peak discharge (base, 260 cfs).--May 22 (2000) 312 cfs (4.67 ft); June 4 (0930) 387 cfs (4.92 ft).

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 1968.

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

Extremes.--Maximum discharge during year, 760 cfs May 21 (gage height, 3.59 ft), from rating curve extended above 370 cfs; minimum daily, 0.40 cfs Oct. 31.

1965-68: Maximum discharge, that of May 21, 1968; minimum daily, that of Oct. 31, 1967.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.0	0.60	2.4	2.4	2.7	4.1	2.0	70	460	27	16	5.3
2	3.0	.95	2.3	2.5	2.6	4.4	1.8	120	450	24	19	5.1
3	3.0	.80	2.3	2.5	2.5	4.5	1.7	150	408	20	22	5.9
4	3.0	.60	2.4	2.4	2.4	4.5	1.6	230	362	18	16	5.5
5	3.0	.70	2.7	2.3	2.3	4.6	1.5	250	362	18	15	4.7
6	3.4	.80	2.6	2.2	2.3	4.7	1.4	220	336	17	20	4.5
7	3.3	.80	2.5	2.1	2.3	4.6	1.3	200	262	15	22	4.0
8	3.2	.80	2.5	2.1	2.4	4.5	1.3	160	215	14	18	3.9
9	3.2	.80	2.5	2.2	2.5	4.4	1.3	218	158	13	19	3.6
10	3.3	.90	2.6	2.3	2.6	4.0	1.4	240	129	13	35	3.3
11	2.9	1.0	2.8	2.5	2.6	3.8	1.6	248	110	12	32	3.2
12	2.7	1.1	2.6	2.4	2.5	3.7	2.0	251	111	12	28	3.2
13	2.4	1.3	2.5	2.3	2.4	3.7	2.2	209	135	11	24	3.3
14	2.1	1.5	2.4	2.3	2.3	3.8	2.4	155	133	9.3	21	3.3
15	1.8	1.7	2.4	2.3	2.3	4.0	2.6	139	123	8.5	22	3.2
16	1.3	2.0	2.4	2.4	2.3	4.1	2.6	141	133	7.0	16	2.9
17	1.2	2.2	2.4	2.5	2.4	4.0	2.8	143	135	5.5	16	3.2
18	1.0	2.3	2.3	2.4	2.5	3.9	3.2	195	131	4.9	13	3.0
19	.85	2.4	2.4	2.3	2.5	3.9	3.0	262	131	4.4	12	2.9
20	.80	2.4	2.4	2.3	2.4	3.8	2.8	358	131	4.2	11	2.9
21	.70	2.4	2.3	2.3	2.4	3.7	2.6	445	127	3.9	10	2.9
22	.65	2.3	2.3	2.3	2.5	3.8	2.2	575	115	9.1	9.3	2.7
23	.65	2.2	2.3	2.3	2.7	4.2	2.4	450	96	8.2	11	2.7
24	.50	2.2	2.4	2.3	2.9	5.0	2.6	308	83	5.9	9.5	2.7
25	.55	2.1	2.5	2.4	3.1	6.0	2.6	258	66	7.5	8.0	2.7
26	.60	2.2	2.5	2.5	3.2	8.0	2.6	276	52	8.0	7.0	2.7
27	.47	2.2	2.5	2.6	3.4	7.5	2.4	344	45	14	7.5	2.7
28	.65	2.1	2.5	2.6	3.7	8.0	2.2	450	43	19	7.5	2.7
29	.65	2.3	2.4	2.5	3.8	10	2.6	504	38	11	7.0	2.7
30	.50	2.4	2.3	2.5	- - - -	14	4.0	528	32	11	6.0	2.8
31	.40	- - - -	2.2	2.5	- - - -	17	- - - -	486	- - - -	15	5.7	- - - -
Total	54.77	48.05	75.6	73.5	76.5	170.2	667	8,573	5,112	370.4	485.5	104.2
Mean	1.77	1.60	2.44	2.37	2.64	5.49	22.2	277	170	11.9	15.7	3.47
Max	3.4	2.4	2.8	2.6	3.8	17	40	575	460	27	35	5.9
Min	0.40	0.60	2.2	2.1	2.3	3.7	13	70	32	3.9	5.7	2.7
Ac-ft	109	95	150	146	152	338	1,320	17,000	10,140	735	963	207

Cal yr 1967: Total 8,330.22 Mean 22.8 Max 255 Min 0.40 Ac-ft 16,520
 Wtr yr 1968: Total 15,810.72 Mean 43.2 Max 575 Min 0.40 Ac-ft 31,360

Peak discharge (base, 200 cfs)

Note.--No gage-height record Nov. 7 to May 8.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-4	-	-	†320	5-21	2100	3.59	760
5-11	2200	2.75	286	5-29	2300	3.36	589

† Estimated.

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 1968.

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

Average discharge.--7 years, 28.3 cfs (20,490 acre-ft per year).

Extremes.--Maximum discharge during year, 575 cfs May 19 (gage height, 2.90 ft); minimum daily, 3.2 cfs Jan. 6.

1961-68: Maximum discharge, about 900 cfs May 11, 1962 (gage height not determined); minimum daily, 0.10 cfs Aug. 1, 1963.

Remarks.--Records good except those for winter period, 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.5	5.0	3.8	3.8	4.3	5.4	20	99	195	14	24	4.9
2	5.5	4.5	3.6	4.0	4.2	5.8	18	116	171	14	26	4.5
3	5.2	4.2	3.5	4.0	4.1	5.8	17	156	159	12	21	5.3
4	5.2	5.2	3.6	3.8	4.0	5.8	16	154	159	12	14	5.5
5	5.0	5.2	3.9	3.6	4.0	6.2	15	146	141	14	16	4.7
6	5.5	4.8	3.9	3.2	3.9	6.4	14	139	122	13	19	4.7
7	5.2	4.5	3.7	3.3	3.8	6.2	14	114	102	13	17	4.5
8	5.0	4.2	3.7	3.5	3.8	6.0	14	128	86	13	55	4.2
9	4.8	4.0	3.7	3.6	3.9	5.9	14	158	68	13	54	3.9
10	5.0	4.2	3.8	3.7	4.1	5.8	15	183	68	15	37	3.4
11	4.5	4.0	4.2	4.0	4.2	5.7	16	192	60	18	29	3.4
12	4.2	3.5	4.1	3.9	4.1	5.6	17	216	54	14	24	3.9
13	4.5	4.0	4.0	3.7	3.9	5.6	19	175	51	12	19	4.2
14	4.2	4.0	3.8	3.7	3.8	5.8	20	132	53	10	33	4.7
15	4.0	4.0	3.8	3.7	3.8	5.9	23	144	46	10	41	4.5
16	4.0	3.8	3.8	3.8	3.8	6.0	24	161	43	11	27	4.2
17	4.0	4.0	3.8	3.9	3.9	6.0	23	161	41	9.5	13	5.5
18	4.0	4.0	3.9	3.8	4.0	6.0	26	240	39	8.3	9.5	8.6
19	3.8	4.0	3.9	3.8	4.0	5.9	26	296	50	8.0	9.2	7.1
20	3.8	4.2	3.8	3.7	3.9	5.8	20	234	195	8.0	8.0	6.1
21	3.5	4.5	3.6	3.7	3.8	5.7	18	278	180	7.1	7.7	6.8
22	3.5	4.3	3.5	3.8	3.8	5.5	17	323	168	7.7	6.8	6.5
23	3.8	4.0	3.6	3.8	3.9	5.6	21	303	156	12	7.7	6.1
24	3.5	3.9	3.8	3.8	4.0	5.8	18	222	150	12	6.8	5.9
25	3.5	3.8	4.0	3.9	4.1	6.0	18	177	86	9.9	6.1	5.7
26	3.5	3.7	4.0	4.0	4.3	6.5	18	189	25	18	5.7	5.5
27	3.8	3.7	4.0	4.0	4.5	7.0	18	219	21	22	6.1	4.9
28	4.2	3.9	4.0	4.0	4.7	8.0	18	228	18	26	6.1	5.1
29	3.8	4.2	4.0	3.9	4.8	9.0	27	228	16	16	5.7	5.1
30	3.4	4.2	3.8	3.8	- - - - -	10	48	239	14	23	5.3	5.5
31	4.2	- - - - -	3.6	4.0	- - - - -	14	- - - - -	219	- - - - -	27	5.1	- - - - -
Total	133.6	125.5	118.2	117.2	117.4	200.7	592	5,959	2,737	421.5	564.8	154.9
Mean	4.31	4.18	3.81	3.78	4.05	6.47	19.7	192	91.2	13.6	18.2	5.16
Max	5.5	5.2	4.2	4.0	4.8	14	48	323	195	27	55	8.6
Min	3.4	3.5	3.5	3.2	3.8	5.4	14	89	14	7.1	5.1	3.4
Ac-ft	265	249	234	232	233	398	1,170	11,820	5,430	836	1,120	307

Cal yr 1967: Total 6,533.2 Mean 17.9 Max 99 Min 2.9 Ac-ft 12,960
 Wtr yr 1968: Total 11,241.8 Mean 30.7 Max 323 Min 3.2 Ac-ft 22,300

Peak discharge (base, 250 cfs)

Note.--No gage-height record Nov. 23 to Apr. 11.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-12	2030	2.31	292	5-28	2200	1.58	311
5-19	1900	2.90	575				

GUNNISON RIVER BASIN

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.--531 sq mi.

Records available.--October 1933 to September 1968. 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.--35 years, 431 cfs (312,000 acre-ft per year).

Extremes.--Maximum discharge during year, 3,690 cfs June 5 (gage height, 4.49 ft); minimum daily, 40 cfs Jan. 7.
1933-68: 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 poor. 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	89	155	56	48	56	72	433	926	2,530	710	365	208
2	85	158	46	52	50	95	397	1,180	2,560	647	384	202
3	80	152	45	50	46	120	343	1,600	2,960	612	384	216
4	80	167	45	46	46	125	298	1,830	3,060	564	312	216
5	80	164	48	44	48	125	280	1,840	3,290	528	264	205
6	80	152	50	42	50	128	298	1,780	3,080	500	384	205
7	75	152	50	40	52	132	276	1,560	2,610	475	361	210
8	75	158	53	42	54	130	256	1,540	2,400	470	370	215
9	80	164	48	44	54	128	240	1,670	1,770	500	373	220
10	80	164	50	46	54	120	260	1,770	1,510	446	402	215
11	79	152	50	50	54	118	316	1,810	1,360	415	370	210
12	77	158	52	46	52	111	384	1,830	1,460	384	330	210
13	77	155	48	44	50	113	485	1,870	1,840	348	284	210
14	75	155	48	44	50	118	465	1,640	1,950	325	370	210
15	72	152	52	44	50	113	495	1,550	1,950	276	446	210
16	72	152	51	48	50	111	495	1,570	1,950	256	352	210
17	70	152	49	48	52	113	485	1,470	2,000	244	284	210
18	70	149	48	46	56	113	505	1,530	1,960	226	256	210
19	70	149	49	44	60	107	540	1,670	1,820	208	230	205
20	70	149	49	44	60	109	510	2,080	1,840	205	216	205
21	70	152	47	44	56	105	505	2,560	1,970	208	204	205
22	69	155	45	44	56	113	451	3,390	1,810	208	191	210
23	69	152	48	46	58	120	460	3,080	1,640	244	191	205
24	66	143	51	48	60	135	456	2,690	1,540	219	174	205
25	66	146	50	50	64	155	460	2,460	1,320	212	180	200
26	64	146	51	52	66	170	451	2,350	1,140	216	194	200
27	62	95	50	56	68	161	465	2,220	1,110	289	204	205
28	64	70	50	60	69	180	446	1,960	1,090	307	219	210
29	87	60	49	56	72	222	500	2,270	990	272	212	210
30	122	55	49	50	- - - - -	298	675	2,450	854	252	204	205
31	152	- - - - -	45	54	- - - - -	366	- - - - -	2,450	- - - - -	348	204	- - - - -
Total	2,427	4,283	1,522	1,472	1,613	4,326	12,630	60,596	57,364	11,114	8,942	6,257
Mean	78.3	143	49.1	47.5	55.6	140	421	1,955	1,912	359	288	209
Max	152	167	56	60	72	366	675	3,390	3,290	710	466	220
Min	62	55	45	40	46	72	240	926	854	205	174	200
Ac-ft	4,810	8,500	3,020	2,920	3,200	8,580	25,050	120,200	113,800	22,040	17,740	12,410
(†)	9,110	4,110	4,510	4,910	5,250	3,710	2,890	12,740	18,500	18,430	18,500	12,100
Cal yr 1967: Total	124,844		Mean 342		Max 2,400	Min 45		Ac-ft 247,600				
Wtr yr 1968: Total	172,546		Mean 471		Max 3,390	Min 40		Ac-ft 342,200				

† Month-end contents, in acre-feet, in Paonia Reservoir (contents on Sept. 30, 1967, 9,380 acre-ft); furnished by North Fork Conservancy District.

9-1327. Main Hubbard Creek near Paonia, Colo.

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.

Records available.--October 1960 to September 1968 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 9,710 ft (from topographic map).

Average discharge.--8 years, 1.64 cfs (1,190 acre-ft per year).

Extremes.--Maximum discharge, about 40 cfs June 5; maximum gage height, 4.12 ft Aug. 7 (backwater from debris); minimum daily discharge, 0.10 cfs Jan. 7.

1960-68: Maximum discharge, that of June 5, 1968; maximum gage height, 4.77 ft May 1, 1965 (backwater from ice); minimum daily discharge determined, 0.10 cfs Oct. 1-8, 1961, many days in September to December 1963, January to March 1964, February 1965, and Jan. 7, 1968.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.25	0.24	0.25	0.20	0.20	0.28	0.30	0.76	17	3.2	2.5	0.30
2	.23	.30	.20	.25	.20	.30	.30	.63	19	2.6	2.4	.30
3	.23	.26	.20	.25	.20	.30	.25	.63	19	2.4	1.5	.50
4	.23	.20	.25	.20	.20	.30	.25	.81	21	2.4	1.4	.50
5	.23	.20	.25	.20	.20	.30	.30	.72	27	5.2	1.2	.40
6	.25	.20	.25	.16	.20	.30	.28	.68	20	3.2	2.5	.40
7	.25	.20	.25	.10	.22	.25	.25	.63	17	2.6	6.0	.40
8	.23	.16	.25	.20	.25	.25	.28	.72	12	3.2	4.2	.40
9	.23	.19	.20	.20	.30	.25	.30	.98	6.0	3.0	3.2	.40
10	.23	.22	.20	.20	.30	.25	.30	.98	5.0	3.0	8.1	.40
11	.23	.26	.25	.25	.25	.20	.30	.98	8.0	2.5	4.7	.40
12	.24	.30	.25	.20	.25	.20	.30	.86	14	2.4	3.2	.39
13	.24	.30	.25	.20	.25	.25	.25	.76	15	2.0	2.5	.39
14	.24	.30	.20	.20	.25	.25	.25	.63	16	1.5	7.3	.39
15	.22	.30	.20	.20	.25	.25	.25	.63	16	1.3	3.5	.50
16	.20	.26	.20	.22	.25	.25	.30	.68	14	1.1	2.1	.43
17	.23	.26	.20	.25	.30	.25	.35	.58	15	.98	1.4	.63
18	.23	.24	.20	.25	.30	.25	.35	.68	14	.98	1.1	.63
19	.23	.22	.25	.20	.35	.25	.25	.90	13	.98	.98	.45
20	.23	.20	.25	.20	.30	.20	.30	1.2	15	.90	.90	.37
21	.25	.25	.20	.20	.25	.20	.30	2.0	15	.86	.90	.58
22	.24	.20	.16	.20	.25	.25	.25	2.8	13	.90	.76	.45
23	.22	.20	.20	.24	.25	.25	.25	3.0	13	1.8	.86	.37
24	.22	.20	.20	.20	.25	.25	.25	3.0	12	1.3	.70	.37
25	.20	.20	.20	.25	.30	.25	.30	2.8	9.0	1.5	60	.37
26	.22	.20	.20	.25	.30	.30	.30	2.7	7.9	3.6	.50	.34
27	.25	.20	.25	.20	.25	.25	.30	4.0	7.6	4.6	.40	.34
28	.25	.25	.25	.30	.25	.25	.30	6.0	7.0	2.4	.40	.32
29	.25	.25	.25	.25	.22	.25	.45	8.0	6.0	2.0	.40	.36
30	.20	.25	.25	.25	-----	.30	.50	12	4.7	2.1	.40	.43
31	.20	-----	.20	.20	-----	.30	-----	15	-----	2.5	.30	-----
Total	7.15	7.01	6.91	6.67	7.34	7.98	8.91	76.74	398.2	69.00	66.90	12.51
Mean	0.23	0.23	0.22	0.22	0.25	0.26	0.30	2.48	13.3	2.23	2.16	0.42
Max	0.25	0.30	0.25	0.30	0.35	0.30	0.50	15	27	5.2	8.1	0.63
Min	0.20	0.16	0.16	0.10	0.20	0.20	0.25	0.63	4.7	0.86	0.30	0.30
Ac-ft	14	14	14	13	15	16	18	152	790	137	133	25

Cal yr 1967: Total 607.23

Mean 1.66

Max 14

Min 0.16

Ac-ft 1,200

Wtr yr 1968: Total 675.32

Mean 1.85

Max 27

Min 0.10

Ac-ft 1,340

Peak discharge (base, 20 cfs)

Note.--No gage-height record Oct. 26 to Apr. 30, May 19 to June 13.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
6-5	-	-	†40	8-7	1330	4.12	†30
6-13	1730	3.27	24	8-10	1800	3.36	23

† Estimated.

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.

Records available.--October 1960 to September 1968 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 9,650 ft (from topographic map).

Average discharge.--8 years, 1.83 cfs (1,320 acre-ft per year).

Extremes.--Maximum discharge during year, 47 cfs June 5 (gage height, 4.13 ft); minimum daily, 0.20 cfs Apr. 27.

1960-68: Maximum discharge, that of June 5, 1968; maximum gage height, 4.67 ft May 21, 1964 (backwater from ice); minimum daily discharge determined, 0.10 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.43	0.38	0.38	0.35	0.25	0.32	0.32	0.36	17	4.0	2.7	0.55
2	.40	.40	.35	.35	.25	.34	.28	.36	19	3.4	2.9	.55
3	.40	.38	.35	.35	.25	.35	.26	.32	19	3.1	1.8	.70
4	.40	.36	.40	.30	.25	.35	.24	.36	20	3.0	1.4	.62
5	.40	.38	.40	.25	.25	.35	.24	.30	27	4.3	1.3	.59
6	.47	.40	.40	.24	.25	.35	.26	.30	24	3.4	3.4	.55
7	.47	.40	.40	.22	.28	.35	.26	.25	16	2.7	5.0	.51
8	.40	.40	.35	.22	.30	.33	.24	.28	10	3.1	2.4	.47
9	.40	.40	.35	.24	.35	.30	.22	.47	5.4	4.3	2.0	.47
10	.40	.45	.35	.26	.30	.26	.24	.51	4.6	4.0	5.2	.47
11	.40	.45	.40	.30	.30	.24	.26	.47	6.4	3.3	3.4	.51
12	.32	.45	.40	.28	.30	.22	.28	.47	12	2.4	2.6	.51
13	.28	.45	.40	.25	.30	.24	.28	.43	15	2.0	2.1	.51
14	.28	.45	.35	.25	.30	.26	.30	.36	14	1.6	5.7	.59
15	.23	.45	.35	.25	.30	.26	.30	.32	14	1.4	3.1	.66
16	.22	.40	.35	.25	.32	.26	.28	.47	16	1.2	1.9	.62
17	.22	.40	.35	.30	.34	.26	.26	.40	17	1.0	1.5	.75
18	.24	.40	.35	.25	.36	.26	.24	.40	15	1.0	1.3	.85
19	.28	.38	.40	.25	.38	.26	.24	.70	14	.95	1.2	.75
20	.30	.35	.40	.25	.36	.24	.26	1.3	18	.95	1.2	.62
21	.32	.40	.35	.25	.34	.22	.24	2.1	16	.90	1.2	.66
22	.32	.35	.30	.25	.32	.24	.22	2.9	15	.75	1.0	.62
23	.34	.35	.35	.25	.30	.26	.22	3.0	14	1.8	1.1	.55
24	.34	.35	.35	.26	.30	.28	.22	3.1	12	1.4	.95	.55
25	.34	.35	.35	.28	.34	.30	.22	2.7	9.4	1.3	.80	.43
26	.36	.35	.35	.30	.35	.32	.21	2.7	7.4	2.6	.70	.43
27	.36	.35	.40	.32	.35	.30	.20	3.6	7.4	2.3	.70	.43
28	.36	.35	.40	.34	.35	.28	.22	5.4	7.4	2.2	.75	.43
29	.34	.38	.36	.32	.30	.30	.24	8.4	6.6	1.7	.70	.43
30	.34	.40	.32	.30	- - - -	.32	.28	1.1	5.2	2.1	.62	.59
31	.36	- - - -	.30	.26	- - - -	.34	- - - -	14	- - - -	3.3	.59	- - - -
Total	10.72	11.76	11.31	8.54	8.94	8.96	7.53	67.73	403.8	71.45	61.21	16.97
Mean	0.35	0.39	0.36	0.28	0.31	0.29	0.25	2.18	13.5	2.30	1.97	0.57
Max	0.47	0.45	0.40	0.35	0.38	0.35	0.32	14	27	4.3	5.7	0.85
Min	0.22	0.35	0.30	0.22	0.25	0.22	0.20	0.25	4.6	0.75	0.59	0.43
Ac-ft	21	23	22	17	18	18	15	134	801	142	121	34

Cal yr 1967: Total 771.54 Mean 2.11 Max 17 Min 0.22 Ac-ft 1,530

Wtr yr 1968: Total 688.92 Mean 1.88 Max 27 Min 0.20 Ac-ft 1,370

Peak discharge (base, 20 cfs).--June 5 (1800) 47 cfs (4.13 ft); June 20 (1830) 40 cfs (4.02 ft).

Note.--No gage-height record Oct. 16 to Apr. 30.

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.--2.36 sq mi.

Records available.--October 1960 to September 1968.

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

Average discharge.--8 years, 3.40 cfs (2,460 acre-ft per year).

Extremes.--Maximum discharge during year, 53 cfs June 5 (gage height, 4.30 ft); minimum daily, 0.35 cfs Jan. 7.
1960-68: Maximum discharge, that of June 5, 1968; maximum gage height, 4.35 ft June 15, 1965; minimum daily discharge determined, 0.10 cfs Apr. 4, 8, 1964.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	.85	.80	.75	.65	.40	.55	.65	.95	22	6.2	3.0	1.2
2	.85	.90	.70	.65	.40	.60	.60	1.0	26	5.1	4.4	1.2
3	.85	.80	.65	.65	.40	.60	.55	1.1	30	4.8	3.4	1.2
4	.85	.85	.70	.60	.40	.60	.50	1.1	34	4.4	2.6	1.2
5	.85	.90	.75	.50	.40	.60	.55	1.2	41	5.1	2.4	1.1
6	.90	.90	.75	.40	.45	.65	.60	1.1	39	4.3	4.1	1.0
7	.95	.90	.70	.35	.45	.65	.50	1.0	32	3.7	3.2	.95
8	.95	.95	.65	.40	.50	.65	.50	1.0	23	3.9	2.8	.90
9	.95	.95	.65	.45	.55	.60	.50	1.2	14	4.4	2.9	.90
10	.90	.95	.70	.50	.50	.60	.55	1.3	11	4.1	4.8	.85
11	.90	1.0	.75	.55	.50	.55	.60	1.2	15	3.5	3.9	.85
12	.85	1.0	.75	.50	.50	.50	.60	1.2	22	3.0	3.5	.85
13	.85	1.0	.65	.40	.50	.55	.60	1.1	28	2.6	3.0	.85
14	.85	1.0	.65	.40	.50	.60	.60	.95	28	2.4	6.0	.85
15	.85	1.0	.65	.40	.50	.60	.60	1.0	28	2.2	4.4	.85
16	.80	.95	.65	.40	.50	.60	.60	1.1	28	2.0	3.2	.85
17	.75	.95	.65	.45	.55	.60	.55	.95	29	1.8	2.9	.85
18	.80	.90	.65	.50	.55	.55	.50	.95	28	1.7	2.6	.90
19	.80	.90	.70	.40	.60	.55	.45	1.2	28	1.7	2.4	.85
20	.80	.85	.65	.40	.55	.55	.55	1.7	30	1.6	2.2	.85
21	.80	.90	.60	.40	.55	.50	.50	2.6	28	1.6	2.0	.85
22	.85	.85	.55	.40	.50	.55	.50	3.7	26	1.6	1.9	.85
23	.85	.80	.65	.40	.55	.60	.45	5.9	24	1.6	1.9	.85
24	.80	.80	.65	.45	.60	.65	.45	4.1	21	1.6	1.7	.85
25	.75	.75	.65	.45	.60	.65	.50	3.5	15	1.7	1.6	.85
26	.75	.70	.65	.50	.60	.60	.50	4.3	11	2.0	1.6	.80
27	.75	.70	.70	.55	.60	.60	.50	6.2	11	1.9	1.5	.80
28	.75	.70	.70	.60	.55	.60	.55	9.6	11	2.2	1.5	.80
29	.75	.75	.70	.55	.50	.65	.55	14	10	1.9	1.5	.80
30	.70	.75	.65	.50	- - - -	.70	.70	18	7.6	2.5	1.4	.80
31	.75	- - - -	.55	.45	- - - -	.75	- - - -	20	- - - -	3.0	1.3	- - - -
Total	25.65	26.15	20.80	14.80	14.75	18.60	16.35	114.20	700.6	90.1	85.6	273.0
Mean	0.83	0.87	0.67	0.48	0.51	0.60	0.54	3.68	23.4	2.91	2.76	0.91
Max	0.95	1.0	0.75	0.65	0.60	0.75	0.70	20	41	6.2	6.0	1.2
Min	0.70	0.70	0.55	0.35	0.40	0.50	0.45	0.95	7.6	1.6	1.3	0.80
Ac-ft	51	52	41	29	29	37	32	227	1,390	179	170	54

Cal yr 1967: Total 1,350.55 Mean 3.70 Max 32 Min 0.40 Ac-ft 2,680
Wtr yr 1968: Total 1,154.90 Mean 3.16 Max 41 Min 0.35 Ac-ft 2,290

Peak discharge (base, 40 cfs).--June 5 (1700) 53 cfs (4.30 ft); June 13 (1830) 40 cfs (4.08 ft).

Note.--No gage-height record Oct. 27 to Apr. 30.

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 1968. Monthly discharge only for some periods, published in WSP 1313.

Gage.--Water-stage recorder. Altitude of gage is 7,255 ft (from topographic map).

Average discharge.--28 years, 47.1 cfs (34,100 acre-ft per year).

Extremes.--Maximum discharge during year, 835 cfs May 31 (gage height, 4.18 ft); minimum daily, 2.9 cfs Apr. 23.

1936-56, 1960-68: 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 period, which are fair. One small diversion and several small reservoirs above station for irrigation below.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	12	8.0	5.9	6.1	5.5	22	50	520	32	37	30
2	19	12	5.0	5.9	6.1	5.7	18	61	503	30	35	31
3	18	11	5.5	6.3	6.1	5.7	16	72	468	37	34	31
4	18	12	7.0	6.1	6.1	5.5	15	84	454	32	34	30
5	17	11	7.3	5.9	5.7	5.7	12	81	468	31	34	31
6	16	11	6.5	5.9	5.7	5.7	11	58	410	34	35	30
7	16	11	6.5	5.9	5.7	5.7	11	46	317	35	35	29
8	15	10	6.7	6.1	5.7	5.7	10	66	260	36	31	28
9	13	9.5	6.7	6.1	5.7	5.7	10	95	202	35	29	29
10	12	10	6.5	6.3	5.7	5.5	9.2	97	178	37	49	29
11	12	9.5	6.5	6.3	5.9	5.5	12	97	166	41	61	29
12	12	10	6.5	6.3	5.9	5.5	18	100	184	32	60	30
13	12	10	6.5	6.3	5.9	5.5	19	83	204	31	49	31
14	12	11	6.5	6.3	5.7	5.5	14	68	202	29	66	31
15	11	9.2	6.9	6.3	5.9	5.5	13	62	188	29	65	33
16	14	9.2	6.5	6.3	5.7	5.5	8.5	70	182	31	46	32
17	17	8.2	6.5	6.5	5.7	5.7	6.1	78	166	32	38	32
18	17	7.3	6.3	6.3	5.7	5.7	6.3	94	152	35	34	32
19	16	7.5	6.3	6.3	5.7	5.8	5.9	146	148	35	31	28
20	15	8.0	5.9	6.3	5.7	5.9	4.6	202	134	35	31	26
21	14	9.0	5.9	6.3	5.7	5.5	4.0	258	114	35	30	26
22	14	8.5	5.7	6.3	5.9	5.5	3.6	356	97	37	29	24
23	16	8.0	5.7	6.3	5.5	5.9	2.9	284	84	37	30	23
24	18	8.0	5.7	6.5	5.7	6.7	3.5	240	83	38	24	22
25	17	7.5	5.7	6.5	5.7	7.8	3.5	230	78	43	24	22
26	16	7.5	5.7	6.7	5.7	8.0	3.4	272	70	49	24	23
27	16	7.0	5.7	6.7	5.5	8.5	3.2	332	65	49	24	22
28	15	6.5	5.7	6.5	5.5	8.8	3.6	464	60	44	24	23
29	14	7.5	5.7	6.5	5.5	12	11	447	54	35	27	22
30	11	8.0	5.9	6.7	-----	17	30	486	46	38	31	20
31	12	-----	5.9	6.5	-----	19	-----	534	-----	37	30	-----
Total	463	276.9	193.4	195.1	167.1	217.2	310.3	5,613	6,257	1,111	1,131	829
Mean	14.9	9.23	6.24	6.29	5.76	7.01	10.3	181	209	35.8	36.5	27.6
Max	19	12	8.0	6.7	6.1	19	30	534	520	49	66	33
Min	11	6.5	5.0	5.9	5.5	5.5	2.9	46	46	29	24	20
Ac-ft	918	549	384	387	331	431	615	11,130	12,410	2,200	2,240	1,640
Cal yr 1967: Total	16,102.5											
Mean	44.1											
Max	520											
Min	4.4											
Ac-ft	31,940											
Wtr yr 1968: Total	16,764.0											
Mean	45.8											
Max	534											
Min	2.9											
Ac-ft	33,250											

Peak discharge (base, 600 cfs).--May 31 (2030) 835 cfs (4.18 ft).

9-1347. Cow Creek near Cedaredge, Colo.

Location.--Lat 38°55'35", long 107°47'30", 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 1968.

Gage.--Water-stage recorder. Altitude of gage is 7,268 ft (from topographic map).

Average discharge.--8 years, 12.9 cfs (9,340 acre-ft per year).

Extremes.--Maximum discharge during year, 490 cfs May 21 (gage height, 3.90 ft), from rating curve extended above 65 cfs; no flow for many days.

1960-68: Maximum discharge, that of May 21, 1968, maximum gage height, 4.20 ft May 17. 1964 (backwater from debris); no flow for many days in most years.

Remarks.--Records good except those for winter period, 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.20	0.20	0.16	0.02	0.02	0.04	1.0	22	48	21	50	38
2	.20	.20	.14	.02	0	.04	1.0	42	40	23	52	36
3	.20	.16	.08	.02	0	.04	.90	46	39	28	50	36
4	.18	.14	.10	.02	.02	.06	.80	50	33	30	45	34
5	.18	.10	.10	0	.02	.06	1.0	45	27	31	44	36
6	.18	.06	.10	0	.02	.06	1.0	32	24	32	55	34
7	.17	.06	.08	.02	.04	.08	1.0	23	18	34	52	33
8	.16	.08	.10	.04	.06	.08	1.0	38	15	34	30	34
9	.14	.10	.08	.02	.06	.06	.80	48	15	36	28	33
10	.15	.18	.08	.04	.04	.06	1.7	42	15	38	57	34
11	.16	.20	.08	.06	.02	.04	3.5	33	14	44	63	31
12	.16	.20	.06	.04	.04	.04	5.2	40	14	40	59	31
13	.18	.22	.06	0	.04	.04	6.6	25	17	40	55	30
14	.18	.22	.06	0	.04	.06	7.3	17	18	38	61	28
15	.18	.20	.08	.02	.04	.06	7.9	16	17	39	63	26
16	.18	.18	.08	.04	.04	.08	7.6	22	14	40	52	22
17	.18	.16	.06	.04	.04	.08	6.4	24	13	39	46	19
18	.18	.14	.04	.02	.06	.06	6.2	31	12	39	45	9.0
19	.18	.16	.06	0	.06	.06	7.0	55	10	39	45	3.0
20	.18	.18	.08	.02	.06	.06	5.6	89	16	40	44	1.5
21	.18	.20	.06	.04	.06	.06	5.2	191	18	40	42	.80
22	.18	.20	.02	.04	.06	.08	4.6	216	17	39	40	.60
23	.18	.18	0	.06	.06	.10	4.5	101	19	40	40	.50
24	.18	.16	0	.04	.06	.12	4.4	50	20	44	40	.40
25	.18	.16	.02	.02	.06	.14	4.6	44	19	42	42	.40
26	.18	.08	.04	.02	.06	.16	4.3	66	22	45	40	.30
27	.18	.04	.04	.03	.06	.18	4.2	114	24	45	40	.30
28	.20	.02	.06	.04	.04	.20	4.3	95	23	48	40	.20
29	.20	.10	.06	.06	.04	.40	6.2	87	22	45	39	.20
30	.18	.16	.04	.04	- - - -	.70	12	66	22	48	39	.20
31	.20	- - - -	.02	.02	- - - -	.80	- - - -	59	- - - -	48	39	- - - -
Total	5.56	4.44	2.04	0.85	1.22	4.10	127.80	1,829	625	1,189	1,437	552.40
Mean	0.18	0.15	0.066	0.027	0.042	0.13	4.26	59.0	20.8	38.4	46.4	18.4
Max	0.20	0.22	0.16	0.06	0.06	0.80	12	216	48	48	63	38
Min	0.14	0.02	0	0	0	0.04	0.80	16	10	21	28	0.20
Ac-ft	11	8.8	4.0	1.7	2.4	8.1	253	3,630	1,240	2,360	2,850	1,100

Cal yr 1967: Total 5,042.94 Mean 13.8 Max 61 Min 0 Ac-ft 10,000
 Wtr yr 1968: Total 5,778.41 Mean 15.8 Max 216 Min 0 Ac-ft 11,460

Note.--No gage-height record Nov. 6 to Mar. 20.

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.--5,241 sq mi.

Records available.--May 1962 to September 1968.

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

Average discharge.--6 years, 1,216 cfs (880,300 acre-ft per year).

Extremes.--Maximum discharge during year, 6,000 cfs June 4 (gage height, 3.96 ft); minimum daily, 240 cfs July 20.

1962-68: Maximum discharge, 14,800 cfs May 13, 1962 (gage height, 6.30 ft); minimum daily, 115 cfs Oct. 6, 1963.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	432	820	1560	2940	1300	1220	720	1420	4280	760	820	432
2	439	476	1510	2850	1270	1190	710	1840	4390	760	720	439
3	418	418	1460	3000	1270	1180	567	2260	4880	690	690	468
4	411	800	1510	2980	1300	1120	558	2640	5230	630	524	468
5	404	1110	1560	2800	1300	1060	650	2580	4580	594	446	460
6	425	1190	1570	1300	1300	690	710	2600	4700	549	524	439
7	439	680	1520	1200	1300	770	690	2150	3770	500	630	439
8	418	1020	1520	1200	1290	790	585	2070	3320	540	640	439
9	411	1160	1520	1200	1300	790	508	2290	2620	621	720	439
10	418	1260	1510	1200	1330	740	576	2380	1920	484	822	439
11	418	1500	1700	1160	1330	730	585	2200	1940	460	822	453
12	460	1340	1860	1110	1320	516	830	2280	1630	468	870	439
13	300	1260	1920	1160	1330	714	1010	2460	2040	432	690	453
14	295	1380	1910	1180	1330	1010	1000	2160	2310	390	928	439
15	260	1340	2260	1160	1330	761	1040	1890	2460	354	1050	453
16	265	1400	2020	1160	1330	474	1070	1970	2460	315	730	453
17	315	1320	1750	1180	1340	354	940	1810	2580	285	576	460
18	336	1250	1760	1200	1380	612	940	1830	2600	275	468	476
19	348	1270	1990	1200	1340	532	964	2080	2520	255	390	422
20	348	1260	1940	1230	1420	484	852	2690	2520	240	394	302
21	336	1320	1830	1220	1460	348	841	3140	2620	320	372	476
22	336	1390	2200	1220	1340	507	770	4850	2850	336	350	508
23	360	1480	2760	1230	1390	549	720	4440	2530	336	330	516
24	330	1510	2890	918	1380	576	710	3450	2380	354	372	516
25	348	1560	2890	348	1380	524	700	2920	1630	360	372	508
26	378	1560	2920	439	1330	524	680	2830	1290	372	356	516
27	460	1540	2940	354	1330	508	670	2940	1180	468	356	540
28	468	1510	2850	354	1300	524	630	2870	1220	680	372	540
29	484	1600	2850	429	1270	770	680	3650	1140	508	394	532
30	476	1600	2910	1260	- - - -	585	952	4160	964	500	366	540
31	468	- - - -	2850	1300	- - - -	558	- - - -	4280	- - - -	780	411	- - - -
Total	12,004	37,324	64,240	41,482	38,590	21,710	22,858	83,130	80,554	14,616	17,705	14,004
Mean	387	1,244	2,072	1,338	1,331	700	762	2,682	2,685	471	571	467
Max	484	1,600	2,940	3,000	1,460	1,220	1,070	4,850	5,230	780	1,060	540
Min	260	418	1,460	348	1,270	348	508	1,420	964	240	330	302
Ac-ft	23,810	74,030	127,400	82,280	76,540	43,060	45,340	164,900	159,800	28,990	35,120	27,780
Cal yr 1967: Total	314,174		Mean 861	Max 3,040	Min 194	Ac-ft 623,200						
Wtr yr 1968: Total	448,217		Mean 1,225	Max 5,230	Min 240	Ac-ft 889,000						

9-1378. Dirty George Creek near Grand Mesa, Colo.

Location.--Lat 38°56'40", long 108°01'40", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.5, T.13 S., R.95 W., on left bank 200 ft upstream from falls on Cedar Park ditch, 3 $\frac{1}{2}$ miles upstream from confluence with Sara Creek, 7 $\frac{1}{2}$ miles northwest of Cedaredge, and 8 miles southwest of Grand Mesa.

Drainage area.--8.57 sq mi.

Records available.--October 1957 to September 1968. Prior to October 1965, published as George Creek near Grand Mesa.

Gage.--Water-stage recorder.

Average discharge.--11 years, 6.46 cfs (4,680 acre-ft per year).

Extremes.--Maximum discharge during year, 39 cfs May 3 (gage height, 1.58 ft); minimum daily, 0.50 cfs Jan. 6-8.

1957-68: 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 daily discharge, 0.40 cfs Mar. 6, 1967.

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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.6	5.2	0.80	0.60	0.60	0.70	9.4	17	32	4.8	9.1	6.7
2	6.8	4.8	.75	.60	.55	.70	5.6	19	32	4.6	7.9	6.7
3	6.9	4.5	.75	.60	.55	.70	3.8	22	30	4.6	6.1	7.0
4	6.4	4.5	.70	.60	.55	.70	3.7	24	28	4.6	6.4	6.7
5	6.4	4.2	.70	.55	.55	.75	3.5	23	29	4.6	6.4	6.4
6	6.6	3.8	.75	.50	.55	.75	3.0	18	28	4.6	7.0	6.4
7	6.4	5.0	.80	.50	.60	.75	3.1	13	24	4.4	7.0	6.4
8	6.6	4.0	.80	.50	.60	.75	2.8	13	21	4.4	7.9	6.4
9	6.4	3.5	.75	.55	.60	.70	2.4	14	17	4.8	8.8	6.1
10	6.3	2.5	.70	.55	.60	.70	2.7	12	14	4.8	8.5	6.1
11	6.0	1.5	.70	.60	.60	.65	4.8	12	12	4.6	8.5	6.1
12	5.8	1.0	.70	.55	.60	.65	7.6	16	12	4.4	8.2	6.1
13	5.8	1.0	.70	.55	.60	.65	7.6	12	11	4.0	8.5	6.1
14	5.8	1.0	.70	.55	.65	.65	7.3	10	11	3.5	11	5.8
15	5.8	.90	.70	.60	.65	.65	8.2	9.8	10	3.5	9.8	5.8
16	5.8	.80	.70	.60	.65	.70	7.3	11	9.8	3.7	8.8	5.6
17	5.8	.80	.75	.60	.65	.70	6.4	11	9.1	3.8	8.5	6.1
18	5.6	.80	.80	.60	.65	.65	5.4	11	9.1	4.0	8.2	5.8
19	5.5	.80	.80	.55	.70	.60	4.2	14	9.1	5.0	8.2	5.8
20	5.5	.80	.75	.55	.70	.60	3.2	19	9.4	5.0	8.2	5.6
21	5.3	.80	.70	.55	.70	.74	2.8	25	8.8	5.0	8.5	5.4
22	5.3	.80	.65	.60	.70	.88	2.5	29	8.2	5.0	8.2	5.4
23	5.2	.80	.65	.60	.70	1.3	2.4	22	7.9	5.2	8.2	5.4
24	5.0	.80	.65	.55	.70	1.7	2.4	16	7.9	5.2	7.9	5.6
25	5.2	.80	.70	.55	.75	2.4	2.5	14	7.3	5.8	7.6	5.8
26	5.2	.80	.70	.55	.75	2.4	2.8	16	7.0	7.3	7.6	5.6
27	5.0	.75	.70	.60	.75	2.4	2.7	19	6.7	7.9	7.6	5.6
28	4.8	.70	.70	.65	.70	3.8	3.0	24	6.1	8.8	7.3	5.6
29	5.0	.75	.70	.60	.70	5.8	5.2	29	5.8	7.3	7.3	5.6
30	5.0	.80	.60	.55	-----	8.8	11	28	5.6	6.7	7.0	5.6
31	5.0	-----	.55	.55	-----	11	-----	28	-----	7.0	7.0	-----
Total	178.8	59.20	22.10	17.65	18.65	54.92	139.3	550.8	428.8	158.9	247.2	179.3
Mean	5.77	1.97	0.71	0.57	0.64	1.77	4.64	17.8	14.3	5.13	7.97	5.98
Max	6.9	5.2	0.80	0.65	0.75	11	11	29	32	8.8	11	7.0
Min	4.8	0.70	0.55	0.50	0.55	0.60	2.4	9.8	5.6	3.5	6.1	5.4
Ac-ft	355	117	44	35	37	109	276	1,090	851	315	490	356

Cal yr 1967: Total 1,624.50 Mean 4.45 Max 11 Min 0.40 Ac-ft 3,220
Wtr yr 1968: Total 2,055.62 Mean 5.62 Max 32 Min 0.50 Ac-ft 4,080

Note.--No gage-height record Nov. 3 to Mar. 19.

9-1392. Ward Creek near Grand Mesa, Colo.

Location--Lat 38°59'01", long 107°58'17", in NE¼ sec.26, T.12 S., R.95 W., on left bank 300 ft upstream from headgate of lake Fork and Surface Creek Canal, 3.7 miles upstream from Williams Creek, 4.1 miles south of Grand Mesa, and 6.2 miles northwest of Cedaredge.

Drainage area--14.3 sq mi.

Records available--October 1957 to September 1968.

Gage--Water-stage recorder. Altitude of gage is 8,090 ft (from topographic map). Prior to June 4, 1958, at site half a mile upstream at different datum.

Average discharge--11 years, 11.8 cfs (8,540 acre-ft per year).

Extremes--Maximum discharge during year, 81 cfs June 2 (gage height, 3.44 ft); minimum daily, 0.60 cfs Jan. 7.

1957-68: Maximum discharge, about 150 cfs May 25, 1958; minimum daily, 0.50 cfs Jan. 8, 1967.

Remarks--Records fair except those for winter period, 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	5.2	1.2	0.85	1.0	1.2	3.5	5.9	61	17	30	34
2	11	5.4	1.0	.95	.85	1.2	3.4	6.9	68	17	30	34
3	14	6.0	.75	.95	.80	1.2	3.1	8.0	60	17	25	34
4	15	4.6	.70	.85	.90	1.1	2.9	8.8	60	17	23	34
5	13	3.5	.80	.80	.95	1.0	2.6	7.8	57	18	23	35
6	13	2.5	1.0	.70	1.0	1.0	2.2	6.7	56	18	24	35
7	14	2.1	1.1	.60	1.0	1.2	2.4	6.0	50	18	26	35
8	14	1.8	1.0	.65	1.0	1.2	2.5	6.1	45	18	27	35
9	14	1.6	.85	.70	1.0	1.2	2.7	7.5	37	26	27	35
10	14	1.7	.90	.80	1.0	1.2	2.9	8.8	32	26	27	35
11	15	1.8	1.0	.95	1.0	1.2	3.0	8.8	30	24	26	34
12	17	2.0	1.0	.90	1.0	1.1	3.0	9.5	28	26	26	34
13	16	2.0	1.0	.80	1.1	1.0	3.0	9.2	28	28	26	33
14	15	2.1	.80	.80	1.2	1.0	3.4	9.5	27	28	31	33
15	15	2.2	.90	.90	1.2	1.1	3.5	10	26	29	28	33
16	15	2.1	1.0	1.0	1.1	1.3	3.0	12	26	32	26	32
17	15	2.0	1.0	1.0	1.1	1.2	2.8	14	27	32	26	29
18	15	1.8	.80	.95	1.2	1.1	2.6	15	27	32	26	29
19	15	1.7	.95	.85	1.2	1.0	2.4	20	27	32	26	29
20	15	1.6	1.0	.80	1.2	1.0	2.3	27	25	32	26	30
21	15	1.5	.95	.85	1.2	1.0	2.1	34	24	32	26	30
22	15	1.4	.80	.80	1.2	1.0	2.1	37	23	32	26	30
23	16	1.3	.85	.80	1.2	1.2	2.4	34	22	33	26	30
24	16	1.3	.85	.85	1.2	1.3	2.8	32	21	32	26	30
25	16	1.2	1.0	.95	1.2	1.5	3.1	32	20	33	26	30
26	16	1.1	1.2	1.0	1.2	1.7	3.3	36	19	32	26	17
27	16	1.1	1.3	1.1	1.2	1.6	3.5	43	18	30	34	16
28	16	1.0	1.2	1.0	1.2	1.8	3.5	48	17	26	34	13
29	16	1.3	1.1	1.0	1.2	2.2	3.3	50	17	24	34	12
30	15	1.4	1.0	1.0	2.8	4.1	50	17	24	24	34	13
31	11	-----	.80	1.1	-----	3.3	-----	54	-----	26	34	-----
Total	453	66.3	29.80	27.25	31.60	41.9	87.4	657.5	995	811	855	883
Mean	14.6	2.21	0.96	0.88	1.09	1.35	2.91	21.2	33.2	26.2	27.6	29.4
Max	17	6.0	1.3	1.1	1.2	3.3	4.1	54	68	33	34	35
Min	10	1.0	0.70	0.60	0.80	1.0	2.1	5.9	17	17	23	12
Ac-ft	899	132	59	54	63	83	173	1,300	1,970	1,610	1,700	1,750

Cal yr 1967: Total 4,180.70 Mean 11.5 Max 32 Min 0.50 Ac-ft 8,290

Wtr yr 1968: Total 4,938.75 Mean 13.5 Max 68 Min 0.60 Ac-ft 9,800

Note--No gage-height record Oct. 31 to Mar. 19.

9-1402. Kiser Creek near Grand Mesa, Colo.

Location.--Lat 38°59'12", long 107°56'35", in NW¼ sec.30, T.12 S., R.94 W., on left bank 400 ft upstream from unnamed tributary, 3½ miles south of Grand Mesa, 4.4 miles upstream from Cottonwood Creek, and 6 miles north of Cedaredge.

Drainage area.--5.28 sq mi.

Records available.--October 1957 to September 1968.

Gage.--Water-stage recorder. Altitude of gage is 7,970 ft (from topographic map).

Average discharge.--11 years, 7.97 cfs (5,770 acre-ft per year).

Extremes.--Maximum discharge during year, 50 cfs Aug. 27 (gage height, 3.11 ft); minimum daily, 0.15 cfs Dec. 3.

1957-68: 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, 0.10 cfs for many days in 1963-65.

Remarks.--Records good except those for winter period, 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.6	13	0.25	0.25	0.30	0.30	1.8	2.9	13	12	15	35
2	3.6	13	.20	.30	.25	.30	1.5	3.6	12	20	16	35
3	3.6	12	.15	.30	.25	.30	1.3	4.5	10	20	10	17
4	3.6	10	.20	.30	.25	.30	1.2	5.8	9.2	22	8.6	14
5	3.6	9.0	.20	.30	.25	.30	1.0	5.4	9.2	22	8.0	31
6	3.6	6.0	.20	.25	.25	.30	.75	4.5	12	25	8.6	32
7	3.6	3.0	.25	.25	.25	.35	.90	4.5	13	26	7.6	29
8	3.6	2.0	.25	.25	.25	.35	.95	4.5	12	27	10	28
9	3.6	1.5	.20	.30	.25	.35	1.0	4.9	10	28	10	28
10	3.6	1.0	.20	.30	.25	.30	1.1	5.4	9.0	31	11	29
11	3.6	.70	.20	.30	.25	.30	1.1	4.9	8.0	30	9.8	29
12	4.0	.42	.20	.30	.30	.25	1.3	5.8	7.5	31	9.8	29
13	4.5	.42	.20	.25	.35	.25	1.5	4.9	6.7	31	17	30
14	4.5	.42	.20	.25	.35	.30	1.6	4.5	6.2	30	18	23
15	4.0	.31	.20	.25	.30	.30	1.8	4.0	6.2	31	12	23
16	4.5	.31	.20	.30	.30	.30	1.5	4.5	6.7	32	12	23
17	12	.31	.25	.30	.30	.30	1.3	4.9	5.8	30	8.6	22
18	12	.31	.30	.30	.30	.30	1.2	5.8	5.8	35	7.6	21
19	12	.31	.30	.25	.30	.30	1.2	7.6	5.4	38	7.6	16
20	12	.31	.30	.25	.35	.31	1.2	10	8.0	32	14	16
21	12	.30	.25	.30	.35	.31	1.1	12	7.6	29	15	22
22	12	.30	.20	.30	.35	.31	1.1	14	7.1	29	25	22
23	12	.30	.25	.30	.30	.42	1.0	12	7.6	36	25	22
24	8.0	.30	.25	.25	.30	.53	.90	10	8.0	35	20	14
25	8.0	.30	.25	.25	.30	.64	.75	9.2	11	35	20	15
26	9.2	.31	.30	.25	.35	.53	.80	9.8	11	36	20	15
27	9.2	.25	.30	.30	.35	.53	.90	10	10	22	39	15
28	8.6	.20	.30	.30	.35	.75	1.1	12	10	20	45	9.2
29	8.6	.20	.30	.30	.35	1.2	1.2	13	12	20	37	9.8
30	8.5	.25	.30	.30	-----	1.8	2.0	13	12	16	37	9.8
31	8.0	-----	.25	.30	-----	2.0	-----	13	-----	14	36	-----
Total	213.2	77.03	7.40	8.70	8.65	15.08	36.05	230.9	272.0	845	540.2	663.8
Mean	6.88	2.57	0.24	0.28	0.30	0.49	1.20	7.45	9.07	27.3	17.4	22.1
Max	12	13	0.30	0.30	0.35	2.0	2.0	14	13	38	45	35
Min	3.6	0.20	0.15	0.25	0.25	0.25	0.75	2.9	5.4	12	7.6	9.2
Ac-ft	423	153	15	17	17	30	72	458	540	1,680	1,070	1,320

Cal yr 1967: Total 2,686.96 Mean 7.36 Max 42 Min 0.15 Ac-ft 5,330
 Wtr yr 1968: Total 2,918.01 Mean 7.97 Max 45 Min 0.15 Ac-ft 5,790

Note.--No gage-height record Nov. 28 to Mar. 19.

GUNNISON RIVER BASIN

9-1407. Cottonwood Creek near Grand Mesa, Colo.

Location.--Lat 38°58'39", long 107°56'59", in SW¼ sec.30, T.12 S., R.94 W., on left bank 200 ft upstream from culvert on county highway, 3.5 miles upstream from mouth, 4.3 miles south of Grand Mesa, and 5.4 miles northwest of Cedaredge.

Drainage area.--2.53 sq mi.

Records available.--October 1957 to September 1968 (discontinued).

Gage.--Water-stage recorder and timber weir. Altitude of gage is 7,620 ft (from topographic map).

Average discharge.--11 years, 1.30 cfs (941 acre-ft per year).

Extremes.--Maximum discharge during year, 24 cfs May 31 (gage height, 1.81 ft); minimum daily, 0.01 cfs Jan. 8.

1957-68: Maximum discharge, 38 cfs May 7, 1966; maximum gage height, 2.11 May 23, 1967; 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.05	0.05	0.06	0.08	0.08	0.08	1.9	4.8	16	4.9	2.3	0.08
2	.06	.05	.04	.08	.07	.08	1.2	4.9	15	4.8	3.5	.10
3	.06	.03	.04	.08	.06	.08	.82	5.2	14	4.6	2.4	.11
4	.06	.02	.04	.08	.06	.08	.72	4.9	9.9	4.8	2.0	.11
5	.05	.02	.06	.06	.06	.09	.63	4.5	8.5	4.9	1.8	.08
6	.05	.02	.06	.05	.06	.10	.63	4.0	7.2	3.2	1.8	.07
7	.06	.02	.06	.04	.07	.10	.63	3.2	5.8	2.4	1.4	.06
8	.06	.02	.05	.01	.07	.10	.63	3.2	5.2	2.8	1.6	.05
9	.06	.03	.05	.03	.08	.10	.63	3.3	4.2	2.8	1.3	.05
10	.06	.03	.05	.04	.09	.09	.82	3.5	3.3	3.3	2.0	.05
11	.06	.04	.05	.05	.10	.08	1.8	3.2	2.8	2.6	1.8	.05
12	.05	.04	.05	.05	.10	.08	2.7	4.4	2.4	2.9	1.4	.06
13	.05	.05	.05	.05	.10	.09	2.4	3.9	2.2	1.8	1.4	.07
14	.05	.06	.05	.06	.10	.10	2.6	3.2	2.0	1.4	2.2	.07
15	.05	.06	.06	.08	.10	.11	2.6	3.1	1.9	1.5	2.0	.07
16	.05	.07	.06	.08	.10	.12	2.3	2.8	1.8	1.2	1.6	.06
17	.05	.07	.05	.06	.10	.12	2.0	2.7	1.5	.92	1.5	.07
18	.05	.06	.05	.06	.10	.10	1.9	2.8	1.3	.72	1.3	.07
19	.05	.06	.06	.07	.10	.10	1.6	3.5	1.2	.54	1.1	.07
20	.05	.06	.06	.08	.10	.10	1.3	4.5	1.1	.34	.92	.06
21	.06	.06	.05	.08	.09	.08	1.2	5.2	1.0	.11	.82	.06
22	.06	.06	.04	.08	.08	.10	1.0	5.2	3.8	.08	.54	.06
23	.06	.06	.05	.08	.08	.16	.92	4.0	3.6	.71	.44	.06
24	.06	.05	.06	.08	.10	.44	1.0	3.3	3.6	1.3	.34	.06
25	.06	.05	.06	.08	.10	.72	1.1	3.2	4.9	1.3	.25	.06
26	.06	.04	.06	.09	.10	.54	1.2	3.7	4.9	1.4	.20	.05
27	.06	.03	.06	.10	.09	.63	1.1	4.4	4.2	2.2	.16	.05
28	.06	.04	.07	.09	.09	.92	1.2	4.9	4.4	2.1	.16	.05
29	.06	.06	.07	.08	.09	1.2	2.2	5.4	4.4	2.0	.13	.06
30	.04	.06	.07	.09	- - - - -	1.8	3.6	5.3	4.2	2.0	.13	.06
31	.04	- - - - -	.06	.08	- - - - -	2.3	- - - - -	13	- - - - -	2.0	.10	- - - - -
Total	1.70	1.37	1.70	2.12	2.52	10.79	44.33	133.2	146.3	67.62	38.59	1.98
Mean	0.055	0.046	0.055	0.068	0.087	0.35	1.48	4.30	4.88	2.18	1.24	0.066
Max	0.06	0.07	0.07	0.10	0.10	2.3	3.6	13	16	4.9	3.5	0.11
Min	0.04	0.02	0.04	0.01	0.06	0.08	0.63	2.7	1.0	0.08	0.10	0.05
Ac-ft	3.4	2.7	3.4	4.2	5.0	21	88	264	290	134	77	3.9

Cal yr 1967: Total 357.10 Mean 0.98 Max 18 Min 0 Ac-ft 708
 Wtr yr 1968: Total 452.22 Mean 1.24 Max 16 Min 0.01 Ac-ft 897

Note.--No gage-height record Oct. 28 to Mar. 19.

9-1412. Youngs Creek near Grand Mesa, Colo.

Location.--Lat 38°57'29", long 107°55'05", in NE¼ sec.5, T.13 S., R.94 W., on left bank 200 ft upstream from bridge, 0.2 mile downstream from Horse Creek, 3.9 miles north of Cedaredge, and 5.9 miles southeast of Grand Mesa.

Drainage area.--10.3 sq mi.

Records available.--October 1957 to September 1968.

Gage.--Water-stage recorder. Altitude of gage is 7,160 ft (from topographic map).

Average discharge.--11 years, 6.82 cfs (4,940 acre-ft per year).

Extremes.--Maximum discharge during year, 52 cfs May 31 (gage height, 2.30 ft); minimum daily, 0.75 cfs Jan. 7.

1957-68: Maximum discharge, 86 cfs June 6, 1958 (gage height, 2.77 ft); minimum daily determined, 0.20 cfs Feb. 8, 1967.

Remarks.--Records good except those for winter period, 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.8	2.9	1.4	1.1	0.85	1.0	5.6	9.5	46	7.3	9.2	8.9
2	4.7	3.5	1.2	1.1	.80	1.1	3.9	12	45	6.6	11	10
3	5.0	3.0	1.1	1.1	.80	1.1	2.7	16	43	7.5	8.0	11
4	4.3	2.2	1.2	1.0	.85	1.0	2.0	17	40	7.5	5.8	14
5	4.2	3.0	1.2	.90	.85	1.0	2.0	16	41	8.6	5.1	13
6	2.6	1.6	1.3	.80	.85	1.1	1.9	13	36	8.9	7.3	9.8
7	2.5	2.0	1.3	.75	.85	1.2	1.9	11	32	8.6	5.8	7.0
8	2.4	1.9	1.3	.80	.90	1.2	2.0	11	30	8.3	6.9	6.8
9	2.4	1.8	1.2	.85	.90	1.1	2.4	15	26	8.0	7.3	5.8
10	2.3	1.8	1.2	.90	.95	1.0	2.7	15	24	8.9	8.0	5.4
11	2.1	1.8	1.3	.90	1.0	.95	4.9	13	20	8.9	7.5	5.4
12	2.0	1.9	1.3	.85	1.1	.90	5.4	17	18	11	7.8	5.6
13	2.1	2.0	1.3	.80	1.1	.90	5.3	13	17	11	8.3	8.0
14	2.2	2.0	1.2	.85	1.1	.95	4.6	11	16	10	16	8.0
15	2.3	2.0	1.2	.90	1.0	1.0	4.5	9.5	17	11	14	7.8
16	2.3	2.0	1.3	.95	1.0	1.0	3.8	9.5	17	11	10	5.4
17	2.3	1.9	1.4	1.0	1.0	1.0	3.0	9.5	16	8.0	8.9	5.1
18	1.9	1.8	1.4	.95	1.0	.95	2.7	11	14	7.3	8.3	5.1
19	1.9	1.8	1.3	.90	1.1	1.0	2.6	15	13	7.3	6.6	5.3
20	1.9	1.8	1.2	.90	1.2	1.0	2.7	22	13	7.3	6.3	6.6
21	2.0	1.8	1.1	.90	1.2	.91	2.6	31	13	7.3	7.5	6.6
22	2.0	1.7	1.0	.95	1.2	.85	2.3	38	13	7.8	7.0	6.1
23	2.2	1.6	1.1	.95	1.2	1.2	1.8	30	13	12	6.6	4.0
24	2.0	1.5	1.2	.90	1.1	1.3	1.8	22	13	15	6.1	3.8
25	1.9	1.4	1.3	.90	1.0	1.6	1.9	19	13	12	5.8	4.8
26	1.7	1.4	1.3	.90	1.0	1.6	2.0	25	14	12	5.6	4.8
27	2.1	1.3	1.3	.95	1.0	1.7	2.1	31	14	11	5.4	5.0
28	2.4	1.2	1.3	1.0	1.1	1.9	2.3	36	9.9	10	12	5.1
29	2.2	1.4	1.2	1.0	1.0	2.8	2.9	40	8.3	6.1	10	5.1
30	1.9	1.4	1.1	.85	-----	4.0	3.7	42	7.8	5.4	8.9	4.8
31	2.0	-----	1.1	.90	-----	5.6	-----	45	-----	6.7	10	-----
Total	76.6	57.4	38.3	28.50	29.00	43.91	90.0	625.0	643.0	278.3	253.0	204.1
Mean	2.47	1.91	1.24	0.92	1.00	1.42	3.00	20.2	21.4	8.98	8.16	6.80
Max	5.0	3.5	1.4	1.1	1.2	5.6	5.6	45	46	15	16	14
Min	1.7	1.2	1.0	0.75	0.80	0.85	1.8	9.5	7.8	5.4	5.1	3.8
Ac-ft	152	114	76	57	58	87	179	1,240	1,280	552	502	405

Cal yr 1967: Total 2,362.00 Mean 6.47 Max 54 Min 0.20 Ac-ft 4,680
 Wtr yr 1968: Total 2,367.11 Mean 6.47 Max 46 Min 0.75 Ac-ft 4,700

Note.--No gage-height record Nov. 7 to Mar. 18.

9-1430. Surface Creek near Cedaredge, Colo.

Location.--Lat 38°59'05", long 107°51'15", in NW¼NW¼ 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 1968. Monthly discharge only for some periods, published in WSP 1313.

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

Average discharge.--29 years, 41.1 cfs (29,760 acre-ft per year).

Extremes.--Maximum discharge during year, 374 cfs May 21 (gage height, 2.82 ft); minimum daily, 3.4 cfs Feb. 6.

1939-68: Maximum discharge, 578 cfs May 12, 1941 (gage height, 3.62 ft), from rating curve extended above 300 cfs; maximum gage height, 5.10 ft Apr. 13, 1958 (ice jam); minimum daily discharge determined, 1.8 cfs Dec. 8, 1963.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	57	17	5.2	4.2	3.6	4.1	14	41	224	71	48	70
2	44	13	4.8	4.5	3.6	4.0	10	52	204	66	42	70
3	38	14	4.5	4.5	3.6	4.0	9.1	69	189	62	30	56
4	34	16	4.2	4.4	3.6	4.0	8.8	83	168	59	26	51
5	28	16	4.0	4.2	3.5	4.0	8.4	70	174	61	26	42
6	26	13	4.2	4.0	3.4	4.1	7.6	54	168	61	26	42
7	24	10	4.4	3.9	3.5	4.0	6.8	45	145	59	25	48
8	24	8.2	4.4	3.9	3.6	4.1	7.0	62	198	59	25	48
9	22	7.2	4.3	3.9	3.7	4.1	7.6	73	142	64	27	47
10	21	6.6	4.1	4.0	3.9	4.0	7.4	73	114	66	43	61
11	20	6.8	4.0	4.2	4.0	3.8	7.2	65	101	78	45	65
12	18	6.6	4.0	4.3	4.1	3.6	7.6	73	108	77	47	59
13	18	6.4	4.0	4.3	4.4	3.8	8.6	58	119	82	58	59
14	18	5.8	3.8	4.2	4.4	4.0	10	44	121	80	71	44
15	18	5.6	4.0	4.3	4.4	4.0	12	42	125	77	52	42
16	18	5.6	4.2	4.5	4.4	4.0	13	49	135	78	43	41
17	15	5.6	4.3	4.6	4.4	4.0	12	56	132	80	37	52
18	12	5.8	4.5	4.6	4.4	3.9	12	68	125	71	33	56
19	12	5.8	4.5	4.5	4.4	3.8	12	114	121	71	32	51
20	12	5.6	4.5	4.3	4.3	3.7	11	145	148	59	37	51
21	12	5.2	4.4	4.2	4.4	3.6	10	212	140	57	38	52
22	13	5.6	3.8	4.1	4.4	3.8	9.7	234	128	59	41	52
23	13	6.0	4.0	4.1	4.3	4.0	9.8	159	121	62	43	51
24	22	5.6	4.1	4.1	4.3	4.4	10	114	117	62	43	40
25	23	5.4	4.2	4.2	4.1	4.7	10	101	110	71	42	39
26	40	5.0	4.3	4.1	4.1	4.8	9.7	130	101	74	43	31
27	45	4.8	4.4	4.1	4.3	4.6	9.4	166	91	73	57	31
28	46	4.8	4.4	4.0	4.2	5.0	10	188	84	73	59	34
29	44	5.0	4.4	3.8	4.2	6.6	13	203	84	69	53	34
30	46	5.4	4.2	3.8	-----	8.4	23	210	77	52	53	33
31	20	-----	4.0	3.8	-----	12	-----	231	-----	51	68	-----
Total	803	233.4	132.1	129.6	117.5	140.9	306.7	3,284	4,014	2,084	1,313	1,452
Mean	25.9	7.78	4.26	4.18	4.05	4.55	10.2	106	134	67.2	42.4	48.4
Max	57	17	5.2	4.6	4.4	12	23	234	224	82	71	70
Min	12	4.8	3.8	3.8	3.4	3.6	6.8	41	77	51	25	31
Ac-ft	1,590	463	262	257	233	279	608	6,510	7,960	4,130	2,600	2,880
Cal yr 1967: Total	13,341.7		Mean 36.6	Max 207	Min 2.8	Ac-ft 26,460						
Wtr yr 1968: Total	14,010.2		Mean 38.3	Max 234	Min 3.4	Ac-ft 27,790						

9-1435. Surface Creek at Cedaredge, Colo.

Location.--Lat 38°54'05", long 107°55'15", in SE¼ sec.20, T.13 S., R.94 W., on left bank at Cedaredge, 700 ft east of State Highway 65 and 8½ miles upstream from mouth.

Drainage area.--39.5 sq mi.

Records available.--October 1916 to September 1968. Monthly discharge only for some periods, published in WSP 1313.

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

Average discharge.--52 years, 27.0 cfs (19,550 acre-ft per year).

Extremes.--Maximum discharge during year, 205 cfs May 21 (gage height, 1.76 ft); minimum daily, 2.2 cfs Nov. 24.
1916-68: Maximum discharge, 1,190 cfs May 13, 1941 (gage height, 2.50 ft), from rating curve extended above 640 cfs; no flow Sept. 25, 1939, and practically no flow at times in some winters.

Remarks.--Records good except those for winter period, which are 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	10	4.0	5.1	4.4	3.7	1.7	59	97	49	30	20
2	12	13	4.5	4.8	4.4	4.4	12	60	87	42	28	20
3	11	11	5.2	4.8	4.2	4.4	9.3	65	81	37	23	20
4	13	13	6.0	5.0	4.1	4.1	6.5	73	73	30	16	19
5	12	12	5.0	5.0	4.0	4.1	4.4	72	79	27	15	17
6	11	11	4.5	4.6	4.0	4.4	5.1	71	81	33	18	17
7	11	9.0	5.0	4.4	3.8	4.8	3.2	56	79	31	20	20
8	12	7.0	5.5	4.4	3.8	4.4	3.7	71	91	31	18	20
9	13	5.1	5.0	4.4	3.7	4.4	5.1	87	77	32	20	20
10	13	6.0	4.5	4.6	3.7	3.7	4.6	81	79	35	22	21
11	13	4.2	5.0	4.8	3.7	4.0	5.5	71	77	38	20	21
12	13	5.1	5.5	4.5	3.7	3.5	10	81	81	43	19	16
13	13	5.0	4.5	4.0	4.1	4.4	11	63	85	44	18	13
14	12	4.8	4.5	4.0	4.1	5.1	12	55	83	39	29	13
15	11	4.1	5.0	4.3	4.1	4.4	17	57	79	35	32	13
16	10	3.7	5.5	4.6	3.7	4.8	20	63	83	33	23	12
17	11	3.7	4.8	5.0	3.7	5.1	17	63	79	31	20	14
18	11	4.1	4.4	4.6	4.1	4.8	15	67	81	30	20	18
19	9.3	3.8	4.8	4.2	4.1	4.7	15	87	87	28	19	16
20	8.6	3.6	5.1	4.0	4.1	4.6	13	105	81	30	19	15
21	8.0	4.1	5.1	4.1	4.4	4.4	12	125	87	32	18	14
22	8.0	3.3	4.8	4.2	4.4	4.6	11	125	81	33	17	12
23	9.3	4.4	5.1	4.4	3.7	5.1	9.8	85	77	34	17	13
24	8.6	2.2	5.1	4.4	3.7	6.0	9.9	79	75	33	17	13
25	8.0	2.3	5.1	4.4	3.7	8.6	10	77	69	35	17	13
26	14	2.3	5.5	4.6	4.1	8.6	10	77	63	38	18	13
27	20	2.5	5.1	4.6	4.1	6.0	11	83	58	39	20	13
28	21	2.7	5.1	4.6	4.1	6.5	9.3	91	58	42	20	18
29	20	3.0	5.1	4.4	3.7	8.6	15	97	57	35	19	20
30	20	3.4	4.8	4.4	- - - -	13	34	91	52	28	15	18
31	13	- - - -	4.8	4.4	- - - -	14	- - - -	99	- - - -	26	19	- - - -
Total	382.8	169.4	153.9	139.6	115.4	173.2	338.4	2,436	2,317	1,073	626	492
Mean	12.3	5.65	4.96	4.50	3.98	5.59	11.3	78.6	77.2	34.6	20.2	16.4
Max	21	13	6.0	5.1	4.4	14	34	125	97	49	32	21
Min	8.0	2.2	4.0	4.0	3.7	3.5	3.2	55	52	26	15	12
Ac-ft	759	336	305	277	229	344	671	4,830	4,600	2,130	1,240	976
Cal yr 1967: Total	8,870.0			Mean 24.3	Max 120	Min 2.2	Ac-ft 17,590					
Wtr yr 1968: Total	8,416.7			Mean 23.0	Max 125	Min 2.2	Ac-ft 16,690					

GUNNISON RIVER BASIN

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--196 sq mi.

Records available--October 1957 to September 1968 (discontinued).

Gage--Digital water-stage recorder. 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--11 years, 27.1 cfs (19,620 acre-ft per year).

Extremes--Maximum discharge during year, 310 cfs July 31; maximum gage height, 4.08 ft Aug. 14; minimum daily discharge, 1.8 cfs Apr. 29.
1957-68: Maximum discharge, 748 cfs June 7, 1958; maximum gage height, 5.40 ft July 29, 1965; minimum daily discharge, 0.50 cfs July 15, 16, 21, 1964.

Remarks--Records fair. Natural flow of stream affected by diversions to and from nearby streams, many small storage reservoirs, diversions for irrigation, and return flow from irrigated areas.

DISCHARGE, IN CFS, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	26	30	25	23	23	32	18	113	4.9	81	11
2	28	27	26	25	20	23	30	46	110	3.4	56	12
3	22	26	26	25	22	23	25	35	97	3.1	41	13
4	22	29	27	23	22	23	20	44	57	1.9	31	14
5	24	30	29	21	21	22	22	35	64	2.2	31	14
6	25	29	30	20	22	23	24	58	83	2.3	33	14
7	26	29	28	19	22	26	21	19	60	3.2	32	14
8	30	29	31	19	23	26	18	18	61	3.8	29	15
9	29	30	27	21	23	25	16	42	48	3.8	38	15
10	24	30	27	23	23	23	15	38	41	10	32	15
11	23	29	27	21	23	22	14	16	43	7.3	42	18
12	20	29	30	20	24	20	20	35	37	3.8	42	18
13	22	29	28	20	24	22	29	45	34	7.9	37	20
14	22	29	28	20	24	23	20	21	31	8.4	83	21
15	20	30	29	20	24	21	22	17	23	7.3	55	24
16	19	29	30	20	23	21	19	13	25	5.5	45	21
17	18	28	30	22	22	21	12	17	26	5.2	44	26
18	18	27	28	20	24	22	11	16	25	7.3	46	24
19	18	27	29	22	26	19	8.8	24	27	5.4	44	23
20	22	27	30	23	30	16	8.0	43	24	6.8	40	19
21	25	27	28	24	35	15	7.4	44	23	6.7	45	19
22	26	28	29	22	32	14	7.5	163	20	5.8	39	18
23	26	30	36	21	29	16	6.8	64	20	5.4	34	18
24	26	29	38	21	27	18	5.5	26	19	4.7	26	18
25	26	29	36	21	26	22	6.2	26	17	6.3	24	18
26	26	29	28	22	25	21	5.0	24	16	8.3	20	21
27	27	26	28	22	25	20	3.7	31	14	13	18	20
28	28	27	28	25	24	20	3.8	39	13	53	17	23
29	27	32	27	27	24	23	1.8	59	5.0	17	11	25
30	26	30	26	25	-----	26	2.5	64	4.7	16	11	27
31	26	-----	24	25	-----	30	-----	69	-----	39	11	-----
TOTAL	748	856	898	684	712	669	437.0	1,249	1,180.7	279.7	1,138	558
MEAN	24.1	28.5	29.0	22.1	24.6	21.6	14.6	40.3	39.4	9.02	36.7	18.6
MAX	30	32	38	27	35	30	32	163	113	53	83	27
MIN	18	26	24	19	20	14	1.8	13	4.7	1.9	11	11
AC-FT	1,480	1,700	1,780	1,360	1,410	1,330	867	2,480	2,340	555	2,240	1,110
CAL YR 1967	TOTAL 6,495.18		MEAN 17.8		MAX 53		MIN 1.8		AC-FT 12,880			
WTR YR 1968	TOTAL 9,409.4		MEAN 25.7		MAX 163		MIN 1.8		AC-FT 18,660			

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.--149 sq mi.

Records available.--October 1958 to September 1968.

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

Average discharge.--10 years, 155 cfs (112,200 acre-ft per year).

Extremes.--Maximum discharge during year, 1,520 cfs June 5 (gage height, 5.01 ft); minimum daily, 36 cfs Dec. 22.
1958-68: Maximum discharge, that of June 5, 1968; minimum daily, 26 cfs Jan. 13, 1963.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	85	86	50	45	42	49	93	128	891	402	458	118
2	85	80	46	46	42	51	78	155	1,110	380	466	116
3	83	66	48	45	42	54	68	162	1,070	346	380	140
4	82	71	49	43	41	52	61	183	1,040	318	312	124
5	80	68	49	40	41	55	61	162	1,270	300	298	112
6	91	64	49	40	43	58	64	151	1,170	291	321	108
7	88	64	48	40	42	62	61	120	996	303	306	104
8	85	64	50	40	42	62	61	126	740	297	337	98
9	85	65	49	40	42	62	57	157	533	315	376	93
10	78	65	49	42	42	57	62	157	430	334	327	90
11	75	62	50	42	43	55	72	146	406	324	315	88
12	72	62	50	38	43	51	85	130	564	306	303	90
13	68	62	49	40	42	55	88	114	774	288	259	86
14	66	62	50	40	42	55	77	93	858	274	356	78
15	65	61	49	42	41	51	85	91	877	248	324	71
16	64	59	50	46	42	52	91	102	989	235	274	69
17	65	58	50	44	42	52	86	96	1,040	222	245	69
18	64	56	48	44	43	52	83	128	1,030	212	227	65
19	64	57	47	40	43	49	78	180	947	197	207	55
20	64	57	42	42	45	49	71	263	891	192	197	55
21	64	57	40	44	47	48	74	309	954	190	192	55
22	65	61	36	44	46	50	72	434	828	195	173	57
23	64	58	42	44	47	54	74	376	740	232	166	62
24	62	50	48	44	48	59	71	306	710	232	157	61
25	62	55	46	46	49	65	68	274	596	248	151	64
26	62	54	46	46	49	61	66	324	587	263	146	69
27	61	48	45	44	50	57	68	454	600	297	166	65
28	62	48	47	44	49	62	71	628	614	350	166	65
29	68	51	47	44	47	77	72	730	560	366	142	66
30	72	49	42	44	47	86	91	730	470	373	132	69
31	85	- - - -	44	44	- - - -	86	- - - -	834	- - - -	418	124	- - - -
Total	2,236	1,820	1,460	1,325	1,277	1,788	2,209	8,243	24,285	8,948	8,073	2,462
Mean	72.1	60.7	47.1	42.7	44.0	57.7	73.6	266	810	289	258	82.1
Max	91	86	50	46	50	86	93	834	1,270	418	466	140
Min	61	48	36	38	41	48	57	91	406	190	124	55
Ac-ft	4,440	3,610	2,900	2,630	2,530	3,550	4,380	16,350	48,170	17,750	15,870	4,880

Cal yr 1967: Total 46,640 Mean 128 Max 660 Min 30 Ac-ft 92,510

Wtr yr 1968: Total 64,056 Mean 175 Max 1,270 Min 36 Ac-ft 127,100

Peak discharge (base, 1,000 cfs).--June 5 (0100) 1,520 cfs (5.01 ft); June 16 (2330) 1,270 cfs (4.73 ft).

GUNNISON RIVER BASIN

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.--13.1 sq mi.

Records available.--October 1955 to September 1968.

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

Average discharge.--13 years, 12.5 cfs (9,050 acre-ft per year).

Extremes.--Maximum discharge during year, 88 cfs June 20 (gage height, 2.83); minimum daily, 2.4 cfs Mar. 21.

1955-68: Maximum discharge, about 200 cfs July 19, 1965 (gage height, 2.98 ft); maximum gage height, 4.07 ft Apr. 11, 1965; (backwater from ice); minimum daily discharge, 2.4 cfs Jan. 14, 1961, Mar. 14, 1964, Mar. 21, 1968.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.0	6.1	4.6	3.8	3.2	2.8	3.6	6.7	30	38	33	12
2	7.0	5.5	4.2	3.8	3.2	2.8	3.4	7.8	37	31	28	12
3	7.0	5.0	4.4	3.6	3.2	2.8	3.4	8.6	34	25	23	12
4	7.4	5.8	4.2	3.6	3.2	2.8	3.2	9.0	40	23	23	12
5	7.0	5.5	4.4	3.4	3.2	2.6	3.0	10	49	22	22	12
6	7.4	5.0	4.2	3.4	3.2	2.6	3.2	9.8	51	23	22	11
7	7.0	5.0	4.6	3.4	3.2	2.8	2.8	9.5	51	23	22	11
8	6.4	5.0	4.4	3.4	3.0	2.8	3.0	10	43	23	24	9.8
9	6.4	5.0	4.4	3.4	3.0	2.6	2.8	11	31	24	35	9.8
10	6.4	4.9	4.2	3.6	3.0	2.6	3.2	11	23	28	30	9.4
11	6.1	5.0	4.0	3.4	3.0	2.8	3.6	11	21	29	31	9.4
12	6.1	4.9	4.3	3.2	3.0	2.6	4.0	12	22	27	27	9.4
13	6.1	4.9	4.3	3.4	3.0	2.6	4.0	11	31	25	23	9.4
14	6.1	4.9	4.3	3.6	3.0	2.8	3.8	10	37	23	37	9.4
15	6.1	4.9	4.6	3.4	3.0	2.6	4.2	11	45	22	30	9.0
16	6.1	4.9	4.6	3.4	3.0	2.6	4.6	11	45	22	24	8.6
17	6.1	4.9	4.6	3.4	3.0	2.8	4.6	11	40	20	22	8.6
18	6.1	4.9	4.2	3.4	3.0	2.6	4.0	12	40	20	20	8.2
19	6.1	4.9	4.3	3.4	3.0	2.6	3.8	13	46	18	19	8.2
20	6.1	4.9	4.0	3.4	3.0	2.6	3.6	15	53	17	19	7.8
21	6.1	4.9	3.6	3.4	3.0	2.4	3.8	18	65	17	19	8.2
22	6.1	4.9	3.0	3.4	3.0	2.6	3.6	20	53	17	17	8.2
23	6.1	5.2	3.6	3.4	3.0	2.6	3.8	19	48	17	17	8.2
24	6.1	4.5	4.0	3.4	3.0	2.8	3.6	18	53	16	16	8.2
25	6.1	4.9	4.2	3.2	3.2	2.6	3.8	17	46	17	15	7.4
26	6.1	4.5	4.0	3.2	3.0	2.6	3.6	18	55	17	14	7.4
27	5.8	4.5	3.8	3.2	3.0	2.8	3.6	18	55	17	14	7.0
28	5.8	4.5	4.0	3.2	3.0	3.0	3.6	20	65	17	14	7.0
29	6.1	4.9	4.0	3.4	2.8	3.0	4.0	22	65	20	14	7.0
30	5.5	4.6	3.8	3.2	- - - - -	3.4	5.2	22	51	20	14	7.0
31	6.0	- - - - -	3.6	3.2	- - - - -	3.6	- - - - -	27	- - - - -	33	12	- - - - -
Total	195.8	149.3	128.4	105.6	88.4	85.2	110.4	429.4	1,325	691	680	274.6
Mean	6.32	4.98	4.14	3.41	3.05	2.75	3.68	13.9	44.2	22.3	21.9	9.15
Max	7.4	6.1	4.6	3.8	3.2	3.6	5.2	27	65	38	37	12
Min	5.5	4.5	3.0	3.2	2.8	2.4	2.8	6.7	21	16	12	7.0
Ac-ft	388	296	255	209	175	169	219	852	2,630	1,370	1,350	545

Cal yr 1967: Total 3,054.5 Mean 8.37 Max 28 Min 3.0 Ac-ft 6,060
 Wtr yr 1968: Total 4,263.1 Mean 11.6 Max 65 Min 2.4 Ac-ft 8,460

Peak discharge (base, 30 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
6- 6	0600	2.74	69	8- 1	0100	2.61	41
6-20	2330	2.83	88	8- 9	1800	2.60	41
6-29	0130	2.82	86	8-14	1330	2.66	51

9-1465. East Fork Dallas Creek near Ridgway, Colo.

Location.--Lat 38°05'40", long 107°48'40", in SE 1/4 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 1968.

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.--14 years, 24.6 cfs (17,810 acre-ft per year).

Extremes.--Maximum discharge during year, 209 cfs June 20 (gage height, 3.39 ft), from rating curve extended above 150 cfs; maximum gage height, 3.67 ft June 21 (backwater from debris); minimum daily discharge, 4.4 cfs Mar. 23. 1947-53, 1960-68: Maximum discharge, 297 cfs June 18, 1949 (gage height, 3.43 ft, site and datum then in use), from rating curve extended above 100 cfs; maximum gage height, 4.28 ft Dec. 13, 1961 (ice jam); minimum daily discharge, 2.6 cfs Mar. 6, 1967.

Remarks.--Records good 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	9.5	6.5	6.0	5.0	4.8	6.4	6.7	41	90	108	28
2	15	9.5	6.0	6.0	5.5	4.8	5.8	7.0	83	85	90	28
3	15	8.5	6.5	5.5	6.0	4.6	5.2	8.1	83	79	69	28
4	16	9.0	6.5	5.5	5.5	4.6	5.0	8.8	86	70	57	25
5	16	8.8	6.5	5.5	5.5	5.0	5.2	8.8	136	66	50	24
6	16	8.1	6.5	5.5	5.8	5.0	5.2	9.5	134	64	55	23
7	15	8.4	6.5	5.5	5.8	5.5	4.8	8.4	85	64	57	22
8	14	9.2	6.5	5.5	5.8	5.5	5.8	9.5	77	62	57	21
9	13	8.4	6.5	5.5	5.2	5.2	4.8	10	52	69	72	21
10	13	8.1	6.5	6.0	5.5	5.0	4.8	11	45	77	64	20
11	12	8.4	6.5	5.5	5.5	5.2	5.2	11	45	76	68	19
12	12	7.8	6.5	5.5	5.8	5.0	6.0	10	62	74	62	19
13	12	7.8	6.0	5.5	5.8	5.0	6.4	10	96	69	53	19
14	12	7.8	6.0	5.5	5.5	5.2	6.0	10	122	66	76	18
15	11	7.8	6.5	6.0	5.5	4.6	6.4	10	142	62	68	18
16	10	7.8	6.5	6.0	5.5	4.6	6.4	10	155	62	55	18
17	10	7.4	6.0	6.0	5.2	5.2	6.4	10	155	55	46	18
18	10	7.4	5.5	5.5	5.8	5.0	6.4	10	158	52	42	17
19	10	7.4	5.5	5.5	5.5	5.0	5.2	11	150	47	38	17
20	10	7.4	5.5	5.5	5.5	5.0	5.2	12	165	46	37	16
21	10	7.4	5.0	5.5	5.8	5.0	5.5	14	175	46	37	16
22	10	7.4	4.6	6.0	5.5	4.6	5.2	18	172	47	36	16
23	9.5	7.4	5.0	6.0	5.0	4.4	5.8	21	160	53	33	15
24	9.5	6.5	6.0	6.4	6.0	5.0	5.2	19	140	53	32	14
25	9.5	7.0	6.0	6.4	5.8	5.0	5.2	18	114	62	31	14
26	9.5	7.0	6.0	5.8	5.0	5.5	5.0	20	124	62	30	14
27	9.2	6.5	6.0	6.0	5.8	5.2	5.0	25	126	76	32	14
28	9.5	6.5	6.0	6.0	5.5	5.5	5.2	31	132	76	33	14
29	9.5	7.0	6.0	5.8	5.2	6.0	5.2	34	130	81	30	14
30	8.8	6.5	6.0	5.2	---	5.8	5.8	33	110	77	29	14
31	9.5	---	5.5	5.8	---	6.4	---	33	---	110	28	---
Total	361.5	233.7	187.1	177.9	160.8	158.2	165.7	457.8	3,455	2,078	1,575	564
Mean	11.7	7.79	6.04	5.74	5.54	5.10	5.52	14.8	115	67.0	50.8	18.8
Max	16	9.5	6.5	6.4	6.0	6.4	6.4	34	175	110	108	28
Min	8.8	6.5	4.6	5.2	5.0	4.4	4.8	6.7	41	46	28	14
Ac-ft	717	464	371	353	319	314	329	908	6,850	4,120	3,120	1,120

Cal yr 1967: Total 7,757.8 Mean 21.3 Max 106 Min 2.6 Ac-ft 15,390
Wtr yr 1968: Total 9,574.7 Mean 26.2 Max 175 Min 4.4 Ac-ft 18,990

Peak discharge (base, 120 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
6- 6	0030	3.31	190	8- 1	0100	3.04	134
6-20	2030	3.39	209				

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 1968 (discontinued).

Gage.--Water-stage recorder and concrete control. Altitude of gage is 7,680 ft (from topographic map).

Average discharge.--8 years, 3.95 cfs (2,860 acre-ft per year).

Extremes.--Maximum discharge during year, 33 cfs Aug. 7 (gage height, 2.80 ft); minimum daily, 0.40 cfs May 9.

1960-68: 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, 0.38 cfs May 4, 1967.

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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.7	1.7	1.2	1.8	1.6	1.8	3.0	2.8	5.8	5.6	7.3	2.5
2	1.7	1.7	1.2	1.8	1.6	1.8	2.8	3.0	7.9	5.4	8.8	2.6
3	1.7	1.5	1.4	1.8	1.6	2.0	2.3	3.0	9.8	4.9	6.7	3.0
4	1.7	1.5	1.4	1.8	1.6	2.0	1.6	3.0	9.4	4.9	6.1	2.8
5	1.7	1.7	1.2	1.6	1.6	1.8	2.0	3.1	13	4.9	6.4	2.8
6	1.8	1.5	1.4	1.6	1.6	2.2	2.3	3.3	13	4.7	7.3	2.8
7	1.7	1.4	1.4	1.6	1.6	2.2	1.7	1.8	7.6	4.3	9.3	2.6
8	1.7	1.4	1.4	1.6	1.8	2.2	1.8	.88	5.6	3.8	8.5	2.5
9	1.7	1.4	1.2	1.6	1.8	2.2	1.6	.40	4.9	3.6	10	2.5
10	1.7	1.5	1.4	1.8	1.6	2.0	1.8	.66	4.7	3.4	7.6	2.5
11	1.7	1.5	1.4	1.8	1.6	2.2	2.0	1.4	4.3	3.3	7.0	2.6
12	1.5	1.7	1.2	1.6	1.8	2.0	2.2	1.4	3.6	3.1	7.0	3.0
13	1.5	1.7	1.2	1.6	1.8	2.0	1.8	1.4	5.0	2.8	5.4	1.8
14	1.5	1.7	1.2	1.6	1.8	2.3	1.7	1.4	8.0	3.0	7.3	1.4
15	1.5	1.7	1.4	1.8	1.6	2.2	2.0	1.5	8.5	2.6	5.6	.88
16	1.4	1.7	1.4	1.8	1.6	2.2	2.0	1.7	9.0	2.3	4.9	.88
17	1.5	1.7	1.2	1.8	1.6	2.3	2.0	1.8	10	2.2	4.5	.88
18	1.5	1.7	1.2	1.6	1.8	2.2	2.0	2.0	8.2	2.0	4.3	1.0
19	1.5	1.7	1.4	1.8	1.8	2.2	2.0	2.3	9.8	2.2	3.8	1.0
20	1.5	1.7	1.4	1.8	1.8	2.0	2.3	2.5	12	2.3	3.8	1.2
21	1.5	1.8	1.2	1.8	1.8	2.0	2.2	2.5	17	2.5	4.0	1.2
22	1.5	1.8	1.0	1.6	1.8	2.0	1.5	2.6	14	3.1	3.8	1.2
23	1.5	1.5	1.2	1.6	2.0	2.2	2.0	2.8	11	3.0	3.8	1.4
24	1.5	1.4	1.6	1.8	2.0	2.3	2.6	3.0	11	3.0	3.6	1.2
25	1.5	1.4	1.8	1.8	2.0	2.3	2.5	3.0	7.6	3.0	3.6	1.2
26	1.5	1.4	1.8	1.8	1.8	2.5	2.5	2.8	6.1	3.1	3.1	1.0
27	1.4	1.2	1.8	1.8	2.0	2.3	2.3	3.1	6.1	3.3	3.7	1.0
28	1.5	1.2	1.8	1.8	1.8	2.6	2.6	3.1	6.1	3.8	3.0	1.0
29	1.4	1.2	1.6	1.8	1.8	3.0	2.6	4.3	6.4	3.8	2.6	1.0
30	1.4	1.2	1.4	1.6	- - - -	3.0	2.6	5.4	5.8	5.8	2.6	1.0
31	1.4	- - - -	1.6	1.8	- - - -	3.0	- - - -	4.7	- - - -	7.3	2.6	- - - -
Total	48.3	46.2	43.0	53.4	50.6	69.0	64.3	76.64	251.2	113.0	168.0	52.44
Mean	1.56	1.54	1.39	1.72	1.74	2.23	2.14	2.47	8.37	3.65	5.42	1.75
Max	1.8	1.8	1.8	1.8	2.0	3.0	3.0	5.4	17	7.3	10	3.0
Min	1.4	1.2	1.0	1.6	1.6	1.8	1.5	0.40	3.6	2.0	2.6	0.88
Ac-ft	96	92	85	106	100	137	128	152	498	224	333	104

Cal yr 1967: Total 934.34 Mean 2.56 Max 4.7 Min 0.38 Ac-ft 1,850

Wtr yr 1968: Total 1,036.08 Mean 2.83 Max 17 Min 0.40 Ac-ft 2,060

Peak discharge (base, 25 cfs)--Aug. 7 (1400) 33 cfs (2.80 ft).

Note.--No gage-height record Dec. 28 to Mar. 4.

9-1470. Dallas Creek near Ridgway, Colo.

Location.--Lat 38°10'30", long 107°45'40", in SE¼ 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 Ridgway.

Drainage area.--96.2 sq mi.

Records available.--March 1922 to October 1927, October 1955 to September 1968. Monthly discharge only for some periods, published in WSP 1313.

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

Average discharge.--18 years, 37.3 cfs (27,000 acre-ft per year).

Extremes.--Maximum discharge during year, 309 cfs Aug. 8 (gage height, 4.07 ft), from rating curve extended above 110 cfs by logarithmic plotting; minimum daily, 2.5 cfs Oct. 18, 19, 27, 28.

1922-27, 1955-68: Maximum discharge observed, 1,120 cfs Aug. 15, 1923 (gage height, 4.40 ft, datum then in use), from rating curve extended above 160 cfs; maximum gage height, 5.14 ft Jan. 31, 1963 (backwater from ice); minimum daily discharge, 0.50 cfs June 17, 1967.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	16	19	16	12	15	17	39	14	33	187	30
2	14	20	18	16	12	15	17	40	28	29	153	30
3	9.5	20	19	16	12	16	15	46	40	28	112	33
4	10	23	18	15	12	15	13	44	35	25	92	28
5	11	24	18	13	11	16	13	52	78	24	80	28
6	12	24	18	13	12	18	16	44	88	23	100	24
7	13	23	18	13	12	18	13	28	51	23	90	23
8	12	23	18	13	11	18	14	25	45	25	118	23
9	10	23	18	13	11	18	14	20	28	26	153	22
10	10	23	17	14	11	16	15	18	18	27	131	22
11	11	22	17	13	11	16	16	20	15	25	139	20
12	5.6	23	17	12	11	15	15	20	15	23	114	19
13	5.3	23	18	12	10	15	17	15	18	23	94	19
14	4.6	23	17	13	10	16	18	12	27	22	131	15
15	4.2	23	17	14	10	15	26	12	45	19	114	12
16	3.6	22	18	14	11	15	38	12	55	17	88	12
17	2.8	22	18	14	10	16	42	10	70	13	82	12
18	2.5	21	17	13	12	15	28	9.0	65	9.5	76	13
19	2.5	21	16	13	11	14	20	6.5	64	12	72	15
20	2.8	21	15	13	12	14	17	7.5	65	10	64	12
21	3.2	21	14	13	13	14	18	8.5	103	11	62	12
22	2.8	22	13	13	13	14	15	12	84	11	58	13
23	2.8	20	14	13	13	14	14	9.5	68	14	54	11
24	2.8	17	17	13	13	15	15	7.0	68	19	49	11
25	2.8	21	16	14	14	15	15	6.0	54	20	45	12
26	2.8	19	16	14	14	15	15	5.3	54	24	38	12
27	2.5	18	16	13	15	15	14	6.5	52	35	47	11
28	2.5	18	16	13	15	15	16	6.5	56	32	45	11
29	6.5	19	16	13	14	16	20	10	55	65	38	9.0
30	4.6	18	16	12	- - - - -	16	31	10	45	82	37	6.5
31	8.5	- - - - -	15	13	- - - - -	16	- - - - -	11	- - - - -	121	33	- - - - -
Total	205.2	633	520	417	348	481	557	572.3	1,503	870.5	2,696	520.5
Mean	6.62	21.1	16.8	13.5	12.0	15.5	18.6	18.5	50.1	28.1	87.0	17.4
Max	17	24	19	16	15	18	42	52	103	121	187	33
Min	2.5	16	13	12	10	14	13	5.3	14	9.5	33	6.5
Ac-ft	407	1,260	1,030	827	690	954	1,100	1,140	2,980	1,730	5,350	1,030

Cal yr 1967: Total 6,298.57 Mean 17.3 Max 84 Min 0.50 Ac-ft 12,490
Wtr yr 1968: Total 9,323.5 Mean 25.5 Max 187 Min 2.5 Ac-ft 18,490

9-1471. Cow Creek near Ridgway, Colo.

Location.--Lat 38°09'00", long 107°38'40", in NW¼SW¼ sec.16, T.45 N., R.7 W., on right bank 50 ft downstream from Sneva ditch siphon, 500 ft upstream from Flume Creek, and 6¼ miles east of Ridgway. Prior to June 7, 1968, at site 200 ft upstream.

Drainage area.--45.4 sq mi.

Records available.--October 1955 to September 1968.

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

Average discharge.--13 years, 61.5 cfs (45,520 acre-ft per year).

Extremes.--Maximum discharge during year, 1,130 cfs June 5 (gage height, 5.53 ft, from floodmarks), from rating curve extended above 610 cfs; minimum daily, 5.5 cfs Dec. 22.

1955-68: Maximum discharge, 1,360 cfs June 28, 1957 (gage height, 7.70 ft, site and datum then in use); minimum daily, 2.0 cfs Jan. 9, 1957.

Remarks.--Records poor. Sneva ditch diverts water above station for irrigation below. Records show combined flow of creek and Sneva ditch.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.5	12	7.5	7.0	6.5	8.5	30	54	560	209	100	24
2	9.5	11	7.5	7.5	6.5	9.0	23	63	670	197	100	28
3	10	10	8.0	7.0	6.5	9.0	18	66	600	160	95	30
4	10	10	8.0	6.5	6.5	9.0	16	68	590	170	85	25
5	10	9.5	8.0	6.5	6.5	9.5	14	63	700	184	85	23
6	31	9.5	8.0	6.5	6.5	10	15	63	650	150	100	21
7	24	9.5	8.0	6.5	6.5	11	15	56	472	160	100	20
8	16	9.5	8.0	6.5	6.5	11	13	58	388	160	95	19
9	14	9.5	8.0	6.5	6.5	11	16	65	286	160	95	17
10	11	9.5	8.0	7.0	7.0	10	20	68	262	150	90	17
11	11	9.0	7.5	6.5	7.0	9.5	27	61	244	149	90	18
12	11	9.0	7.5	6.0	7.0	9.0	29	61	421	145	85	17
13	9.5	9.0	7.5	6.5	7.0	9.5	25	61	479	133	75	22
14	9.0	9.0	7.5	6.5	7.0	9.5	22	54	458	116	90	17
15	7.0	9.0	7.5	7.0	6.5	9.0	27	63	474	110	85	17
16	6.0	9.0	8.0	7.0	7.0	9.0	29	66	489	95	75	18
17	8.0	8.5	7.5	7.0	7.0	9.0	28	60	491	85	65	17
18	8.5	8.5	7.5	7.0	7.0	9.0	28	70	553	80	60	17
19	9.0	8.5	7.0	6.5	7.0	8.5	23	94	466	75	55	13
20	9.0	8.5	6.5	7.0	7.5	8.5	21	115	521	70	50	13
21	9.0	8.5	6.0	7.0	8.0	8.5	20	182	531	70	55	15
22	9.0	9.0	5.5	7.0	7.5	9.0	17	237	414	70	46	18
23	8.5	8.5	6.5	7.0	8.0	9.8	17	217	364	75	40	16
24	8.5	7.5	7.5	7.0	8.0	12	18	184	305	75	38	14
25	8.5	8.5	7.5	7.5	8.0	12	19	190	281	75	34	15
26	8.5	8.5	7.5	7.5	8.5	11	18	210	293	80	34	15
27	9.0	7.5	7.0	7.0	8.5	11	17	230	303	90	34	14
28	9.5	7.5	7.0	7.0	8.0	18	18	400	303	95	30	11
29	10	8.0	7.5	7.0	8.0	31	25	480	249	100	26	10
30	11	7.5	7.5	6.5	-----	30	40	480	242	110	26	12
31	12	-----	7.0	7.0	-----	30	-----	520	-----	100	24	-----
Total	336.5	269.0	229.5	212.0	208.0	370.8	648	4,659	13,059	3,698	2,062	533
Mean	10.9	8.97	7.40	6.84	7.17	12.0	21.6	150	435	119	66.5	17.8
Max	31	12	8.0	7.5	8.5	31	40	520	700	209	100	30
Min	6.0	7.5	5.5	6.0	6.5	8.5	13	54	242	70	24	10
Ac-ft	667	534	455	420	413	735	1,290	9,240	25,900	7,330	4,090	1,060

Cal yr 1967: Total 15,170.3 Mean 41.6 Max 490 Min 3.9 Ac-ft 30,090

Wtr yr 1968: Total 26,284.8 Mean 71.8 Max 700 Min 5.5 Ac-ft 52,140

Peak discharge (base, 500 cfs).--June 5 (2000) 1,130 cfs (5.53 ft); June 18 (1730) 845 cfs (estimated) (gage height unknown).

Note.--No gage-height record on creek Oct. 29 to Mar. 19, May 25 to June 6, July 15 to Sept. 3.

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.--443 sq mi.

Records available.--April 1903 to November 1905, April to June 1906 (gage heights and discharge measurements only), October 1912 to September 1968. 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. 12, 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.--58 years (1903-5, 1912-68), 267 cfs (193,300 acre-ft per year).

Extremes.--Maximum discharge during year, 2,100 cfs June 6 (gage height, 5.29 ft); minimum daily, 44 cfs Sept. 21. 1903-5, 1915-68: Maximum daily discharge, 4,080 cfs June 13, 14, 1921; minimum daily, 12 cfs Sept. 19, 1956, May 7, 1967.

Remarks.--Records good except those for period of no gage-height record, 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	87	112	78	62	62	70	152	214	930	543	716	150
2	82	105	68	66	60	72	125	260	1,240	501	732	142
3	74	89	68	64	58	76	102	272	1,320	450	585	179
4	70	100	74	60	56	70	85	320	1,310	400	474	158
5	68	100	74	56	54	78	82	292	1,570	366	415	142
6	82	98	76	56	54	93	89	288	1,740	343	468	126
7	89	96	70	56	54	98	95	225	1,540	338	494	117
8	87	96	78	56	54	96	85	214	1,320	352	543	109
9	82	100	74	56	54	98	78	246	900	361	740	100
10	74	100	68	58	54	89	87	256	740	426	606	90
11	74	98	76	62	54	82	102	242	606	456	564	84
12	70	98	82	58	54	72	120	236	843	420	536	81
13	63	96	74	56	54	80	122	222	1,230	405	444	78
14	65	96	74	56	56	87	102	169	1,220	370	564	71
15	68	93	78	58	58	76	118	162	1,140	325	564	63
16	67	93	80	60	60	78	137	186	1,320	293	468	57
17	65	91	78	60	60	80	140	162	1,440	271	410	57
18	67	87	74	60	60	80	140	194	1,410	250	380	57
19	68	85	74	58	60	72	120	211	1,300	232	348	48
20	70	82	72	56	60	72	102	348	1,220	218	313	46
21	70	80	57	58	64	72	110	356	1,320	206	297	44
22	68	85	52	60	62	72	100	585	1,240	203	260	45
23	63	85	50	60	62	82	96	515	1,100	236	243	48
24	61	70	54	60	62	93	98	390	1,050	260	226	46
25	65	78	60	60	62	102	98	305	843	268	200	45
26	67	76	68	60	66	98	96	301	798	282	185	50
27	65	63	66	60	70	87	96	438	807	356	198	46
28	65	68	64	60	70	93	100	592	843	410	218	45
29	76	70	62	62	70	120	108	834	798	550	182	48
30	74	72	60	64	---	143	155	816	684	515	179	49
31	89	---	60	68	---	137	---	920	---	636	164	---
Total	2,235	2,662	2,143	1,846	1,724	2,718	3,230	10,771	33,822	11,242	12,706	2,421
Mean	72.1	88.7	69.1	59.5	59.4	87.7	108	347	1,127	363	410	80.7
Max	89	112	82	68	70	143	155	920	1,740	636	740	179
Min	61	63	50	56	54	70	78	162	606	203	164	44
Ac-ft	4,430	5,280	4,250	3,660	3,420	5,390	6,410	21,360	67,080	22,300	25,200	4,800

Cal yr 1967: Total 52,000 Mean 142 Max 780 Min 12 Ac-ft 103,100
Wtr yr 1968: Total 87,520 Mean 239 Max 1,740 Min 44 Ac-ft 173,600

Note.--No gage-height record Jan. 6 to Mar. 5.

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.--1,129 sq mi.

Records available.--April 1903 to October 1931 (no winter records in most years), September 1938 to September 1968. 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.--32 years (1907-8, 1920-21, 1938-68), 273 cfs (197,600 acre-ft per year).

Extremes.--Maximum discharge during year, 1,460 cfs June 3 (gage height, 5.50 ft); minimum daily, 88 cfs Mar. 20. 1903-31, 1938-68: 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 97,000 acres above station, and return flow from irrigated areas.

DISCHARGE, IN CFS, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	290	405	179	153	147	104	288	197	1,020	300	1,100	190
2	280	219	153	145	129	101	169	233	1,140	205	1,180	180
3	245	180	150	148	123	102	159	222	1,260	178	1,120	170
4	225	187	157	134	126	103	174	286	770	203	970	170
5	235	178	156	100	123	107	120	361	906	186	834	170
6	240	174	165	100	114	110	111	471	1,100	165	826	170
7	265	169	145	110	116	117	153	360	1,040	161	834	170
8	275	163	159	120	116	116	171	317	746	186	728	160
9	280	163	140	130	123	112	184	371	434	166	1,100	160
10	281	165	126	140	119	108	98	385	353	197	890	159
11	285	177	116	130	122	100	91	407	286	265	826	161
12	292	174	140	120	124	89	133	510	218	194	850	169
13	384	170	105	120	123	192	189	578	482	215	721	195
14	375	168	115	120	120	251	154	464	714	182	722	197
15	382	171	136	120	136	156	157	376	482	159	810	197
16	443	167	140	130	120	329	105	460	564	153	638	199
17	383	169	121	140	114	388	104	366	714	155	404	230
18	357	159	124	130	129	288	110	319	698	139	155	271
19	369	156	140	120	137	97	104	331	674	130	151	291
20	361	155	173	130	153	88	98	460	495	138	151	209
21	405	157	150	140	193	288	97	506	616	131	166	293
22	422	176	126	150	198	333	118	754	794	136	177	340
23	422	171	164	170	173	235	147	826	658	182	180	364
24	453	161	180	160	151	213	117	664	552	227	190	383
25	477	146	188	150	156	320	93	512	408	204	200	391
26	480	145	182	150	152	276	98	423	444	242	210	382
27	390	138	166	161	127	231	117	586	456	360	220	373
28	395	126	164	173	130	215	166	754	520	770	240	376
29	408	153	160	172	120	320	114	1,040	507	770	230	383
30	438	166	155	148	-----	309	156	1,000	406	690	220	443
31	457	-----	145	147	-----	320	-----	1,050	-----	1,030	200	-----
TOTAL	10,479	5,208	4,620	4,761	3,914	6,118	4,095	15,589	19,457	8,419	17,243	7,546
MEAN	354	174	149	137	135	197	137	503	649	272	556	252
MAX	480	405	188	173	198	388	288	1,050	1,260	1,030	1,180	443
MIN	225	126	105	100	114	88	91	197	218	130	151	159
AC-FT	21,780	10,330	9,160	8,450	7,760	12,130	8,120	30,920	38,590	16,700	34,200	14,970
CAL YR 1967	TOTAL	81,573	MEAN	273	MAX	1,040	MIN	45	AC-FT	161,800		
WTR YR 1968	TOTAL	107,449	MEAN	294	MAX	1,260	MIN	88	AC-FT	213,100		

9-1520. Kannah Creek near Whitewater, Colo.

Location.--Lat 38°57'40", long 108°13'50", in SW¼ 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 1968. 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. Altitude of gage is 6,060 ft (from topographic map). 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).--50 years, 38.8 cfs (28,090 acre-ft per year).

Extremes (combined flow).--Maximum discharge during year, 534 cfs June 4; minimum daily, 6.0 cfs Nov. 27.

1917-21, 1922-68: Maximum discharge observed, 1,640 cfs June 6, 1921 (gage height, 4.5 ft, site and datum then in use), from rating curve extended above 700 cfs; minimum daily, 4.3 cfs Dec. 19, 1939.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.9	2.2	0.88	0.30	0.30	0.34	2.8	12	375	32	36	14
2	3.6	2.0	1.4	.30	.60	.36	2.4	16	375	32	36	15
3	3.9	2.2	2.0	.30	.40	.36	1.2	18	352	31	26	16
4	5.4	4.5	1.6	.30	.30	.38	.70	20	380	28	22	16
5	5.4	1.8	1.4	.20	.30	.38	.46	20	380	24	19	16
6	5.4	1.6	1.4	.20	.30	.36	.46	18	370	21	19	21
7	5.1	.94	1.0	.20	.30	.38	.58	14	325	16	22	19
8	5.4	2.0	.80	.20	.30	.34	.40	13	273	19	22	20
9	5.4	13	.80	.30	.40	.34	.38	16	204	25	19	18
10	6.0	12	.80	.30	.50	.30	.46	20	189	16	17	30
11	5.7	12	.80	.30	.30	.30	.76	20	180	14	19	33
12	7.0	11	.80	.20	.20	.52	1.4	22	207	25	17	33
13	8.5	5.4	.70	.20	.20	.34	2.0	21	228	22	26	38
14	9.0	1.4	.60	.20	.20	.34	2.0	16	214	15	60	39
15	8.0	.82	.50	.20	.20	.38	2.0	15	195	12	50	42
16	8.0	.80	.40	.20	.20	.32	2.2	18	180	12	34	40
17	8.0	.80	.40	.20	.30	.32	2.0	21	148	16	26	42
18	9.0	.80	.40	.30	.30	.30	2.0	23	123	15	23	40
19	10	.80	.50	.30	.30	.36	2.6	30	104	25	20	40
20	10	.80	.50	.30	.40	.40	1.8	40	90	25	19	37
21	10	.76	.50	.30	.50	.52	1.0	54	79	24	19	34
22	10	.82	.50	.30	.50	.52	1.2	75	70	23	17	34
23	10	.76	.40	.40	.52	.34	1.8	79	62	20	18	28
24	10	.94	.40	.30	.40	.34	.94	77	54	17	16	16
25	2.8	.70	.40	.30	.38	.40	.88	77	52	18	17	15
26	2.4	.58	.40	.30	.38	.60	.88	88	48	26	15	14
27	2.4	1.2	.30	.40	.38	.80	.88	125	45	31	15	9.0
28	2.4	2.0	.40	.40	.36	1.0	1.4	210	42	34	15	7.5
29	2.4	2.0	.40	.40	.34	2.2	1.8	289	38	22	14	7.5
30	2.6	.82	.30	.30	- - - -	3.3	6.0	309	36	20	15	7.5
31	2.2	- - - -	.20	.30	- - - -	2.6	- - - -	321	- - - -	26	15	- - - -
Total	189.9	87.44	21.88	8.70	10.06	19.74	45.38	2,097	5,418	686	708	741.5
Mean	6.13	2.91	0.71	0.28	0.35	0.64	1.51	67.6	181	22.1	22.8	24.7
Max	10	13	2.0	0.40	0.60	3.3	6.0	321	380	34	60	42
Min	2.2	0.58	0.20	0.20	0.20	0.30	0.38	12	36	12	14	7.5
Ac-ft	377	173	43	17	20	39	90	4,160	10,750	1,360	1,400	1,470

Adjusted for diversions

Mean	13.8	10.3	8.31	7.59	7.72	8.01	9.09	76.2	194	33.1	32.4	32.4
Ac-ft	847	612	510	466	444	492	541	4,690	11,530	2,040	1,990	1,930

Observed

Adjusted

Cal yr 1967: Total	4,555.56	Mean	12.5	Max	168	Min	0.20	Ac-ft	9,040	Mean	20.9	Ac-ft	15,210
Wtr yr 1968: Total	10,033.60	Mean	27.4	Max	380	Min	0.20	Ac-ft	19,900	Mean	35.9	Ac-ft	26,090

Note.--No gage-height record Dec. 3 to Feb. 22.

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.--7,928 sq mi.

Records available.--October 1894 to December 1895 (gage heights only), October 1896 to September 1899, October 1901 to October 1906, October 1916 to September 1968. 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.--60 years (1896-99, 1901-6, 1916-68), 2,558 cfs (1,852,000 acre-ft per year).

Extremes.--Maximum discharge during year, 7,800 cfs May 22 (gage height, 7.10 ft); maximum gage height, 8.24 ft Jan. 23 (backwater from ice); minimum daily discharge, 522 cfs July 20.

1896-99, 1901-6, 1916-68: 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. 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 1968 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,030	1,430	2,220	3,470	2,100	1,490	1,140	1,660	6,920	1,500	2,670	876
2	1,030	1,480	2,130	3,640	1,930	1,440	1,210	2,470	6,850	1,160	2,850	921
3	1,010	1,000	2,010	3,490	1,840	1,420	1,110	3,010	7,050	1,110	2,810	970
4	960	940	2,030	3,600	1,740	1,400	1,020	3,850	7,450	1,020	2,380	1,040
5	950	1,640	2,110	3,600	1,580	1,330	960	4,150	6,990	990	1,990	1,020
6	950	1,700	2,200	3,000	1,520	1,160	1,030	4,620	7,240	912	1,780	1,000
7	990	1,560	2,160	2,400	1,490	990	1,140	3,980	6,640	849	1,910	990
8	1,020	1,210	2,150	1,800	1,500	1,030	1,080	3,360	5,740	832	1,910	990
9	1,000	1,720	2,130	1,700	1,520	1,060	990	3,660	4,960	912	2,400	1,000
10	1,010	1,720	2,100	1,700	1,540	1,010	876	4,000	3,810	950	2,410	1,000
11	990	1,900	2,060	1,700	1,550	990	885	3,960	3,220	867	2,180	980
12	1,030	1,900	2,500	1,700	1,550	960	930	4,060	3,060	926	2,470	1,010
13	1,040	1,780	2,560	1,700	1,580	828	1,290	4,580	3,030	858	2,250	1,040
14	980	1,840	2,580	1,700	1,600	1,110	1,500	4,080	3,910	808	2,890	1,060
15	960	1,840	2,860	1,700	1,610	1,330	1,490	3,240	4,060	760	3,130	1,060
16	970	1,880	2,950	1,700	1,610	1,120	1,500	3,120	3,960	673	2,360	1,050
17	980	1,880	2,380	1,700	1,600	858	1,460	3,060	4,150	631	1,850	1,110
18	1,020	1,760	2,060	1,700	1,680	903	1,300	2,940	4,230	561	1,540	1,160
19	1,020	1,740	2,590	1,700	1,700	960	1,340	3,130	4,060	528	1,300	1,240
20	1,040	1,760	2,830	1,700	1,720	824	1,270	3,940	3,750	522	1,080	1,140
21	1,060	1,790	2,380	1,700	1,880	792	1,150	4,960	3,870	528	1,030	864
22	1,080	1,880	2,400	1,700	1,950	824	1,180	6,600	4,290	596	990	1,290
23	1,100	2,010	3,030	1,600	1,730	952	1,130	7,210	4,150	645	940	1,370
24	1,150	2,100	3,680	1,500	1,730	867	1,060	5,900	3,750	688	845	1,420
25	1,160	2,100	3,600	650	1,720	987	1,030	5,260	3,100	728	876	1,420
26	1,190	2,100	3,640	700	1,670	734	990	4,780	2,270	744	845	1,370
27	1,190	2,110	3,660	650	1,620	1,010	990	4,960	2,040	876	832	1,370
28	1,210	2,060	3,660	650	1,620	979	1,080	5,240	1,930	1,570	885	1,390
29	1,220	2,150	3,490	1,000	1,560	1,000	1,050	5,920	1,960	1,900	912	1,420
30	1,290	2,250	3,490	2,100	---	1,300	1,140	6,730	1,730	1,660	840	1,460
31	1,320	---	3,530	2,100	---	1,050	---	6,830	---	2,680	816	---
Total	32,950	53,230	83,170	59,750	48,440	32,708	34,321	135,260	130,170	29,984	53,975	34,031
Mean	1,063	1,774	2,683	1,927	1,670	1,055	1,144	4,363	4,339	967	1,741	1,134
Max	1,320	2,250	3,680	3,640	2,100	1,490	1,500	7,210	7,450	2,680	3,130	1,460
Min	950	940	2,010	650	1,490	734	876	1,660	1,730	522	816	864
Ac-ft	65,360	105,600	165,000	118,500	96,080	64,880	68,070	268,300	258,200	59,470	107,100	67,500

Cal yr 1967: Total 532,923 Mean 1,460 Max 4,520 Min 500 Ac-ft 1,057,000
 Wtr yr 1968: Total 727,993 Mean 1,989 Max 7,450 Min 522 Ac-ft 1,444,000

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 1968.

Gage.--Water-stage recorder. Altitude of gage is 4,370 ft (from river-profile map).

Average discharge.--17 years, 5,564 cfs (4,028,000 acre-ft per year).

Extremes.--Maximum discharge during year, 26,600 cfs June 7 (gage height, 10.78 ft); minimum daily, 2,320 cfs Sept. 12.
1951-68: 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 1968 are published in Part 2 of this report as "below Colorado-Utah State line."

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.830	3.130	3.990	4.740	3.490	3.260	3.220	2.690	18.900	8.740	6.000	2.380
2	2.740	3.570	3.970	4.810	3.410	3.300	3.610	3.570	20.000	7.360	7.150	2.380
3	2.690	3.470	3.570	4.810	3.220	3.220	3.950	4.880	21.300	6.520	6.520	2.360
4	2.640	3.200	3.410	5.040	3.150	3.170	3.550	6.040	24.700	6.120	6.430	2.480
5	2.660	3.260	3.470	4.810	3.200	3.130	3.300	7.330	22.800	5.900	6.100	2.540
6	2.660	3.810	3.710	4.280	3.280	3.080	3.220	8.230	23.400	5.550	5.500	2.570
7	2.830	3.850	3.570	2.990	3.240	2.920	3.510	8.530	25.200	5.380	5.670	2.570
8	2.830	3.300	3.790	2.560	3.240	2.860	3.510	7.420	22.200	5.240	6.460	2.510
9	2.830	3.370	3.770	2.560	3.220	3.040	3.370	6.910	20.000	4.970	6.730	2.490
10	2.800	3.470	3.710	2.860	3.240	2.990	3.080	7.330	16.000	5.020	7.630	2.480
11	2.810	3.690	3.670	2.990	3.280	2.850	2.920	7.690	13.600	4.780	6.850	2.360
12	2.810	3.930	3.830	2.920	3.220	2.690	2.850	7.870	12.700	4.670	7.390	2.320
13	2.780	3.830	4.050	2.970	3.260	2.570	3.110	8.410	12.600	4.720	7.030	2.380
14	2.750	3.750	3.890	2.800	3.450	2.540	3.670	8.680	15.400	4.430	7.780	2.340
15	2.750	3.850	3.870	2.800	3.370	2.920	3.730	7.690	16.500	4.180	7.810	2.360
16	2.750	3.770	4.240	2.830	3.410	2.950	3.610	6.850	16.100	3.930	7.630	2.480
17	2.750	3.770	4.220	3.060	3.410	2.880	3.670	6.790	16.100	3.610	6.580	2.690
18	2.740	3.690	3.970	3.340	3.470	2.570	3.650	6.320	17.100	3.410	5.500	2.800
19	2.780	3.610	3.890	3.220	3.510	2.710	3.670	6.200	17.300	3.110	4.920	2.900
20	2.830	3.630	4.240	3.170	3.570	2.660	3.670	6.850	16.900	2.930	4.470	2.830
21	2.900	3.610	4.200	3.190	3.830	2.590	3.350	8.470	16.300	2.850	4.090	2.520
22	2.900	3.750	3.810	3.200	4.110	2.490	3.320	10.500	17.500	2.810	3.590	2.590
23	2.900	3.910	3.890	3.300	4.110	2.350	3.220	14.700	17.000	2.830	3.350	2.860
24	2.860	3.950	4.490	3.320	3.650	2.610	3.040	14.800	15.400	3.010	3.110	2.990
25	2.860	3.910	5.000	3.340	3.690	2.560	2.860	13.000	14.300	3.130	2.970	2.990
26	2.880	3.870	5.450	2.800	3.490	2.680	2.690	11.300	12.200	3.300	2.800	3.010
27	2.850	3.890	5.330	2.570	3.490	2.830	2.610	10.700	10.600	3.490	2.590	2.950
28	2.830	3.670	5.240	2.810	3.450	2.730	2.680	11.200	9.910	3.870	2.540	2.970
29	3.260	3.550	5.140	2.810	3.350	2.690	2.620	12.500	10.100	5.090	2.560	3.040
30	3.280	3.810	5.070	2.760	- - - - -	2.880	2.490	15.300	9.780	5.000	2.520	3.150
31	3.260	- - - - -	4.950	3.080	- - - - -	3.170	- - - - -	17.000	- - - - -	5.770	2.430	- - - - -
Total	88.040	109.870	129.400	102.740	99.810	87.890	97.750	275.740	501.890	141.720	162.700	79.290
Mean	2,840	3,662	4,174	3,314	3,442	2,835	3,258	8,895	16,730	4,572	5,248	2,643
Max	3,280	3,950	5,450	5,040	4,110	3,300	3,950	17,000	25,200	8,740	7,810	3,150
Min	2,640	3,130	3,410	2,560	3,150	2,350	2,490	2,680	9,780	2,810	2,430	2,320
Ac-ft	174,600	217,900	256,700	203,800	198,000	174,300	193,900	546,900	995,500	281,100	322,700	157,300
Cal yr 1967: Total	1,523,160			Mean 4,173	Max 18,200	Min 1,570	Ac-ft 3,021,000					
Wtr yr 1968: Total	1,876,840			Mean 5,128	Max 25,200	Min 2,320	Ac-ft 3,723,000					

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, 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 1968.

Gage.--Water-stage recorder. Datum of gage is 8,422.23 ft above mean sea level, datum of 1929.

Average discharge.--17 years, 129 cfs (93,390 acre-ft per year).

Extremes.--Maximum discharge during year, 1,360 cfs June 4 (gage height, 5.00 ft); minimum daily, 12 cfs Dec. 22.

1951-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	24	16	15	16	17	88	96	1,050	240	266	59
2	42	24	15	15	16	18	74	113	1,010	222	251	59
3	46	14	16	16	16	18	60	127	944	210	220	65
4	47	24	17	15	16	18	53	136	1,050	184	180	55
5	42	20	16	14	15	19	51	136	1,220	171	162	50
6	41	20	16	14	15	20	51	127	1,210	171	191	47
7	38	19	15	14	16	22	47	115	1,080	169	162	46
8	37	18	16	15	16	22	44	138	846	164	162	42
9	37	20	15	16	16	20	41	166	618	158	212	39
10	37	20	16	16	16	20	47	169	485	169	184	38
11	37	19	18	15	16	19	61	166	470	149	191	38
12	34	20	18	15	16	18	83	155	636	140	160	37
13	33	20	16	15	16	19	89	142	700	127	144	37
14	32	20	15	16	16	19	83	125	800	113	286	36
15	29	19	16	15	15	18	93	125	880	102	235	35
16	26	18	17	15	15	18	96	155	960	93	184	33
17	29	20	17	15	15	18	86	166	980	83	158	34
18	29	17	16	15	16	17	80	215	920	80	133	33
19	28	18	16	15	16	17	71	266	880	75	119	32
20	25	17	15	16	16	18	64	378	825	75	107	31
21	25	20	13	16	16	18	61	530	881	74	111	31
22	26	17	12	16	16	19	57	748	783	68	96	29
23	25	17	14	15	16	22	53	690	720	83	85	29
24	23	13	17	16	16	27	51	582	612	109	75	29
25	24	17	16	16	17	31	51	520	510	129	69	28
26	25	16	16	16	17	31	53	654	460	144	69	27
27	20	14	15	16	17	36	50	790	435	142	89	26
28	24	15	16	16	17	45	48	979	410	142	111	26
29	24	17	16	16	16	59	54	951	354	147	74	26
30	20	16	16	15	15	80	72	1,000	289	166	65	28
31	25	-----	15	16	-----	81	-----	1,000	-----	314	60	-----
Total	971	553	488	476	463	824	1,912	11,660	23,018	4,413	4,611	1,125
Mean	31.3	18.4	15.7	15.4	16.0	26.6	63.7	376	767	142	149	37.5
Max	47	24	18	16	17	81	96	1,000	1,220	314	286	65
Min	20	13	12	14	15	17	41	96	289	68	60	26
Ac-ft	1,930	1,100	968	944	918	1,630	3,790	23,130	45,660	8,750	9,150	2,230

Cal yr 1967: Total 31,439 Mean 86.1 Max 594 Min 12 Ac-ft 62,360

Wtr yr 1968: Total 50,514 Mean 138 Max 1,220 Min 12 Ac-ft 100,200

Peak discharge (base, 800 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-22	2100	4.60	930	6-16	-	-	†1,200
6-4	2100	5.00	1,360				

† Estimated.

Note.--No gage-height record Feb. 17 to Mar. 18.

9-1665. Dolores River at Dolores, Colo.

Location.--Lat 37°28'15", long 108°30'15", in NE¼NE¼ 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 1968. 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.--57 years, 430 cfs (311,300 acre-ft per year).

Extremes.--Maximum discharge during year, 3,590 cfs May 29 (gage height, 8.79 ft); minimum daily, 36 cfs Dec. 22. 1895-1903, 1910-12, 1921-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	104	63	55	42	55	65	430	708	2,910	555	762	231
2	98	63	55	50	50	65	375	828	2,870	515	714	231
3	94	54	50	48	50	65	307	891	2,710	485	636	246
4	119	53	48	46	55	70	228	1,000	2,340	460	485	246
5	113	62	50	44	50	70	237	1,070	2,760	420	416	228
6	100	59	50	42	50	75	252	996	2,750	406	455	218
7	99	53	50	46	50	80	215	804	2,390	393	460	231
8	93	49	50	48	55	80	202	884	1,950	393	393	228
9	90	51	50	48	50	75	182	1,060	1,470	363	475	222
10	90	55	44	50	48	68	215	1,080	1,210	371	490	218
11	85	52	46	55	48	72	307	975	1,070	359	612	188
12	85	55	48	46	50	60	430	1,160	1,210	311	490	182
13	78	55	50	44	50	62	540	1,000	1,580	331	406	180
14	75	55	50	50	55	71	505	822	1,740	303	630	178
15	72	56	55	50	50	59	582	768	1,810	291	714	175
16	68	53	55	50	50	60	642	898	1,820	307	520	175
17	66	53	55	55	50	67	555	926	1,780	327	420	195
18	70	51	46	55	55	63	490	1,140	1,660	343	371	195
19	67	53	38	50	55	52	435	1,280	1,600	315	327	182
20	67	53	44	50	55	59	375	1,580	1,300	323	291	180
21	65	55	42	55	55	62	398	1,950	1,700	343	287	168
22	63	58	36	55	55	62	363	2,570	1,540	335	259	165
23	63	56	44	50	55	76	311	2,410	1,350	347	231	162
24	61	45	55	55	55	92	303	1,940	1,250	406	212	160
25	60	49	55	55	60	105	303	1,620	1,060	505	231	155
26	61	50	55	55	60	121	319	1,830	912	398	249	152
27	60	40	48	50	60	138	303	2,130	852	384	271	152
28	55	46	50	55	65	162	275	2,570	822	375	323	160
29	63	50	55	50	65	212	335	2,940	768	430	259	162
30	55	55	55	50	---	283	495	2,660	660	371	228	165
31	59	---	50	55	---	339	---	2,900	---	702	237	---
Total	2,398	1,602	1,534	1,554	1,561	2,990	10,909	45,390	49,844	12,167	12,854	5,730
Mean	77.4	53.4	49.5	50.1	53.8	96.5	364	1,464	1,661	392	415	191
Max	119	63	55	55	65	339	642	2,940	2,910	702	762	246
Min	55	40	36	42	48	52	182	708	660	291	212	152
Ac-ft	4,760	3,180	3,040	3,080	3,100	5,930	21,640	90,030	98,870	24,130	25,500	11,370

Cal yr 1967: Total 89,286 Mean 245 Max 1,660 Min 36 Ac-ft 177,100
Wtr yr 1968: Total 148,533 Mean 406 Max 2,940 Min 36 Ac-ft 294,600

Peak discharge (base, 1,800 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-23	0230	8.30	2,990	6-16	0500	7.22	2,060
5-29	0400	8.79	3,590				

DOLORES RIVER BASIN

9-1681. Disappointment Creek near Dove Creek, Colo.

Location.--Lat 37°52'35", long 108°34'55", 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 1968.

Gage.--Water-stage recorder. Altitude of gage is 6,420 ft (from topographic map).

Average discharge.--11 years, 15.0 cfs (10,860 acre-ft per year).

Extremes.--Maximum discharge during year, 630 cfs July 26 (gage height, 6.35 ft); no flow Oct. 15.

1957-68: 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 at times in 1959-64, 1966-68.

Remarks.--Records fair except those for period of no gage-height record, 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 1967 to September 1986

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.10	0.70	0.30	0.70	1.4	3.2	4.4	3.8	92	4.8	11	2.2
2	.10	.65	.30	.70	1.2	3.4	28	41	85	4.2	34	2.0
3	.05	.50	.50	.80	1.2	3.2	15	46	79	3.6	8.0	2.2
4	.25	.60	.60	.70	1.0	3.0	10	50	70	3.9	4.4	2.0
5	.60	.65	.50	.50	.90	2.9	13	56	73	3.6	4.0	1.8
6	.30	.55	.50	.50	.90	3.4	21	60	72	3.0	18	1.5
7	.30	.50	.40	.60	1.0	4.4	15	40	63	2.7	7.6	1.5
8	.25	.50	.40	.60	1.0	3.2	11	42	57	2.8	9.1	1.3
9	.25	.50	.40	.60	1.2	3.8	10	50	47	2.8	5.0	1.1
10	.15	.60	.50	.70	1.2	2.7	14	51	36	3.0	4.7	1.0
11	.25	.50	.50	.90	1.6	2.4	26	48	30	2.7	13	.95
12	.15	.55	.50	.70	1.6	1.9	43	75	28	2.7	6.8	1.0
13	.10	.55	.50	.70	1.6	2.2	42	63	27	2.4	13	1.2
14	.05	.55	.40	.70	1.6	2.6	28	43	29	2.1	95	1.0
15	0	.55	.40	.70	1.4	1.9	30	36	28	1.8	20	.95
16	.05	.55	.50	.80	1.4	2.8	36	39	26	1.6	7.2	.95
17	.20	.55	.50	.80	1.4	3.2	29	41	26	1.3	5.0	.95
18	.15	.55	.40	.80	1.4	2.6	22	46	25	.80	3.3	1.2
19	.15	.60	.40	.70	2.4	2.3	17	51	24	.45	3.0	1.2
20	.20	.65	.60	.70	2.8	2.2	15	63	22	.20	2.7	1.2
21	.20	.65	.60	.80	2.8	2.2	20	74	20	.15	2.7	1.2
22	.20	.75	.50	.80	3.0	2.3	22	96	18	.15	2.6	1.0
23	.25	.75	.60	.80	4.0	3.0	18	86	16	22	2.6	1.0
24	.10	.50	.70	.80	3.6	4.3	18	66	14	4.8	2.4	1.0
25	.05	.45	.60	.80	3.4	5.0	15	55	12	3.9	2.3	1.0
26	.30	.30	.50	.80	3.0	6.0	16	58	11	74	10	1.0
27	.30	.30	.60	.90	3.6	6.3	17	70	9.2	5.8	15	.95
28	.25	.30	.80	1.0	2.9	6.1	16	85	8.0	4.2	5.6	.95
29	.75	.40	.80	1.0	2.9	11	19	97	6.2	12	3.5	.95
30	.75	.30	.80	1.2	- - - - -	16	30	92	5.4	32	2.9	.95
31	.85	- - - - -	.80	1.4	- - - - -	24	- - - - -	90	- - - - -	53	2.4	- - - - -
Total	7.65	16.05	16.40	24.20	57.40	143.5	660	1,848	1,058.8	262.45	369.1	37.20
Mean	0.25	0.54	0.53	0.78	1.98	4.63	22.0	59.6	35.3	8.47	11.9	1.24
Max	0.85	0.75	0.80	1.4	4.0	24	44	97	92	74	95	2.2
Min	0	0.30	0.30	0.50	0.90	1.9	10	36	5.4	0.15	2.3	0.95
Ac-ft	15	32	33	48	114	285	1,310	3,670	2,100	520	732	74

Cal yr 1967: Total 3,309.05 Mean 9.07 Max 213 Min 0 Ac-ft 6,560

Wtr yr 1968: Total 4,500.75 Mean 12.3 Max 97 Min 0 Ac-ft 8,930

Peak discharge (base, 560 cfs).--July 26 (1330) 630 cfs (6.35 ft).

Note.--No gage-height record Dec. 2 to Feb. 22.

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 1968. 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.--32 years (1910-12, 1930-34, 1942-68), 227 cfs (164,300 acre-ft per year).

Extremes.--Maximum discharge during year, 1,820 cfs June 6 (gage height, 5.58 ft); minimum daily, 36 cfs Jan. 6. 1909-12, 1930-34, 1942-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	90	77	65	60	60	60	87	215	1,120	476	699	152
2	89	79	63	55	55	65	90	252	1,250	460	622	145
3	89	65	55	70	55	70	84	279	1,160	440	509	155
4	92	68	65	60	60	65	74	290	1,090	392	388	148
5	89	70	70	40	60	65	82	289	1,250	370	354	145
6	89	72	74	36	55	65	84	292	1,360	366	420	142
7	85	72	68	40	55	67	84	238	1,110	374	392	133
8	82	79	68	46	55	65	82	255	880	374	374	120
9	80	75	62	55	60	67	79	277	629	379	455	129
10	77	68	60	60	55	72	77	283	504	435	410	129
11	77	70	65	70	55	59	82	286	455	425	410	127
12	92	70	65	60	55	55	97	283	538	384	374	114
13	92	70	60	55	60	60	110	260	800	374	350	107
14	92	74	60	60	55	63	103	245	925	338	487	105
15	87	70	70	60	55	54	133	240	979	312	465	103
16	85	67	70	65	55	50	155	250	1,100	302	362	103
17	84	68	65	65	55	55	150	242	1,110	283	316	107
18	89	63	55	65	60	50	152	265	1,120	283	274	97
19	87	63	65	60	60	49	125	283	1,120	274	252	97
20	79	62	55	60	67	54	103	346	1,040	252	248	96
21	79	75	50	65	65	52	105	410	1,270	248	245	96
22	75	80	40	65	65	49	105	568	1,160	252	222	94
23	77	82	46	60	51	49	107	574	1,020	240	210	94
24	74	60	70	60	59	52	105	514	925	277	190	94
25	75	70	46	65	65	60	105	460	671	362	178	90
26	77	63	55	65	65	55	107	498	744	309	190	94
27	72	57	80	65	65	54	97	594	736	338	202	87
28	74	62	75	70	60	55	92	760	752	358	222	84
29	74	72	70	65	60	63	107	961	728	370	195	82
30	63	72	65	60	- - - - -	75	155	961	556	410	185	82
31	75	- - - - -	75	55	- - - - -	75	- - - - -	1,030	- - - - -	664	165	- - - - -
Total	2,541	2,095	1,952	1,837	1,702	1,849	3,118	12,700	28,102	11,121	10,365	3,351
Mean	82.0	69.8	63.0	59.3	58.7	59.6	104	410	937	359	334	112
Max	92	82	80	70	67	75	155	1,030	1,360	664	699	155
Min	63	57	40	36	51	49	74	215	455	240	165	82
Ac-ft	5,040	4,160	3,870	3,640	3,380	3,670	6,180	25,190	55,740	22,060	20,560	6,650

Cal yr 1967: Total 56,677 Mean 155 Max 812 Min 40 Ac-ft 112,400
 Wtr yr 1968: Total 80,733 Mean 221 Max 1,360 Min 36 Ac-ft 160,100

Peak discharge (base, 900 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
6- 6	0130	5.58	1,820	8- 1	0030	4.78	952
6-22	0030	5.33	1,520				

DOLORES RIVER BASIN

9-1755. San Miguel River at Naturita, Colo.

Location.--Lat 38°13'05", long 108°33'55", in NE¼NW¼ sec.30, T.46 N., R.15 W., 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 1968. 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.--40 years, 342 cfs (247,600 acre-ft per year).

Extremes.--Maximum discharge during year, 1,650 cfs June 6 (gage height, 474 ft); minimum daily, 14 cfs Sept. 29. 1917-29, 1940-68; Maximum discharge, 7,100 cfs Apr. 15, 1942 (gage height, 9.80 ft), from rating curve extended above 3,800 cfs; minimum daily, 5.8 cfs Sept. 25-28, 30, 1956.

Remarks.--Records good. Natural flow of stream affected by storage reservoirs, diversions for irrigation of about 22,000 acres above station and 4,000 acres below, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	93	85	67	70	31	147	710	1,210	442	795	78
2	45	93	72	60	60	66	161	790	1,360	406	690	72
3	44	90	63	80	61	88	149	735	1,370	380	596	79
4	44	85	75	67	68	75	123	825	1,250	323	424	72
5	46	89	81	44	67	74	117	750	1,380	292	371	67
6	76	88	83	40	63	75	137	825	1,480	281	406	64
7	99	81	73	44	63	81	139	514	1,320	299	424	63
8	96	84	85	50	66	83	123	488	1,130	292	384	58
9	93	53	74	62	72	80	115	582	856	284	465	52
10	90	25	69	64	68	84	120	573	700	307	442	47
11	89	20	74	81	67	78	145	610	596	371	514	54
12	94	20	76	70	72	68	215	830	625	292	447	48
13	100	24	69	60	70	68	311	685	795	292	375	41
14	101	35	69	65	68	75	299	519	922	257	524	35
15	101	37	81	70	67	73	367	429	966	218	610	33
16	97	35	85	70	70	69	483	452	1,010	208	434	31
17	96	33	75	74	66	78	456	420	1,060	183	331	33
18	94	31	60	70	73	75	420	456	1,030	175	278	34
19	101	41	86	72	70	69	278	474	1,090	173	218	28
20	100	75	80	69	74	68	198	586	960	155	193	25
21	90	79	68	74	85	72	205	670	1,110	137	188	22
22	90	93	54	73	90	67	188	894	1,090	137	163	21
23	89	92	47	72	83	66	157	932	938	173	139	16
24	89	88	80	70	74	67	186	820	888	155	123	19
25	89	75	52	74	80	69	173	725	710	269	104	19
26	88	80	67	76	57	78	177	725	720	257	97	18
27	93	69	94	75	36	78	181	800	675	343	109	21
28	86	70	85	83	36	79	167	960	735	375	130	15
29	93	83	81	76	34	88	195	1,130	710	315	110	14
30	86	83	73	67	---	104	402	1,160	560	359	99	16
31	83	---	88	63	---	120	---	1,230	---	785	86	---
Total	2,627	1,944	2,304	2,082	1,930	2,346	6,534	22,299	29,246	8,935	10,269	1,195
Mean	84.7	64.8	74.3	67.2	66.6	75.7	218	719	975	288	331	39.8
Max	101	93	94	83	90	120	483	1,230	1,480	785	795	79
Min	44	20	47	40	34	31	115	420	560	137	86	14
Ac-ft	5,210	3,860	4,570	4,130	3,830	4,650	12,960	44,230	58,010	17,720	20,370	2,370

Cal yr 1967: Total 52,561 Mean 144 Max 878 Min 20 Ac-ft 104,300
 Wtr yr 1968: Total 91,711 Mean 251 Max 1,480 Min 14 Ac-ft 181,900

Peak discharge (base, 1,800 cfs).--No peak above base.

9-1759. Dry Creek near Naturita, Colo.

Location.--Lat 38°05'32", long 108°37'17", in NE¼ sec.10, T.44 N., R.16 W., on right bank 50 ft upstream from ford, 0.3 mile upstream from unnamed tributary, 1.2 miles downstream from Dead Horse Creek, 5 miles northwest of Basin, and 14 miles south of Naturita.

Drainage area.--85.9 sq mi.

Records available.--July 1966 to September 1968.

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

Extremes.--Maximum discharge during year, 434 cfs July 30 (gage height, 4.24 ft), from rating curve extended above 140 cfs as explained below; no flow for many days.

1966-68: Maximum discharge, 506 cfs Aug. 7, 1967 (gage height, 4.64 ft), from rating curve extended above 140 cfs on basis of slope-area measurement at gage height 4.57 ft; no flow for many days each year.

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

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	0.02		0	1.4	2.6	1.6	0.28	0	7.0	0.01
2		0	.02		0	1.6	2.2	2.4	0.10	0	5.0	.01
3		0	.02		0	1.4	1.6	2.6	.07	0	2.4	.01
4		0	.01		0	1.2	.76	2.0	.08	0	.80	0
5		0	0		0	1.2	.52	1.5	.02	0	.10	0
6		0	0		0	1.2	1.4	2.2	0	0	0	0
7		0	0		0	2.4	1.5	1.2	0	0	0	0
8		0	0		0	.82	2.0	1.7	0	0	0	0
9		.01	0		0	.82	1.8	2.2	0	0	27	0
10		.02	0		0	.70	1.1	4.2	0	0	43	0
11		.01	0		0	.46	1.7	3.1	0	0	1.5	0
12		.02	0		0	.22	2.0	6.1	0	0	.19	0
13		.02	0		0	.31	1.9	5.8	0	0	.16	0
14		.02	0		0	.69	1.3	2.6	0	0	4.2	0
15		.02	0		0	.51	.88	3.0	0	0	1.3	0
16		.02	0		0	.47	.70	3.0	0	0	.10	0
17		.02	0		0	.70	.46	2.4	0	0	.04	0
18		.02	0		0	.53	.37	6.6	0	0	.02	0
19		.02	0		.20	.36	.31	7.9	0	0	.02	0
20		.02	0		.60	.25	.28	11	0	0	.02	0
21		.02	0		1.0	.25	1.2	12	0	0	.02	0
22		.02	0		1.4	.22	1.8	14	0	0	.01	0
23		.01	0		2.0	.41	1.8	11	0	.01	.01	0
24		0	0		1.8	.73	1.8	5.8	0	.01	.01	0
25		0	0		1.6	.82	1.3	3.7	0	0	.01	.01
26		0	0		1.2	.94	.88	4.2	0	13	.02	.01
27		0	0		1.8	.46	.88	4.3	0	8.8	.11	.01
28		0	0		1.4	.40	2.6	3.1	0	2.0	.53	.01
29		.01	0		1.2	.37	2.9	2.4	0	1.5	.03	.01
30		.01	0		-----	1.9	1.9	1.4	0	13	.02	.01
31		-----	0		-----	2.3	-----	.64	-----	15	.01	-----
Total	0	0.29	0.07	0	14.20	26.04	42.44	135.64	0.55	53.32	93.63	0.09
Mean	0	0.010	0.002	0	0.49	0.84	1.41	4.38	0.018	1.72	3.02	0.003
Max	0	0.02	0.02	0	2.0	2.4	2.9	14	0.28	15	43	0.01
Min	0	0	0	0	0	0.22	0.28	0.64	0	0	0	0
Ac-ft	0	0.6	0.1	0	28	52	84	269	1.1	106	186	0.2

Cal yr 1967: Total 649.29 Mean 1.78 Max 81 Min 0 Ac-ft 1,290
Wtr yr 1968: Total 366.27 Mean 1.00 Max 43 Min 0 Ac-ft 726

Peak discharge (base, 300 cfs).--July 30 (2330) 434 cfs (4.24 ft); Aug. 9 (2400) 335 cfs (3.69 ft).

Note.--No gage-height record Dec. 6 to Mar. 5.

9-2360. Yampa River near Toponas, Colo.

Location.--Lat 40°03', long 107°04', in NW¼ sec.20, T.1 N., R.86 W., on right bank just downstream from Yampa Reservoir Dam at Stillwater campground, three-quarters of a mile downstream from Mandall Creek, three-quarters of a mile upstream from Dome Creek, and 14 miles west of Toponas.

Drainage area.--23 sq mi, approximately.

Records available.--October 1952 to September 1965, October 1966 to September 1968.

Gage.--Water-stage recorder and Parshall flume. Altitude of gage is 9,700 ft (from river-profile map). Oct. 28, 1952, to Sept. 30, 1965, at site 50 ft upstream at different datum.

Average discharge.--15 years, 40.0 cfs (28,960 acre-ft per year).

Extremes.--Maximum discharge during year, 225 cfs June 21 (gage height, 2.70 ft); minimum daily, 14 cfs Jan. 12.

1952-65, 1966-68: Maximum discharge, 436 cfs July 2, 1957 (gage height, 6.39 ft, site and datum then in use); minimum daily, 1.6 cfs Oct. 6-24, Nov. 18 to Dec. 8, 1966.

Remarks.--Records good except those for period of no gage-height record, which are poor. Flow regulated by Stillwater Reservoir and Yampa Reservoir (total capacity, 6,820 acre-ft).

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	21	17	16	16	16	27	35	105	152	68	26
2	44	23	17	16	16	16	27	40	115	100	65	26
3	43	22	17	16	16	15	27	45	115	116	64	29
4	50	22	17	17	16	15	26	50	120	125	63	28
5	51	21	16	16	16	15	26	50	120	134	71	26
6	51	20	16	16	16	15	26	55	120	132	73	26
7	50	20	16	15	16	15	26	50	115	126	69	25
8	48	20	16	15	16	15	25	45	111	125	65	25
9	40	20	16	15	16	16	24	55	96	125	58	26
10	27	20	16	15	16	16	24	65	90	121	55	25
11	23	20	15	15	16	16	25	70	88	114	55	25
12	22	20	16	14	16	16	25	65	92	113	46	25
13	21	20	16	15	16	17	25	70	103	110	40	26
14	21	20	16	15	16	18	24	65	106	108	42	34
15	21	20	16	15	16	18	24	60	109	107	40	40
16	21	19	17	15	16	18	22	60	117	104	36	41
17	21	19	16	15	16	18	21	60	120	113	35	40
18	21	18	15	15	16	19	20	55	147	112	34	40
19	21	18	17	15	16	19	19	50	170	106	33	40
20	21	19	17	15	17	19	19	55	191	108	33	38
21	21	20	16	15	18	20	18	60	221	97	32	42
22	22	19	15	15	18	21	18	80	212	102	31	41
23	21	19	16	15	18	21	18	85	209	112	32	34
24	21	18	15	15	16	22	18	80	204	111	31	32
25	21	18	15	16	16	23	19	70	194	111	31	31
26	21	18	17	16	15	24	20	65	140	110	29	31
27	21	17	16	16	16	24	21	65	109	102	29	26
28	22	18	17	16	16	25	22	70	141	103	29	23
29	22	18	16	16	16	26	22	75	170	105	28	23
30	22	17	16	16	16	27	22	85	170	103	27	23
31	22	- - - -	16	16	- - - -	27	- - - -	95	- - - -	94	27	- - - -
Total	896	584	500	478	470	592	680	1,930	4,120	3,501	1,371	917
Mean	28.9	19.5	16.1	15.4	16.2	19.1	22.7	62.3	137	113	44.2	30.6
Max	51	23	17	17	18	27	27	95	221	152	73	42
Min	21	17	15	14	15	15	18	35	88	94	27	23
Ac-ft	1,780	1,160	992	948	932	1,170	1,350	3,830	8,170	6,940	2,720	1,820
Cal yr 1967: Total	12,475			Mean 34.2	Max 116	Min 10		Ac-ft 24,740				
Wtr yr 1968: Total	16,039			Mean 43.8	Max 221	Min 14		Ac-ft 31,810				

Note.--No gage-height record May 1 to June 7.

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 dam site, 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 1968. 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.--17 years, 81.3 cfs (58,860 acre-ft per year).

Extremes.--Maximum discharge during year, 458 cfs June 5 (gage height, 4.83 ft), from rating curve extended above 340 cfs; maximum gage height, 5.03 ft Mar. 14 (backwater from ice); minimum daily discharge, 34 cfs Sept. 12.
1939-44, 1956-68: 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 and Yampa Reservoirs (total capacity, 6,820 acre-ft).

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	70	55	65	55	55	83	270	398	99	132	72
2	49	68	55	65	55	55	92	315	368	96	123	68
3	48	58	60	60	50	55	72	328	402	83	144	76
4	49	65	60	55	55	55	64	362	375	78	146	78
5	53	70	65	55	55	50	61	358	412	103	123	72
6	54	70	60	60	55	55	66	385	408	112	123	68
7	60	70	53	65	55	55	60	235	345	92	112	64
8	58	70	50	60	55	55	57	222	268	81	119	61
9	54	75	55	60	60	60	57	252	216	81	134	60
10	52	70	55	75	60	60	60	270	180	87	178	61
11	49	66	55	65	55	60	76	268	178	85	212	39
12	45	66	60	50	55	55	101	278	142	85	156	34
13	53	67	60	60	55	55	108	285	130	87	126	38
14	54	67	60	65	55	60	98	235	123	98	140	38
15	53	66	60	65	60	60	108	262	108	85	142	35
16	54	61	65	65	55	60	132	245	112	83	114	42
17	57	58	60	60	55	60	134	212	112	70	107	43
18	60	61	65	55	55	60	136	204	107	70	103	42
19	61	64	65	60	50	60	126	196	136	68	101	40
20	60	64	60	55	50	55	112	226	134	70	98	39
21	60	67	55	50	55	55	103	255	176	70	92	40
22	61	67	50	50	55	60	92	345	180	73	87	42
23	60	67	50	55	55	60	87	335	180	85	92	47
24	61	65	55	55	50	60	83	285	166	89	87	60
25	61	65	55	55	50	60	89	248	166	85	81	64
26	61	60	55	55	50	55	94	262	146	87	78	60
27	58	55	55	55	50	55	90	240	110	89	74	61
28	64	50	55	60	55	60	94	270	94	99	85	61
29	64	55	55	45	55	65	132	298	80	92	80	61
30	60	60	60	50	- - - -	64	194	328	87	152	74	66
31	62	- - - -	65	55	- - - -	74	- - - -	400	- - - -	158	74	- - - -
Total	1,746	1,937	1,788	1,805	1,575	1,808	2,861	3,674	6,039	2,792	3,537	1,632
Mean	56.3	64.6	57.7	58.2	54.3	58.3	95.4	280	201	90.1	114	54.4
Max	64	75	65	75	60	74	194	400	412	158	212	78
Min	45	50	50	45	50	50	57	196	80	68	74	34
Ac-ft	3,460	3,840	3,550	3,580	3,120	3,590	5,670	17,200	11,980	5,540	7,020	3,240

Cal yr 1967: Total 24,555 Mean 67.3 Max 176 Min 28 Ac-ft 48,700
Wtr yr 1968: Total 36,194 Mean 98.9 Max 412 Min 34 Ac-ft 71,790

9-2378. Service Creek near Oak Creek, Colo.

Location.--Lat 40°17'40", long 106°48'00", in NW¼NW¼ 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 1968.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 7,000 ft (from river-profile map).

Extremes.--1966-67: Maximum discharge during water year, 500 cfs May 26 (gage height, 4.68 ft); minimum daily, 2.0 cfs Nov. 27.

1967-68: Maximum discharge during water year, 748 cfs June 5 (gage height, 5.44 ft); minimum daily, 2.7 cfs Feb. 23, 24.

1965-68: Maximum discharge, 748 cfs June 5, 1968 (gage height, 5.44 ft); minimum daily, 2.0 cfs for many days in August and September 1966 and Nov. 27, 1967.

Revisions.--The maximum discharge for the water year 1966 has been revised to 314 cfs May 9, 1966 (gage height, 4.26 ft), superseding figure previously published.

Remarks.--Records good. One transbasin diversion above station to Big Muddy Creek basin.

Discharge, in cubic feet per second, water year October 1966 to September 1967

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.4	3.9	3.2	3.2	3.0	3.0	1.2	63	232	50	7.3	7.9
2	7.0	3.0	3.0	3.2	3.0	3.4	1.4	54	236	46	6.6	6.1
3	9.0	3.7	3.2	3.0	3.0	3.5	1.8	49	240	41	6.3	4.4
4	7.5	3.5	3.2	3.2	3.0	3.5	2.4	43	246	41	7.0	3.5
5	7.5	2.6	3.2	3.4	3.0	3.5	2.7	43	250	38	6.3	2.9
6	9.7	3.4	3.2	3.2	3.0	3.5	3.1	43	243	34	6.8	2.6
7	10	3.4	3.5	3.2	3.0	3.5	3.4	43	229	42	7.6	2.5
8	10	3.5	3.4	3.0	2.9	3.5	4.3	61	208	49	8.8	2.6
9	7.9	2.9	3.4	3.0	2.9	3.5	4.3	103	192	33	7.6	5.0
10	6.3	3.4	3.5	3.2	2.9	3.5	3.9	124	173	27	8.8	6.6
11	5.7	3.4	3.4	3.4	2.7	3.7	4.7	138	164	25	7.9	5.0
12	7.6	3.4	3.4	3.2	2.7	4.3	5.1	141	158	27	6.1	12
13	8.2	3.5	3.4	3.0	2.7	4.4	4.3	119	146	23	5.2	8.0
14	8.2	2.9	3.4	2.8	2.9	4.4	3.9	96	158	20	4.4	5.5
15	6.6	3.4	3.4	2.4	2.7	4.3	3.9	85	152	19	4.6	4.5
16	6.3	3.5	3.4	2.4	2.7	4.4	4.2	89	135	19	5.5	4.5
17	5.9	3.5	3.4	2.5	2.7	5.5	4.1	127	138	21	4.8	5.5
18	5.9	3.7	3.2	2.6	2.7	6.8	4.2	161	138	35	4.3	7.0
19	4.4	3.2	3.2	2.9	2.7	7.0	5.4	192	146	21	4.1	10
20	5.2	3.0	3.2	2.9	2.7	7.0	5.7	208	149	16	3.9	14
21	5.9	3.5	3.2	3.0	2.7	6.8	4.7	236	132	14	3.7	8.0
22	4.4	3.5	3.2	3.0	2.7	6.6	4.2	274	141	12	3.5	6.0
23	5.5	3.5	3.2	3.0	2.9	7.3	3.7	326	119	12	3.4	4.5
24	6.3	2.4	3.0	3.0	2.9	7.9	3.3	346	103	11	3.0	5.0
25	6.6	2.1	3.0	3.0	2.9	9.1	3.1	388	94	11	2.9	6.0
26	4.8	3.2	3.0	3.0	3.0	8.8	2.8	415	91	9.4	2.9	6.5
27	4.8	2.0	3.2	3.0	3.0	8.5	3.1	354	78	9.7	2.9	7.0
28	5.0	2.2	3.0	3.0	3.0	8.8	4.6	330	72	8.8	3.5	7.0
29	5.2	2.4	3.0	3.0		10	6.6	298	66	7.6	5.9	6.5
30	4.8	2.9	3.0	3.0	- - - - -	11	7.2	262	56	6.8	8.5	6.0
31	4.8	- - - - -	3.2	3.0	- - - - -	11	- - - - -	246	- - - - -	6.8	6.8	- - - - -
Total	201.4	94.5	100.2	92.7	80.0	182.0	1,173	5,457	4,685	736.1	170.9	182.6
Mean	6.50	3.15	3.23	2.99	2.86	5.87	39.1	176	156	23.7	5.51	6.09
Max	10	3.9	3.5	3.4	3.0	11	72	415	250	50	8.8	14
Min	4.4	2.0	3.0	2.4	2.7	3.0	12	43	56	6.8	2.9	2.5
Ac-ft	399	187	199	184	159	361	2,330	10,820	9,290	1,460	339	362

Cal yr 1966: Total 9,500.8 Mean 26.0 Max 290 Min 2.0 Ac-ft 18,840

Wtr yr 1967: Total 13,155.4 Mean 36.0 Max 415 Min 2.0 Ac-ft 26,090

Peak discharge (base, 350 cfs).--May 26 (0100) 500 cfs (4.68 ft).

9-2378. Service Creek near Oak Creek, Colo.--Continued

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.8	4.6	4.3	3.9	3.7	4.1	13	38	456	57	16	4.4
2	5.4	4.6	4.3	3.7	3.7	4.3	14	63	495	51	12	4.3
3	5.2	3.5	4.3	3.7	3.9	4.3	14	87	530	47	12	4.8
4	5.0	4.1	4.3	3.6	3.7	4.3	14	103	525	43	13	7.3
5	4.8	2.9	4.3	3.5	3.7	4.1	15	138	580	44	10	6.6
6												
7	4.4	2.9	4.3	3.8	3.7	4.3	13	130	575	47	10	5.5
8	4.0	2.7	4.3	3.8	3.5	4.4	12	91	470	38	9.1	4.6
9	4.4	2.9	4.3	3.8	3.5	4.4	12	87	410	35	7.9	4.1
10	4.4	3.0	4.3	3.6	3.4	4.4	12	91	338	33	8.5	3.9
	4.4	3.5	4.3	3.5	3.4	4.3	12	103	318	31	18	3.7
11	4.2	3.9	4.1	3.7	3.4	4.3	13	119	318	29	20	3.4
12	3.9	4.1	4.1	3.5	3.5	4.3	16	124	314	26	16	3.2
13	3.7	4.3	4.1	3.8	3.5	4.3	18	119	330	24	12	3.5
14	3.5	4.4	3.9	3.9	3.5	4.3	18	108	322	23	27	4.4
15	3.4	4.4	3.9	3.9	3.5	4.1	18	108	314	21	33	7.0
16	3.0	4.6	4.1	3.9	3.5	4.1	19	94	298	20	17	8.2
17	2.9	4.6	4.1	3.9	3.5	4.3	20	87	282	18	12	9.1
18	3.0	4.3	3.9	3.7	3.5	4.3	20	106	274	16	9.7	8.8
19	3.2	4.1	3.9	3.7	3.2	4.3	20	116	266	15	8.5	13
20	3.0	4.1	3.9	3.7	3.0	4.3	19	141	250	14	7.3	10
21	3.0	4.1	3.9	3.7	3.4	4.1	18	158	232	13	6.3	7.0
22	3.0	4.3	3.9	3.7	3.2	4.1	17	266	205	13	6.3	6.6
23	3.0	4.3	3.9	3.7	2.7	4.3	18	266	176	13	7.6	5.9
24	3.2	3.9	3.9	3.7	2.7	4.4	16	258	158	13	7.6	5.5
25	3.2	3.7	3.9	3.7	3.0	5.0	16	229	135	12	6.6	5.0
26	4.4	4.1	4.1	3.7	3.4	5.7	16	222	111	12	5.9	4.6
27	3.2	4.1	3.9	3.7	3.5	5.7	15	226	96	14	5.5	4.4
28	4.8	4.1	4.1	3.7	3.7	5.9	15	266	87	27	5.5	4.3
29	4.4	4.2	3.7	3.7	3.9	7.0	18	314	76	13	5.9	4.3
30	5.0	4.3	3.5	3.5	-----	8.8	27	342	65	16	5.7	4.3
31	4.4	-----	3.5	3.7	-----	11	-----	424	-----	24	5.2	-----
Total	123.2	118.6	125.3	115.1	99.8	151.5	488	5,024	9,006	802	347.1	171.7
Mean	3.97	3.95	4.04	3.71	3.44	4.89	16.3	162	300	25.9	11.2	5.72
Max	5.8	4.6	4.3	3.9	3.9	11	27	424	580	57	33	13
Min	2.9	2.7	3.5	3.5	2.7	4.1	12	38	65	12	5.2	3.2
Ac-ft	244	235	249	228	198	300	968	9,960	17,860	1,590	688	341

Cal yr 1967: Total 13,126.4 Mean 36.0 Max 415 Min 2.0 Ac-ft 26,040

Wtr yr 1968: Total 16,572.3 Mean 45.3 Max 580 Min 2.7 Ac-ft 32,870

Peak discharge (base, 350 cfs).--June 5 (2300) 748 cfs (5.44 ft).

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 1968 (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 Oct. 1, 1965, water-stage recorder at site a quarter of a mile downstream at different datum. Supplementary water-stage recorder on Highline Canal.

Average discharge.--5 years, 89.1 cfs (64,510 acre-ft per year).

Extremes.--1966-67: Maximum discharge during water year, 996 cfs May 25 (gage height, 2.78 ft); minimum daily, 6.7 cfs Nov. 25, 27. 1967-68: Maximum discharge during water year, 1,860 cfs June 15 (gage height, 3.39 ft); minimum daily, 7.6 cfs Nov. 6, 7. 1920-22, 1965-68: Maximum daily discharge, 2,800 cfs June 15, 1921; minimum daily, 4.5 cfs Oct. 29, Nov. 7, 8, 1921.

Remarks.--Records good. 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 1966 to September 1967

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.6	8.0	8.3	9.0	9.3	8.6	13	49	610	166	18	19
2	12	8.3	8.3	9.0	8.6	8.6	15	38	700	150	17	11
3	26	10	9.0	9.4	8.6	8.6	17	33	740	135	17	9.3
4	17	9.3	9.0	9.4	9.0	8.3	21	30	700	140	18	8.3
5	21	7.6	8.6	9.4	9.0	7.6	22	30	712	122	16	7.6
6	26	9.7	9.3	9.0	8.6	7.3	24	30	703	106	15	7.3
7	27	9.0	9.7	8.6	8.3	8.0	26	31	685	115	18	7.0
8	27	9.0	10	8.4	8.3	8.0	30	53	640	115	28	8.4
9	23	8.3	9.3	8.6	8.6	8.0	30	80	573	92	19	16
10	17	9.7	9.3	8.8	8.6	8.3	28	92	501	75	21	11
11	17	9.7	10	9.0	8.6	8.3	35	89	509	71	16	12
12	24	9.7	9.3	9.0	8.6	8.6	42	90	469	71	14	28
13	22	10	9.0	9.0	8.3	9.0	35	85	453	61	13	14
14	20	9.3	8.8	9.3	8.6	8.6	30	71	509	54	13	12
15	16	10	8.6	9.3	8.6	8.6	30	61	439	52	13	10
16	17	10	8.4	9.3	8.6	9.0	33	57	382	52	13	10
17	16	10	8.0	9.3	8.6	11	31	76	417	71	12	11
18	14	10	8.0	9.3	8.6	13	33	117	460	106	11	12
19	10	9.3	8.6	9.3	8.6	13	43	172	492	53	10	27
20	13	9.3	8.6	9.3	8.3	12	46	198	543	41	11	25
21	13	9.7	8.6	9.0	8.6	12	37	270	425	33	11	15
22	8.7	9.7	8.8	9.0	8.6	12	30	394	478	29	11	12
23	11	9.7	9.0	9.0	8.6	12	27	530	355	28	10	10
24	10	7.6	8.8	9.0	8.6	13	25	646	309	32	9.3	10
25	12	6.7	8.6	9.0	8.6	14	24	760	293	30	8.6	14
26	12	7.6	8.8	9.3	8.6	13	22	770	303	26	8.6	13
27	13	6.7	9.0	9.3	8.3	13	24	700	253	25	8.3	12
28	13	7.6	9.0	9.0	8.3	13	29	700	229	20	8.6	10
29	13	9.0	9.0	9.0	9.0	14	43	691	193	19	10	9.8
30	12	9.0	9.0	9.0	9.0	15	53	578	178	18	18	9.3
31	11	---	9.0	9.3	---	13	---	530	---	17	12	---
Total	501.3	269.5	275.7	281.6	240.5	326.4	898	8051	14,253	2,125	427.4	381.0
Mean	16.2	8.98	8.89	9.08	8.59	10.5	29.9	260	475	68.5	13.8	12.7
Max	27	10	10	9.4	9.3	15	53	770	740	166	28	28
Min	7.6	6.7	8.0	8.4	8.3	7.3	13	30	178	17	8.3	7.0
Ac-ft	994	535	547	559	477	647	1,780	15,970	28,270	4,210	848	756
Cal yr 1966: Total	18,862.8		Mean 51.7	Max 528	Min 5.0	Ac-ft 37,410						
Wtr yr 1967: Total	28,030.4		Mean 76.8	Max 770	Min 6.7	Ac-ft 55,600						

Peak discharge (base, 600 cfs)

Note.--No gage-height record Dec. 13 to Jan. 11.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-25	2130	2.78	996	6-18	1900	2.50	702
6-2	1830	2.76	972				

9-2385. Walton Creek near Steamboat Springs, Colo.--Continued

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.8	12	10	10	9.5	9.5	19	38	628	169	30	13
2	11	11	10	10	9.0	9.0	18	51	700	154	27	13
3	10	9.4	10	10	10	9.0	16	66	800	142	45	14
4	10	10	10	9.5	11	9.0	14	81	800	136	32	18
5	17	7.7	9.7	8.5	10	9.0	14	94	880	136	25	18
6	16	7.6	10	9.5	9.5	9.5	14	94	900	125	24	14
7	16	7.6	10	8.5	9.5	10	13	78	890	112	21	13
8	19	9.0	10	8.5	9.5	9.7	13	73	830	111	20	12
9	19	9.3	10	9.0	8.3	9.7	13	73	691	107	22	12
10	15	10	10	10	8.5	9.3	13	80	628	97	33	10
11	13	10	10	9.5	9.0	9.3	16	96	655	90	30	9.7
12	12	10	10	8.0	9.0	9.3	20	109	860	84	28	10
13	10	11	10	8.5	9.5	9.3	19	109	972	92	24	11
14	10	11	10	9.0	10	9.3	19	96	936	79	74	12
15	10	11	10	9.5	10	9.3	18	89	1,020	67	68	13
16	9.7	11	10	10	10	9.3	18	80	961	62	33	13
17	9.7	11	10	11	10	9.7	18	69	902	54	25	16
18	9.7	10	10	10	10	9.7	18	66	939	49	24	22
19	9.6	9.7	10	9.5	10	9.7	18	69	963	46	24	30
20	9.3	9.3	10	9.5	10	9.3	17	83	926	42	19	19
21	8.9	9.7	10	9.5	10	9.0	16	115	792	40	17	16
22	8.8	11	9.5	9.0	10	9.3	15	184	684	40	16	17
23	8.8	11	10	9.0	9.5	9.7	15	218	596	38	16	17
24	8.6	12	10	9.0	9.0	10	15	178	532	34	20	15
25	9.9	11	10	9.0	9.0	12	15	148	418	32	16	14
26	11	10	11	9.5	9.5	12	15	135	340	32	15	13
27	9.6	9.0	11	10	10	11	15	135	334	32	15	12
28	11	10	10	11	10	11	15	198	303	34	17	11
29	10	11	10	11	10	13	18	315	261	28	16	11
30	12	10	10	10	-----	17	27	387	212	32	15	11
31	12	-----	10	10	-----	18	-----	514	-----	45	14	-----
Total	356.4	302.3	311.2	295.0	279.3	319.9	494	4,121	21,353	2,341	805	429.7
Mean	11.5	10.1	10.0	9.52	9.63	10.3	16.5	133	712	75.5	26.0	14.3
Max	19	12	11	11	11	18	27	514	1,020	169	74	30
Min	8.6	7.6	9.5	8.0	8.3	9.0	13	38	212	28	14	9.7
Ac-ft	707	600	617	585	554	635	980	8,170	42,350	4,640	1,600	852

Cal yr 1967: Total 27,953.8 Mean 76.6 Max 770 Min 7.0 Ac-ft 55,450
Wtr yr 1968: Total 31,407.8 Mean 85.8 Max 1,020 Min 7.6 Ac-ft 62,300

Peak discharge (base, 600 cfs).--June 5 (2030) 1,120 cfs (2.88 ft); June 15 (1900) 1,860 cfs (3.39 ft).

GREEN RIVER BASIN

9-2389. Fish Creek at upper station, near Steamboat Springs, Colo.

Location.--Lat 40°28'30", long 106°47'10", in SE¼ sec.15, T.6 N., R.84 W., on right bank 2½ miles upstream from mouth and 2½ miles east of Steamboat Springs.

Drainage area.--25.8 sq mi.

Records available.--October 1966 to September 1968.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 7,100 ft (from topographic map). Records collected 1918-20 near mouth not equivalent due to diversions. Supplementary water-stage recorder on Welch and Waters ditch.

Extremes.--Maximum discharge during year, 1,110 cfs June 20 (gage height, 3.14 ft); minimum daily, 4.6 cfs Feb. 10, 11.

1966-68: Maximum discharge, 1,110 cfs June 20, 1968 (gage height, 3.14 ft); minimum daily, 4.6 cfs Feb. 10, 11, 1968.

Revisions.--The minimum daily discharge for the water year 1967 has been revised to 4.9 cfs Aug. 27, 28, superseding figure previously published.

Remarks.--Records good. Records show combined flow of creek and Welch and Waters ditch. Welch and Waters ditch diverts water a quarter of a mile above station for irrigation below station. Natural flow of stream affected by storage in Fish Creek and Long Lake Reservoirs.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.0	7.6	6.6	5.6	5.8	5.0	21	42	386	290	28	7.5
2	7.6	6.6	6.6	5.6	5.8	5.0	23	55	440	270	22	6.6
3	7.1	6.7	6.6	5.4	5.6	5.0	19	65	491	255	27	9.4
4	7.3	7.1	6.3	5.2	5.4	5.2	16	78	533	245	24	14
5	8.4	6.2	6.0	5.2	5.2	5.2	16	80	603	225	19	12
6	10	5.9	6.0	5.4	4.8	5.4	16	76	631	201	17	9.4
7	10	5.8	6.3	5.4	4.8	5.4	15	58	575	177	16	7.9
8	11	5.9	6.6	5.2	4.8	5.4	14	58	505	164	15	7.1
9	12	5.9	6.4	5.2	4.8	5.6	14	62	392	149	16	6.0
10	11	6.0	6.2	5.2	4.6	5.6	14	74	344	149	24	5.8
11	11	6.0	6.0	5.2	4.6	5.4	15	92	320	149	21	5.6
12	9.1	6.0	5.8	5.2	4.8	5.4	22	108	410	130	23	5.4
13	8.2	6.0	5.8	5.4	5.0	5.4	22	105	548	120	19	5.4
14	7.8	6.0	5.8	5.4	5.0	5.4	19	85	620	103	50	5.8
15	7.5	6.0	5.8	5.4	5.2	5.6	20	76	648	86	50	6.6
16	7.1	6.0	5.8	5.4	5.0	5.6	21	62	662	72	30	8.0
17	7.0	5.8	6.0	5.4	5.0	5.6	20	57	662	57	20	9.5
18	7.0	5.6	6.0	5.4	5.0	5.6	21	55	712	46	20	13
19	6.8	5.6	6.0	5.2	5.0	5.6	20	58	712	43	18	16
20	6.7	5.6	6.6	5.2	5.0	5.4	20	69	779	40	14	11
21	6.5	5.8	7.2	5.2	5.4	5.4	19	102	819	38	13	13
22	6.5	8.1	6.9	5.2	5.6	5.6	17	156	755	39	11	14
23	6.2	8.1	6.0	5.2	6.0	6.0	16	153	755	39	15	13
24	5.9	8.4	6.0	5.2	6.3	7.0	16	125	664	34	15	11
25	6.6	7.8	6.0	5.2	6.6	8.0	16	105	531	30	11	9.3
26	6.3	6.9	6.0	5.2	5.8	9.8	15	95	510	28	9.5	8.2
27	5.7	6.6	6.0	5.0	5.4	8.7	14	108	580	27	8.7	7.7
28	7.2	6.4	6.0	5.0	5.2	9.4	14	144	594	25	10	6.9
29	7.0	6.3	5.8	5.4	5.2	13	15	220	524	22	11	6.6
30	7.4	6.0	5.6	5.4	- - - -	16	29	270	379	25	9.7	6.5
31	7.7	- - - -	5.6	5.4	- - - -	19	- - - -	350	- - - -	31	8.3	- - - -
Total	242.6	192.7	190.3	164.0	152.7	215.7	539	3,243	17,084	3,309	595.2	268.2
Mean	7.83	6.42	6.14	5.29	5.27	6.96	18.0	105	569	107	19.2	8.94
Max	12	8.4	7.2	5.6	6.6	19	29	350	819	290	50	16
Min	5.7	5.6	5.6	5.0	4.6	5.0	14	42	320	22	8.3	5.4
Ac-ft	481	382	377	325	303	428	1,070	6,430	33,890	6,560	1,180	532

Cal yr 1967: Total 22,849.9 Mean 62.6 Max 560 Min 4.9 Ac-ft 45,320

Wtr yr 1968: Total 26,196.4 Mean 71.6 Max 819 Min 4.6 Ac-ft 51,960

Peak discharge (base, 500 cfs).--June 5 (1930) 806 cfs (2.77 ft); June 20 (1900) 1,110 cfs (3.14 ft).

9-2394. Spring Creek near Steamboat Springs, Colo.

Location.--Lat 40°29'30", long 106°48'20", in NE¼SE¼ 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 1968.

Gage.--Water-stage recorder and concrete control. Supplementary water-stage recorder on Steamboat Garden ditch since October 1966.

Extremes.--Maximum discharge during year, 138 cfs June 5 (gage height, 3.15 ft), minimum daily, 0.64 cfs Sept. 30.
1965-68: Maximum discharge, that of June 5, 1968; minimum daily, 0.17 cfs Oct. 16, 1966.

Remarks.--Records good except those for period of no gage-height record, which are fair. Records show combined flow of creek and Steamboat Garden ditch since October 1966. Steamboat Garden ditch diverts water 1.3 miles above station for irrigation in Soda Creek drainage.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.83	1.2	1.0	1.0	0.95	1.1	7.0	27	87	25	2.7	1.0
2	1.0	1.2	1.0	1.0	.90	1.2	7.3	37	95	23	2.4	.95
3	1.0	.73	1.0	1.0	.95	1.2	5.5	39	101	20	2.4	1.2
4	1.0	.95	1.0	1.0	1.0	1.2	4.5	43	100	17	2.2	1.4
5	1.1	.76	.95	1.0	.95	1.2	4.4	43	113	17	2.1	1.2
6	1.6	.76	.95	1.0	.95	1.2	4.5	37	117	15	2.0	1.0
7	1.5	.73	.95	1.0	.95	1.2	4.0	29	110	13	1.8	.92
8	1.4	.85	1.0	1.0	.95	1.2	3.7	74	100	12	1.8	.92
9	1.4	.95	1.0	1.0	.95	1.2	3.5	24	90	11	1.9	.86
10	1.3	1.0	1.0	1.0	.95	1.2	3.9	30	80	11	2.0	.80
11	1.2	1.0	1.0	1.0	1.0	1.2	5.9	36	70	11	1.9	.77
12	1.2	1.0	1.0	1.0	1.0	1.2	8.2	42	80	9.4	2.2	.83
13	1.1	1.0	.95	1.0	1.0	1.2	7.9	40	90	8.7	1.9	.86
14	1.2	1.0	.95	1.0	1.0	1.2	7.0	32	90	7.7	3.8	.92
15	1.2	1.0	.95	1.0	1.0	1.2	7.9	28	95	6.6	3.3	1.0
16	1.1	1.0	1.0	1.0	1.0	1.2	9.4	24	101	6.0	2.1	1.1
17	1.2	.90	1.0	1.0	1.0	1.2	9.1	23	105	5.6	1.7	1.2
18	1.2	.80	.95	1.0	1.0	1.3	10	23	105	5.0	1.6	1.2
19	1.1	1.0	1.0	1.0	1.0	1.3	9.7	26	96	4.6	1.6	1.1
20	1.0	.90	1.0	1.0	1.0	1.3	8.5	31	86	4.3	1.4	.92
21	1.0	.80	.95	1.0	1.0	1.3	7.6	47	74	4.0	1.4	1.0
22	1.0	1.1	.95	.95	1.0	1.4	6.8	63	69	4.1	1.3	1.0
23	1.0	1.1	.95	.95	1.0	1.5	6.3	58	63	3.9	2.4	1.0
24	1.0	1.0	.95	.90	1.0	1.9	6.3	46	56	3.5	1.6	1.0
25	1.0	1.0	1.0	.90	1.0	2.4	6.3	42	48	3.1	1.3	.98
26	1.0	.95	1.0	.95	1.0	2.7	6.1	40	42	2.9	1.2	.95
27	.80	.85	1.0	.95	1.0	2.4	6.1	45	44	2.8	1.2	.92
28	1.2	.85	1.0	.95	1.0	2.6	6.8	55	42	2.6	1.2	.92
29	1.2	1.0	1.0	.95	1.0	3.5	10	71	37	2.6	1.2	.84
30	1.0	1.0	1.0	.95	- - - - -	5.2	18	78	31	3.1	1.1	.64
31	1.1	- - - - -	1.0	.95	- - - - -	7.0	- - - - -	81	- - - - -	3.2	1.0	- - - - -
Total	34.93	28.38	30.45	30.40	28.50	56.1	212.2	1,314	2,417	268.7	57.7	29.40
Mean	1.13	0.95	0.98	0.98	0.98	1.81	7.07	42.4	80.6	8.67	1.86	0.98
Max	1.6	1.2	1.0	1.0	1.0	7.0	18	81	117	25	3.8	1.4
Min	0.80	0.73	0.95	0.90	0.90	1.1	3.5	23	31	2.6	1.0	0.64
Ac-ft	69	56	60	60	57	111	421	2,610	4,790	533	114	58
Cal yr 1967: Total	3,487.97		Mean 9.56	Max 82	Min 0.67	Ac-ft 6,920						
Wtr yr 1968: Total	4,507.76		Mean 12.3	Max 117	Min 0.64	Ac-ft 8,940						

Peak discharge (base, 50 cfs)

Note.--No gage-height record Jan. 29 to Feb. 28.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5- 4	1930	2.86	51	6- 5	2200	3.15	138
5-22	2000	2.80	72	6-15	-	-	†120

† Estimated.

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 1968. 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.--61 years, 463 cfs (335,200 acre-ft per year).

Extremes.--Maximum discharge during year, 4,080 cfs June 6 (gage height, 5.73 ft); minimum daily, 80 cfs Sept. 13.

1904-6, 1909-68: 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 reservoirs.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	95	126	110	100	100	108	322	1,150	3,080	864	263	128
2	98	128	100	100	95	113	365	1,380	3,220	792	224	124
3	100	106	95	95	104	111	300	1,520	3,430	737	255	128
4	96	113	90	90	100	108	252	1,620	3,480	671	271	150
5	111	100	95	85	104	109	252	1,660	3,670	671	227	148
6	124	98	100	90	108	108	263	1,650	3,870	677	208	128
7	126	104	95	85	100	108	217	1,180	3,550	583	190	119
8	128	106	93	85	108	108	205	941	3,770	528	185	113
9	131	111	90	90	108	115	205	1,050	2,820	522	202	109
10	122	131	95	90	100	115	211	1,120	2,540	484	300	108
11	113	122	95	100	100	115	244	1,240	2,570	478	370	98
12	106	122	100	85	104	117	345	1,320	2,700	420	336	81
13	104	124	100	90	104	109	395	1,350	3,010	400	259	80
14	111	124	100	95	104	104	331	1,150	3,040	375	360	84
15	111	122	100	95	108	115	380	1,180	2,990	326	462	86
16	106	119	100	95	104	117	478	1,140	3,080	295	295	95
17	106	113	100	100	104	113	512	1,010	2,860	263	234	111
18	109	109	100	95	102	124	566	913	2,890	220	211	111
19	111	113	110	90	95	122	512	885	2,830	196	205	128
20	111	117	100	95	96	124	430	990	2,870	182	188	119
21	111	126	95	100	106	117	375	1,230	2,840	182	178	108
22	109	119	90	100	106	117	304	1,690	2,540	178	170	111
23	111	131	95	100	102	128	271	1,830	2,350	185	180	115
24	108	111	100	95	98	133	291	1,630	2,050	182	182	115
25	109	124	100	90	102	150	331	1,430	1,710	178	165	117
26	115	102	100	90	108	155	331	1,420	1,530	178	152	115
27	100	91	100	95	100	150	313	1,340	1,500	175	145	109
28	115	90	100	100	93	148	355	1,520	1,430	199	152	111
29	115	95	100	100	96	168	534	1,950	1,270	188	155	111
30	113	100	100	100	---	202	804	2,280	1,010	185	148	111
31	119	---	100	95	---	259	---	2,700	---	336	135	---
Total	3,444	3,397	3,048	2,915	2,959	3,990	10,694	43,469	80,500	11,850	7,007	3,371
Mean	111	113	98.3	94.0	102	129	356	1,402	2,683	382	226	112
Max	131	131	110	100	108	259	804	2,700	3,870	864	462	150
Min	95	90	90	85	93	104	205	885	1,010	175	135	80
Ac-ft	6,830	6,740	6,050	5,780	5,870	7,910	21,210	86,220	159,700	23,500	13,900	6,690

Cal yr 1967: Total 135,321 Mean 371 Max 2,810 Min 65 Ac-ft 268,400

Wtr yr 1968: Total 176,644 Mean 483 Max 3,870 Min 80 Ac-ft 350,400

Peak discharge (base, 3,000 cfs).--June 6 (0200) 4,080 cfs (5.73 ft); June 16 (0030) 3,600 cfs (5.42 ft).

9-2408. South Fork Elk River near Clark, Colo.

Location.--Lat 40°44'43", long 106°48'24", in NE¼ sec.16, T.9 N., R.84 W., on left bank 50 ft downstream from unnamed tributary, 0.9 mile upstream from mouth, and 6½ miles northeast of Clark.

Drainage area.--33.7 sq mi.

Records available.--October 1966 to September 1968.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 7,980 ft (from topographic map).

Extremes.--1966-67: Maximum discharge during water year, 670 cfs June 23 (gage height, 3.76 ft); minimum daily, 7.0 cfs Nov. 25.

1967-68: Maximum discharge during water year, 999 cfs June 21 (gage height, 4.08 ft); minimum daily, 8.6 cfs Mar. 27.

1966-68: Maximum discharge, 999 cfs June 21, 1968 (gage height, 4.08 ft); minimum daily, 7.0 cfs Nov. 25, 1966.

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

Discharge, in cubic feet per second, water year October 1966 to September 1967

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	8.0	9.5	8.3	8.0	8.3	9.2	31	236	410	47	18
2	12	8.0	9.2	7.8	8.3	8.3	8.6	28	275	386	44	16
3	15	9.2	9.2	8.3	8.0	8.0	9.8	26	320	356	43	16
4	17	8.9	9.5	8.6	8.0	8.0	12	24	326	326	39	14
5	19	7.6	8.9	8.0	8.0	8.0	13	24	359	314	37	13
6	21	8.9	8.3	7.8	8.0	8.0	12	26	386	290	36	13
7	22	9.2	9.5	8.0	8.0	8.0	13	29	377	278	41	13
8	20	9.5	11	8.0	8.3	8.3	16	49	353	260	46	14
9	18	8.6	10	8.5	8.3	8.3	16	69	332	224	38	16
10	15	9.5	10	8.6	8.3	8.0	16	81	287	200	38	25
11	14	9.8	9.8	8.3	8.3	8.3	20	82	275	180	34	20
12	15	9.8	9.5	8.6	8.6	8.0	23	75	263	160	32	41
13	16	10	8.9	8.6	8.6	8.3	20	68	266	142	29	26
14	16	9.4	8.6	8.0	8.3	7.8	18	56	299	140	27	20
15	12	9.4	8.9	8.3	8.0	7.8	18	50	284	144	27	18
16	13	9.8	8.6	8.9	8.0	8.3	18	56	263	124	26	22
17	12	9.8	8.3	9.2	8.0	8.9	18	76	311	144	24	26
18	12	9.8	8.3	8.9	7.8	9.5	23	105	383	190	22	36
19	9.8	8.9	8.0	8.6	7.8	9.8	33	124	440	134	21	39
20	11	9.1	8.0	8.6	8.0	9.8	32	138	490	120	21	33
21	12	10	7.8	8.6	8.0	9.5	26	155	482	97	21	31
22	8.0	9.8	8.3	8.3	8.6	9.2	20	192	486	89	21	28
23	11	9.8	8.3	8.3	8.6	9.2	21	254	496	81	20	24
24	10	8.9	8.0	8.0	8.6	9.5	19	305	475	82	19	27
25	10	7.0	7.8	8.0	8.6	9.2	19	400	431	76	18	61
26	11	7.2	7.8	8.3	8.6	9.2	18	374	422	68	17	40
27	11	7.2	8.0	8.3	8.3	8.9	21	320	428	63	16	32
28	11	8.0	8.0	8.3	8.3	9.2	28	308	434	57	16	27
29	10	9.5	7.8	8.3	8.3	9.8	38	308	374	53	18	24
30	10	9.8	8.0	8.0	8.6	8.6	38	269	398	48	21	22
31	10	-----	8.0	8.0	-----	9.8	-----	254	-----	46	19	-----
Total	413.8	270.4	269.8	258.3	230.2	269.8	596.6	4,356	10,951	5,282	878	755
Mean	13.3	9.01	8.70	8.33	8.22	8.70	19.9	141	365	170	28.3	25.2
Max	22	10	11	9.2	8.6	9.8	38	400	496	410	47	61
Min	8.0	7.0	7.8	7.8	7.8	7.8	8.6	24	236	46	16	13
Ac-ft	821	536	535	512	457	535	1,180	8,640	21,720	10,480	1,740	1,500

Cal yr 1966: Total - Mean 67.2 Max - Min 7.0 Ac-ft - 48,660

Peak discharge (base, 400 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-25	2100	2.97	437	6-23	2230	3.76	670
6-6	0200	2.86	416				

9-2408. South Fork Elk River near Clark, Colo.--Continued

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	16	11	10	10	9.8	13	30	317	275	62	21
2	21	14	12	10	10	9.5	13	42	350	260	54	20
3	20	11	12	10	10	9.5	12	52	410	248	51	22
4	20	13	11	10	10	9.5	12	64	444	245	46	27
5	22	11	11	10	10	9.8	12	72	472	248	42	26
6	27	11	11	10	10	9.5	12	69	518	230	41	21
7	26	11	11	10	10	9.5	10	55	478	215	41	19
8	26	11	11	10	9.8	9.5	11	48	437	203	39	18
9	27	11	11	11	9.5	9.5	11	51	341	200	50	18
10	27	13	11	11	9.5	9.5	11	58	299	215	61	16
11	24	13	11	11	9.5	9.2	13	64	278	206	49	16
12	21	13	11	10	9.8	9.5	15	70	296	215	48	16
13	20	13	11	10	9.8	9.5	14	71	401	162	45	16
14	19	13	11	11	9.5	9.5	13	64	444	150	69	16
15	18	12	11	11	9.5	9.2	13	61	444	134	71	16
16	18	12	11	11	9.5	9.5	15	55	500	122	56	18
17	18	11	11	11	9.5	9.5	15	49	503	110	43	20
18	17	11	11	11	9.5	9.5	14	48	554	101	43	19
19	16	11	11	11	9.5	9.5	15	53	570	92	39	19
20	16	11	10	11	9.8	8.9	15	61	705	84	35	17
21	16	12	10	11	9.8	9.2	14	86	735	78	32	18
22	15	12	10	11	9.5	8.9	12	122	645	72	31	18
23	16	12	10	11	9.2	9.2	11	124	615	74	39	18
24	15	12	10	11	9.2	9.2	12	105	510	69	33	18
25	16	11	10	11	9.5	9.2	13	96	410	62	23	16
26	16	11	10	11	10	9.8	13	92	350	58	27	15
27	13	11	10	11	11	8.6	13	105	386	56	23	15
28	18	11	10	11	9.8	9.2	12	144	492	53	23	14
29	16	12	10	11	9.5	10	15	192	478	54	23	14
30	15	12	10	11	-----	11	21	251	395	82	23	13
31	15	-----	10	11	-----	13	-----	248	-----	76	23	-----
Total	596	358	331	331	282.2	296.7	395	2,702	13,777	4,449	1,305	540
Mean	19.2	11.9	10.7	10.7	9.73	9.57	13.2	87.2	459	144	42.1	18.0
Max	27	16	12	11	11	13	21	251	735	275	71	27
Min	13	11	10	10	9.2	8.6	10	30	278	53	23	13
Ac-ft	1,180	710	657	657	560	588	783	5,360	27,330	8,820	2,590	1,070

Cal yr 1967: Total 24,861.9 Mean 68.1 Max 496 Min 7.8 Ac-ft 49,310
Wtr yr 1968: Total 25,362.9 Mean 69.3 Max 735 Min 8.6 Ac-ft 50,310

Peak discharge (base, 400 cfs)

Note.--No gage-height record Dec. 6 to Jan. 10

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
6-6	0030	3.35	615	6-29	0300	3.49	685
6-21	0130	4.08	999				

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 1968. 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.--50 years, 337 cfs (244,000 acre-ft per year).

Extremes.--Maximum discharge during year, 2,670 cfs June 20 (gage height, 4.90 ft); minimum daily, 38 cfs Jan. 12.

1910-22, 1930-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Avg.	Sept.
1	92	71	55	50	48	55	68	189	1,750	910	215	148
2	92	66	50	55	45	52	69	282	1,850	875	199	144
3	88	42	45	60	50	50	67	380	2,050	854	197	141
4	90	71	45	50	50	50	63	480	2,120	847	189	128
5	104	45	48	42	50	50	65	552	2,180	847	172	104
6	120	50	52	48	44	52	66	530	2,180	786	175	92
7	120	55	48	44	44	55	62	395	2,090	750	177	84
8	112	55	52	44	44	60	63	355	1,890	732	166	97
9	112	60	50	46	42	60	61	400	1,520	744	220	97
10	105	63	45	48	40	60	63	485	1,340	756	238	90
11	95	63	48	52	42	60	69	588	1,350	744	229	86
12	90	62	50	38	46	50	79	696	1,410	684	197	85
13	82	60	50	40	46	45	86	660	1,730	618	180	85
14	82	58	50	42	46	50	78	600	1,780	558	241	84
15	79	58	50	44	46	55	80	535	1,710	505	258	90
16	74	58	50	50	48	50	85	460	1,730	455	220	93
17	76	53	50	55	48	50	85	405	1,700	420	177	95
18	74	48	50	48	50	50	86	415	1,740	385	172	95
19	73	50	54	48	50	48	88	495	1,750	350	163	92
20	68	55	48	48	50	46	85	576	1,880	320	148	85
21	68	55	45	50	50	45	84	834	2,050	295	137	93
22	67	55	42	50	50	45	78	1,120	1,920	270	128	99
23	67	50	46	50	50	48	71	988	1,840	295	159	97
24	66	50	48	50	50	49	78	828	1,670	247	137	93
25	69	45	50	50	46	47	76	744	1,400	235	120	88
26	68	40	50	52	50	49	73	732	1,250	229	110	86
27	59	40	50	55	60	47	73	810	1,370	217	112	86
28	69	45	55	60	70	48	76	1,000	1,530	210	120	97
29	66	55	50	55	60	51	90	1,320	1,510	204	128	95
30	64	50	48	55	- - - -	60	133	1,560	1,200	250	130	95
31	71	- - - -	45	50	- - - -	62	- - - -	1,740	- - - -	244	128	- - - -
Total	2,563	1,628	1,519	1,529	1,415	1,599	2,300	21,154	51,490	15,836	5,342	2,944
Mean	82.7	54.3	49.0	49.3	48.8	51.6	76.7	682	1,716	511	172	98.1
Max	120	71	55	60	70	62	133	1,740	2,180	910	258	148
Min	59	40	42	38	40	45	61	189	1,200	204	110	84
Ac-ft	5,080	3,230	3,010	3,030	2,810	3,170	4,560	41,960	102,100	31,410	10,600	5,840

Cal yr 1967: Total 113,769 Mean 312 Max 2,010 Min 33 Ac-ft 225,700

Wtr yr 1968: Total 109,319 Mean 299 Max 2,180 Min 38 Ac-ft 216,800

Peak discharge (base, 1,900 cfs).--June 5 (2130) 2,570 cfs (4.68 ft); June 20 (2300) 2,670 cfs (4.90 ft).

Note.--No gage-height record Nov. 28 to Feb. 28.

GREEN RIVER BASIN

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 1968.

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 3.15 ft higher.

Average discharge.--13 years, 12.0 cfs (8,690 acre-ft per year).

Extremes.--Maximum discharge during year, 225 cfs May 21 (gage height, 5.35 ft); minimum daily, 1.8 cfs Sept. 2, 8, 10, 11. 1955-68; 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, 0.40 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.4	4.6	5.0	4.8	5.6	6.6	12	50	129	3.2	3.7	1.9
2	4.6	4.8	4.8	4.6	5.4	6.6	12	65	121	3.4	3.1	1.8
3	5.0	6.0	4.8	4.6	5.4	6.6	12	78	105	3.2	3.4	2.8
4	4.6	5.5	4.6	4.4	5.4	6.6	12	82	92	4.1	3.4	2.9
5	4.6	5.5	4.6	4.2	5.4	6.6	12	77	94	5.3	3.1	2.5
6	5.2	5.5	4.6	4.2	5.2	6.8	12	78	91	9.1	3.7	2.4
7	5.0	5.5	4.8	4.4	5.2	6.8	11	39	72	7.2	4.4	2.1
8	4.8	6.0	4.8	4.5	5.2	6.8	10	38	62	5.8	4.8	1.8
9	5.0	6.2	5.0	4.5	5.2	7.0	9.8	53	45	6.4	5.8	1.9
10	5.5	6.7	5.0	4.2	5.0	7.0	12	61	46	5.3	4.1	1.8
11	4.1	6.4	5.0	4.2	5.0	7.0	14	76	52	5.5	4.4	1.8
12	3.9	5.8	5.0	4.4	5.2	7.0	18	76	43	5.8	5.0	2.1
13	3.7	5.8	5.0	4.5	5.2	7.0	16	74	37	5.0	3.9	2.4
14	3.9	5.5	4.8	4.6	5.4	7.0	17	72	34	4.1	2.6	2.8
15	3.4	5.8	4.8	4.6	5.4	7.0	16	78	30	4.4	2.8	2.6
16	3.4	5.5	4.8	4.8	5.6	7.0	17	68	24	4.4	4.4	3.1
17	3.7	5.8	5.0	4.8	5.6	6.8	16	48	18	3.9	4.4	3.4
18	3.9	5.5	5.0	4.6	5.6	6.6	16	51	16	3.7	4.4	3.1
19	3.7	5.2	5.0	4.6	5.6	6.6	16	60	15	3.1	4.1	3.2
20	3.4	4.8	5.0	4.8	5.8	6.6	14	87	15	2.8	3.1	2.8
21	3.7	4.8	4.8	5.0	5.8	6.8	12	125	9.8	2.1	2.8	3.4
22	3.7	4.8	4.6	5.0	6.0	7.0	12	150	7.5	2.4	2.8	3.2
23	3.7	4.8	4.8	5.2	6.0	7.0	12	111	5.0	2.8	2.9	3.2
24	4.1	4.8	4.8	5.2	6.0	7.5	12	90	4.1	2.8	3.1	3.2
25	4.6	5.0	5.0	5.4	6.2	8.0	12	67	4.1	2.8	2.8	3.2
26	4.1	5.0	5.0	5.6	6.2	8.0	12	78	3.7	2.5	2.9	3.1
27	3.7	5.0	5.2	5.6	6.4	8.5	12	83	3.7	2.4	2.6	3.1
28	4.6	5.0	5.0	5.6	6.4	9.0	14	128	4.1	2.2	2.5	3.1
29	5.0	5.0	5.0	5.8	6.6	9.0	19	138	3.2	2.2	2.4	2.8
30	4.8	5.0	5.0	5.8	- - - -	10	34	143	2.8	2.9	2.2	2.9
31	5.0	- - - -	4.8	5.6	- - - -	11	- - - -	146	- - - -	3.7	2.1	- - - -
Total	132.8	161.6	151.4	150.1	163.0	227.8	425.8	2,570	1,189.0	124.5	107.7	80.4
Mean	4.28	5.39	4.88	4.84	5.62	7.35	14.2	82.9	39.6	4.02	3.47	2.68
Max	5.5	6.7	5.2	5.8	6.6	11	34	150	129	9.1	5.8	3.4
Min	3.4	4.6	4.6	4.2	5.0	6.6	9.8	38	2.8	2.1	2.1	1.8
Ac-ft	263	321	300	298	323	452	845	5,100	2,360	247	214	159

Cal yr 1967: Total 3,588.8 Mean 9.83 Max 71 Min 1.2 Ac-ft 7,120

Wtr yr 1968: Total 5,484.1 Mean 15.0 Max 150 Min 1.8 Ac-ft 10,880

Peak discharge (base, 180 cfs).--May 21 (2300) 225 cfs (5.35 ft); May 29 (2300) 198 cfs (5.12 ft).

Note.--No gage-height record Jan. 2 to Feb. 27.

9-2444. Yampa River near Hayden, Colo.

Location.--Lat 40°29'20", long 107°09'20", in sec.9, T.6 N., R.87 W., on right bank 0.6 mile upstream from Sage Creek, 140 ft downstream from diversion point of Gibraltar Canal, and 4.9 miles east of Hayden. Prior to Oct. 1, 1967, at site 0.5 mile downstream.

Drainage area.--1,430 sq mi, approximately.

Records available.--October 1965 to September 1968.

Gage.--Water-stage recorders on river and on Gibraltar Canal. Altitude of river gage is 6,385 ft (from topographic map). Oct. 1, 1965, to Sept. 30, 1967, at site 0.5 mile downstream.

Extremes.--Maximum discharge during year, 8,680 cfs (estimated) June 6; minimum daily, 161 cfs Sept. 13. 1965-68; Maximum discharge, that of June 6, 1968; minimum daily, 58 cfs Sept. 24, 1966.

Remarks.--Records good except those for winter period, which are poor. Records show combined flow of river and Gibraltar Canal. Natural flow of stream affected by diversions for irrigation of about 30,000 acres above and 200 acres below station, transbasin diversions, storage reservoirs, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	266	256	206	215	206	205	623	2,880	6,360	2,730	674	324
2	262	260	180	225	196	204	674	3,420	6,570	2,520	579	318
3	252	256	191	214	207	195	673	3,760	7,140	2,480	552	312
4	252	244	192	204	218	196	553	4,090	7,540	2,300	592	329
5	262	256	202	194	218	207	567	4,140	7,960	2,300	525	329
6	311	177	212	215	208	216	635	4,270	8,240	2,180	462	289
7	343	214	201	206	207	217	571	3,160	7,830	1,950	480	259
8	316	236	212	195	197	227	502	2,630	7,100	1,820	448	237
9	313	234	200	206	196	228	484	2,750	6,030	1,740	486	237
10	313	269	200	207	186	227	520	2,970	5,150	1,910	716	228
11	294	257	211	217	186	216	609	3,220	5,310	1,770	736	203
12	272	255	221	196	186	216	834	3,620	5,290	1,650	775	170
13	250	256	210	186	187	217	1,010	3,570	5,970	1,410	607	161
14	244	246	199	196	187	217	874	3,160	6,540	1,330	663	167
15	244	245	199	196	197	238	949	3,140	6,210	1,160	1,060	177
16	239	245	200	197	196	238	1,200	2,970	6,690	1,080	814	189
17	232	234	210	207	197	238	1,290	2,780	6,280	966	623	221
18	239	212	210	186	197	238	1,470	2,440	6,460	858	545	234
19	243	221	200	186	208	228	1,480	2,410	6,430	801	505	234
20	235	244	199	186	218	217	1,210	2,630	6,390	748	465	244
21	228	224	189	197	207	216	1,080	3,030	6,810	699	416	233
22	222	198	176	207	207	216	949	4,190	6,170	646	383	240
23	222	223	186	208	207	216	841	4,540	5,890	596	406	248
24	225	198	197	208	196	236	901	4,070	5,310	544	438	248
25	224	210	207	218	196	257	954	3,620	4,530	546	388	234
26	231	189	218	219	196	267	1,020	3,520	3,880	526	350	233
27	225	178	207	240	206	298	969	3,310	4,010	513	323	229
28	221	194	196	240	206	329	1,040	3,770	4,350	513	345	222
29	260	206	207	230	205	370	1,410	4,440	4,140	513	356	230
30	240	194	196	218	- - - -	421	2,040	5,280	3,540	486	356	230
31	233	- - - -	184	217	- - - -	502	- - - -	5,790	- - - -	750	329	- - - -
Total	7,913	6,831	6,218	6,436	5,824	7,713	27,932	109,570	180,120	40,035	16,397	7,209
Mean	255	228	201	208	201	249	931	3,535	6,004	1,291	529	240
Max	343	269	221	240	218	502	2,040	5,790	8,240	2,730	1,060	329
Min	221	177	176	186	186	195	484	2,410	3,540	486	323	161
Ac-ft	15,700	13,550	12,330	12,770	11,550	15,300	55,400	217,300	357,300	79,410	32,520	14,300

Cal yr 1967: Total 351,836 Mean 964 Max 6,590 Min 88 Ac-ft 697,900
Wtr yr 1968: Total 422,198 Mean 1,154 Max 8,240 Min 161 Ac-ft 837,400

Note.--No gage-height record Nov. 3 to Jan. 8, June 6, 7.

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 1968.

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--11 years (1943-44, 1958-68), 32.4 cfs (23,460 acre-ft per year).

Extremes--Maximum discharge during year, 904 cfs May 21 (gage height, 5.62 ft), from rating curve extended above 330 cfs; maximum gage height, 5.64 ft May 5 (backwater from ice); minimum daily discharge, 2.4 cfs Sept. 11, 12.
1942-44, 1958-68: 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, 0.30 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.0	3.8	3.6	3.1	2.6	2.8	11	160	418	29	8.8	2.6
2	3.0	4.0	3.6	3.1	2.6	3.0	13	200	394	26	6.9	2.6
3	3.0	3.4	3.8	2.6	2.8	3.0	13	280	379	23	7.2	2.6
4	4.3	3.6	3.8	2.5	2.9	2.7	11	280	351	22	6.9	3.8
5	4.3	3.4	3.6	2.5	2.9	2.7	11	220	345	23	6.2	3.5
6	6.9	3.4	3.4	2.6	2.8	3.0	17	160	312	23	6.9	2.8
7	5.4	3.4	3.4	2.6	2.6	3.1	24	130	272	18	7.8	2.8
8	4.6	3.4	3.2	2.5	2.5	3.2	24	130	246	17	7.8	2.6
9	4.3	3.6	3.0	2.5	2.5	3.2	24	170	208	19	9.5	2.6
10	3.8	4.0	3.0	2.7	2.5	3.2	20	220	204	18	13	2.6
11	3.8	4.0	3.1	2.9	2.5	3.0	17	248	216	17	9.2	2.4
12	3.5	4.0	3.2	2.9	2.7	2.9	22	283	186	18	8.2	2.4
13	3.3	3.2	3.3	2.5	2.9	2.9	27	252	182	15	7.2	2.8
14	3.3	3.2	3.3	2.5	2.9	3.1	27	208	168	14	15	3.0
15	3.3	4.0	3.2	2.6	2.7	3.1	25	178	152	13	14	4.6
16	3.8	3.6	3.1	2.8	2.6	2.9	32	148	134	12	9.2	4.6
17	3.5	3.6	3.1	3.0	2.7	2.9	38	138	120	12	6.2	4.0
18	3.0	3.6	3.1	3.0	2.8	3.1	38	144	110	10	5.7	4.0
19	3.0	3.6	3.2	2.6	3.0	3.2	37	218	101	10	5.4	3.5
20	3.0	3.8	3.3	2.5	3.1	3.2	35	281	94	9.5	4.8	3.0
21	3.0	4.2	3.1	2.5	3.1	3.0	35	480	82	9.2	4.3	5.1
22	3.0	4.6	2.9	2.8	2.8	2.9	32	561	73	8.8	4.0	7.2
23	3.3	4.6	2.9	3.0	2.7	2.9	30	466	65	10	4.8	6.5
24	3.5	4.4	2.9	3.0	2.8	2.9	29	358	60	8.8	4.6	5.9
25	3.8	4.4	3.0	3.0	2.7	3.0	28	331	52	8.5	3.8	5.1
26	3.5	4.4	3.1	2.8	2.7	3.0	27	327	47	8.8	3.5	4.6
27	3.6	5.0	3.1	2.8	2.7	2.8	27	415	41	8.5	3.8	4.3
28	3.8	4.6	3.0	3.1	2.6	2.8	40	478	36	7.5	4.0	4.3
29	3.8	4.6	2.9	3.2	2.6	3.5	70	515	33	7.2	3.8	4.0
30	3.8	4.2	2.9	3.2	---	5.0	100	504	30	8.8	3.3	4.0
31	3.8	---	2.9	2.9	---	9.0	---	499	---	9.5	2.8	---
Total	115.0	117.6	99.0	86.3	79.3	101.0	884	3,982	5,111	444.1	208.6	113.8
Mean	3.71	3.92	3.19	2.78	2.73	3.26	29.5	290	170	14.3	6.73	3.79
Max	6.9	5.0	3.8	3.2	3.1	9.0	100	561	418	29	15	7.2
Min	3.0	3.2	2.9	2.5	2.5	2.7	11	130	30	7.2	2.8	2.4
Ac-ft	228	233	196	171	157	200	1,750	17,820	10,140	881	414	226

Cal yr 1967: Total 10,986.7 Mean 30.1 Max 287 Min 1.2 Ac-ft 21,790
Wtr yr 1968: Total 16,341.7 Mean 44.6 Max 561 Min 2.4 Ac-ft 32,410

Peak discharge (base, 300 cfs)--May 21 (2030) 904 cfs (5.62 ft); May 28 (2030) 720 cfs (5.00 ft).

Note--No gage-height record Nov. 27 to Mar. 27.

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 1968.

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.--15 years (1953-68), 47.8 cfs (34,610 acre-ft per year).

Extremes.--Maximum discharge during year, 1,080 cfs May 21 (gage height, 6.19 ft), from rating curve extended above 520 cfs; minimum daily, 2.7 cfs Feb. 11. 1910, 1920, 1953-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.7	5.5	4.0	3.3	3.0	4.3	14	128	591	42	10	4.8
2	4.1	5.8	4.2	3.1	3.0	4.3	17	209	559	37	8.6	4.4
3	4.1	3.0	4.2	3.0	3.1	4.0	20	303	539	35	8.3	4.4
4	4.8	3.6	4.0	2.9	3.2	4.0	22	370	487	33	8.0	5.0
5	6.2	3.9	3.8	2.9	3.2	4.2	20	429	467	32	6.6	5.3
6	9.0	3.7	3.7	3.0	3.1	4.4	20	440	429	36	7.2	4.8
7	9.4	3.7	3.7	2.9	3.0	4.4	32	269	370	28	6.9	4.4
8	6.9	3.7	3.5	2.9	2.9	4.4	30	223	333	25	8.3	3.9
9	5.8	4.0	3.3	3.0	2.8	4.2	30	297	300	29	9.9	3.7
10	5.0	4.2	3.3	3.2	2.8	4.0	26	364	275	27	14	3.7
11	4.8	4.6	3.5	3.2	2.7	3.8	22	387	297	23	14	3.4
12	4.6	4.7	3.6	3.1	2.8	3.8	30	487	251	25	11	3.4
13	4.1	4.7	3.7	2.9	3.1	3.9	30	433	240	22	9.9	3.4
14	4.1	4.6	3.7	2.9	3.3	4.1	33	370	218	18	14	4.1
15	4.4	4.6	3.5	3.0	3.2	4.2	30	330	193	16	20	4.8
16	4.4	4.4	3.4	3.3	3.2	4.2	40	275	177	15	15	5.5
17	4.6	4.4	3.4	3.3	3.2	4.0	39	251	162	13	12	5.5
18	3.9	4.1	3.5	3.3	3.4	4.2	39	257	148	12	10	5.3
19	4.1	4.4	3.6	3.1	3.6	4.2	37	367	135	12	8.3	4.8
20	4.4	4.8	3.6	2.9	3.7	4.4	35	471	126	11	7.6	4.1
21	4.4	4.8	3.4	2.9	3.7	4.6	35	674	110	9.4	6.6	4.8
22	4.1	4.8	3.2	3.0	3.7	4.6	31	803	101	9.0	6.2	8.6
23	4.4	5.0	3.2	3.1	3.6	4.5	31	683	90	9.9	6.2	9.4
24	4.6	4.8	3.2	3.1	3.7	4.4	30	579	82	9.4	6.6	8.0
25	4.8	4.6	3.4	3.1	3.8	4.6	29	499	74	9.0	5.8	6.6
26	5.0	4.6	3.5	3.0	3.8	4.6	27	499	66	9.0	5.3	5.5
27	4.4	5.4	3.5	2.9	3.8	4.4	28	559	58	9.9	5.3	5.0
28	4.8	4.8	3.2	2.9	3.9	4.4	31	654	52	8.3	5.5	4.6
29	5.3	5.0	3.2	3.1	4.2	4.7	46	711	48	8.0	5.5	4.6
30	5.3	4.6	3.2	3.3	---	5.0	72	703	43	8.6	5.3	4.4
31	5.3	---	3.3	3.2	---	10	---	699	---	14	5.0	---
Total	154.8	134.8	109.5	94.8	96.5	138.8	926	13,723	7,021	595.5	272.9	150.2
Mean	4.99	4.49	3.53	3.06	3.33	4.48	30.9	443	234	19.2	8.80	5.01
Max	9.4	5.8	4.2	3.3	4.2	10	72	803	591	42	20	9.4
Min	3.7	3.0	3.2	2.9	2.7	3.8	14	128	43	8.0	5.0	3.4
Ac-ft	307	267	217	188	191	275	1,840	27,220	13,930	1,180	541	298

Cal yr 1967: Total 15,983.0 Mean 43.8 Max 418 Min 2.0 Ac-ft 31,700

Wtr yr 1968: Total 23,417.8 Mean 64.0 Max 803 Min 2.7 Ac-ft 46,450

Peak discharge (base, 800 cfs).--May 21 (2300) 1,080 cfs (6.19 ft); May 28 (2300) 887 cfs (5.74 ft).

GREEN RIVER BASIN

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 1968.

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.--10 years (1958-68), 15.1 cfs (10,930 acre-ft per year).

Extremes.--Maximum discharge during year, 467 cfs May 21 (gage height, 3.89 ft); minimum daily, 0.15 cfs Sept. 11. 1910, 1920, 1958-68: Maximum discharge, 575 cfs May 19, 1964 (gage height, 4.53 ft); 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.0	1.6	1.6	2.1	1.8	2.4	1.2	99	180	8.2	1.2	0.28
2	1.0	1.6	1.7	2.1	1.6	2.3	1.2	122	195	7.0	1.0	.48
3	1.1	.84	1.8	1.8	1.8	2.2	1.0	136	195	6.6	1.0	.39
4	1.5	1.4	2.0	1.6	2.1	2.3	1.1	139	175	5.8	1.2	.66
5	1.6	1.2	2.0	1.6	2.1	2.3	8.6	158	165	5.4	.84	.75
6	2.4	1.2	1.6	2.0	1.8	2.5	9.0	137	138	6.2	.57	.66
7	2.0	1.1	1.7	2.0	1.6	2.6	1.1	77	116	4.9	.75	.39
8	1.6	1.2	1.8	1.8	1.4	2.6	8.6	90	98	4.6	1.0	.3
9	1.4	1.4	1.6	1.8	1.3	2.4	1.1	152	74	5.1	1.6	.3
10	1.2	1.5	1.4	2.1	1.3	2.5	1.1	150	80	4.6	1.8	.25
11	1.0	1.5	1.6	2.1	1.3	2.6	2.1	165	93	4.0	1.4	.15
12	1.0	1.4	1.8	1.8	1.4	2.6	3.1	165	74	3.8	1.2	.2
13	1.0	1.2	2.0	1.8	1.6	2.3	3.2	119	72	3.2	1.4	.48
14	1.0	1.1	2.0	1.8	2.0	2.3	2.3	91	60	2.7	1.4	.48
15	1.0	1.0	1.9	2.0	2.0	2.4	2.2	79	54	2.4	4.3	.75
16	1.0	1.0	1.8	2.2	1.8	2.6	2.2	70	48	2.1	2.0	.93
17	1.1	1.0	1.6	2.2	1.6	2.6	2.1	66	45	1.8	1.1	.93
18	1.2	1.1	2.0	2.0	1.8	2.4	1.8	77	48	1.4	1.1	.84
19	1.0	1.3	2.1	1.8	2.0	2.3	1.6	117	41	1.2	1.1	.75
20	1.0	1.4	2.1	1.8	2.1	2.2	1.3	150	39	.93	.93	.66
21	1.0	1.5	2.0	1.8	2.1	2.2	1.3	259	34	.75	.75	1.1
22	1.0	1.6	1.4	2.0	2.0	2.2	1.2	237	29	.66	.66	1.8
23	1.1	1.7	1.4	2.1	2.0	2.3	1.1	190	26	.84	.75	1.8
24	1.2	1.6	1.8	2.1	2.0	2.5	1.5	138	21	.84	.57	1.6
25	1.5	1.6	2.1	2.1	2.1	2.6	1.3	107	17	.93	.48	1.4
26	1.5	2.0	2.2	2.0	2.2	2.6	1.2	107	16	.93	.48	1.1
27	1.0	2.3	2.1	2.0	2.3	2.5	1.4	144	13	.84	.39	1.1
28	1.6	2.0	2.0	2.2	2.4	2.5	2.1	205	11	.84	2.0	1.0
29	1.6	1.8	1.6	2.1	2.4	2.7	4.2	232	10	.75	.84	1.0
30	1.2	1.6	1.8	2.0	-----	4.5	75	248	9.0	1.7	.75	.93
31	1.6	-----	2.0	2.0	-----	9.5	-----	248	-----	3.2	.57	-----
Total	39.4	42.74	56.5	60.8	53.9	84.5	551.2	4,474	2,176.0	94.21	37.13	23.46
Mean	1.27	1.42	1.82	1.96	1.86	2.73	18.4	144	72.5	3.04	1.20	0.78
Max	2.4	2.3	2.2	2.2	2.4	9.5	75	259	195	8.2	4.3	1.8
Min	1.0	0.84	1.4	1.6	1.3	2.2	8.6	66	9.0	0.66	0.39	0.15
Ac-ft	78	85	112	121	107	168	1,090	8,870	4,320	187	74	47

Cal yr 1967: Total 4,602.52 Mean 12.6 Max 148 Min 0.01 Ac-ft 9,130
 Wtr yr 1968: Total 7,693.84 Mean 21.0 Max 259 Min 0.15 Ac-ft 15,260

Peak discharge (base, 200 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5- 5	2200	3.76	285	5-21	1830	3.89	467
5-11	2100	3.48	244	5-30	1700	3.76	395

Note.--No gage-height record Nov. 26 to Apr. 2.

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 3.8 miles upstream from Willow Creek, and 16 miles south of Hayden.

Drainage area.--108 sq mi.

Records available.--October 1956 to September 1968.

Gage.--Water-stage recorder. Altitude of gage is 7,100 ft (from topographic map).

Average discharge.--12 years, 106 cfs (76,740 acre-ft per year).

Extremes.--Maximum discharge during year, 1,230 cfs June 6 (gage height, 6.60 ft); minimum daily, 20 cfs Nov. 3.

1956-68: Maximum discharge, about 1,500 cfs June 25, 1957; maximum gage height, 6.85 ft May 12, 1962; minimum daily discharge, 10 cfs Nov. 26, 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	30	26	25	23	27	39	122	783	158	73	38
2	27	30	24	25	23	26	36	144	783	142	68	37
3	26	20	24	23	25	25	30	164	713	136	75	44
4	27	30	26	23	27	25	28	178	692	130	63	44
5	33	25	28	25	27	27	29	195	846	138	63	42
6	38	24	28	25	25	26	31	190	1,010	144	66	37
7	34	24	27	24	26	26	27	140	895	128	55	36
8	34	27	25	25	26	25	27	134	678	120	51	34
9	35	30	25	28	25	24	27	156	490	122	63	33
10	33	28	27	28	25	24	33	188	421	123	87	33
11	32	27	29	27	26	23	37	232	440	111	84	32
12	30	28	29	25	27	21	42	228	475	110	66	32
13	27	28	27	25	28	25	42	215	542	100	55	33
14	28	27	26	25	28	23	36	195	542	94	83	31
15	27	26	26	26	27	24	40	192	515	90	83	34
16	27	27	26	27	25	24	46	178	530	82	64	40
17	26	25	27	24	24	24	43	152	480	76	55	39
18	28	24	28	23	24	24	40	150	455	75	54	37
19	27	26	28	23	25	23	38	172	530	72	51	43
20	27	25	26	23	26	23	35	228	490	70	49	35
21	27	27	25	24	27	22	36	373	515	68	48	39
22	27	27	23	25	28	24	34	490	435	70	48	39
23	28	28	23	26	28	23	30	390	385	76	54	36
24	25	28	25	27	28	23	32	306	338	76	51	35
25	30	25	27	28	27	25	33	256	263	70	48	32
26	30	22	28	29	26	26	34	282	235	72	46	31
27	24	22	28	29	25	24	36	327	232	72	48	30
28	30	25	27	28	26	26	35	475	225	70	50	30
29	27	26	26	26	26	33	52	626	200	64	49	29
30	31	27	24	25	- - - - -	37	90	734	178	71	44	29
31	32	- - - - -	24	24	- - - - -	37	- - - - -	790	- - - - -	75	40	- - - - -
Total	903	798	812	790	753	789	1,118	8,602	15,316	3,005	1,834	1,064
Mean	29.1	26.3	26.2	25.5	26.0	25.5	37.3	277	511	96.9	59.2	35.5
Max	38	30	29	29	28	37	90	790	1,010	158	87	44
Min	24	20	23	23	23	21	27	122	178	64	40	29
Ac-ft	1,790	1,560	1,610	1,570	1,490	1,560	2,220	17,060	30,060	5,960	3,640	2,110

Cal yr 1967: Total 32,370 Mean 88.7 Max 720 Min 14 Ac-ft 64,200
 Wtr yr 1968: Total 35,774 Mean 97.7 Max 1,010 Min 20 Ac-ft 70,960

Peak discharge (base, 450 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-21	2130	5.74	614	6-6	2230	6.60	1,230
5-31	2230	6.34	1,020	6-13	2100	5.95	748

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 1968.

Gage.--Water-stage recorder. Altitude of gage is 6,830 ft (from topographic map).

Average discharge.--15 years, 109 cfs (78,910 acre-ft per year).

Extremes.--Maximum discharge during year, 1,240 cfs June 6 (gage height, 3.75 ft); minimum daily, 24 cfs Nov. 3.

1953-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	33	29	27	25	28	40	126	747	188	74	34
2	34	34	27	27	27	27	40	162	681	174	72	33
3	33	24	27	26	29	27	36	200	670	168	74	36
4	32	30	28	26	29	27	31	239	714	154	64	38
5	40	27	30	28	29	28	31	274	857	162	62	36
6	46	25	30	28	28	29	35	270	967	174	64	34
7	41	25	29	26	28	29	31	182	868	147	56	32
8	40	27	27	28	28	28	31	182	630	135	56	32
9	42	30	27	31	27	26	31	231	507	135	62	32
10	38	32	30	31	27	25	34	278	464	147	82	32
11	36	31	31	29	28	25	45	335	456	130	81	32
12	34	30	31	28	30	25	56	330	472	126	67	32
13	31	31	30	27	30	26	57	305	525	120	56	32
14	32	30	28	27	30	27	46	274	525	110	76	32
15	30	28	28	28	28	25	53	274	525	106	76	33
16	26	30	28	28	27	26	60	258	570	99	58	37
17	27	28	30	27	25	26	58	212	552	92	48	37
18	29	27	30	25	25	26	54	209	600	87	48	37
19	29	29	30	25	26	26	52	227	580	86	47	41
20	28	28	29	25	27	25	47	282	543	84	45	36
21	29	30	27	26	28	25	47	428	543	82	42	39
22	28	31	25	27	29	26	42	552	480	82	41	41
23	30	31	25	28	30	26	39	472	440	87	45	39
24	26	31	28	28	30	25	41	388	388	90	44	38
25	32	28	30	29	29	26	44	325	335	79	40	36
26	31	25	31	31	28	25	42	358	315	79	39	36
27	25	25	31	30	27	26	44	374	278	76	39	35
28	33	28	30	29	27	31	41	490	262	78	41	35
29	31	30	28	28	28	36	56	620	239	70	39	35
30	31	30	27	27	---	38	92	660	206	73	37	35
31	35	---	26	26	---	38	---	714	---	76	36	---
Total	1,012	868	887	856	809	853	1,356	10,231	15,939	3,496	1,714	1,057
Mean	32.6	28.9	28.6	27.6	27.9	27.5	45.2	330	531	113	55.3	35.2
Max	46	34	31	31	30	38	92	714	967	188	82	41
Min	25	24	25	25	25	25	31	126	206	70	36	32
Ac-ft	2,010	1,720	1,760	1,700	1,600	1,690	2,690	20,290	31,610	6,930	3,400	2,100

Cal yr 1967: Total 35,670 Mean 97.7 Max 703 Min 15 Ac-ft 70,750
 Wtr yr 1968: Total 39,078 Mean 107 Max 967 Min 24 Ac-ft 77,510

Peak discharge (base, 500 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-21	2330	3.24	692	6- 6	0300	3.75	1,240
6- 1	0130	3.46	912	6-20	2230	3.27	769

9-2492. South Fork of Williams Fork near Pagoda, Colo.

Location--Lat 40°12'44", long 107°26'31", in sec.24, T.3 N., R.90 W., on left bank at downstream side of private bridge, 1½ miles upstream from Pine Creek and 8 miles south of Pagoda.

Drainage area--46.7 sq mi.

Records available--October 1965 to September 1968.

Gage--Water-stage recorder. Altitude of gage is 7,230 ft (from topographic map).

Extremes--Maximum discharge during year, 800 cfs (estimated) June 6; minimum daily, 2.1 cfs Sept. 11.

1965-68: Maximum discharge, that of June 6, 1968; minimum daily, 0.20 cfs for many days in August and September 1966.

Remarks--Records good except those for winter period, 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.6	5.2	5.0	5.0	5.9	6.8	17	44	480	30	6.4	4.8
2	4.2	4.5	4.4	5.0	5.5	6.5	18	59	400	26	6.4	4.8
3	4.6	4.0	4.2	5.0	6.0	6.0	14	77	370	24	12	4.3
4	5.5	3.8	4.2	4.8	6.2	5.5	13	100	450	23	6.8	3.5
5	7.4	3.6	4.6	4.8	6.2	5.5	12	126	550	23	5.3	3.4
6	8.6	3.8	4.6	5.0	6.4	5.4	11	126	640	24	4.9	3.4
7	6.4	4.0	4.4	5.0	6.5	5.5	11	75	398	21	4.3	3.8
8	6.2	4.2	4.2	5.0	6.5	6.6	11	72	326	19	6.0	3.8
9	7.0	4.4	4.2	5.5	6.2	5.9	11	95	300	19	8.0	3.7
10	6.6	4.6	4.6	5.8	6.2	5.9	12	135	280	18	13	3.1
11	5.3	4.6	4.9	6.0	6.6	6.0	13	162	270	16	17	2.1
12	4.9	4.4	4.9	5.8	7.2	6.0	16	154	270	15	10	2.2
13	4.2	4.2	4.8	5.5	7.2	6.4	18	132	280	14	8.4	3.5
14	4.2	4.0	4.6	5.5	7.2	5.9	16	105	300	13	12	3.8
15	4.1	4.0	4.6	5.5	6.8	6.0	18	95	300	11	16	4.6
16	3.7	4.2	4.6	5.6	6.2	6.0	18	93	300	9.8	11	5.5
17	3.9	4.0	4.8	5.8	6.0	5.7	16	81	310	9.0	8.4	5.7
18	3.9	4.0	4.6	5.5	6.0	6.0	14	93	300	8.8	7.2	4.9
19	3.9	4.0	4.8	5.2	6.6	6.2	13	120	260	8.6	7.0	5.1
20	3.7	4.0	4.6	5.2	6.8	6.0	12	182	205	8.8	6.4	4.0
21	3.9	4.2	4.2	5.2	6.8	6.0	12	346	195	8.6	6.0	4.5
22	3.7	4.6	4.0	5.4	6.4	6.4	11	332	162	7.8	6.0	5.9
23	3.9	4.8	4.0	5.6	6.2	7.4	12	290	135	8.8	8.2	6.0
24	3.6	4.8	4.2	6.0	5.9	7.4	12	230	105	11	8.2	5.7
25	4.2	4.4	4.6	6.2	6.0	8.6	12	195	75	7.4	6.6	5.1
26	4.1	4.0	4.6	6.4	6.4	8.6	12	215	62	7.0	6.0	4.8
27	3.4	4.0	4.4	6.4	6.6	10	12	230	56	6.0	6.0	4.5
28	4.4	4.8	4.4	5.9	6.8	11	12	280	54	6.0	6.8	4.6
29	4.1	5.5	4.4	5.7	6.4	12	15	350	45	5.5	6.4	4.6
30	5.0	5.5	4.6	5.7	---	14	26	400	38	10	5.7	4.5
31	5.2	---	4.8	5.9	---	15	---	450	---	8.2	5.1	---
Total	147.4	130.1	139.8	170.9	185.7	226.2	420	5,444	7,916	427.3	247.5	130.2
Mean	4.75	4.34	4.51	5.51	6.40	7.30	14.0	176	264	13.8	7.98	4.34
Max	8.6	5.5	5.0	6.4	7.2	15	26	450	640	30	17	6.0
Min	3.6	3.6	4.0	4.8	5.5	5.4	11	44	38	5.5	4.3	2.1
Ac-ft	292	258	277	339	368	449	833	10,800	15,700	848	491	258

Cal yr 1967: Total 13,565.5 Mean 37.2 Max 434 Min 2.3 Ac-ft 26,910
 Wtr yr 1968: Total 15,585.1 Mean 42.6 Max 640 Min 2.1 Ac-ft 30,910

Peak discharge (base, 400 cfs)

Note.--Stage-discharge relationship indefinite May 27 to June 6.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-21	2130	3.47	505	6-6	-	-	†800
6-1	-	-	†630				

† Estimated.

GREEN RIVER BASIN

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 1968.

Gage.--Water-stage recorder. Altitude of gage is 6,450 ft (by barometer).

Average discharge.--16 years, 21.4 cfs (15,490 acre-ft per year).

Extremes.--Maximum discharge during year, 640 cfs May 22 (gage height, 4.85 ft), from rating curve extended above 320 cfs; minimum daily, 1.4 cfs Sept. 13, 15, 20.
1952-68: Maximum discharge, that of May 22, 1968; maximum gage height, 5.52 ft June 1, 1957; minimum daily discharge, 0.20 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.2	3.7	3.4	3.4	3.4	3.0	3.1	4.7	270	12	5.9	2.0
2	2.2	3.7	3.0	3.6	3.2	3.2	29	69	252	9.6	5.6	2.0
3	2.4	3.6	3.2	3.4	3.0	3.4	14	88	270	11	5.9	2.0
4	2.2	3.2	3.3	3.0	3.2	3.4	13	121	243	11	4.7	2.2
5	2.4	3.0	3.4	3.2	3.2	3.4	15	143	243	12	4.1	2.0
6	5.3	3.0	3.5	3.2	3.4	3.2	23	195	202	12	3.8	2.4
7	4.2	3.0	3.6	3.0	3.4	3.1	16	130	151	11	3.8	2.4
8	3.5	3.0	4.0	3.0	3.6	3.2	14	94	117	11	4.1	2.2
9	3.0	3.2	3.8	3.0	3.6	3.5	12	112	91	10	4.7	2.0
10	2.7	3.2	3.6	3.2	3.4	3.8	19	135	74	11	5.9	2.0
11	3.0	3.2	3.7	3.3	3.2	3.8	28	171	73	9.6	5.9	1.5
12	2.7	3.2	3.8	3.0	3.2	4.0	32	188	63	10	5.3	1.5
13	2.5	3.2	3.6	3.2	3.2	4.0	29	195	61	12	4.1	1.4
14	2.5	3.2	3.5	3.5	3.4	4.0	21	161	54	10	5.3	1.5
15	2.4	3.5	3.2	3.7	3.2	3.6	19	135	47	9.3	7.6	1.4
16	2.5	3.2	3.0	3.9	3.0	3.8	20	147	51	8.2	5.6	1.5
17	2.2	3.2	2.8	3.8	3.0	4.0	23	124	44	8.2	4.4	1.6
18	2.0	3.0	3.0	3.6	3.1	4.0	21	109	44	7.6	3.8	1.5
19	1.9	3.0	3.2	3.4	3.3	4.2	18	145	46	7.2	3.5	1.5
20	1.9	3.2	3.4	3.6	3.6	4.0	35	198	43	7.2	3.5	1.4
21	1.9	3.9	3.2	3.6	3.5	4.0	34	273	38	6.5	2.8	1.5
22	1.9	3.9	3.0	3.7	3.2	4.0	16	379	32	6.5	2.8	2.8
23	2.0	3.7	3.1	3.9	3.2	4.2	12	220	27	6.2	2.8	4.7
24	2.2	3.4	3.4	4.1	3.2	5.0	17	195	24	6.5	2.8	4.1
25	2.2	3.4	3.4	4.4	3.0	6.6	16	159	23	6.2	2.8	3.5
26	2.2	3.0	3.6	4.4	3.2	8.0	16	165	20	6.2	2.6	3.3
27	2.2	3.2	3.8	4.2	3.2	6.9	16	165	18	6.5	2.6	3.3
28	2.5	2.7	3.6	3.7	3.0	8.0	14	190	18	5.9	2.6	3.0
29	3.2	3.0	3.4	3.2	3.0	10	16	222	16	5.9	2.6	3.0
30	3.5	3.1	3.5	3.2	- - - -	20	29	270	13	7.9	2.0	3.0
31	3.0	- - - -	3.2	3.6	- - - -	33	- - - -	270	- - - -	7.6	2.0	- - - -
Total	80.5	97.8	105.2	109.0	94.1	182.3	618	5,215	2,668	271.8	125.9	68.2
Mean	2.60	3.26	3.39	3.52	3.24	5.88	20.6	168	88.9	8.77	4.06	2.27
Max	5.3	3.9	4.0	4.4	3.6	33	35	379	270	12	7.6	4.7
Min	1.9	2.7	2.8	3.0	3.0	3.0	12	47	13	5.9	2.0	1.4
Ac-ft	160	194	209	216	187	362	1,230	10,340	5,290	539	250	135

Cal yr 1967: Total 6,703.1 Mean 18.4 Max 220 Min 1.4 Ac-ft 13,300
Wtr yr 1968: Total 9,635.8 Mean 26.3 Max 379 Min 1.4 Ac-ft 19,110

Peak discharge (base, 250 cfs).--May 22 (0500) 640 cfs (4.85 ft); May 30 (0700) 384 cfs (4.30 ft).

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 1968. 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.--52 years (1916-68), 1,537 cfs (1,113,000 acre-ft per year).

Extremes.--Maximum discharge during year, 11,400 cfs June 7 (gage height, 8.72 ft); minimum daily, 130 cfs Dec. 2.

1904-5, 1910-12, 1916-68: 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 1968 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	280	264	160	200	230	350	1,080	3,610	9,610	3,840	691	340
2	260	268	130	220	240	360	1,260	4,720	9,870	3,100	754	316
3	240	280	140	220	230	360	1,410	5,470	10,200	2,800	677	312
4	244	284	150	210	220	350	1,130	5,960	10,400	2,640	594	307
5	240	252	160	200	210	350	894	6,410	10,800	2,510	600	312
6	260	233	170	190	200	370	922	6,650	11,000	2,500	588	320
7	316	233	180	180	200	370	1,190	6,980	11,100	2,460	522	312
8	350	198	200	210	200	370	990	4,670	10,700	2,200	504	272
9	370	226	210	230	200	400	845	3,910	9,820	2,030	534	252
10	350	248	230	230	210	400	817	4,420	9,290	2,000	540	233
11	345	284	240	220	200	410	817	4,920	7,110	2,120	973	226
12	316	302	220	200	200	400	1,090	5,410	7,000	1,950	817	212
13	302	289	210	210	210	380	1,780	5,900	6,860	1,840	824	205
14	280	280	200	220	220	380	2,180	5,560	7,520	1,660	747	184
15	268	280	190	220	230	400	1,480	4,900	7,980	1,510	726	180
16	260	280	200	230	240	400	1,500	4,740	7,570	1,370	1,040	174
17	260	272	210	240	240	410	2,100	4,510	7,930	1,220	922	184
18	252	268	210	230	240	430	2,400	3,910	7,470	1,080	761	205
19	244	260	210	220	240	464	2,510	3,690	7,520	958	621	226
20	256	244	200	210	250	458	2,420	3,980	7,420	838	570	236
21	252	264	190	210	270	430	2,000	4,810	7,450	782	528	248
22	248	270	200	220	280	405	1,830	5,830	7,810	747	464	264
23	240	270	200	230	280	425	1,600	7,950	7,220	677	436	264
24	240	270	200	230	270	452	1,310	7,540	6,860	663	442	294
25	240	250	210	230	300	522	1,300	6,550	6,090	663	447	294
26	240	180	220	250	320	570	1,360	5,690	5,170	614	458	284
27	244	160	210	270	320	607	1,520	5,580	4,510	570	395	272
28	260	140	210	260	320	635	1,450	5,580	4,490	528	360	252
29	264	150	210	240	320	677	1,460	6,590	4,720	540	330	248
30	268	180	200	230	- - - - -	691	2,180	7,810	4,470	528	340	260
31	280	- - - - -	180	230	- - - - -	845	- - - - -	8,860	- - - - -	540	340	- - - - -
Total	8,469	7,379	6,050	6,890	7,090	14,071	44,825	173,110	234,960	47,478	18,545	7,688
Mean	273	246	195	222	244	454	1,494	5,584	7,832	1,532	598	256
Max	370	302	240	270	320	845	2,510	8,860	11,100	3,840	1,040	340
Min	240	140	130	180	200	350	817	3,610	4,470	528	330	174
Ac-ft	16,800	14,640	12,000	13,670	14,060	27,910	88,910	343,400	466,000	94,170	36,780	15,250

Cal yr 1967: Total 458,851 Mean 1,257 Max 8,720 Min 118 Ac-ft 910,100
 Wtr yr 1968: Total 576,555 Mean 1,575 Max 11,100 Min 130 Ac-ft 1,144,000

Peak discharge (base, 7,000 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5- 7	0800	7.10	7,500	6- 7	2045	8.72	11,400
5-23	0800	7.38	8,140				

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 1968.

Gage.--Water-stage recorder. Datum of gage is 6,831.00 ft above mean sea level, datum of 1929.

Average discharge.--23 years, 212 cfs (153,500 acre-ft per year).

Extremes.--Maximum discharge during year, 2,650 cfs June 2 (gage height, 7.68 ft); minimum daily, 19 cfs Nov. 29.

1942-47, 1950-68: 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 period, which are poor. Diversions for irrigation of about 2,000 acres above station.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	41	28	32	29	32	79	320	2,120	455	64	28
2	39	40	24	33	31	28	85	460	2,150	410	54	28
3	39	25	22	32	32	26	76	608	2,290	370	59	30
4	39	40	26	29	31	26	69	795	2,330	325	54	32
5	60	34	28	28	29	26	68	883	2,320	320	46	33
6	81	34	28	29	28	26	72	932	2,350	306	42	30
7	72	30	28	31	27	29	65	608	2,290	254	41	28
8	64	30	28	32	26	30	62	550	2,090	230	45	27
9	60	33	28	30	25	31	55	680	1,800	227	68	27
10	53	34	28	28	25	30	60	869	1,630	211	72	25
11	46	34	30	28	26	27	74	1,030	1,730	208	62	25
12	42	35	30	28	28	30	101	1,110	1,630	192	53	25
13	40	35	30	26	29	32	120	1,040	1,740	151	45	27
14	39	36	30	28	28	32	99	1,020	1,700	129	55	28
15	38	35	30	29	27	32	96	904	1,620	118	69	30
16	35	36	30	30	26	34	105	799	1,580	114	61	36
17	35	32	30	30	28	34	97	680	1,490	99	48	37
18	34	30	32	32	29	34	94	687	1,490	89	44	36
19	33	33	32	32	31	37	101	743	1,460	81	44	31
20	31	33	32	32	32	38	90	911	1,450	76	40	28
21	31	34	30	32	35	41	94	1,170	1,390	72	34	35
22	30	31	28	32	35	43	85	1,580	1,290	71	32	46
23	32	29	29	32	33	40	82	1,460	1,170	78	39	50
24	34	28	32	32	31	40	82	1,250	1,000	78	44	49
25	33	26	32	34	29	42	87	1,050	848	67	35	42
26	37	24	30	35	30	40	82	1,060	736	62	30	38
27	27	21	30	37	31	38	82	1,070	701	67	31	34
28	40	25	30	38	32	38	90	1,350	674	58	32	31
29	33	19	30	35	32	46	118	1,620	608	53	33	31
30	28	24	30	31	- - - -	61	195	1,860	535	61	31	30
31	36	- - - -	30	33	- - - -	67	- - - -	2,150	- - - -	74	28	- - - -
Total	1,277	941	905	970	855	1,110	2,665	31,239	46,212	5,106	1,454	977
Mean	41.2	31.4	29.2	31.3	29.5	35.8	88.8	1,008	1,540	165	46.9	32.6
Max	81	41	32	38	35	67	195	2,150	2,350	455	89	50
Min	27	19	22	26	25	26	55	320	535	53	28	25
Ac-ft	2,530	1,870	1,800	1,920	1,700	2,200	5,290	61,960	91,660	10,130	2,870	1,940

Cal yr 1967: Total 73,585 Mean 202 Max 1,600 Min 17 Ac-ft 146,000

Wtr yr 1968: Total 93,711 Mean 256 Max 2,350 Min 19 Ac-ft 185,900

Peak discharge (base, 1,600).--May 21 (2330) 1,910 cfs (6.94 ft); June 2 (2330) 2,650 cfs (7.68 ft).

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 1968. 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.--37 years (1931-68), 70.3 cfs (50,900 acre-ft per year).

Extremes.--Maximum discharge during year, 1,280 cfs May 31 (gage height, 9.38 ft), from rating curve extended above 650 cfs; minimum daily, 8.0 cfs Aug. 22, Sept. 3, 12.

1910-12, 1931-68: 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 period, which are poor. Diversions for irrigation of about 500 acres above station.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	18	15	14	15	17	37	164	842	111	19	8.4
2	17	18	14	15	15	17	44	208	760	99	15	8.2
3	13	8.5	12	14	15	18	40	233	765	94	14	8.0
4	15	12	13	13	16	19	36	254	722	95	13	9.4
5	18	12	15	13	16	20	34	218	772	93	12	12
6	22	13	15	14	16	20	40	178	762	97	10	11
7	29	13	15	14	15	20	32	248	662	84	9.8	9.4
8	24	13	15	15	15	20	30	217	608	77	10	8.8
9	20	14	14	15	14	20	28	256	502	72	14	8.4
10	15	15	14	15	14	19	31	326	458	73	28	8.4
11	14	15	14	15	14	18	42	396	592	68	22	8.4
12	13	16	14	14	14	18	52	486	520	56	17	8.0
13	12	16	14	15	15	20	66	486	566	46	15	8.4
14	12	16	14	15	15	22	49	418	552	40	17	8.8
15	12	15	14	15	15	21	52	354	464	35	40	11
16	12	16	14	15	16	22	57	312	462	32	29	13
17	12	14	14	15	17	23	53	258	412	26	20	12
18	13	11	14	15	18	23	48	260	414	24	19	10
19	13	13	14	15	18	22	46	291	442	21	18	9.2
20	13	15	14	15	19	20	46	410	464	19	15	8.2
21	12	17	14	16	20	22	51	532	430	17	12	11
22	13	10	15	17	20	25	46	925	364	18	8.0	15
23	13	12	15	17	20	28	37	785	322	19	8.8	18
24	14	14	15	17	19	28	44	616	284	20	10	16
25	15	14	15	18	17	31	44	460	219	17	9.4	15
26	16	13	15	18	18	29	43	524	172	17	8.8	13
27	14	12	15	18	19	24	40	546	176	15	8.4	13
28	16	13	14	18	20	24	45	705	187	14	12	11
29	17	12	14	17	18	29	62	832	175	12	12	12
30	12	13	14	16	- - - - -	34	113	905	153	12	9.8	11
31	15	- - - - -	13	17	- - - - -	35	- - - - -	1,070	- - - - -	21	9.4	- - - - -
Total	471	413.5	441	480	483	708	1,388	13,873	14,223	1,444	465.4	324.0
Mean	15.2	13.8	14.2	15.5	16.7	22.8	46.3	448	474	46.6	15.0	10.8
Max	29	18	15	18	20	35	113	1,070	842	111	40	18
Min	12	8.5	12	13	14	17	28	164	153	12	8.0	8.0
Ac-ft	934	820	875	952	958	1,400	2,750	27,520	28,210	2,860	923	643

Cal yr 1967: Total 23,194.95 Mean 63.5 Max 652 Min 0.75 Ac-ft 46,010
Wtr yr 1968: Total 34,713.9 Mean 94.8 Max 1,070 Min 8.0 Ac-ft 68,850

Peak discharge (base, 430 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-13	0130	6.23	508	5-31	0730	9.38	1,280
5-22	0430	8.87	1,140				

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 1968.

Gage.--Water-stage recorder. Altitude of gage is 6,700 ft (from topographic map).

Average discharge.--15 years, 8.70 cfs (6,300 acre-ft per year).

Extremes.--Maximum discharge during year, 265 cfs May 5 (gage height, 5.12 ft); minimum daily, 0.85 cfs Nov. 3. 1953-68: Maximum discharge, that of May 5, 1968; no flow Sept. 17-19, 1955.

Remarks.--Records good except those for winter period, which are poor. No diversion above station. Regulation by Elk Lake (capacity, 400 acre-ft).

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	2.6	2.0	1.8	2.3	2.6	11	79	39	25	5.0	2.8
2	1.7	2.3	1.6	2.0	2.3	2.5	12	78	41	22	4.6	2.8
3	1.7	.85	1.6	2.0	2.3	2.5	6.0	79	49	22	5.2	2.8
4	1.9	2.1	1.8	2.0	2.3	2.5	7.4	83	55	22	5.4	3.2
5	2.3	1.9	1.8	2.0	2.3	2.6	6.7	123	68	22	5.0	3.4
6	3.2	2.3	2.0	2.2	2.3	2.7	7.4	106	67	21	4.8	3.0
7	3.0	2.0	2.0	2.2	2.3	2.8	4.4	30	59	20	4.6	2.8
8	2.4	2.1	2.0	2.2	2.3	2.8	3.8	25	55	18	4.6	2.6
9	2.4	2.6	1.8	2.4	2.3	2.6	4.0	50	44	18	5.4	2.6
10	2.1	2.3	1.8	2.4	2.3	2.4	6.0	65	43	18	5.4	2.5
11	2.0	2.3	2.0	2.4	2.4	2.4	13	80	49	17	4.8	2.4
12	1.9	2.3	1.8	2.1	2.5	2.4	18	81	50	15	5.0	2.5
13	1.9	2.4	1.8	2.4	2.5	2.6	18	62	61	12	5.0	2.5
14	1.9	2.3	1.8	2.4	2.5	2.8	11	45	57	14	8.2	2.5
15	1.9	2.3	1.8	2.4	2.5	2.8	12	32	53	12	8.7	2.6
16	1.8	2.3	1.8	2.6	2.5	2.8	14	44	57	11	5.6	2.8
17	1.9	2.1	1.8	2.6	2.6	2.8	10	26	57	10	3.8	3.0
18	1.9	1.7	1.8	2.6	2.7	2.6	9.2	28	66	8.9	3.8	2.8
19	2.0	2.1	1.8	2.6	2.8	2.3	9.7	35	68	7.9	3.8	2.6
20	1.9	2.0	2.0	2.6	2.9	2.3	11	41	76	7.0	3.2	2.4
21	2.0	2.1	2.0	2.9	3.0	2.3	11	69	79	6.5	3.2	3.7
22	2.0	1.8	2.2	2.9	3.0	2.8	6.7	66	67	6.0	3.2	3.4
23	2.0	1.7	2.2	2.9	3.0	3.5	7.4	45	66	7.2	3.6	3.2
24	2.0	1.6	2.2	2.9	2.9	4.2	7.9	31	55	6.2	3.6	3.2
25	2.1	1.6	2.2	2.9	2.7	4.4	7.9	26	44	5.2	3.1	3.0
26	2.1	1.4	2.2	2.9	2.8	4.2	7.2	32	37	5.0	3.0	2.8
27	1.8	1.2	2.2	2.9	2.8	3.7	7.7	29	41	4.6	3.0	2.6
28	2.3	1.6	2.2	2.7	2.8	4.0	14	33	49	4.2	4.4	2.5
29	2.1	1.8	2.2	2.7	2.7	8.2	41	44	47	4.0	3.7	2.5
30	1.7	2.0	2.0	2.5	2.5	10	75	44	36	4.0	3.2	2.5
31	2.3	- - - -	1.8	2.5	- - - -	10	- - - -	49	- - - -	6.0	3.0	- - - -
Total	63.6	59.65	60.2	76.6	74.6	109.1	380.4	1660	1635	381.7	138.9	84.0
Mean	2.05	1.99	1.94	2.47	2.57	3.52	12.7	53.5	54.5	12.3	4.48	2.80
Max	3.2	2.6	2.2	2.9	3.0	10	75	123	79	25	8.7	3.7
Min	1.4	0.85	1.6	1.8	2.3	2.3	3.8	25	36	4.0	3.0	2.4
Ac-ft	126	118	119	152	148	216	755	3,290	3,240	757	276	167

Cal yr 1967: Total 3,115.79 Mean 8.54 Max 66 Min 0.85 Ac-ft 6,180

Wtr yr 1968: Total 4,723.75 Mean 12.9 Max 123 Min 0.85 Ac-ft 9,370

Peak discharge (base, 70 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5- 5	2330	5.12	265	6- 5	0200	3.69	86
5-11	2000	4.29	152	6-20	2330	3.90	104
5-21	2200	4.05	124				

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 1968 (discontinued).

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.--7 years, 523 cfs (378,600 acre-ft per year).

Extremes.--Maximum discharge during year, 5,100 cfs June 1 (gage height, 5.71 ft); minimum daily, 13 cfs Sept. 17.

1961-68: 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 period, which are poor. Diversions for irrigation of about 15,000 acres above station.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	78	63	90	100	90	140	356	1,300	4,850	1,090	42	39
2	80	72	80	100	85	140	512	1,780	4,500	900	64	33
3	82	90	75	95	90	130	512	2,010	4,400	765	54	26
4	78	50	80	90	95	145	262	2,460	4,600	690	50	24
5	76	35	85	90	95	150	239	2,780	4,500	585	57	26
6	130	45	85	90	100	160	428	3,240	4,830	555	61	27
7	128	40	90	90	95	160	421	2,870	4,810	555	48	33
8	144	50	95	90	90	170	248	1,930	4,630	492	44	34
9	118	60	90	95	85	170	212	1,830	4,200	402	87	30
10	103	76	95	90	85	160	183	2,330	3,530	414	204	24
11	95	84	100	90	85	150	257	3,050	3,400	350	159	19
12	90	82	90	85	90	140	518	3,450	3,470	330	150	18
13	86	80	90	95	90	150	832	3,600	3,290	297	106	19
14	80	78	90	100	100	160	765	3,310	3,520	244	90	17
15	76	80	90	100	95	170	638	2,850	3,400	212	108	16
16	72	80	95	110	95	140	712	2,380	3,200	165	147	15
17	72	78	100	100	95	128	1,270	2,190	3,100	138	159	13
18	66	82	100	95	95	147	1,000	1,990	2,980	118	115	20
19	64	72	100	90	100	132	988	2,020	3,010	106	99	27
20	64	70	100	90	100	103	1,180	2,560	2,990	99	88	30
21	70	84	90	90	120	99	932	2,780	2,950	82	86	36
22	61	92	85	90	130	92	924	3,760	2,820	74	76	36
23	66	86	90	90	130	108	460	4,680	2,460	66	74	37
24	64	76	100	90	130	141	376	4,340	2,280	61	64	44
25	64	70	100	95	130	156	382	3,600	1,950	64	52	63
26	64	60	100	100	120	192	388	3,130	1,610	61	54	63
27	64	45	110	110	120	156	356	3,150	1,430	50	47	63
28	68	70	110	110	130	150	343	3,290	1,360	48	47	57
29	66	80	110	100	140	189	414	3,660	1,310	55	42	55
30	74	85	100	95	---	266	720	4,320	1,190	52	40	55
31	74	---	90	90	---	308	---	4,610	---	36	40	---
Total	2,517	2,115	2,905	2,945	3,005	4,802	16,828	91,250	96,570	9,156	2,554	999
Mean	81.2	70.5	93.7	95.0	104	155	561	2,944	3,219	295	82.4	33.3
Max	144	92	110	110	140	308	1,270	4,680	4,850	1,090	204	63
Min	61	35	75	85	85	92	183	1,300	1,190	36	40	13
Ac-ft	4,990	4,200	5,760	5,840	5,960	9,520	33,380	181,000	191,500	18,160	5,070	1,980

Cal yr 1967: Total 178,566.9 Mean 489 Max 3,610 Min 2.2 Ac-ft 354,200
 Wtr yr 1968: Total 235,646 Mean 644 Max 4,850 Min 13 Ac-ft 467,400

Peak discharge (base, 3,400 cfs)

Note.--No gage-height record Dec. 3 to Jan. 9.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5- 6	2000	4.93	3,770	5-23	2300	5.66	5,040
5-12	2100	5.04	3,950	6- 1	0200	5.71	5,100

GREEN RIVER BASIN

9-2600. Little Snake River near Lily, Colo.

Location.--Lat 40°32'50", long 108°25'25", in NW¼ 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 1968. 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.--47 years (1921-68), 560 cfs (405,400 acre-ft per year).

Extremes.--Maximum discharge during year, 4,850 cfs June 1 (gage height, 5.52 ft); minimum daily, 15 cfs Sept. 20.

1904, 1921-68: 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 most years.

Remarks.--Records good except those for winter period, which are poor. Diversions for irrigation of about 21,000 acres above station. Records of chemical analyses and water temperatures for the water year 1968 are published in Part 2 of this report as "above Lily."

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	82	95	100	100	200	415	800	4,340	1,200	76	30
2	58	72	100	110	95	220	450	1,500	4,720	1,120	62	42
3	53	19	90	110	100	240	501	2,000	4,400	937	51	44
4	55	26	90	100	100	270	565	2,600	4,450	782	58	42
5	55	20	90	100	105	310	444	2,800	4,650	697	66	33
6	109	28	95	110	110	350	356	2,600	4,590	633	58	30
7	86	38	95	100	120	370	380	3,000	4,650	565	58	27
8	101	70	100	95	115	390	487	3,400	4,610	558	74	27
9	94	74	105	85	110	395	400	2,600	4,450	522	64	27
10	118	112	105	80	100	334	321	1,710	3,950	480	103	29
11	109	109	100	75	100	250	289	2,130	3,420	426	161	16
12	96	76	95	80	100	243	274	2,790	3,450	405	167	18
13	84	84	90	85	100	282	415	3,600	3,340	361	191	26
14	80	78	90	95	105	271	641	3,800	3,310	348	167	22
15	78	80	100	100	110	236	773	3,500	3,560	309	150	21
16	76	84	105	110	100	229	618	3,200	3,360	278	112	19
17	76	82	110	120	110	240	764	2,600	3,230	226	114	19
18	74	82	110	110	110	236	1,260	2,400	2,960	188	152	18
19	74	86	115	110	110	229	1,070	2,200	2,880	161	152	17
20	64	86	115	100	120	218	956	2,200	2,840	150	123	15
21	66	84	110	100	130	197	1,250	3,000	2,780	128	105	20
22	66	55	110	100	140	191	908	3,500	2,730	118	95	29
23	68	60	100	100	160	182	918	4,000	2,560	107	95	27
24	66	65	105	100	180	176	689	4,320	2,330	109	92	24
25	64	40	105	100	200	203	468	3,680	2,160	101	82	24
26	62	18	110	105	200	240	426	3,020	1,900	90	78	27
27	58	30	115	110	200	274	432	2,910	1,640	82	51	38
28	66	50	120	120	190	274	426	2,720	1,400	80	45	51
29	66	75	120	120	190	264	410	3,100	1,320	70	42	51
30	70	85	120	110	---	271	426	3,580	1,300	66	40	47
31	74	---	110	105	---	352	---	4,070	---	72	37	---
Total	2,336	1,950	3,220	3,145	3,710	8,137	17,732	89,330	97,280	11,369	2,926	860
Mean	75.4	65.0	104	101	128	262	591	2,882	3,243	367	94.4	28.7
Max	118	112	120	120	200	395	1,260	4,320	4,720	1,200	191	51
Min	53	18	90	75	95	176	274	800	1,300	66	37	15
Ac-ft	4,630	3,870	6,390	6,240	7,360	16,140	35,170	177,200	193,000	22,550	5,800	1,710

Cal yr 1967: Total 175,957.3 Mean 482 Max 3,470 Min 18 Ac-ft 349,000
 Wtr yr 1968: Total 241,995 Mean 661 Max 4,720 Min 15 Ac-ft 480,000

Peak discharge (base, 3,500 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-7	1215	4.97	3,870	6-1	2315	5.52	4,850
5-13	1430	4.99	3,900	6-15	1530	4.83	3,730
5-23	1400	5.48	4,770				

Note.--No gage-height record Dec. 22 to Mar. 6.

9-3024.2. North Fork White River above Ripple Creek, near Trapper's Lake, Colo.

(Formerly published as 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 1968. Prior to October 1967, published as White River above Ripple Creek near Trapper's Lake.

Gage.--Water-stage recorder.

Extremes.--Maximum discharge during year, 545 cfs June 22 (gage height, 4.49 ft); minimum daily, 44 cfs Apr. 28.
1965-68: Maximum discharge, that of June 22, 1968; minimum daily, 36 cfs Mar. 7-9, 1967.

Remarks.--Records good except those for winter period, which are fair. No diversions above station. Natural regulation by Trapper's Lake.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	61	54	51	51	54	56	50	50	224	271	114	85
2	59	56	50	51	52	56	48	52	243	243	108	111
3	58	54	48	53	52	56	46	54	259	232	111	90
4	61	56	48	50	52	56	46	58	267	218	100	88
5	61	53	48	50	50	56	46	60	311	214	98	85
6	64	54	46	48	48	54	46	60	364	210	100	85
7	62	53	48	50	50	54	46	57	378	193	98	85
8	64	56	50	48	51	52	46	57	400	182	95	80
9	64	56	50	51	51	51	46	60	386	172	102	80
10	64	58	48	51	50	50	45	62	351	165	105	80
11	64	58	47	51	50	50	45	70	327	162	100	80
12	64	56	48	48	52	50	46	70	319	156	95	82
13	64	56	48	48	51	50	46	70	335	153	98	80
14	62	56	48	51	52	50	46	70	347	150	105	78
15	62	56	48	50	51	50	46	70	364	153	102	80
16	61	56	48	50	51	48	46	68	391	150	98	80
17	61	54	48	48	51	48	46	64	415	144	98	80
18	61	53	48	50	52	48	46	68	440	135	95	76
19	61	53	51	50	51	48	46	70	450	129	92	76
20	61	51	50	54	52	46	46	80	445	126	92	72
21	61	54	50	54	54	46	46	98	490	123	90	76
22	59	54	48	54	56	46	46	120	480	123	90	74
23	59	54	48	52	54	46	46	114	460	120	90	74
24	59	54	47	52	54	46	45	108	480	108	90	72
25	59	53	48	52	54	46	45	111	410	123	88	72
26	58	52	51	52	54	46	45	111	368	123	85	70
27	58	50	51	52	56	45	45	126	351	123	88	68
28	58	52	51	54	56	46	44	147	355	117	88	68
29	58	54	53	52	56	46	45	165	351	114	88	68
30	56	51	50	52	- - - -	48	46	190	315	123	85	68
31	56	- - - -	50	54	- - - -	48	- - - -	232	- - - -	126	85	- - - -
Total	1,880	1,627	1,518	1,583	1,517	1,538	1,377	2,792	11,076	4,881	2,973	2,363
Mean	60.6	54.2	49.0	51.1	52.3	49.6	45.9	90.1	369	157	95.9	78.8
Max	64	58	53	54	56	56	50	232	490	271	114	111
Min	56	50	46	48	48	46	44	50	224	108	85	68
Ac-ft	3,730	3,230	3,010	3,140	3,010	3,050	2,730	5,540	21,970	9,680	5,900	4,690
Cal yr 1967: Total	29,271			Mean 80.2	Max 320	Min 36		Ac-ft 58,060				
Wtr yr 1968: Total	35,125			Mean 96.0	Max 490	Min 44		Ac-ft 69,670				

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 Park Creek, and 9 miles northeast of Buford.

Drainage area--21.6 sq mi.

Records available--October 1964 to September 1968.

Gage--Water-stage recorder. Altitude of gage is 7,560 ft (from topographic map).

Extremes--Maximum discharge during year, 722 cfs May 21 (gage height, 4.78 ft); minimum daily, 1.2 cfs Oct. 16, Nov. 6. 1964-68: Maximum discharge, that of May 21, 1968; minimum daily, 0.80 cfs 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.3	1.8	2.1	1.7	2.0	1.8	6.0	23	256	9.0	3.4	3.0
2	1.6	1.9	1.8	1.6	2.0	1.8	6.0	36	240	7.9	3.6	2.9
3	1.5	1.4	1.6	1.6	2.0	2.1	5.2	61	210	7.2	6.0	3.9
4	2.1	1.5	1.7	1.6	2.0	2.1	4.8	88	194	6.2	3.6	3.2
5	2.3	1.4	2.0	1.6	2.0	2.2	4.0	110	186	6.8	2.9	3.0
6	3.4	1.2	2.0	1.7	2.0	2.3	3.6	110	172	7.2	2.9	2.9
7	2.7	1.3	2.0	1.8	2.0	2.4	3.4	74	138	6.2	2.7	2.5
8	2.0	1.5	1.9	1.8	2.0	2.7	3.0	66	106	5.2	3.0	2.3
9	2.1	1.7	1.6	1.8	2.0	2.3	3.4	94	86	5.2	7.6	2.1
10	1.8	1.7	1.6	1.8	2.0	2.3	3.8	110	79	5.0	4.0	2.1
11	1.6	1.7	1.6	1.9	2.1	1.9	5.2	155	79	4.5	5.8	2.0
12	1.5	1.8	1.7	2.0	2.2	1.8	7.9	144	75	4.2	5.0	1.9
13	1.4	1.9	1.8	2.0	2.3	2.3	9.0	128	73	4.0	4.0	1.9
14	1.4	2.0	1.8	2.0	2.7	2.3	10	96	63	3.6	5.2	1.9
15	1.3	1.9	1.9	2.0	2.3	2.0	9.0	83	58	3.0	5.0	2.0
16	1.2	1.9	2.0	2.2	2.1	1.9	10	78	53	2.9	4.5	2.5
17	1.5	1.9	2.0	2.1	2.1	2.3	10	71	47	2.7	4.0	2.5
18	1.5	1.8	2.0	2.1	2.0	2.1	9.6	84	44	2.5	7.6	2.5
19	1.5	1.8	2.0	2.1	1.9	1.8	9.3	144	41	2.5	7.3	2.5
20	1.5	1.9	2.0	2.1	2.3	1.7	8.2	196	37	2.3	7.1	2.5
21	1.4	2.0	1.8	2.2	2.1	2.0	8.2	385	34	2.3	2.9	2.9
22	1.5	2.3	1.8	2.2	2.0	1.9	7.6	356	28	2.1	7.5	3.0
23	1.3	1.9	1.8	2.2	1.9	1.9	7.2	254	25	2.5	4.0	3.2
24	1.3	1.9	1.8	2.2	1.8	1.9	7.6	186	22	3.0	7.6	3.0
25	1.6	1.8	1.8	2.2	1.8	2.0	7.2	160	20	2.7	7.2	2.7
26	1.6	1.6	1.8	2.2	1.8	2.0	7.2	180	16	3.0	7.1	1.9
27	1.2	1.7	1.8	2.2	1.8	2.1	6.5	246	14	3.0	7.2	1.7
28	1.6	1.9	2.0	2.0	1.8	2.7	6.5	286	13	3.2	7.2	1.7
29	1.5	2.1	1.8	1.9	1.8	3.4	9.0	310	12	2.9	7.1	1.6
30	1.4	2.0	1.8	2.0	---	4.8	14	296	9.6	7.2	7.1	1.6
31	1.6	---	1.8	2.0	---	5.8	---	304	---	4.5	7.2	---
Total	51.2	53.2	57.1	60.8	58.8	72.6	212.4	4,914	2,430.6	134.5	115.3	73.4
Mean	1.65	1.77	1.84	1.96	2.03	2.34	7.08	159	81.0	4.34	3.72	2.45
Max	3.4	2.3	2.1	2.2	2.7	5.8	14	385	256	9.0	6.0	3.9
Min	1.2	1.2	1.6	1.6	1.8	1.7	3.0	23	9.6	2.1	2.7	1.6
Ac-ft	102	106	113	121	117	144	421	9,750	4,820	267	229	146

Cal yr 1967: Total 5,915.94 Mean 16.2 Max 160 Min 0.98 Ac-ft 11,730
 Wtr yr 1968: Total 8,233.9 Mean 22.5 Max 385 Min 1.2 Ac-ft 16,330

Peak discharge (base, 150 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-10	2200	3.63	188	5-28	1930	4.42	484
5-21	2000	4.78	722				

9-3028. North Fork White River near Buford, Colo.

(Published as White River near Buford, 1956-67)

Location (revised).--Lat 40°02'08", long 107°31'13", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.20, T.1 N., R.90 W., on right bank 0.3 mile upstream from highway bridge, 0.5 mile downstream from Ute Creek and 6.1 miles northeast of Buford.

Drainage area.--223 sq mi.

Records available.--July 1903 to December 1906, October 1956 to September 1968. Monthly discharge only for some periods, published in WSP 1313. Published as White River near Buford 1956-67. Records for May 1910 to December 1915 and July 1919 to December 1920 at site 6 $\frac{1}{2}$ miles downstream not equivalent owing to inflow between the sites.

Gage.--Water-stage recorder. Altitude of gage is 7,340 ft (from topographic map). Prior to October 1956, staff gage at highway bridge 0.3 mile downstream at different datum.

Average discharge.--15 years, 290 cfs (210,000 acre-ft per year).

Extremes.--Maximum discharge during year, 1,600 cfs June 5 (gage height, 5.02 ft); maximum gage height, 5.75 ft Dec. 15 (backwater from ice); minimum daily discharge, 100 cfs Nov. 27, 28.

1903-6, 1956-68: Maximum daily discharge, 1,950 cfs June 8, 1905; minimum daily, 90 cfs Jan. 13, 14, 1964.

Remarks.--Records good except those for winter period, which are poor. Diversion above station for irrigation of a few hay meadows.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	134	134	134	130	130	124	148	193	1,060	587	255	173
2	137	137	124	140	120	124	148	232	1,110	509	265	173
3	134	121	124	140	120	121	137	275	1,130	479	295	199
4	144	140	110	130	130	121	127	340	1,150	455	255	185
5	144	130	118	130	120	118	124	380	1,250	455	250	177
6	162	121	118	130	120	124	124	390	1,410	455	241	177
7	148	127	118	130	120	124	124	305	1,340	422	236	173
8	144	130	124	130	120	121	118	275	1,180	406	236	169
9	140	127	106	130	120	121	118	325	994	390	246	165
10	134	124	110	130	120	121	118	375	940	380	265	165
11	127	124	110	130	120	118	124	444	922	370	275	165
12	124	124	110	120	130	121	140	428	940	350	246	165
13	127	124	110	120	130	124	144	390	1,020	335	232	162
14	127	121	110	130	120	124	134	345	1,010	335	280	158
15	127	121	110	140	120	118	140	320	1,060	315	280	165
16	127	121	120	140	124	115	137	305	1,110	310	246	169
17	127	115	120	140	127	118	140	285	1,160	295	228	165
18	127	118	120	140	127	118	134	315	1,200	285	223	162
19	127	115	130	130	124	118	134	395	1,250	285	214	158
20	127	115	120	130	127	118	127	503	1,250	275	210	154
21	124	127	120	130	127	115	121	746	1,260	270	201	169
22	124	121	120	130	127	112	115	826	1,230	265	210	162
23	124	118	120	130	127	112	112	694	1,150	265	223	162
24	124	121	120	130	130	115	118	581	1,060	265	205	158
25	134	115	120	130	124	121	118	521	949	270	193	154
26	134	103	130	130	124	124	115	545	826	265	189	158
27	130	100	140	130	124	118	115	629	786	270	193	158
28	130	100	140	130	124	121	112	770	756	270	193	158
29	134	124	130	130	124	127	124	886	735	255	189	162
30	137	124	130	130	- - - -	140	154	949	674	265	189	162
31	137	- - - -	130	130	- - - -	144	- - - -	1,030	- - - -	270	181	- - - -
Total	4,120	3,642	3,746	4,070	3,600	3,760	3,844	14,997	31,912	10,623	7,144	4,972
Mean	133	121	121	131	124	121	128	484	1,060	343	230	166
Max	162	140	140	140	130	144	154	1,030	1,410	587	295	189
Min	124	100	106	120	120	112	112	193	674	255	181	154
Ac-ft	8,170	7,220	7,430	8,070	7,140	7,460	7,620	29,750	63,300	21,070	14,170	9,860

Cal yr 1967: Total 81,090 Mean 222 Max 958 Min 100 Ac-ft 160,800
 Wtr yr 1968: Total 96,430 Mean 263 Max 1,410 Min 100 Ac-ft 191,300

Peak discharge (base, 1,000 cfs)

Note.--No gage-height record Dec. 16 to Jan. 17.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-21	2030	4.55	1,150	6-20	2200	4.82	1,460
6-5	2200	5.02	1,600				

GREEN RIVER BASIN

9-3030. North Fork White River at Buford, Colo.

(Published as White River at Buford, 1951-67)

Location.--Lat 39°59'15", long 107°36'50", 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 1968. Monthly discharge only for some periods, published in WSP 1313. Published as North Fork White River near Buford prior to 1951 and as White River at Buford 1951-67. 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.--23 years, 308 cfs (223,000 acre-ft per year).

Extremes.--Maximum discharge during year, 1,520 cfs June 6 (gage height, 6.21 ft); minimum daily, 120 cfs Dec. 23. 1910-15, 1919-20, 1951-68: Maximum daily discharge, 3,150 cfs May 30, 1912; maximum gage height, 7.22 ft Jan. 9, 1951 (backwater from ice); minimum daily discharge, 90 cfs Feb. 21, 1955.

Remarks.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 970 acres above and 300 acres below station.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	162	149	145	140	130	135	169	278	1,190	570	272	197
2	169	153	141	150	130	134	162	326	1,190	502	278	192
3	162	139	145	150	130	131	151	382	1,190	470	314	205
4	178	169	130	140	140	131	145	439	1,150	452	268	202
5	171	147	143	140	140	130	143	493	1,280	452	268	200
6	192	137	143	140	130	130	145	488	1,420	448	278	194
7	171	145	141	140	130	128	147	394	1,330	414	272	192
8	171	149	155	140	130	127	147	386	1,220	402	272	186
9	169	145	141	140	130	127	141	444	1,050	378	275	183
10	162	145	140	150	130	127	145	502	985	370	292	181
11	157	141	130	140	130	126	155	605	971	358	310	183
12	157	145	130	130	140	128	173	580	992	338	275	183
13	155	145	130	130	130	130	181	540	1,040	326	261	186
14	157	145	140	140	130	128	173	470	1,040	318	310	183
15	157	143	140	150	130	127	178	448	1,050	306	314	189
16	153	143	140	150	130	126	186	422	1,110	300	275	202
17	153	141	140	150	130	127	189	394	1,090	286	264	197
18	153	139	150	140	132	127	183	430	1,150	275	261	192
19	151	141	150	140	131	127	178	525	1,150	268	254	189
20	151	143	140	140	134	126	176	662	1,140	261	250	186
21	151	155	130	140	137	126	173	915	1,210	250	244	200
22	149	149	130	140	143	127	166	1,060	1,140	250	244	197
23	149	147	120	140	135	126	164	887	1,070	254	261	194
24	151	147	130	140	135	127	169	734	1,010	254	233	189
25	151	141	140	140	137	131	169	656	901	254	226	183
26	151	135	140	140	137	132	176	674	789	260	219	183
27	143	131	150	140	139	128	171	768	734	286	222	183
28	151	143	150	140	137	130	169	936	716	286	219	178
29	153	162	140	140	135	141	194	1,060	692	268	216	178
30	149	151	140	140	- - - -	153	254	1,110	644	286	208	181
31	151	- - - -	140	140	- - - -	160	- - - -	1,190	- - - -	289	202	- - - -
Total	4,900	4,365	4,324	4,380	3,872	4,053	5,072	19,198	31,664	10,431	8,057	5,688
Mean	158	146	139	141	134	131	169	619	1,055	336	260	190
Max	192	169	155	150	143	160	254	1,190	1,420	570	314	205
Min	143	131	120	130	130	126	141	278	644	250	202	178
Ac-ft	9,720	8,660	8,580	8,690	7,680	8,040	10,060	38,080	62,800	20,690	15,980	11,280

Cal yr 1967: Total 91,121 Mean 250 Max 999 Min 110 Ac-ft 180,700
 Wtr yr 1968: Total 106,004 Mean 287 Max 1,420 Min 120 Ac-ft 210,300

Peak discharge (base, 1,000 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-21	2200	6.01	1,410	6-20	2300	5.93	1,340
6-6	2330	6.21	1,520				

9-3035. South Fork White River near Buford, Colo.

Location--Lat 39°55'19", long 107°33'03", in SE¼ sec.36, T.1 S., R.91 W., on left bank at upstream side of county bridge, 10 ft downstream from Peltier Creek, and 6 miles southeast of Buford.

Drainage area--157 sq mi.

Records available--August 1903 to October 1906, June 1910 to December 1915, October 1942 to September 1947, April 1967 to September 1968. Monthly discharge only for some periods, published in WSP 1313.

Gage--Water-stage recorder. Altitude of gage is 7,460 ft (from topographic map). July 26, 1903, to Oct. 31, 1906, staff gage, and Oct. 1, 1942, to Sept. 30, 1947, water-stage recorder at site 60 ft upstream at different datum. June 25, 1910, to Nov. 30, 1915, staff gage at site half a mile upstream at different datum. Records for 1919-20 at site 6 miles downstream not equivalent.

Average discharge--14 years (1903-6, 1910-15, 1942-47, 1967-68), 264 cfs (191,100 acre-ft per year).

Extremes--Maximum discharge during year, 2,070 cfs June 7 (gage height, 6.58 ft); minimum daily, 60 cfs Jan. 29. 1903-6, 1910-15, 1942-47, 1967-68: Maximum discharge observed, 3,230 cfs June 17, 1906 (gage height, 8.2 ft, site and datum then in use), from rating curve extended above 1,600 cfs; minimum discharge recorded, 56 cfs Dec. 18, 1946 (gage height, 1.01 ft, site and datum then in use), but may have been less during periods of no gage-height record.

Remarks--Records good except those for winter period, which are fair. Diversions for irrigation of about 600 acres of hay meadows above station.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	97	88	88	82	82	74	99	144	1,210	504	192	120
2	99	92	80	82	70	74	97	168	1,300	454	196	118
3	95	85	70	78	74	70	88	182	1,410	423	204	130
4	99	84	70	64	80	70	79	214	1,470	395	184	130
5	102	84	69	70	80	74	82	232	1,770	402	176	124
6	115	84	70	78	80	74	85	232	1,910	395	182	124
7	109	80	73	74	80	74	79	200	1,950	354	180	124
8	106	80	79	75	80	73	79	186	1,770	336	188	120
9	104	84	67	78	76	73	78	192	1,370	333	182	118
10	102	85	72	80	74	67	79	206	1,140	309	176	116
11	97	90	82	84	80	70	82	218	970	303	180	115
12	95	84	80	74	80	63	92	250	1,050	285	172	115
13	94	84	73	74	85	84	100	250	1,370	265	168	115
14	94	84	78	80	84	72	87	230	1,480	250	196	115
15	94	82	82	80	79	67	94	220	1,440	238	210	118
16	92	84	85	80	82	67	99	212	1,490	230	184	122
17	92	82	82	80	80	70	100	198	1,550	220	170	120
18	88	80	78	74	78	72	97	196	1,630	212	164	118
19	88	84	79	80	76	70	95	210	1,630	204	158	115
20	85	85	74	84	76	67	90	245	1,490	202	154	109
21	85	90	72	82	84	74	92	336	1,630	198	154	120
22	85	85	67	80	80	78	88	486	1,530	194	150	116
23	85	87	70	80	82	67	80	508	1,320	198	156	115
24	82	80	76	80	79	67	85	458	1,150	202	150	111
25	87	85	80	84	76	70	88	406	928	204	140	107
26	87	80	87	88	70	72	88	406	830	200	138	104
27	80	70	82	90	79	67	87	437	785	198	140	102
28	87	73	82	80	74	72	82	560	740	192	150	102
29	90	99	78	60	76	78	97	728	668	184	138	102
30	82	92	80	69	---	88	118	816	580	196	130	104
31	90	---	76	87	---	95	---	1,120	---	202	122	---
Total	2,887	2,526	2,381	2,431	2,276	2,253	2,686	10,446	39,561	34,822	5,184	3,469
Mean	93.1	84.2	76.8	78.4	78.5	72.7	89.5	337	1,319	274	167	116
Max	115	99	88	90	85	95	118	1,120	1,950	504	210	130
Min	80	70	67	60	70	63	78	144	580	184	122	102
Ac-ft	5,730	5,010	4,720	4,820	4,510	4,470	5,330	20,720	78,470	16,820	10,280	6,880

Cal yr 1967: Total - Mean - Max - Min - Ac-ft -
 Wtr yr 1968: Total 84,582 Mean 231 Max 1,950 Min 60 Ac-ft 167,800

Peak discharge (gage, 1,200 cfs)--June 7 (0200) 2,070 cfs (6.58 ft); June 21 (0400) 1,990 cfs (6.48 ft).

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 1968.

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.--18 years, 252 cfs (182,400 acre-ft per year).

Extremes.--Maximum discharge during year, 2,100 cfs June 7 (gage height, 6.27 ft); minimum daily, 70 cfs Nov. 27, Dec. 22.

1919-20, 1951-68: 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 winter period, 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	107	103	97	90	95	91	106	153	1,140	550	165	136
2	110	104	93	90	80	91	106	175	1,220	490	170	135
3	108	86	85	90	85	86	99	200	1,340	452	175	144
4	110	95	80	75	90	86	92	237	1,480	420	162	144
5	113	95	80	85	90	89	94	262	1,710	424	158	140
6	126	90	85	90	90	91	96	258	1,970	416	162	142
7	120	90	85	85	90	96	94	221	1,980	362	165	142
8	116	90	90	90	90	94	92	209	1,890	326	172	140
9	114	95	80	90	90	93	92	209	1,530	322	170	136
10	114	101	85	95	85	92	96	228	1,310	306	170	136
11	110	97	95	100	90	92	100	247	1,110	286	167	135
12	108	97	95	90	90	86	104	278	1,170	278	162	135
13	107	97	85	85	90	96	110	282	1,500	258	158	131
14	108	97	85	90	95	93	101	262	1,630	228	175	129
15	107	97	90	90	90	92	108	250	1,590	206	191	131
16	103	97	95	90	90	85	112	240	1,680	197	170	133
17	104	94	100	90	90	92	114	228	1,740	188	160	131
18	106	94	90	85	90	90	110	224	1,790	180	151	129
19	104	94	90	90	100	81	107	240	1,680	175	151	124
20	104	94	90	90	101	82	104	290	1,540	175	149	126
21	103	99	85	90	97	82	107	362	1,670	172	147	127
22	101	93	70	90	93	92	103	505	1,540	167	149	126
23	101	96	75	90	96	88	99	525	1,340	170	158	122
24	100	84	80	90	93	90	103	485	1,250	170	149	120
25	103	96	90	90	90	92	106	442	1,020	172	147	116
26	101	72	95	95	82	92	107	438	908	167	144	114
27	97	70	100	100	93	86	107	460	866	167	144	113
28	104	75	100	100	91	90	104	570	794	162	158	112
29	104	110	95	80	93	96	114	722	734	162	149	112
30	99	116	90	90	-----	101	129	836	620	170	144	113
31	101	-----	80	95	-----	106	-----	1,060	-----	170	138	-----
Total	3,313	2,818	2,735	2,790	2,639	2,813	3,116	11,098	41,742	8,088	4,930	3,874
Mean	107	93.9	88.2	90.0	91.0	90.7	104	358	1,391	261	159	129
Max	126	116	100	100	101	106	129	1,060	1,980	550	191	144
Min	97	70	70	75	80	81	92	153	620	162	138	112
Ac-ft	6,570	5,590	5,420	5,530	5,230	5,580	6,180	22,010	82,790	16,040	9,780	7,680

Cal yr 1967: Total 74,976 Mean 205 Max 1,480 Min 70 Ac-ft 148,700

Wtr yr 1968: Total 89,956 Mean 246 Max 1,980 Min 70 Ac-ft 178,400

Peak discharge (base, 1,300 cfs).--June 7 (0100) 2,100 cfs (6.27 ft); June 18 (0500) 2,010 cfs (6.11 ft).

Note.--No gage-height record Dec. 17 to Jan. 18.

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 1968.

Gage.--Water-stage recorder. Altitude of gage is 6,400 ft (from topographic map).

Average discharge.--7 years, 527 cfs (381,500 acre-ft per year).

Extremes.--Maximum discharge during year, 3,460 cfs June 6 (gage height, 5.05 ft); minimum daily, 180 cfs Nov. 27.

1961-68: Maximum discharge, 3,580 cfs May 13, 1962 (gage height, 5.41 ft); minimum daily, 66 cfs 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	226	280	280	240	240	230	325	524	2,970	1,020	440	310
2	226	290	210	250	220	230	320	608	2,970	838	360	300
3	226	235	220	220	240	220	300	662	2,980	710	440	332
4	235	250	230	210	250	210	270	792	2,850	674	380	328
5	260	260	240	230	240	230	270	876	3,020	692	340	296
6	295	250	240	240	230	240	285	938	3,270	716	360	287
7	270	250	230	230	240	270	270	764	3,220	632	340	287
8	265	260	250	240	240	270	265	708	2,920	590	360	278
9	255	260	220	270	240	255	270	785	2,430	548	375	242
10	240	250	230	280	230	250	285	841	2,100	490	405	220
11	226	255	250	250	250	250	305	1,000	1,940	455	425	220
12	222	255	260	240	260	226	340	1,030	1,920	430	375	228
13	222	260	240	240	260	255	375	1,020	2,240	405	346	224
14	226	260	230	240	260	265	355	914	2,420	370	405	203
15	222	255	230	250	250	240	355	883	2,420	341	475	207
16	218	260	230	250	240	240	375	848	2,520	323	440	238
17	222	255	230	250	240	250	398	792	2,540	310	420	246
18	226	245	230	250	230	250	375	813	2,650	300	410	238
19	245	250	230	240	220	230	370	922	2,660	282	400	224
20	265	265	220	240	230	230	350	1,130	2,540	318	395	220
21	260	285	210	250	240	230	355	1,460	2,700	278	380	246
22	270	265	200	250	240	250	340	1,930	2,560	280	375	264
23	270	260	220	250	240	235	315	1,790	2,280	280	400	296
24	270	235	240	250	240	240	325	1,610	2,100	300	375	300
25	270	255	260	250	240	255	330	1,390	1,770	320	360	296
26	270	226	270	260	230	270	340	1,390	1,520	300	355	296
27	255	180	280	270	220	250	340	1,490	1,400	310	346	296
28	280	220	280	260	230	265	320	1,840	1,300	320	341	292
29	285	300	250	240	230	285	350	2,250	1,220	330	332	287
30	270	280	230	220	- - - -	320	416	2,410	1,120	340	328	287
31	280	- - - -	240	250	- - - -	330	- - - -	2,740	- - - -	400	318	- - - -
Total	7,772	7,651	7,380	7,610	6,920	7,771	9,889	37,150	70,550	13,902	11,801	7,988
Mean	251	255	238	245	239	251	330	1,198	2,352	448	381	266
Max	295	300	280	280	260	330	416	2,740	3,270	1,020	475	332
Min	218	180	200	210	220	210	265	524	1,120	278	318	203
Ac-ft	15,420	15,180	14,640	15,090	13,730	15,410	19,610	73,690	139,900	27,570	23,410	15,840

Cal yr 1967: Total 164,088 Mean 450 Max 2,690 Min 85 Ac-ft 325,500
 Wtr yr 1968: Total 196,384 Mean 537 Max 3,270 Min 180 Ac-ft 389,500

Peak discharge (base, 2,000 cfs)

Note.--No gage-height record Jan. 12 to Feb. 13.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-22	0300	3.99	2,150	6-21	0830	4.54	2,980
6-6	0630	5.05	3,460				

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 1968 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 6,820 ft (from topographic map).

Average discharge.--11 years, 5.23 cfs (3,790 acre-ft per year).

Extremes.--Maximum discharge during year, 70 cfs May 31 (gage height, 3.86 ft); minimum daily, 0.52 cfs Nov. 8.
1957-68: Maximum discharge, 102 cfs May 11, 1958 (gage height, 4.37 ft); minimum daily, 0.40 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.72	1.7	1.4	1.6	1.8	1.8	4.4	15	56	5.4	1.7	2.6
2	.76	1.6	1.2	2.0	1.6	2.0	4.4	18	53	4.8	2.0	2.6
3	.80	1.6	1.0	1.8	1.4	2.1	3.4	20	54	4.0	2.0	2.7
4	.96	1.6	1.2	1.8	1.6	2.1	5.8	23	49	2.7	1.5	2.9
5	1.0	1.9	1.2	1.8	1.7	2.1	3.2	26	47	3.0	1.5	2.9
6	1.7	1.2	1.3	1.8	1.6	2.0	3.4	28	42	3.2	1.5	2.9
7	1.2	.76	1.4	1.8	1.6	2.0	4.4	22	37	2.6	1.5	2.4
8	1.1	.52	1.6	1.8	1.6	1.9	4.6	20	31	2.4	1.6	2.4
9	1.1	.56	1.4	1.8	1.6	2.0	3.0	20	26	2.4	1.6	2.3
10	1.1	1.2	1.2	2.0	1.6	2.1	3.0	21	21	3.6	1.7	2.3
11	1.3	1.4	1.4	2.0	1.6	2.2	4.0	23	20	3.2	1.6	2.3
12	1.3	1.4	1.4	1.9	1.6	2.5	5.2	24	16	3.0	1.5	2.3
13	1.2	1.4	1.3	2.0	1.7	3.5	5.6	25	14	3.0	1.5	2.2
14	1.3	1.4	1.2	2.1	1.8	2.1	5.0	21	13	2.7	2.4	2.2
15	1.3	1.4	1.2	2.2	1.8	2.2	6.3	20	12	2.4	2.4	2.3
16	1.4	1.4	1.0	2.2	1.9	2.3	7.1	21	11	2.3	1.9	2.3
17	1.4	1.4	1.0	2.1	1.9	2.2	6.9	20	10	2.2	1.6	2.0
18	1.4	1.4	1.1	2.0	1.9	2.1	6.0	20	9.1	2.2	1.6	1.7
19	1.4	1.4	1.2	2.0	2.0	2.2	5.4	22	14	2.2	1.6	1.4
20	1.4	1.4	1.4	2.0	2.0	2.3	5.0	26	15	2.0	1.6	1.4
21	1.4	1.6	1.4	2.0	2.0	2.2	4.8	40	14	2.0	1.5	1.4
22	1.4	1.5	1.3	2.0	1.9	2.1	4.4	47	13	2.0	1.5	1.9
23	1.4	1.4	1.2	2.1	1.8	2.0	4.0	39	12	2.0	1.9	1.7
24	1.4	1.2	1.2	2.2	1.8	2.0	4.6	36	10	2.0	1.7	1.5
25	1.5	1.4	1.4	2.3	1.7	2.0	4.6	32	9.3	2.0	1.6	1.4
26	1.4	1.0	1.6	2.2	1.7	2.0	4.6	32	7.8	2.0	1.5	1.1
27	1.4	1.2	1.8	2.1	1.7	2.0	4.6	42	7.8	1.9	1.6	1.0
28	1.5	.80	1.6	2.0	1.7	2.2	4.8	43	7.3	2.2	1.6	1.0
29	1.7	1.0	1.6	1.8	1.8	2.7	7.5	53	6.9	2.0	1.5	1.0
30	1.6	1.2	1.6	1.6	---	3.2	1.0	57	6.0	1.9	2.6	1.1
31	1.6	---	1.4	2.0	---	3.8	---	61	---	2.0	2.6	---
Total	40.14	38.94	41.2	61.0	50.4	69.9	150.0	917	644.2	81.3	53.9	59.2
Mean	1.29	1.30	1.33	1.97	1.74	2.25	5.00	29.6	21.5	2.62	1.74	1.97
Max	1.7	1.7	1.8	2.3	2.0	3.8	10	61	56	5.4	2.6	2.9
Min	0.72	0.52	1.0	1.6	1.4	1.8	3.0	15	6.0	1.9	1.5	1.0
Ac-ft	80	77	82	121	100	139	298	1,820	1,280	161	107	117

Cal yr 1967: Total 1,316.56 Mean 3.61 Max 50 Min 0.52 Ac-ft 2,610
Wtr yr 1968: Total 2,207.18 Mean 6.03 Max 61 Min 0.52 Ac-ft 4,380

Peak discharge (base, 50 cfs).--May 21 (2230) 64 cfs (3.79 ft); May 31 (2100) 70 cfs (3.86 ft).

Note.--No gage-height record Nov. 27 to Mar. 13.

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 1968. 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.--64 years, 622 cfs (450,300 acre-ft per year).

Extremes.--Maximum discharge during year, 3,690 cfs June 6 (gage height, 3.61 ft); minimum daily, 200 cfs Nov. 27, Dec. 22. 1901-6, 1909-68: 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 fair. 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	256	295	260	250	250	240	405	492	2800	1,110	486	325
2	241	298	220	260	230	240	400	579	2830	964	390	319
3	244	262	230	230	250	220	353	645	2,910	837	492	349
4	256	283	240	220	260	220	316	765	2,780	795	415	345
5	274	274	250	230	250	247	310	855	3,060	807	370	313
6	304	271	265	250	240	250	345	924	3,370	819	385	304
7	289	271	232	240	250	256	322	771	3,370	747	380	304
8	277	280	286	262	250	253	295	693	3,190	681	426	298
9	277	286	230	295	250	250	310	765	2,610	627	432	268
10	265	280	241	290	238	247	301	801	2,230	579	459	238
11	247	277	271	260	244	244	316	944	2,060	537	481	238
12	241	280	277	230	283	232	345	971	2,040	503	415	247
13	244	280	238	240	268	256	390	971	2,340	481	375	247
14	241	280	238	250	262	268	349	873	2,530	437	459	235
15	241	280	232	260	259	256	349	849	2,510	395	579	241
16	238	280	240	260	250	253	361	807	2,630	365	508	271
17	253	277	240	260	247	268	405	759	2,590	365	481	271
18	268	274	230	250	247	268	385	759	2,760	375	464	271
19	286	274	240	250	228	256	380	855	2,850	361	442	256
20	295	274	240	260	235	250	361	1,030	2,730	400	442	250
21	295	289	230	260	247	247	349	1,240	2,940	337	432	277
22	298	280	200	260	250	274	325	1,800	2,780	329	410	304
23	298	280	220	260	253	265	304	1,670	2,470	333	459	337
24	292	250	260	260	247	271	301	1,490	2,240	357	420	319
25	295	240	270	270	241	295	304	1,290	1,920	370	395	316
26	289	222	270	280	240	307	307	1,300	1,680	357	385	313
27	280	200	292	280	220	289	310	1,310	1,520	365	380	316
28	289	220	270	280	240	298	295	1,660	1,430	361	375	313
29	298	292	260	260	240	325	304	2,030	1,320	357	361	310
30	286	277	250	270	- - - -	370	370	2,260	1,220	370	349	310
31	295	- - - -	230	270	- - - -	400	- - - -	2,610	- - - -	448	337	- - - -
Total	8,452	8,126	7,652	7,997	7,169	8,315	10,167	34,768	73,710	16,169	13,184	8,705
Mean	273	271	247	258	247	268	339	1,122	2,457	522	425	290
Max	304	298	292	295	283	400	405	2,610	3,370	1,110	579	349
Min	238	200	200	220	220	220	295	492	1,220	329	337	235
Ac-ft	16,760	16,120	15,180	15,860	14,220	16,490	20,170	68,960	146,200	32,070	26,150	17,270

Cal yr 1967: Total 171,124 Mean 469 Max 2,700 Min 151 Ac-ft 339,400
 Wtr yr 1968: Total 204,414 Mean 559 Max 3,370 Min 200 Ac-ft 405,400

Peak discharge (base, 2,100 cfs).--June 6 (0630) 3,690 cfs (3.61 ft); June 21 (0900) 3,270 cfs (3.29 ft).

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 1968.

Gage.--Water-stage recorder. Altitude of gage is about 5,900 ft (estimated from nearby level line).

Average discharge.--7 years, 589 cfs (426,400 acre-ft per year).

Extremes.--Maximum discharge during year, 3,700 cfs June 6 (gage height, 3.90 ft); minimum daily, 240 cfs Dec. 3, Jan. 8, 9.
1961-68: Maximum discharge, 4,010 cfs June 15, 1965; minimum daily, 141 cfs 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	312	330	290	270	290	280	430	526	2,920	1,110	526	365
2	312	326	260	270	270	280	436	613	2,930	950	478	355
3	316	298	240	260	280	280	410	683	3,000	788	564	355
4	312	308	270	250	290	290	355	802	2,920	774	502	365
5	345	308	290	250	300	294	360	902	3,070	781	472	340
6	400	290	300	270	280	298	405	999	3,450	795	478	321
7	380	303	270	260	290	316	380	846	3,430	718	466	321
8	360	312	300	240	290	316	355	767	3,090	676	484	316
9	340	326	280	240	290	321	355	788	2,630	634	525	294
10	335	321	270	260	280	312	365	830	2,280	627	538	277
11	316	303	290	280	290	298	365	982	2,120	606	550	277
12	308	312	300	260	320	273	400	1,030	2,040	564	502	294
13	308	312	280	260	310	298	436	1,040	2,360	550	448	303
14	308	312	280	280	310	340	425	942	2,620	526	544	285
15	303	312	280	290	300	316	410	902	2,630	490	711	281
16	312	308	280	290	290	308	425	862	2,760	430	585	312
17	308	303	280	290	280	326	478	809	2,730	410	514	326
18	326	294	270	280	280	330	484	795	2,730	410	495	326
19	340	298	280	280	270	308	484	886	2,700	420	478	308
20	340	298	280	290	270	290	472	1,050	2,520	430	466	308
21	335	326	270	290	290	285	448	1,260	2,670	395	460	330
22	330	316	250	290	300	298	436	1,860	2,630	385	430	370
23	335	312	260	290	300	316	390	1,780	2,360	400	460	410
24	326	285	280	300	290	321	385	1,590	2,170	400	448	385
25	326	294	300	300	280	340	390	1,380	1,890	425	427	380
26	326	273	310	300	280	370	385	1,370	1,610	405	405	370
27	321	245	310	300	280	335	400	1,350	1,450	410	405	370
28	326	261	290	300	280	335	380	1,620	1,370	430	407	375
29	340	335	270	300	280	370	380	2,000	1,270	430	395	370
30	326	320	260	300	- - - -	400	425	2,290	1,180	425	375	370
31	335	- - - -	250	300	- - - -	425	- - - -	2,630	- - - -	502	370	- - - -
Total	10,207	9,141	8,640	8,640	8,360	9,869	12,249	36,184	73,530	17,296	14,895	10,059
Mean	329	305	279	279	288	318	408	1,167	2,451	558	481	335
Max	400	335	310	300	320	425	484	2,630	3,450	1,110	711	410
Min	303	245	240	240	270	273	355	526	1,180	385	370	277
Ac-ft	20,250	18,130	17,140	17,140	16,580	19,570	24,300	71,770	145,800	34,310	29,550	19,950

Cal yr 1967: Total 187,456 Mean 514 Max 2,630 Min 186 Ac-ft 371,800
Wtr yr 1968: Total 219,071 Mean 599 Max 3,450 Min 240 Ac-ft 434,500

Peak discharge (base, 2,000 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-22	0800	3.02	2,120	6-21	1500	3.49	3,040
6-6	1200	3.90	3,700				

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 1968.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 6,070 ft (from topographic map).

Extremes.--Maximum discharge during year, 184 cfs July 28 (gage height, 4.87 ft); minimum daily, 2.9 cfs Oct. 13.
1964-68: Maximum discharge, 400 cfs (estimated) Mar. 9, 1966 (gage height, 6.23 ft); minimum daily, 0.80 cfs 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.0	8.2	8.5	8.0	10	16	4.9	5.5	17	11	20	28
2	3.8	6.0	7.0	9.0	9.0	16	5.0	5.7	19	9.2	28	27
3	3.8	5.5	7.0	9.0	10	16	4.8	5.7	19	8.2	30	27
4	3.6	5.5	7.5	8.5	9.5	16	5.0	5.5	17	7.2	21	28
5	3.1	6.2	8.0	8.0	9.0	16	4.5	5.7	16	6.2	26	29
6	3.3	6.0	8.0	9.0	9.0	16	4.5	7.2	16	6.9	26	26
7	3.3	6.5	7.5	10	9.0	16	5.2	8.8	20	7.2	23	26
8	3.4	7.8	8.0	11	8.5	15	6.2	7.8	21	8.8	28	25
9	3.4	8.5	7.0	10	9.0	15	4.8	5.5	22	13	51	24
10	3.6	7.8	8.0	9.0	10	14	3.8	6.5	18	13	39	23
11	3.4	9.5	8.0	8.0	11	13	4.3	7.5	15	9.9	32	22
12	3.1	9.2	8.0	7.5	13	13	4.8	20	15	7.2	58	22
13	2.9	7.5	7.5	8.0	15	14	6.2	23	14	6.0	33	22
14	4.5	7.2	7.0	8.5	14	14	6.0	26	11	5.7	36	22
15	5.2	7.5	7.5	9.0	14	13	5.7	27	8.2	5.7	44	20
16	4.8	7.8	8.0	10	14	13	5.2	30	7.8	4.5	37	20
17	3.3	7.8	9.0	10	16	13	4.5	32	7.8	4.0	32	20
18	3.8	8.2	9.0	9.5	16	12	4.0	32	8.2	4.3	34	20
19	4.5	8.5	9.0	10	17	12	4.3	32	7.8	5.5	32	19
20	4.3	9.5	10	10	18	12	4.3	32	6.5	5.2	34	17
21	4.8	10	9.0	10	19	11	5.2	26	3.4	6.0	32	16
22	4.5	9.5	8.0	10	20	12	5.7	26	3.8	6.0	31	14
23	4.0	9.0	7.5	9.5	20	11	6.2	25	5.7	5.0	38	14
24	3.4	8.8	7.5	10	20	9.5	5.7	26	7.2	8.2	36	14
25	3.8	8.6	8.0	9.5	19	9.2	5.2	28	8.5	12	34	15
26	5.7	8.2	8.5	9.0	18	9.2	5.0	28	8.2	12	32	14
27	5.7	8.0	9.5	10	18	8.2	5.0	25	7.5	20	32	13
28	6.5	8.5	9.5	11	16	7.2	5.0	22	8.8	68	31	12
29	6.5	9.0	9.0	12	16	5.0	5.2	20	8.8	23	29	13
30	7.2	9.0	8.0	12	-----	4.9	5.2	20	10	19	28	14
31	8.5	-----	7.0	12	-----	4.8	-----	19	-----	19	28	-----
Total	135.7	239.3	251.0	297.0	407.0	377.0	151.4	590.4	358.2	346.9	1,015	606
Mean	4.38	7.98	8.10	9.58	14.0	12.2	5.05	19.0	11.9	11.2	32.7	20.2
Max	8.5	10	10	12	20	16	6.2	32	22	68	58	29
Min	2.9	5.5	7.0	7.5	8.5	4.8	3.8	5.5	3.4	4.0	20	12
Ac-ft	269	475	498	589	807	748	300	1,170	710	688	2,010	1,200
Cal yr 1967: Total	2,764.9		Mean 7.58	Max 31	Min 1.0	Ac-ft 5,480						
Wtr yr 1968: Total	4,774.9		Mean 13.0	Max 68	Min 2.9	Ac-ft 9,470						

GREEN RIVER BASIN

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 1968. 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.--45 years (1923-68), 701 cfs (507,500 acre-ft per year).

Extremes.--Maximum discharge during year, 3,770 cfs Aug. 13 (gage height, 6.06 ft); minimum daily, 270 cfs Dec. 22, Jan. 8, 9. 1904-6, 1918, 1923-68: Maximum daily discharge, 8,160 cfs July 15, 1929; maximum gage height, 13.1 ft Feb. 11, 1952, 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 and those for period of no gage-height record, which are fair. Diversions for irrigation of about 30,000 acres above station. Records of chemical analyses and water temperatures for the water year 1968 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	312	358	320	280	310	380	475	454	2,570	1,230	525	426
2	306	371	300	290	310	380	497	540	2,790	1,160	806	419
3	293	364	290	280	300	380	490	638	2,870	1,010	552	405
4	408	358	290	280	310	380	461	723	2,870	874	525	405
5	570	318	310	280	310	380	412	806	2,850	848	562	419
6	405	351	310	290	310	400	412	900	3,000	823	1,050	405
7	364	338	300	280	310	410	454	993	3,290	840	615	377
8	384	318	300	270	320	420	461	934	3,410	764	552	351
9	360	351	300	270	330	410	412	866	3,210	707	622	358
10	350	371	290	280	340	390	391	840	2,740	652	950	338
11	340	364	300	280	350	390	391	857	2,340	645	862	312
12	330	364	300	280	360	380	384	1,070	2,160	615	874	318
13	330	351	300	280	370	400	419	1,100	2,060	578	925	293
14	330	330	300	290	370	420	461	1,140	2,340	562	1,110	331
15	320	320	290	300	360	468	482	1,060	2,540	532	1,340	312
16	330	320	290	300	350	482	447	1,020	2,540	497	908	293
17	340	320	290	300	350	419	497	984	2,680	440	755	306
18	350	320	290	300	350	454	630	900	2,720	398	675	338
19	350	330	290	300	350	461	660	908	2,760	391	630	344
20	360	320	290	300	360	391	668	942	2,850	384	600	325
21	360	330	280	300	370	338	630	1,140	2,660	405	592	318
22	360	330	270	300	380	318	600	1,320	2,790	405	562	331
23	350	320	280	300	400	338	540	1,840	2,680	338	562	351
24	340	320	290	300	400	371	461	1,920	2,380	364	578	419
25	350	310	300	300	400	384	440	1,670	2,180	371	570	412
26	350	300	310	300	390	398	440	1,470	1,960	391	540	405
27	350	290	310	300	380	426	454	1,470	1,710	364	548	398
28	350	300	310	300	380	391	468	1,460	1,580	364	504	391
29	350	310	300	300	380	364	440	1,650	1,440	447	450	384
30	364	320	290	300	---	398	426	2,070	1,320	697	468	377
31	371	---	280	300	---	447	---	2,340	---	540	440	---
Total	11,027	9,967	9,170	9,030	10,200	12,368	14,403	36,025	75,290	18,636	21,472	10,861
Mean	356	332	296	291	352	399	480	1,162	2,510	601	693	362
Max	570	371	320	300	400	482	668	2,340	3,410	1,230	1,340	426
Min	293	290	270	270	300	318	384	454	1,320	338	440	293
Ac-ft	21,870	19,770	18,190	17,910	20,230	24,530	28,570	71,450	149,300	36,960	42,590	21,540
Cal yr 1967: Total	194,892		Mean	534	Max	2,870	Min	149	Ac-ft	386,600		
Wtr yr 1968: Total	238,449		Mean	652	Max	3,410	Min	270	Ac-ft	473,000		

Peak discharge (base, 2,900 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
6-7	1830	6.07	3,670	8-13	2230	6.06	3,770
6-22	1300	5.57	3,140				

Note.--No gage-height record Jan. 10 to Feb. 13.

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 1968. 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.--12 years, 86.1 cfs (62,330 acre-ft per year).

Extremes.--Maximum discharge during year, 610 cfs June 5 (gage height, 4.68 ft); minimum daily, 8.0 cfs Dec. 21.

1956-68: 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. Diversions above station for irrigation of about 500 acres of hay meadows above station.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	18	12	10	12	15	73	132	445	123	130	44
2	31	18	8.5	11	10	16	58	168	480	115	126	39
3	29	15	9.0	11	11	18	48	179	495	107	120	42
4	30	16	10	10	11	17	40	162	480	99	101	37
5	29	16	10	9.5	11	16	40	168	535	109	100	34
6	30	16	11	9.5	11	18	40	168	540	107	154	32
7	29	16	9.0	10	13	20	36	137	500	99	137	30
8	27	16	10	10	13	20	34	145	425	90	137	29
9	27	16	9.0	10	13	20	34	168	292	85	120	27
10	27	16	8.5	10	13	18	38	179	224	82	145	26
11	26	16	9.0	10	13	17	51	154	204	79	162	25
12	25	16	11	10	14	15	64	157	264	73	159	24
13	24	16	10	10	14	16	72	148	360	68	157	24
14	24	16	11	10	14	19	69	127	405	63	200	23
15	22	15	12	11	13	17	78	130	430	58	176	22
16	22	15	11	11	12	16	80	151	440	54	132	22
17	21	15	10	11	12	18	72	172	435	51	113	21
18	21	15	9.5	11	13	18	66	204	415	48	93	21
19	20	14	10	11	12	15	63	232	385	46	93	20
20	20	14	9.0	11	12	18	56	272	390	45	78	20
21	20	15	8.0	11	12	16	56	347	380	42	87	19
22	20	15	9.0	12	11	16	52	440	342	42	71	20
23	19	14	10	12	11	19	47	430	308	49	62	20
24	19	9.0	12	12	13	22	44	370	276	56	54	19
25	19	9.5	12	13	14	24	45	324	244	60	50	18
26	19	10	12	13	14	26	47	360	216	65	48	18
27	18	9.0	12	13	15	29	44	430	204	119	47	18
28	18	10	11	13	15	35	43	460	186	97	52	18
29	19	12	11	12	13	46	52	490	162	108	44	18
30	16	11	11	11	- - - -	61	80	490	137	105	43	20
31	18	- - - -	11	12	- - - -	72	- - - -	480	- - - -	119	44	- - - -
Total	721	429.5	318.5	341.0	365	713	1,622	7,974	10,599	2,463	3,225	750
Mean	23.3	14.3	10.3	11.0	12.6	23.0	54.1	257	353	79.5	104	25.0
Max	32	18	12	13	15	72	80	490	540	123	200	44
Min	16	9.0	8.0	9.5	10	15	34	127	137	42	43	18
Ac-ft	1,430	852	632	676	724	1,410	3,220	15,820	21,020	4,890	6,400	1,490

Cal yr 1967: Total 26,338 Mean 72.2 Max 430 Min 8.0 Ac-ft 52,240
 Wtr yr 1968: Total 29,521 Mean 80.7 Max 540 Min 8.0 Ac-ft 58,550

Peak discharge (base, 500 cfs)

Note.--No gage-height record Jan. 13 to Feb. 21.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-22	2000	4.51	510	6-17	2030	4.45	510
6- 5	2130	4.68	610				

9-3400. East Fork San Juan River near Pagosa Springs, Colo.

Location.--Lat 37°22'10", 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 1968. 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.--33 years, 119 cfs (86,150 acre-ft per year).

Extremes.--Maximum discharge during year, 934 cfs June 5 (gage height, 3.85 ft); minimum daily, 12 cfs Dec. 21.

1935-68: 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 about 500 acres of hay meadows above station and a few hundred acres of hay meadows below station.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	23	18	15	16	22	115	210	716	156	207	62
2	43	23	14	18	15	25	90	256	738	148	193	53
3	42	20	13	18	16	28	72	262	727	143	169	56
4	42	20	15	16	16	29	62	252	716	130	130	50
5	41	20	15	15	16	27	56	266	802	153	124	44
6	43	21	16	15	16	29	58	266	778	150	186	43
7	41	20	13	15	17	30	52	220	722	146	175	41
8	38	20	15	15	18	28	48	238	605	138	172	39
9	37	20	14	15	18	27	47	266	428	126	148	36
10	38	20	13	15	18	26	58	273	336	124	189	34
11	36	20	14	15	19	23	91	256	328	119	214	33
12	34	20	16	15	20	22	104	256	400	110	204	33
13	33	20	15	15	20	23	115	245	520	102	207	33
14	32	20	17	16	20	25	106	214	565	96	276	30
15	30	19	17	16	20	23	119	220	595	88	259	29
16	29	20	16	16	18	23	124	248	595	81	207	29
17	29	20	15	17	18	24	110	266	580	72	169	27
18	27	19	14	16	19	24	100	300	550	68	130	27
19	27	19	15	16	19	21	92	324	510	64	124	26
20	26	19	13	16	19	23	81	374	515	64	115	26
21	26	20	12	16	20	21	81	485	490	60	136	24
22	26	19	13	17	20	20	74	688	441	57	104	25
23	25	19	14	17	19	26	69	590	392	69	90	26
24	24	16	16	18	20	33	63	455	348	81	78	24
25	24	14	17	19	22	40	66	410	300	86	71	23
26	24	15	17	19	23	42	68	450	273	94	66	22
27	23	13	17	20	25	49	64	520	256	175	66	22
28	23	15	16	20	23	60	64	694	242	156	78	22
29	24	18	16	17	22	83	79	727	204	153	63	22
30	21	17	16	16	- - - -	104	136	705	169	158	57	26
31	23	- - - -	16	17	- - - -	117	- - - -	722	- - - -	196	62	- - - -
Total	977	569	468	511	552	1,097	2,454	11,658	14,821	3,553	4,459	997
Mean	31.5	19.0	15.1	16.5	19.0	35.4	81.8	376	494	115	144	32.9
Max	46	23	18	20	25	117	136	727	802	186	276	62
Min	21	13	12	15	15	20	47	210	169	57	57	22
Ac-ft	1,940	1,130	928	1,010	1,090	2,180	4,870	23,120	29,400	7,050	8,840	1,960

Cal yr 1967: Total 36,119 Mean 99.0 Max 615 Min 12 Ac-ft 71,640
Wtr yr 1968: Total 42,106 Mean 115 Max 802 Min 12 Ac-ft 83,520

Peak discharge (base, 600 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-22	2230	3.61	772	6-15	2130	3.45	700
6-5	2030	3.85	934				

9-3425. San Juan River at Pagosa Springs, Colo.

Location.--Lat 37°15'58", long 107°00'37", NE $\frac{1}{4}$ SW $\frac{1}{4}$ 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 1968. 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.--37 years, 370 cfs (267,900 acre-ft per year).

Extremes.--Maximum discharge during year, 2,450 cfs June 5 (gage height, 5.47 ft); minimum daily, 22 cfs Dec. 21.

1910-14, 1935-68: 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 good. Diversions for irrigation of several thousand acres above station.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	88	43	51	40	46	62	400	608	1,860	596	640	170
2	86	41	29	43	41	69	303	690	2,120	530	613	148
3	84	33	29	45	45	76	239	756	2,100	495	646	163
4	84	38	43	41	45	78	192	702	1,990	450	490	156
5	84	40	40	38	44	78	180	750	2,110	460	450	139
6	86	42	49	40	46	86	195	789	2,150	430	679	128
7	86	40	41	40	50	93	170	657	2,040	405	679	112
8	80	36	45	40	51	84	156	662	1,760	380	720	108
9	76	38	37	40	51	83	148	750	1,280	353	652	100
10	78	35	27	41	51	70	185	841	1,030	362	789	95
11	76	36	35	41	55	67	267	744	950	335	808	91
12	73	38	44	40	60	60	348	822	1,170	311	744	83
13	69	37	41	40	56	66	400	796	1,520	292	770	86
14	66	38	42	42	55	73	376	652	1,720	253	985	75
15	62	36	45	44	55	63	425	630	1,810	222	957	70
16	56	36	48	44	48	69	470	714	1,830	198	732	69
17	59	37	41	46	50	69	400	744	1,850	190	618	70
18	56	35	42	46	55	67	340	848	1,830	165	510	72
19	54	35	42	41	49	62	307	901	1,740	156	425	67
20	54	36	31	44	54	66	274	1,080	1,730	156	358	67
21	51	41	22	46	60	59	278	1,320	1,710	142	405	66
22	52	40	28	46	57	64	264	1,750	1,540	133	319	66
23	54	37	50	48	51	90	239	1,680	1,450	142	284	80
24	49	29	54	49	59	118	225	1,380	1,330	163	242	66
25	48	38	52	51	62	142	236	1,170	1,160	185	213	62
26	43	44	51	54	60	148	236	1,290	1,050	207	192	59
27	38	32	50	57	73	170	216	1,580	985	371	188	57
28	38	38	46	55	64	204	213	1,830	950	410	198	57
29	43	56	48	54	56	267	253	1,970	848	376	175	60
30	32	55	48	44	---	348	400	1,930	702	385	153	66
31	40	---	43	49	---	376	---	1,990	---	515	163	---
Total	1,945	1,160	1,294	1,389	1,549	3,427	8,335	33,026	46,315	9,758	15,797	2,708
Mean	62.7	38.7	41.7	44.8	53.4	111	278	1,065	1,544	315	510	90.3
Max	88	56	54	57	73	376	470	1,990	2,150	596	985	170
Min	32	29	22	38	41	59	148	608	702	133	153	57
Ac-ft	3,860	2,300	2,570	2,760	3,070	6,800	16,530	65,510	91,860	19,350	31,330	5,370

Cal yr 1967: Total 92,883 Mean 254 Max 1,480 Min 22 Ac-ft 184,200
Wtr yr 1968: Total 126,703 Mean 346 Max 2,150 Min 22 Ac-ft 251,300

Peak discharge (base, 1,500 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-22	2130	5.10	1,970	6-17	2300	5.20	2,160
6-5	2330	5.47	2,450				

SAN JUAN RIVER BASIN

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 1968.

Gage.--Water-stage recorder. Altitude of gage is 7,950 ft (from topographic map).

Average discharge.--33 years, 84.8 cfs (61,390 acre-ft per year).

Extremes.--Maximum discharge during year, 980 cfs July 31 (gage height, 2.68 ft), from rating curve extended above 550 cfs; minimum daily, 9.0 cfs Dec. 22.

1935-68: 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 1,400 acres above station.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	17	12	12	13	15	97	142	405	84	236	60
2	29	17	11	12	12	15	63	160	438	84	196	48
3	28	14	10	13	13	16	48	164	432	75	150	45
4	28	15	11	11	14	18	40	156	444	69	108	35
5	26	14	12	10	14	20	38	150	462	97	108	28
6	29	15	12	10	13	22	38	132	432	97	213	24
7	28	14	12	10	13	26	32	118	395	100	224	22
8	24	14	11	11	12	22	30	142	350	87	264	20
9	23	14	12	12	12	20	30	156	272	87	200	19
10	22	14	12	12	13	16	48	156	224	97	280	16
11	22	14	13	12	12	15	81	136	212	81	292	16
12	20	14	13	11	13	14	100	136	248	72	292	17
13	19	14	12	11	14	13	90	125	280	66	316	16
14	19	14	12	12	14	13	90	104	296	58	395	14
15	18	14	12	12	14	14	90	114	304	42	330	14
16	18	14	12	12	13	14	81	142	288	32	260	14
17	18	14	13	12	13	13	69	153	284	32	216	13
18	18	14	12	12	13	13	58	188	280	30	180	12
19	17	14	12	12	13	13	50	216	272	38	156	11
20	17	15	11	12	13	14	55	268	264	34	146	11
21	16	16	10	12	14	13	48	350	252	26	188	10
22	16	15	9.0	12	15	14	42	405	236	24	139	13
23	16	13	11	12	14	16	38	360	228	75	111	18
24	15	12	13	12	14	18	34	312	204	108	90	13
25	15	13	12	13	15	26	35	296	180	150	81	12
26	15	12	12	13	15	26	35	355	164	196	87	10
27	15	11	11	12	15	34	30	380	160	384	87	9.5
28	14	12	12	12	15	60	32	390	146	220	108	9.5
29	17	14	12	13	15	114	45	370	111	200	63	9.5
30	14	13	12	12	-----	122	104	370	90	216	55	14
31	15	-----	12	13	-----	114	-----	395	-----	315	60	-----
Total	620	420	363.0	367	393	883	1,671	7,041	8,353	3,276	5,631	573.5
Mean	20.0	14.0	11.7	11.8	13.6	28.5	55.7	227	278	106	182	19.1
Max	29	17	13	13	15	122	104	405	462	384	395	60
Min	14	11	9.0	10	12	13	30	104	90	24	55	9.5
Ac-ft	1,230	833	720	728	780	1,750	3,310	13,970	16,570	6,500	11,170	1,140

Cal yr 1967: Total 25,606.0

Mean 70.2

Max 448

Min 9.0

Ac-ft 50,790

Wtr yr 1968: Total 29,591.5

Mean 80.9

Max 462

Min 9.0

Ac-ft 58,690

Peak discharge (base, 800 cfs).--July 27 (0400) 900 cfs (2.70 ft); July 31 (2100) 980 cfs (2.68 ft).

Note.--No gage-height record Dec. 22 to Mar. 5.

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 1968. 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.--32 years, 103 cfs (74,570 acre-ft per year).

Extremes.--Maximum discharge during year, 680 cfs June 5 (gage height, 3.31 ft); minimum daily, 22 cfs Dec. 22.

1936-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	36	28	28	26	30	70	125	520	145	316	51
2	45	35	26	28	26	31	57	162	586	132	280	50
3	45	32	26	28	26	32	52	192	535	128	216	52
4	45	33	26	26	28	32	48	177	530	115	168	48
5	44	35	26	24	28	32	48	168	565	111	155	43
6	45	35	27	24	28	35	50	152	560	107	168	45
7	44	32	26	24	28	36	45	132	520	115	165	45
8	43	32	27	24	28	34	42	142	440	107	192	44
9	42	32	26	26	28	34	47	150	280	109	168	43
10	41	32	28	26	28	33	57	148	213	107	320	42
11	41	32	28	27	28	30	72	132	201	99	292	41
12	41	32	26	26	28	32	84	148	284	90	253	42
13	40	32	27	26	28	32	83	132	398	88	232	40
14	39	32	27	26	28	34	79	109	460	83	256	38
15	39	32	28	26	28	32	88	111	475	78	213	38
16	37	32	29	26	27	34	90	128	470	75	177	40
17	37	32	28	26	27	34	90	140	470	64	150	42
18	37	31	28	27	28	33	79	165	460	54	130	41
19	38	31	27	26	28	33	74	192	445	61	111	41
20	37	31	26	26	28	32	69	225	445	64	101	40
21	37	32	24	26	29	33	69	292	430	63	111	40
22	37	32	22	26	29	33	66	372	384	70	89	43
23	39	32	24	26	28	35	60	372	344	83	79	45
24	37	26	28	29	29	38	62	316	312	119	73	43
25	36	26	28	30	29	41	63	253	268	137	70	37
26	36	30	28	28	30	42	63	324	228	190	69	32
27	36	28	29	29	30	48	60	412	210	328	68	32
28	36	28	28	27	29	54	60	465	213	195	64	32
29	38	30	28	26	30	64	68	475	189	197	58	32
30	33	28	28	26	- - - -	72	89	485	162	183	54	39
31	36	- - - -	29	28	- - - -	74	- - - -	495	- - - -	262	53	- - - -
Total	1,227	943	836	821	815	1,189	1,974	7,291	11,597	3,759	4,851	1,241
Mean	39.6	31.4	27.0	26.5	28.1	38.4	65.8	235	387	121	156	41.4
Max	46	36	29	30	30	74	90	495	586	328	320	52
Min	33	26	22	24	26	30	42	109	162	54	53	32
Ac-ft	2,430	1,870	1,660	1,630	1,620	2,360	3,920	14,460	23,000	7,460	9,620	2,460

Cal yr 1967: Total 32,600 Mean 89.3 Max 430 Min 22 Ac-ft 64,660
 Wtr yr 1968: Total 36,544 Mean 99.8 Max 586 Min 22 Ac-ft 72,480

Peak discharge (base, 500 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
6- 5	2130	3.31	680	7-31	2100	3.35	641
6-17	2100	3.28	614	8- 9	2400	3.14	505
7-27	0800	3.08	510				

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 1968. Published as "near Chromo" 1956-58.

Gage.--Water-stage recorder. Altitude of gage is 7,700 ft (from topographic map).

Average discharge.--12 years, 115 cfs (83,260 acre-ft per year).

Extremes.--Maximum discharge during year, 714 cfs June 2 (gage height, 5.12 ft); minimum daily, 24 cfs Dec. 22.

1956-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	35	30	30	30	36	83	164	574	140	374	59
2	51	34	28	30	28	38	73	184	595	125	305	56
3	51	32	28	30	30	39	67	208	542	122	240	58
4	51	33	30	28	30	39	60	192	524	110	172	55
5	50	34	28	26	30	37	60	196	567	108	148	48
6	50	34	30	26	30	37	64	188	560	102	192	48
7	50	33	28	26	30	38	58	160	542	110	168	50
8	47	32	30	26	30	36	54	176	482	98	204	48
9	46	32	28	28	29	36	58	204	368	100	164	45
10	46	32	30	28	30	36	70	208	275	102	356	42
11	45	31	32	28	30	34	88	188	245	95	305	45
12	44	33	32	30	32	33	108	220	326	85	265	44
13	44	32	30	28	33	35	110	196	428	80	240	41
14	44	32	28	28	32	36	100	160	458	75	275	39
15	42	32	30	28	32	34	113	160	482	70	235	40
16	41	32	32	28	31	37	125	184	482	64	176	41
17	38	32	30	30	31	37	105	204	464	54	144	46
18	36	32	30	30	31	36	98	235	476	48	128	47
19	36	30	30	28	30	34	95	260	440	55	113	46
20	35	32	28	28	31	36	83	300	446	58	105	46
21	36	33	26	28	34	35	92	386	434	60	125	46
22	38	33	24	28	35	35	88	494	392	65	105	46
23	39	33	26	28	32	38	82	464	350	71	92	48
24	38	29	32	30	34	42	80	380	315	118	85	46
25	38	30	30	32	35	45	85	326	285	135	82	42
26	38	30	30	30	36	46	85	398	245	212	80	38
27	36	30	32	30	36	51	82	476	225	326	80	38
28	37	30	30	30	36	59	78	530	225	245	75	38
29	38	31	30	28	34	71	90	548	196	216	67	37
30	33	30	30	28	83	119	548	160	230	64	42	
31	35	---	32	30	---	83	---	567	---	270	60	---
Total	1,304	958	914	886	922	1,312	2,553	9,104	12,103	3,749	5,224	1,365
Mean	42.1	31.9	29.5	28.6	31.8	42.3	85.1	294	403	121	169	45.5
Max	51	35	32	32	36	83	125	567	595	326	374	59
Min	33	29	24	26	28	33	54	160	160	48	60	37
Ac-ft	2,590	1,900	1,810	1,760	1,830	2,600	5,060	18,060	24,010	7,440	10,360	2,710

Cal yr 1967: Total 34,426 Mean 94.3 Max 446 Min 24 Ac-ft 68,280
Wtr yr 1968: Total 40,394 Mean 110 Max 595 Min 24 Ac-ft 80,120

Peak discharge (base, 550 cfs)

Note.--No gage-height record Jan. 7 to Feb. 6.

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-22	2230	4.91	574	8- 1	0030	5.00	616
6- 2	0130	5.12	714	8-10	0200	4.97	595
6-15	2230	4.96	574				

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 1968. 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 200 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.--56 years, 156 cfs (112,900 acre-ft per year).

Extremes.--Maximum discharge during year, 804 cfs Aug. 10 (gage height, 4.94 ft); minimum daily, 26 cfs Dec. 22.
1935-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	40	38	32	32	40	123	191	593	138	431	60
2	55	39	35	32	30	44	101	222	642	130	326	57
3	54	35	32	32	32	47	88	250	579	123	258	56
4	52	36	34	30	32	47	76	236	565	126	194	56
5	51	37	32	28	32	47	76	243	614	110	158	50
6	50	38	34	28	32	46	87	236	600	106	212	47
7	51	36	32	28	32	47	74	203	558	117	191	47
8	47	35	34	28	32	46	66	209	500	112	226	44
9	47	36	32	30	32	45	71	243	375	110	185	38
10	47	35	34	30	32	43	87	250	302	123	422	33
11	47	36	36	30	32	39	115	226	250	106	338	37
12	45	37	36	32	34	38	142	250	302	97	306	44
13	37	37	34	30	36	42	152	232	395	92	266	39
14	38	37	32	30	34	43	135	191	465	80	286	35
15	35	37	34	30	34	40	152	179	482	74	266	38
16	38	36	34	30	34	42	173	203	488	64	206	39
17	40	36	34	32	34	42	145	218	470	56	170	44
18	42	36	34	32	34	40	135	250	518	50	145	43
19	39	37	34	30	32	38	132	266	476	51	130	43
20	40	37	32	30	34	40	112	310	482	64	119	44
21	42	37	30	30	36	39	126	380	460	73	142	43
22	42	38	26	30	38	39	115	488	410	74	117	43
23	38	38	32	30	36	45	104	465	358	73	104	45
24	39	32	34	32	36	55	101	410	330	123	95	38
25	38	33	34	34	38	59	108	354	282	142	90	35
26	39	35	32	32	38	64	108	405	250	259	84	34
27	38	33	34	32	38	70	103	476	222	333	80	35
28	38	37	32	32	40	79	95	530	218	250	76	33
29	42	36	32	30	39	97	104	572	200	209	70	34
30	36	36	32	30	---	117	140	565	161	232	59	39
31	38	---	34	32	---	121	---	600	---	267	57	---
Total	1,341	1,088	1,029	948	995	1,641	3,346	9,853	12,547	3,964	5,809	1,273
Mean	43.3	36.3	33.2	30.6	34.3	52.9	112	318	418	128	187	42.4
Max	56	40	38	34	40	121	173	600	642	333	431	60
Min	35	32	26	28	30	38	66	179	161	50	57	33
Ac-ft	2,660	2,160	2,040	1,880	1,970	3,250	6,640	19,540	24,890	7,860	11,520	2,520

Cal yr 1967: Total 37,890 Mean 104 Max 518 Min 26 Ac-ft 75,150
Wtr yr 1968: Total 43,834 Mean 120 Max 642 Min 26 Ac-ft 86,940

Peak discharge (base, 600 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
6- 2	0430	4.85	726	8- 1	0200	4.85	742
6-21	0030	4.72	635	8-10	0430	4.94	804

SAN JUAN RIVER BASIN

9-3464. San Juan River near Carracas, Colo.

Location.--Lat 37°00'47", long 107°18'30", in SE¼SW¼ 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 1968.

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.--7 years, 623 cfs (451,000 acre-ft per year).

Extremes.--Maximum discharge during year, 5,370 cfs Aug. 10 (gage height, 6.37 ft); minimum, about 40 cfs Dec. 22, result of freezeup. 1961-68: 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 periods, which are poor. Diversions for irrigation of about 11,000 acres above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	209	120	111	84	93	114	780	895	3,070	1,020	2,590	362
2	200	125	93	80	87	123	648	1,070	3,390	925	1,510	334
3	189	116	49	84	81	150	525	1,220	3,400	872	1,290	286
4	195	97	77	88	89	180	456	1,160	3,150	821	964	290
5	189	109	90	81	91	195	416	1,210	3,290	809	915	240
6	179	110	94	76	97	201	441	1,250	3,380	885	1,060	207
7	191	115	100	76	102	246	408	1,080	3,220	773	1,220	194
8	181	108	90	76	102	225	353	1,040	2,930	797	1,470	188
9	174	103	91	79	102	216	336	1,210	2,300	719	1,150	179
10	167	106	72	80	102	208	366	1,280	1,770	763	2,030	162
11	169	102	57	83	105	163	493	1,270	1,530	640	1,780	148
12	166	101	70	79	110	163	660	1,250	1,710	545	1,660	146
13	157	111	88	80	118	154	770	1,360	2,250	522	1,410	154
14	143	109	80	80	115	169	713	1,130	2,760	473	1,520	151
15	140	108	88	94	112	157	773	1,020	2,840	420	1,790	140
16	137	107	92	85	110	155	832	1,110	2,880	366	1,260	140
17	133	105	97	88	96	161	797	1,170	2,850	330	1,030	138
18	137	102	84	90	103	155	659	1,320	2,970	298	876	145
19	135	102	83	88	108	155	619	1,410	2,740	266	764	139
20	127	103	84	86	102	145	534	1,660	2,620	263	670	130
21	124	105	60	89	110	144	563	1,850	2,600	270	719	126
22	120	112	46	91	119	140	528	2,730	2,330	252	649	128
23	120	110	61	93	115	171	510	2,870	2,070	260	570	136
24	119	99	88	94	113	240	464	2,510	2,030	354	500	151
25	114	74	108	96	115	313	461	2,050	1,810	515	450	126
26	115	97	102	98	120	322	454	2,210	1,630	719	410	116
27	118	92	96	102	130	376	420	2,580	1,500	869	405	109
28	109	79	92	113	148	404	394	2,940	1,470	1,110	415	107
29	114	115	91	110	115	495	407	3,270	1,370	884	386	103
30	126	109	94	108	-----	639	537	3,130	1,160	876	334	120
31	126	-----	89	102	-----	695	-----	3,330	-----	1,440	318	-----
TOTAL	4,603	3,141	2,616	2,752	3,109	7,374	16,317	53,575	73,020	20,055	32,115	5,095
MEAN	148	105	84.4	88.8	107	238	544	1,729	2,434	647	1,036	170
MAX	209	125	111	113	148	695	832	3,330	3,400	1,440	2,590	362
MIN	106	74	46	76	81	114	336	885	1,160	252	318	103
AC-FT	9,130	6,230	5,190	5,460	6,170	14,630	32,360	106,300	144,800	39,780	63,700	10,110
CAL YR 1967	TOTAL 182,539			MEAN 500		MAX 2,660		MIN 46		AC-FT 362,100		
WTR YR 1968	TOTAL 223,772			MEAN 611		MAX 3,400		MIN 46		AC-FT 443,800		

PEAK DISCHARGE (BASE, 2,500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
6- 6	0900	5.43	3,810	8- 1	0600	6.05	5,210
7-31	2300	5.78	4,230	8-10	1900	6.37	5,370

9-3495. Piedra River near Piedra, Colo.

Location.--Lat 37°13'20", long 107°20'30", in NW¼NW¼ 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 1968. 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.--31 years, 314 cfs (227,300 acre-ft per year).

Extremes.--Maximum discharge during year, 2,030 cfs June 2 (gage height, 4.68 ft); minimum daily, 30 cfs Dec. 22.

1911-12, 1938-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	95	54	50	40	46	55	385	558	1,700	441	800	142
2	93	49	40	45	42	64	326	642	1,850	389	700	138
3	89	41	35	42	44	68	267	691	1,820	365	640	138
4	91	39	32	40	44	68	236	677	1,690	340	520	138
5	87	45	40	38	46	66	227	698	1,750	323	500	121
6	84	51	40	36	46	74	264	726	1,790	312	700	111
7	82	45	38	36	46	87	209	614	1,650	316	660	105
8	78	44	40	36	46	82	200	621	1,460	320	914	97
9	74	48	36	38	48	82	182	691	1,070	281	803	89
10	78	47	32	42	48	74	239	754	882	306	858	87
11	80	47	36	40	48	67	340	733	761	295	842	84
12	78	50	40	38	51	62	417	866	882	257	747	87
13	74	48	36	40	51	70	476	882	1,170	251	663	87
14	72	48	36	44	51	78	463	719	1,380	227	782	80
15	68	47	42	50	49	62	505	691	1,470	195	782	79
16	64	47	45	50	47	70	564	719	1,490	175	594	78
17	64	47	38	46	45	73	500	698	1,520	160	490	74
18	64	47	38	44	50	66	441	761	1,510	142	429	73
19	62	48	38	42	49	55	405	842	1,410	135	373	72
20	61	45	38	44	49	72	354	1,010	1,340	132	334	67
21	58	47	32	46	53	56	373	1,160	1,350	125	312	66
22	56	48	30	46	53	60	354	1,510	1,230	109	306	67
23	56	47	34	46	49	79	330	1,470	1,140	107	274	73
24	58	36	38	46	53	93	302	1,230	1,050	128	239	66
25	58	32	45	48	54	107	302	1,050	906	140	212	64
26	58	38	45	50	53	121	309	1,130	782	300	192	62
27	54	37	45	51	61	140	298	1,320	726	440	192	60
28	54	33	45	53	62	170	284	1,550	698	700	206	60
29	56	42	45	51	54	221	323	1,710	628	560	185	60
30	49	50	42	46	---	298	429	1,670	520	460	162	70
31	47	---	40	50	---	337	---	1,690	---	460	148	---
Total	2,142	1,347	1,211	1,364	1,438	3,077	10,304	30,093	37,625	8,891	15,559	2,595
Mean	69.1	44.9	39.1	44.0	49.6	99.3	343	970	1,254	287	502	86.5
Max	95	54	50	53	62	337	564	1,710	1,850	700	914	142
Min	47	32	30	36	42	55	182	558	520	107	148	60
Ac-ft	4,250	2,670	2,400	2,710	2,850	6,100	20,440	59,670	74,630	17,640	30,860	5,150

Cal yr 1967: Total 72,096 Mean 198 Max 1,170 Min 30 Ac-ft 143,000
Wtr yr 1968: Total 115,636 Mean 316 Max 1,850 Min 30 Ac-ft 229,400

Peak discharge (base, 1,300 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
5-23	0100	4.16	1,630	6-18	0130	4.31	1,700
6-2	2330	4.68	2,030				

SAN JUAN RIVER BASIN

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 1968. 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.

Average discharge.--6 years (1962-68), 314 cfs (227,300 acre-ft per year).

Extremes.--Maximum discharge during year, 2,110 cfs June 3, 6 (gage height, 3.85 and 3.87 ft); minimum, about 12 cfs Dec. 4, 21, result of freezeup.

1962-68: Maximum discharge, 4,000 cfs Apr. 23, 1965 (gage height, 5.20 ft); minimum, 11 cfs Dec. 9, 1963, Oct. 1, 1966. Maximum flood known occurred Oct. 5, 1911. A major flood occurred Sept. 5 or 6, 1909.

Remarks.--Records good except those for winter periods, which are poor. Diversions for irrigation of about 2,800 acres above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	59	52	41	54	62	539	592	1,750	487	864	157
2	95	55	43	44	48	71	464	692	1,940	423	749	152
3	95	57	23	46	48	74	359	749	2,010	380	689	145
4	92	51	32	44	50	78	311	735	1,840	360	557	151
5	92	51	43	46	50	78	281	765	1,890	330	541	133
6	87	40	47	41	51	77	337	854	1,960	310	748	124
7	93	50	44	42	52	98	289	730	1,810	315	716	103
8	79	52	41	42	52	102	254	692	1,600	330	992	97
9	78	52	43	44	53	101	225	755	1,260	288	905	91
10	76	53	28	43	54	99	254	831	1,000	296	917	87
11	79	54	35	43	55	83	415	844	856	305	934	85
12	78	54	44	42	56	74	569	936	879	264	862	89
13	76	53	40	42	56	74	653	1,160	1,190	257	756	92
14	72	52	43	44	56	80	674	946	1,420	230	798	86
15	69	52	46	46	55	78	691	853	1,530	209	908	83
16	67	52	47	46	52	73	763	870	1,530	184	688	80
17	64	51	44	48	52	77	678	845	1,580	171	577	77
18	65	53	44	48	53	82	559	887	1,620	158	487	74
19	64	52	42	47	55	71	476	931	1,520	149	415	72
20	63	51	33	46	55	74	404	1,080	1,420	144	363	69
21	61	50	25	47	59	73	413	1,220	1,470	145	333	65
22	60	49	31	49	59	70	391	1,610	1,350	132	323	64
23	59	49	45	50	58	85	387	1,660	1,230	123	301	71
24	58	40	55	52	59	113	370	1,440	1,150	135	257	67
25	58	31	54	53	60	146	344	1,200	1,000	148	227	62
26	58	33	54	55	60	170	327	1,230	861	312	210	60
27	60	36	52	57	63	194	324	1,390	782	471	201	58
28	57	31	48	58	66	215	300	1,630	760	742	213	57
29	58	39	48	60	61	270	320	1,880	691	618	200	54
30	62	50	46	53	-----	355	424	1,780	586	501	178	58
31	54	-----	45	54	-----	409	-----	1,780	-----	498	165	-----
TOTAL	2,217	1,452	1,317	1,473	1,602	3,706	12,795	33,567	40,485	9,415	17,074	2,663
MEAN	71.5	43.4	42.5	47.5	55.2	120	427	1,083	1,350	304	551	88.8
MAX	98	59	55	60	66	409	763	1,880	2,010	742	992	157
MIN	54	31	23	41	48	62	225	592	586	123	165	54
AC-FT	4,400	2,380	2,610	2,920	3,180	7,350	25,380	66,580	80,300	18,670	33,870	5,280
CAL YR 1967	TOTAL	77,078		MEAN 211		MAX 1,330	MIN 23	AC-FT 152,900				
WTR YR 1968	TOTAL	127,766		MEAN 349		MAX 2,010	MIN 23	AC-FT 253,400				

PEAK DISCHARGE (BASE, 1,500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-23	0600	3.63	1,720	6- 3	0430	3.85	2,110	6-18	0430	3.69	1,800
5-29	0700	3.79	2,020	6- 6	0900	3.87	2,110				

9-3529. Vallecito Creek near Bayfield, Colo.
(Hydrologic bench-mark station)

Location.--Lat 37°28'39", long 107°32'35", in NW¼ sec.16, T.37 N., R.6 W. (projected), on right bank 60 ft upstream from Fall Creek, 0.8 mile downstream from Bear Creek, 6.7 miles north of Vallecito Dam, and 18 miles north of Bayfield.

Drainage area.--72.1 sq mi.

Records available.--October 1962 to September 1968.

Gage.--Water-stage recorder and concrete control. Datum of gage is 7,906.08 ft above mean sea level, datum of 1929.

Average discharge.--6 years, 135 cfs (97,740 acre-ft per year).

Extremes.--Maximum discharge during year, 1,500 cfs June 1 (gage height, 3.39 ft); minimum daily, 10 cfs Dec. 21.

1962-68: Maximum discharge, 1,530 cfs June 19, 1965 (gage height, 3.43 ft); minimum daily, 10 cfs Dec. 21, 1957.

Major floods occurred in October 1911 and June 1927.

Remarks.--Records good. No diversion above station. Records of chemical analyses and water temperatures for the water year 1968 are published in Part 2 of this report.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	22	16	12	16	18	76	119	1,110	366	360	71
2	46	20	12	14	16	20	68	166	1,190	354	402	66
3	46	16	14	16	16	20	60	202	1,070	325	325	77
4	46	20	16	12	16	20	53	194	1,050	305	320	71
5	46	19	14	12	15	22	52	198	1,140	265	396	63
6	46	18	15	12	15	23	52	196	982	260	485	60
7	46	18	13	12	16	25	50	162	732	285	390	57
8	44	18	15	13	16	23	45	166	660	290	402	53
9	42	18	13	15	16	22	42	183	457	280	325	51
10	42	18	14	15	16	22	44	190	348	310	280	46
11	42	17	18	14	16	21	58	194	360	285	280	43
12	40	18	18	14	16	19	76	194	590	260	240	42
13	38	17	14	14	16	21	82	176	838	235	218	41
14	37	17	13	15	16	21	82	152	937	210	378	40
15	35	17	15	14	15	18	90	149	1,010	190	366	39
16	32	16	15	14	15	20	92	166	1,050	180	270	37
17	32	17	16	15	15	20	90	166	1,050	162	214	36
18	32	16	15	14	17	18	80	198	1,040	155	183	35
19	31	18	15	14	16	17	74	260	955	143	158	33
20	30	16	12	15	17	19	66	366	937	140	140	32
21	28	18	10	15	17	17	65	506	910	138	140	32
22	28	17	12	15	17	19	60	646	772	143	129	32
23	28	16	16	15	16	20	57	569	740	158	119	32
24	26	14	16	15	17	23	51	450	676	155	107	32
25	26	17	15	15	18	26	52	384	593	194	98	30
26	25	15	15	16	18	27	51	499	569	384	90	29
27	22	11	12	16	19	28	50	676	576	534	90	28
28	22	14	14	15	18	35	48	874	569	402	96	27
29	24	17	14	16	18	50	54	937	499	330	84	26
30	18	16	14	16	---	65	77	883	414	290	76	28
31	22	---	12	17	---	71	---	973	---	325	72	---
Total	1,070	511	443	447	475	790	1,897	11,184	23,814	8,053	7,233	1,289
Mean	34.5	17.0	14.3	14.4	16.4	25.5	63.2	361	794	260	233	43.0
Max	48	22	18	17	19	71	92	973	1,190	534	485	77
Min	18	11	10	12	15	17	42	119	348	138	72	26
Ac-ft	2,120	1,010	879	887	942	1,570	3,760	22,180	47,230	15,970	14,350	2,560

Cal yr 1967: Total 38,910 Mean 107 Max 716 Min 10 Ac-ft 77,180
Wtr yr 1968: Total 57,206 Mean 156 Max 1,190 Min 10 Ac-ft 113,500

Peak discharge (base, 1,000 cfs).--June 1 (2100) 1,500 cfs (3.39 ft); June 16 (2100) 1,360 cfs (3.23 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 1968.

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, 120,800 acre-ft June 25 (elevation, 7,662.97 ft); minimum observed, 27,260 acre-ft Nov. 1 (elevation, 7,617.90).

1941-68: 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 1967 to September 1968

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	7,626.39	39,480	-
Oct. 31.....	7,618.04	27,430	-12,050
Nov. 30.....	7,618.87	28,500	+1,070
Dec. 31.....	7,620.55	30,740	+2,240
Calendar year 1967.....	-	-	-17,730
Jan. 31.....	7,622.20	33,060	+2,320
Feb. 29.....	7,623.72	35,300	+2,240
Mar. 31.....	7,626.06	38,950	+3,650
Apr. 30.....	7,631.57	48,420	+9,470
May 31.....	7,644.79	78,610	+30,190
June 30.....	7,662.85	120,470	+41,860
July 31.....	7,657.83	107,280	-13,190
Aug. 31.....	7,656.75	104,520	-2,760
Sept. 30.....	7,645.84	78,010	-26,510
Water year 1967-68.....	-	-	+38,530

† Elevation at 0900.

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 1968. 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.--41 years, 346 cfs (250,500 acre-ft per year).

Extremes.--Maximum daily discharge during year, 1,680 cfs June 22 (gage height, 3.68 ft); minimum daily, 21 cfs Nov. 2-12. 1927-68: 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-Loehr and Fuchs ditches (see elsewhere in this report).

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	397	63	22	22	22	23	26	176	720	788	566	570
2	397	21	22	22	22	23	26	176	731	736	509	570
3	397	21	22	22	22	23	26	189	736	736	509	565
4	393	21	22	22	23	23	26	199	748	736	518	565
5	385	21	22	22	23	23	26	199	753	736	518	565
6	377	21	22	22	23	23	27	205	764	731	522	560
7	373	21	22	22	23	23	27	258	770	731	522	560
8	373	21	22	22	23	23	27	291	775	731	522	560
9	373	21	22	22	23	24	38	318	775	731	522	560
10	369	21	22	22	23	24	22	337	781	720	522	570
11	369	21	22	22	23	24	22	361	781	700	522	599
12	365	21	22	22	23	24	22	377	781	700	522	608
13	341	22	22	22	23	24	22	377	988	694	522	604
14	330	22	22	22	23	24	22	377	1,190	694	522	604
15	330	22	22	22	23	24	22	377	1,110	694	522	604
16	330	33	22	22	23	24	22	377	1,110	694	522	604
17	326	49	22	22	23	24	22	377	1,310	694	522	599
18	326	66	22	22	23	24	22	393	1,460	694	522	580
19	291	66	22	22	23	24	22	414	1,660	694	522	556
20	195	66	22	22	23	24	22	422	1,520	700	556	556
21	186	66	22	22	23	24	22	443	1,490	715	580	551
22	186	66	22	22	23	24	22	465	1,680	710	580	551
23	186	66	22	22	23	26	22	500	1,500	710	580	546
24	183	66	22	22	23	26	22	560	1,220	710	580	546
25	164	40	22	22	23	26	22	594	1,270	710	580	551
26	154	22	22	22	23	26	22	594	1,200	694	580	527
27	154	22	22	22	23	26	22	608	1,030	684	580	509
28	154	22	22	22	23	26	22	644	974	674	580	504
29	154	22	22	22	23	26	58	659	974	664	575	504
30	154	22	22	22	- - - -	26	176	710	916	664	575	500
31	154	- - - -	22	22	- - - -	26	- - - -	715	- - - -	654	570	- - - -
Total	8,866	1,054	682	682	664	754	901	12,692	31,717	21,923	16,844	16,848
Mean	286	35.1	22.0	22.0	22.9	24.3	30.0	409	1,057	707	543	562
Max	397	66	22	22	23	26	176	715	1,680	788	580	608
Min	154	21	22	22	22	23	22	176	720	654	509	500
Ac-ft	17,590	2,090	1,350	1,350	1,320	1,500	1,790	25,170	62,910	43,480	33,410	33,420

Cal yr 1967: Total 99,101 Mean 272 Max 644 Min 21 Ac-ft 196,600
Wtr yr 1968: Total 113,627 Mean 310 Max 1,680 Min 21 Ac-ft 225,400

SAN JUAN RIVER BASIN

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 1968. 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.--18 years, 187 cfs (135,400 acre-ft per year).

Extremes.--Maximum discharge during year, 1,420 cfs July 31 (gage height, 5.85 ft); minimum, 25 cfs Nov. 24, result of freezeup.

1950-68: 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 June and July, which are fair and those for winter periods, which are poor. Flow regulated by Vallecito Reservoir (see sta. 9-3530). Diversions for irrigation of about 33,000 acres above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	129	131	45	37	35	99	122	75	167	306	395	152
2	133	96	43	41	30	100	128	77	170	221	287	152
3	137	69	40	35	30	95	116	100	185	209	236	148
4	143	61	40	31	31	92	124	120	215	221	243	145
5	135	56	42	28	33	87	94	117	206	225	216	136
6	128	54	44	29	36	86	94	140	192	220	237	139
7	124	52	39	30	40	112	88	114	200	229	192	144
8	129	53	39	31	50	119	81	103	249	225	210	142
9	129	52	39	33	56	114	76	106	253	205	187	135
10	130	50	35	34	62	106	84	123	260	192	228	142
11	125	48	31	40	68	79	78	125	250	186	270	148
12	119	47	36	30	75	61	90	252	236	173	241	165
13	119	46	37	33	78	55	102	333	286	176	217	168
14	99	45	39	26	76	55	103	263	598	162	229	160
15	84	43	40	29	70	55	104	228	791	161	226	170
16	86	42	36	34	60	54	111	215	997	148	211	178
17	86	41	35	37	57	54	107	229	1,100	138	202	180
18	84	40	37	31	55	56	93	178	1,210	141	190	199
19	82	39	38	31	55	54	91	174	1,320	136	168	182
20	113	38	33	33	57	54	87	173	1,220	132	130	170
21	139	37	30	33	58	54	85	133	835	140	158	170
22	140	35	35	35	57	54	99	128	1,060	142	155	168
23	153	33	40	36	59	54	103	133	1,030	137	150	172
24	164	30	40	36	62	62	88	136	821	202	145	168
25	156	35	40	38	74	74	83	215	702	201	145	172
26	141	58	40	41	77	76	75	155	772	217	150	172
27	136	46	42	43	82	79	69	146	580	250	172	155
28	136	44	39	44	87	81	50	143	469	250	155	142
29	139	46	44	45	93	84	42	138	444	250	155	148
30	141	45	40	43	-----	96	70	154	461	250	152	160
31	126	-----	33	42	-----	101	-----	164	-----	500	150	-----
TOTAL	3,885	1,512	1,191	1,089	1,703	2,402	2,737	4,890	17,279	6,345	6,202	4,782
MEAN	125	50.4	38.4	35.1	54.7	77.5	91.2	158	576	205	200	159
MAX	164	131	45	45	93	119	128	333	1,320	500	395	199
MIN	82	30	30	26	30	54	42	75	167	132	130	135
AC-FT	7,710	3,300	2,360	2,160	3,380	4,760	5,430	9,700	34,270	12,590	12,300	9,480
CAL YR 1967	TOTAL 37,109			MEAN 102	MAX 690	MIN 30	AC-FT 73,600					
WTR YR 1968	TOTAL 54,617			MEAN 148	MAX 1,320	MIN 26	AC-FT 107,100					

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 1968. 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.--18 years, 27.7 cfs (20,050 acre-ft per year).

Extremes.--Maximum discharge during year, 540 cfs Aug. 8 (gage height, 2.88 ft); minimum, about 1.5 cfs Jan. 14, result of freezeup. 1951-68: 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.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	6.3	6.6	2.2	3.7	7.5	4.8	49	46	49	138	45
2	45	6.7	5.6	2.5	3.8	6.8	5.9	19	48	50	96	46
3	57	5.7	5.9	2.3	3.9	6.2	5.4	13	49	50	60	43
4	59	5.3	5.4	2.1	4.0	5.8	6.0	8.8	49	54	58	44
5	52	5.3	5.5	1.9	4.3	5.3	4.0	11	44	59	55	41
6	52	5.2	5.6	2.0	5.1	5.3	3.6	20	40	58	62	42
7	47	5.1	5.8	2.2	6.1	8.0	3.5	17	39	58	75	44
8	47	5.0	6.0	2.3	7.5	12	3.1	16	56	58	211	42
9	45	5.0	6.3	2.4	9.2	11	2.9	21	62	56	70	40
10	45	5.0	5.0	2.6	11	12	2.8	23	60	65	139	37
11	45	4.9	3.8	2.2	13	9.4	2.8	32	56	59	92	43
12	46	4.7	4.3	1.9	16	6.0	2.6	53	54	58	67	42
13	44	4.7	4.6	2.1	19	5.3	2.7	80	52	63	59	46
14	47	4.8	4.7	1.7	20	4.7	2.9	59	52	59	57	54
15	41	4.7	4.8	2.3	20	4.5	2.9	40	53	63	55	57
16	43	4.9	5.0	3.3	18	4.3	2.7	42	51	59	49	58
17	45	4.9	4.3	5.0	18	4.3	2.7	50	49	55	45	55
18	46	5.4	4.4	4.6	17	3.9	2.6	31	49	52	47	62
19	46	8.1	4.7	4.2	17	3.8	2.4	35	53	51	45	54
20	41	8.1	3.9	4.4	17	3.7	2.4	29	48	46	47	55
21	15	11	3.0	4.5	17	3.4	2.5	33	48	49	53	58
22	8.7	12	3.2	4.6	17	2.3	3.3	36	48	50	59	57
23	7.0	12	3.4	4.8	18	3.3	4.1	28	54	49	53	63
24	6.0	11	3.6	5.0	18	3.3	3.4	33	57	50	49	63
25	6.4	12	3.1	5.3	20	3.2	3.1	35	54	58	51	55
26	6.4	8.7	2.6	5.5	14	3.3	3.1	48	52	90	55	56
27	5.8	7.1	2.2	5.8	12	3.3	3.1	45	49	83	66	55
28	5.8	6.9	2.4	6.0	9.6	3.4	8.3	35	47	87	54	58
29	6.0	7.1	2.5	4.5	8.0	3.4	14	42	50	83	48	56
30	6.3	7.2	2.2	4.9	-----	3.5	9.2	39	47	74	46	59
31	7.8	-----	1.9	4.2	-----	3.6	-----	44	-----	92	44	-----
TOTAL	1,019.2	204.8	132.3	109.3	367.2	166.8	122.8	1,066.8	1,516	1,887	2,105	1,530
MEAN	32.9	6.83	4.27	3.53	12.7	5.38	4.09	34.4	50.5	60.9	67.9	51.0
MAX	59	12	6.6	6.0	20	12	14	80	62	92	211	63
MIN	5.8	4.7	1.9	1.7	3.7	3.2	2.4	8.8	39	46	44	37
AC-FT	2,020	406	262	217	728	331	244	2,120	3,010	3,740	4,180	3,030
CAL YR 1967	TOTAL	9,974.2	MEAN	27.3	MAX	128	MIN	1.9	AC-FT	19,780		
WTR YR 1968	TOTAL	10,227.2	MEAN	27.9	MAX	211	MIN	1.7	AC-FT	20,290		

PEAK DISCHARGE (BASE, 180 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
8- 1	1315	2.52	341	8-10	1930	2.73	465
8- 8	1345	2.88	540				

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 1968. 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.--33 years, 104 cfs (75,290 acre-ft per year).

Extremes.--Maximum discharge during year, 1,250 cfs June 5 (gage height, 3.81 ft); minimum daily, 9.5 cfs Dec. 22.

1935-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	17	14	14	12	12	20	46	756	278	168	41
2	32	17	13	14	11	12	18	56	833	268	168	41
3	32	15	14	14	12	12	18	66	735	254	152	56
4	33	17	15	13	12	12	16	100	749	235	142	46
5	31	16	14	12	12	12	16	100	864	217	142	41
6	31	16	13	12	12	12	16	95	826	211	180	39
7	28	16	13	12	12	13	16	85	637	235	158	38
8	27	16	15	12	12	13	15	85	480	226	158	37
9	26	16	14	12	12	13	15	98	301	220	152	37
10	27	16	14	13	12	13	15	114	238	241	150	35
11	26	16	13	12	12	13	18	120	282	226	150	34
12	24	16	15	12	12	12	20	108	475	208	132	33
13	24	16	13	12	12	12	21	95	624	199	122	33
14	23	16	13	13	12	13	21	81	651	180	158	33
15	20	16	13	13	12	13	22	78	679	168	142	33
16	18	15	14	13	12	13	22	86	700	150	126	32
17	18	15	14	13	12	13	20	90	728	138	114	31
18	19	15	14	13	12	14	20	116	700	130	106	30
19	19	15	13	14	12	12	19	162	686	124	95	29
20	19	15	12	14	12	14	18	220	700	118	88	29
21	20	15	11	13	12	13	19	285	679	114	92	29
22	19	16	9.5	12	12	13	18	374	570	114	78	29
23	19	16	11	12	12	13	18	321	552	124	71	29
24	18	15	13	14	12	14	18	274	475	124	64	27
25	18	15	15	12	12	14	20	241	410	128	60	27
26	18	14	15	12	12	14	21	285	410	138	58	26
27	17	13	15	13	12	13	20	388	425	152	58	26
28	18	14	15	13	12	13	20	522	435	162	57	26
29	18	15	14	13	12	16	23	624	383	178	50	26
30	18	15	14	12	- - - - -	16	33	618	313	168	46	27
31	18	- - - - -	13	13	- - - - -	18	- - - - -	672	- - - - -	170	44	- - - - -
Total	710	465	418.5	396	347	410	576	6,605	17,296	5,598	3,481	1,000
Mean	22.9	15.5	13.5	12.8	12.0	13.2	19.2	213	577	181	112	33.3
Max	33	17	15	14	12	18	33	672	864	278	180	56
Min	17	13	9.5	12	11	12	15	46	238	114	44	26
Ac-ft	1,410	922	830	785	688	813	1,140	13,100	34,310	11,100	6,900	1,980

Cal yr 1967: Total 25,718.5 Mean 70.5 Max 637 Min 9.5 Ac-ft 51,010

Wtr yr 1968: Total 37,302.5 Mean 102 Max 864 Min 9.5 Ac-ft 73,990

Peak discharge (base, 700 cfs).--June 5 (2030) 1,250 cfs (3.81 ft); June 20 (2000) 992 (3.46 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 1968. 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.--40 years, 138 cfs (99,910 acre-ft per year).

Extremes.--Maximum discharge during year, 1,300 cfs May 29 (gage height, 3.75 ft); minimum daily, 11 cfs Dec. 22. 1912-14, 1919-28, 1939-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	22	15	13	16	36	231	259	1,060	128	120	44
2	34	22	13	14	16	41	189	300	1,070	117	136	45
3	34	16	14	14	18	42	153	328	1,000	112	115	45
4	36	19	15	13	18	44	125	320	960	110	96	43
5	34	20	14	13	18	47	122	320	1,000	108	85	38
6	32	19	15	12	19	52	128	340	894	110	82	38
7	31	19	14	13	20	58	120	312	744	100	84	35
8	31	17	15	14	22	54	105	344	635	98	84	34
9	30	18	14	14	21	50	98	400	500	89	96	31
10	29	19	14	15	21	44	115	409	422	91	89	31
11	30	18	16	15	23	42	174	392	388	94	93	30
12	29	19	16	13	23	38	231	400	418	84	84	31
13	27	19	15	13	23	38	245	376	505	80	77	30
14	26	19	14	14	23	41	224	360	545	74	160	28
15	25	17	14	15	23	36	245	384	550	67	142	28
16	24	15	15	15	20	39	245	445	540	63	108	27
17	25	15	15	15	21	39	220	454	525	60	93	27
18	25	15	14	15	23	38	195	515	481	57	82	27
19	24	15	15	15	21	37	174	580	422	56	77	27
20	23	15	13	16	24	36	153	712	396	56	70	27
21	23	16	12	16	25	35	153	948	388	54	75	27
22	23	16	11	15	26	35	142	1,120	348	53	64	27
23	23	16	13	15	25	41	125	1,020	316	54	60	27
24	22	15	15	16	27	52	115	828	280	59	56	25
25	22	16	14	16	30	77	117	673	245	56	52	24
26	22	15	15	15	30	78	122	762	214	67	50	24
27	20	13	13	15	37	94	115	882	198	82	54	24
28	22	14	14	16	35	133	112	1,050	189	77	59	24
29	23	16	14	15	35	183	128	1,110	174	100	50	24
30	17	16	14	15	---	224	192	1,110	150	84	47	25
31	20	---	13	16	---	231	---	1,100	---	125	45	---
Total	819	511	438	451	683	2,035	4,813	18,553	15,557	2,565	2,585	917
Mean	26.4	17.0	14.1	14.5	23.6	65.6	160	598	519	82.7	83.4	30.6
Max	36	22	16	16	37	231	245	1,120	1,070	128	160	45
Min	17	13	11	12	16	35	98	259	150	53	45	24
Ac-ft	1,620	1,010	869	895	1,350	4,040	9,550	36,800	30,860	5,090	5,130	1,820

Cal yr 1967: Total 19,857 Mean 54.4 Max 286 Min 11 Ac-ft 39,390
 Wtr yr 1968: Total 49,927 Mean 136 Max 1,120 Min 11 Ac-ft 99,030

Peak discharge (base, 800 cfs).--May 22 (0100) 1260 cfs (3.68 ft); May 29 (0100) 1300 cfs (3.75 ft).

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 1903 (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 1968. 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.--63 years (1896-1900, 1904-5, 1910-68), 846 cfs (612,500 acre-ft per year).

Extremes.--Maximum discharge during year, 5,980 cfs June 6 (gage height, 6.54 ft); minimum daily, 130 cfs Dec. 22. 1895-1905, 1910-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	245	185	191	148	194	224	674	737	4,970	1,440	1,070	364
2	245	185	182	179	176	240	629	960	5,540	1,360	1,120	358
3	250	185	170	168	179	250	556	1,140	5,580	1,280	1,160	352
4	255	170	165	160	182	250	491	1,170	5,060	1,190	1,020	370
5	255	185	168	148	170	260	463	1,190	5,460	1,100	930	340
6	255	182	170	145	170	270	470	1,200	5,620	1,090	940	320
7	260	185	179	158	179	300	463	1,070	5,140	1,060	940	315
8	255	185	176	170	182	300	428	1,040	4,340	1,130	890	305
9	240	182	176	170	170	300	407	1,210	2,950	1,080	950	295
10	240	185	152	176	165	285	414	1,300	2,310	1,130	930	285
11	245	176	162	185	168	275	470	1,310	1,930	1,200	920	275
12	240	162	176	155	173	255	588	1,370	2,250	1,080	890	265
13	228	162	179	155	176	250	701	1,310	3,460	990	773	240
14	220	173	170	176	182	255	674	1,180	4,020	910	940	236
15	212	170	200	179	179	250	701	1,130	4,270	845	1,400	236
16	197	176	194	179	176	250	737	1,250	4,420	791	980	228
17	200	173	191	185	176	250	692	1,280	4,610	728	845	216
18	200	182	139	182	188	250	629	1,430	4,450	701	755	212
19	204	168	131	176	188	240	580	1,640	4,200	665	665	216
20	197	162	160	182	188	232	526	2,200	3,710	638	604	212
21	194	170	150	188	191	240	519	2,600	4,000	620	588	212
22	173	191	130	182	197	236	505	3,660	3,680	580	564	216
23	173	191	160	173	191	240	477	3,640	3,080	588	526	220
24	170	179	191	185	197	255	449	3,030	2,960	620	491	212
25	185	176	182	188	216	295	449	2,370	2,390	674	449	208
26	182	176	185	185	208	320	456	2,580	2,240	791	421	197
27	182	162	170	185	220	340	449	3,240	2,210	970	414	197
28	173	165	173	197	236	376	421	3,980	2,210	1,070	421	194
29	173	179	185	173	232	470	414	4,630	2,090	1,000	400	191
30	185	194	188	179	---	564	519	4,690	1,750	980	382	200
31	179	---	165	191	---	629	---	4,760	---	1,000	370	---
Total	6,612	5,316	5,310	5,402	5,449	9,151	15,951	64,297	110,900	29,301	23,748	7,687
Mean	213	177	171	174	188	295	532	2,074	3,697	945	766	256
Max	260	194	200	197	236	629	737	4,760	5,620	1,440	1,400	370
Min	170	162	130	145	165	224	407	737	1,750	580	370	191
Ac-ft	13,110	10,540	10,530	10,710	10,810	18,150	31,640	127,500	220,000	58,120	47,100	15,250

Cal yr 1967: Total 179,746 Mean 492 Max 3,140 Min 110 Ac-ft 356,500

Wtr yr 1968: Total 289,124 Mean 790 Max 5,620 Min 130 Ac-ft 573,500

Peak discharge (base, 4,000 cfs)--June 6 (1330) 5,980 cfs (6.54 ft); June 17 (1000) 4,920 cfs (6.00 ft).

Location.--Lat 37°14'42", long 107°47'28", in SW $\frac{1}{4}$ sec.18, T.35 N., R.8 W., on right bank 30 ft downstream from diversion dam for Florida Farmers ditch and 4.0 miles east of Riverview School in Durango.

Extremes.--Maximum discharge during year, 432 cfs June 6 (gage height, 4.36 ft); from rating curve extended above 180 cfs on basis of peak flow-over-dam; minimum daily, 0.80 cfs Dec. 9.

Remarks.--Records good except those for winter period, which are poor. Flow regulated by Lemon Reservoir (capacity, 40,100 acre-ft). Diversions above station for irrigation above and below station and for municipal supply of Durango.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.0	4.7	3.5	5.5	6.5	9.5	45	18	29	18	16	18
2	7.5	4.3	2.3	6.0	6.0	10	39	5.0	43	15	13	18
3	7.0	3.7	3.5	6.5	6.5	11	34	5.5	161	12	10	18
4	7.5	4.1	3.7	6.5	7.0	11	30	9.5	388	13	10	18
5	7.0	4.1	3.2	6.0	7.0	11	16	8.3	417	14	13	18
6	6.2	4.1	3.2	6.0	7.5	13	9.1	6.8	426	15	23	18
7	6.0	4.1	2.6	6.0	8.3	15	17	2.8	276	12	31	18
8	5.8	4.3	1.8	5.5	8.3	12	25	4.3	143	12	37	18
9	6.0	4.3	.80	5.5	8.3	9.5	24	6.8	125	15	42	18
10	6.5	4.3	.90	6.0	7.9	7.5	25	11	53	14	56	18
11	6.2	4.1	4.8	6.5	7.9	7.5	26	4.3	30	10	56	17
12	6.2	4.1	7.9	6.0	7.9	6.8	31	72	26	10	55	17
13	5.8	4.1	6.5	5.5	7.5	7.9	36	96	26	11	57	17
14	6.5	4.1	6.8	5.5	7.5	7.5	33	62	26	8.3	62	17
15	8.7	5.0	7.9	5.5	7.9	6.8	32	55	25	8.7	61	16
16	8.7	5.0	7.2	6.0	8.3	7.9	34	56	25	9.1	61	14
17	8.3	4.8	5.8	6.0	8.7	7.0	26	47	109	9.5	61	12
18	7.5	4.8	5.0	6.0	8.7	6.8	22	40	352	10	59	10
19	7.0	4.3	5.5	6.0	7.5	7.2	24	38	231	11	38	9.5
20	7.5	3.7	6.0	5.5	7.9	7.9	26	37	83	9.5	22	9.5
21	9.1	3.5	5.0	5.5	8.3	6.8	27	16	103	9.1	18	9.1
22	8.3	3.2	4.5	5.5	8.7	7.5	27	11	138	9.1	15	9.1
23	7.9	3.5	5.0	6.0	7.5	9.5	25	14	118	8.7	14	9.1
24	7.0	2.6	5.0	6.5	9.1	12	24	18	78	8.7	16	7.5
25	5.2	2.8	5.5	6.5	8.3	18	23	19	48	10	18	6.8
26	4.8	2.5	5.5	6.5	8.7	20	23	18	25	13	18	6.8
27	4.6	2.5	5.5	7.0	9.9	24	24	23	21	16	18	6.2
28	4.6	4.1	5.5	7.5	9.5	26	23	28	20	13	18	6.2
29	4.3	4.1	6.0	7.5	8.7	30	24	33	20	14	18	6.2
30	7.7	3.7	6.0	7.5	-----	35	30	26	18	16	18	6.0
31	9.9	-----	5.5	7.0	-----	37	-----	24	-----	15	18	-----
Total	213.3	118.5	147.90	191.0	231.8	408.6	804.1	815.3	3,583	369.7	972	392.0
Mean	6.88	3.95	4.77	6.16	7.99	13.2	26.8	26.3	119	11.9	31.4	13.1
Max	9.9	5.0	7.9	7.5	9.9	37	45	96	426	18	62	18.0
Min	4.3	2.5	0.80	5.5	6.0	6.8	9.1	2.8	18	8.3	10	6.0
Ac-ft	423	235	293	379	460	810	1,590	1,620	7,110	733	1,930	778

Cal yr 1967: Total	-	Mean	-	Max	-	Min	-	Ac-ft	-
Wtr yr 1968: Total	8,247.20	Mean	22.5	Max	426	Min	0.80	Ac-ft	16,360

9-3631. Salt Creek near Oxford, Colo.

Location.--Lat 37°08'20", long 107°45'10", in NE¼ sec.6, T.33 N., R.8 W., on right bank 2½ miles upstream from mouth, 3 miles southwest of Oxford, and 11 miles southeast of Durango.

Drainage area.--16.2 sq mi.

Records available.--October 1956 to September 1963, October 1967 to September 1968.

Gage.--Water-stage recorder. Altitude of gage is 6,470 ft (from topographic map). Prior to October 1967 at site a quarter of a mile upstream at different datum.

Average discharge.--8 years, 11.9 cfs (8,620 acre-ft per year).

Extremes.--Maximum discharge during year, 237 cfs Aug. 10 (gage height, 3.54 ft); minimum daily, 0.10 cfs Dec. 22.
1956-63, 1967-68: Maximum discharge, 713 cfs Aug. 6, 1957 (gage height, 5.18 ft, site and datum then in use), from rating curve extended above 60 cfs on basis of computation of peak flow through culverts and over roadway; no flow at times in 1959-60, 1962.

Remarks.--Records good except those for winter period, which are poor. Water imported from Los Pinos River. Most of flow is return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	20	4.1	0.30	0.72	15	0.88	4.3	17	22	46	24
2	18	16	3.4	.40	.72	18	1.1	2.4	16	19	37	24
3	17	6.8	2.4	.40	.72	19	1.7	1.9	18	17	27	21
4	17	6.3	1.4	.40	.72	14	3.2	6.9	18	20	24	18
5	16	5.9	1.4	.30	.72	11	1.0	9.3	17	29	22	22
6	16	5.3	1.2	.30	.64	9.4	.80	11	16	24	47	20
7	14	5.3	.80	.40	.57	19	.64	8.8	20	27	33	22
8	14	5.3	.70	.40	.50	12	.57	7.8	26	29	43	22
9	15	5.3	.60	.40	.43	11	.57	7.5	26	24	31	23
10	15	4.9	.50	.30	.57	8.2	.50	14	25	24	39	22
11	19	4.6	.36	.36	.72	5.5	.43	11	24	24	37	23
12	22	4.7	.36	.36	.80	2.8	.43	28	22	23	33	29
13	26	3.9	.30	.36	.88	2.3	.36	27	24	23	27	30
14	18	4.7	.36	.25	.80	2.6	.30	23	27	26	28	29
15	17	4.6	.40	.43	.80	2.4	.36	19	21	25	27	30
16	17	4.9	.40	.25	.88	3.0	.57	18	16	22	27	25
17	17	4.9	.30	.23	.96	2.4	.57	19	17	19	24	24
18	17	6.1	.30	.23	1.0	3.3	.50	17	17	19	23	25
19	20	4.1	.30	.21	2.4	1.9	.43	16	24	24	26	24
20	22	3.5	.40	.19	4.0	1.8	.43	14	24	22	24	22
21	17	3.2	.30	.19	4.0	2.7	.43	11	20	22	24	22
22	16	2.3	.10	.19	3.6	2.7	.64	12	17	19	22	24
23	17	1.8	.30	.19	5.0	4.3	.88	18	20	20	23	26
24	16	3.0	.40	.19	5.5	3.4	.72	25	19	27	24	24
25	17	3.5	.40	.19	7.5	1.8	.50	13	16	38	26	27
26	17	3.0	.30	.21	9.0	1.1	.43	8.2	17	38	27	29
27	18	2.5	.30	.21	10	.96	1.3	15	24	36	30	29
28	18	3.5	.40	.30	15	.80	4.4	16	24	29	27	27
29	20	3.3	.40	.36	15	.72	3.8	17	22	27	27	28
30	24	4.1	.40	.43	-----	.72	1.0	16	20	31	29	33
31	24	-----	.40	.60	-----	.72	-----	14	-----	36	28	-----
Total	559	157.3	23.68	9.53	94.15	184.52	29.44	431.1	61.4	785	912	748
Mean	18.0	5.24	0.76	0.31	3.25	5.95	0.98	13.9	20.5	25.3	29.4	24.9
Max	26	20	4.1	0.60	15	19	4.4	28	27	38	47	33
Min	14	1.8	0.10	0.19	0.43	0.72	0.30	1.9	16	17	22	18
Ac-ft	1,110	312	47	19	187	366	58	855	1,220	1,560	1,810	1,480

Cal yr 1967: Total - Mean - Max - Min - Ac-ft -
Wtr yr 1968: Total 4,547.72 Mean 12.4 Max 47 Min 0.10 Ac-ft 9,020

Location.--Lat 37°03'20", long 107°52'10", in S $\frac{1}{2}$ sec.31, T.33 N., R.9 W., on left bank 0.6 mile upstream from mouth, 0.7 mile south-east of Bondad, and 15 miles south of Durango.

Records available.--October 1956 to September 1963, October 1967 to September 1968.

Average discharge.--7 years (1956-63), 77.8 cfs (56,320 acre-ft per year) prior to completion of Lemon Reservoir.

Extremes.--Maximum discharge during year, 620 cfs Aug. 10 (gage height, 4.83 ft); minimum daily, 13 cfs Dec. 22. 1956-63, 1967-68: Maximum discharge determined, 1,430 cfs June 7, 1958 (gage height, 4.35 ft), but may have been higher on July 26, 1957; minimum daily, 4.6 cfs July 24, 1959.

Remarks.--Records good except those for winter period, which are poor. Diversion for irrigation of about 20,000 acres above station. Flow is regulated by Lemon Reservoir (capacity, 40,100 acre-ft) since November 1963. Most of flow is return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	41	28	16	20	44	52	40	30	70	118	54
2	46	38	16	19	19	46	56	29	33	70	112	55
3	44	25	16	17	19	50	56	19	54	65	92	49
4	44	25	18	17	19	49	51	22	277	61	79	47
5	46	24	16	16	18	42	45	30	370	68	75	50
6	45	23	18	16	18	41	29	31	394	62	90	52
7	44	22	16	17	19	55	19	30	378	69	101	54
8	43	22	18	18	20	57	30	26	188	69	105	51
9	40	22	15	18	18	48	36	23	195	60	101	51
10	36	22	14	19	18	45	36	30	134	58	165	52
11	38	22	15	20	20	36	36	31	89	62	130	54
12	41	22	18	17	23	25	39	60	72	54	116	65
13	44	21	17	17	23	23	43	130	69	56	105	69
14	37	19	18	19	22	27	44	110	63	56	112	66
15	37	20	19	19	20	26	42	84	63	60	108	69
16	36	19	19	20	22	25	43	82	55	54	106	68
17	39	19	17	20	22	26	42	78	57	52	103	66
18	36	19	15	20	25	25	35	68	263	50	97	68
19	37	20	14	19	27	23	22	61	308	55	94	68
20	38	19	17	20	25	22	25	56	154	55	68	62
21	39	19	16	20	30	22	38	44	99	50	61	63
22	40	18	13	19	32	19	41	29	168	48	55	66
23	42	16	18	19	30	25	41	30	195	45	52	69
24	43	15	20	20	35	27	37	39	140	47	52	63
25	40	17	20	20	38	28	25	33	120	69	56	69
26	43	16	19	20	37	30	20	25	79	89	58	66
27	40	16	18	20	39	32	19	28	70	123	58	69
28	41	20	19	20	44	34	32	33	70	86	58	63
29	42	25	20	19	47	39	36	31	72	107	58	63
30	43	25	20	19	- - - -	43	33	30	70	82	57	69
31	43	- - - -	17	20	- - - -	45	- - - -	28	- - - -	89	56	- - - -
Total	1,273	651	544	580	749	1,079	1,103	1,390	4,319	2,041	2,698	1,830
Mean	41.1	21.7	17.5	18.7	25.8	34.8	36.8	44.8	144	65.8	87.0	61.0
Max	46	41	28	20	47	57	56	130	394	123	165	69
Min	36	15	13	16	18	19	19	19	30	45	52	47
Ac-ft	2,520	1,290	1,080	1,150	1,490	2,140	2,190	2,760	8,570	4,050	5,350	3,630
Cal yr 1967: Total	-	-	Mean	-	Max	-	Min	-	Ac-ft	-	-	-
Wtr yr 1968: Total	18,257		Mean	49.9	Max	394	Min	13	Ac-ft	36,210		

SAN JUAN RIVER BASIN

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 1968. Monthly discharge only for October and November 1933, published in VSP 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. Oct. 1, 1946, to Sept. 12, 1966, graphic water-stage recorder at same site.

Average discharge.--35 years, 589 cfs (643,600 acre-ft per year).

Extremes.--Maximum discharge during year, 6,960 cfs June 6 (gage height, 8.84 ft); minimum, 128 cfs Dec. 19, 22, result of freezeup. 1933-68: 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 May and June, which are fair and those for winter period, which are poor. 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.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	306	250	231	170	219	304	798	721	5,180	1,620	1,300	417
2	298	245	222	200	202	309	751	899	5,490	1,470	1,380	414
3	310	231	208	192	200	327	701	1,030	5,850	1,390	1,400	397
4	310	215	204	182	206	329	612	1,080	5,750	1,300	1,270	416
5	294	224	204	172	192	324	561	1,120	6,150	1,200	1,140	398
6	303	221	200	173	196	340	559	1,160	6,380	1,170	1,180	381
7	306	220	206	180	205	404	547	1,070	5,820	1,160	1,220	371
8	305	219	210	190	210	392	516	1,010	4,570	1,240	1,120	363
9	298	215	203	198	209	389	498	1,160	3,370	1,200	1,160	350
10	294	217	177	205	207	354	500	1,330	2,470	1,200	1,350	344
11	296	212	194	194	205	327	564	1,350	2,040	1,350	1,220	333
12	303	198	204	188	216	300	699	1,580	2,300	1,180	1,170	333
13	296	195	237	182	221	287	812	1,560	3,420	1,040	1,000	320
14	274	198	189	200	233	293	801	1,360	4,090	955	1,030	308
15	267	198	237	204	226	289	791	1,230	4,350	870	1,610	314
16	255	198	231	222	229	279	837	1,310	4,550	798	1,330	319
17	264	198	217	205	225	284	811	1,370	4,610	736	1,110	291
18	262	202	191	208	250	278	723	1,390	4,680	693	979	287
19	262	195	157	198	253	264	658	1,580	4,540	660	875	297
20	258	195	197	202	243	256	615	2,010	3,850	636	769	286
21	251	198	170	208	264	257	600	2,440	4,160	618	714	289
22	240	216	152	208	280	271	601	3,370	4,080	568	716	297
23	240	223	182	200	266	303	559	3,690	3,550	575	652	304
24	241	210	218	210	269	325	516	3,150	3,380	624	609	299
25	247	209	210	218	289	363	503	2,430	2,860	674	563	297
26	251	209	210	208	292	398	512	2,440	2,490	799	530	290
27	244	198	195	209	299	421	504	3,020	2,290	1,110	490	291
28	239	200	205	218	320	456	476	3,720	2,320	1,220	501	284
29	242	222	210	190	314	546	444	4,460	2,200	1,180	483	282
30	250	227	212	202	-----	650	499	4,800	1,920	1,120	448	292
31	246	-----	200	216	-----	718	-----	4,940	-----	1,170	435	-----
TOTAL	8,452	6,358	6,283	6,152	6,940	11,037	18,568	63,780	118,710	31,526	29,754	9,864
MEAN	273	212	203	198	239	356	619	2,057	3,957	1,017	960	329
MAX	310	250	237	222	320	718	837	4,940	6,380	1,620	1,610	417
MIN	239	195	152	170	192	256	444	721	1,920	568	435	282
AC-FT	16,760	12,610	12,460	12,200	13,770	21,890	36,830	126,500	235,500	62,530	59,020	19,560
CAL YR 1967	TOTAL 193,173			MEAN 529		MAX 3,190	MIN 140	AC-FT 383,200				
WTR YR 1968	TOTAL 317,424			MEAN 867		MAX 6,380	MIN 152	AC-FT 629,600				

PEAK DISCHARGE (BASE, 4,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-23	1100	7.15	4,020	6- 6	1600	8.84	6,960	6-21	1230	7.63	4,840
6- 3	1600	8.55	6,350	6-18	1030	7.83	5,280				

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 1968. 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.--52 years (1905-6, 1917-68), 45.2 cfs (32,720 acre-ft per year).

Extremes.--Maximum discharge during year, 550 cfs June 1 (gage height, 3.86 ft); minimum not determined.

1904-6, 1910, 1917-68: 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; no flow part of Oct. 24, 1966, caused by filling of pond upstream.

Maximum flood known occurred Oct. 5, 1911.

Remarks.--Records good 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	3.7				10	91	75	434	36	67	16
2	12	3.4				10	70	106	416	31	75	15
3	12	3.4				9.5	56	123	344	30	59	15
4	12	3.1				9.5	46	127	303	36	49	13
5	12	3.7				9.3	43	116	358	36	46	11
6	11	4.0				10	42	103	295	42	42	11
7	11	4.5				12	37	86	228	40	40	10
8	11	4.5				14	35	93	187	33	34	9.6
9	11	4.5				16	34	116	132	40	40	9.2
10	10	4.5				17	36	120	91	40	43	8.8
11	10	4.5				18	44	110	71	40	48	8.8
12	9.7	4.5				18	62	134	111	37	42	9.2
13	9.7	5.5				15	75	113	190	36	34	8.4
14	9.0	5.5				14	75	91	244	34	73	8.4
15	8.5	5.5				14	80	83	232	31	75	8.0
16	8.5	6.0	4.5	5.5	6.5	13	83	88	221	31	59	8.0
17	8.0	6.5				13	75	91	209	29	49	8.0
18	8.0	6.5				12	68	106	187	27	41	7.8
19	8.5	6.5				12	62	134	160	25	35	7.5
20	8.0	6.5				11	56	202	168	26	32	7.5
21	8.0	6.5				11	54	282	179	24	32	7.2
22	8.0	6.5				12	52	296	160	24	29	7.2
23	8.0	6.5				12	47	271	139	24	25	7.2
24	8.0	5.5				14	43	213	122	23	22	7.2
25	8.0	5.0				15	42	157	91	27	21	7.2
26	7.0	5.0				19	42	179	77	42	21	7.0
27	7.0	5.0				22	42	244	77	44	24	7.0
28	6.5	4.0				27	43	303	65	44	22	6.8
29	6.5	4.5				34	44	331	52	61	19	6.5
30	5.5	4.5				56	52	362	41	49	17	6.5
31	5.0					78		384		59	17	
Total	278.4	149.8	139.5	170.5	188.5	557.3	1,631	5,239	5,584	1,101	1,232	270.0
Mean	8.98	4.99	4.5	5.5	6.5	18.0	54.4	169	186	35.5	39.7	9.0
Max	12	6.5	-	-	-	78	91	384	434	61	75	16
Min	5.0	3.1	-	-	-	9.3	34	75	41	23	17	6.5
Ac-ft	552	297	277	338	374	1,110	3,240	10,390	11,080	2,180	2,440	536

Cal yr 1967: Total 9,752.2 Mean 26.7 Max 162 Ac-ft 19,340
 Wtr yr 1968: Total 16,541.0 Mean 45.2 Max 434 Min - Ac-ft 32,810

Peak discharge (base, 230 cfs).--June 1 (2300) 550 cfs (3.86 ft); June 15 (2230) 307 cfs (3.33 ft).

Note.--No gage-height record Dec. 4 to Mar. 22.

9-3665. La Plata River at Colorado-New Mexico State line

Location.--Lat 36°59'59", long 108°11'17", in NW¼SE¼ 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 1968. 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.--48 years, 33.2 cfs (24,040 acre-ft per year).

Extremes.--Maximum discharge during year, 652 cfs Aug. 10 (gage height, 3.97 ft); minimum daily, 1.6 cfs Oct. 9.

1920-68: 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.8	3.6	2.8			7.6	57	19	159	23	50	5.2
2	2.8	3.6	2.8			7.6	70	38	165	21	59	4.8
3	5.1	3.6	2.4			7.6	56	48	124	21	39	3.0
4	5.4	3.9				7.6	49	53	52	21	32	3.0
5	3.3	3.9				8.0	39	56	75	22	23	3.5
6	2.6	3.9				8.0	36	55	74	29	32	2.8
7	2.0	3.9			4.0	12	32	40	47	32	21	2.5
8	1.8	3.9				18	25	34	69	23	12	2.2
9	1.6	3.9				20	21	37	97	20	11	2.0
10	1.8	3.6				19	17	48	48	23	153	2.0
11	2.0	3.6				18	18	50	65	24	84	2.0
12	2.0	3.6				16	19	53	59	21	27	2.2
13	2.0	3.6				17	29	64	85	19	17	2.5
14	1.8	3.6				20	51	41	98	15	19	2.5
15	2.0	3.6			8.4	20	43	29	61	12	29	2.2
16	2.2	3.6		5.0	8.0	18	39	36	69	10	22	2.5
17	2.6	3.6			8.0	12	36	36	70	9.2	20	2.2
18	2.8	3.6	4.5		9.2	12	34	40	82	6.4	21	2.2
19	3.0	3.6			9.6	11	41	49	66	4.8	18	2.2
20	3.0	3.6			11	11	36	61	69	5.2	14	2.5
21	3.0	3.6			12	9.2	34	105	84	6.0	13	2.2
22	3.0	3.6			14	8.4	36	135	65	8.0	12	2.2
23	3.0	3.3			12	8.4	29	103	64	12	8.0	2.2
24	3.0	3.3			14	9.2	20	63	81	10	7.2	2.2
25	3.0	3.0			12	15	15	58	75	5.2	6.4	2.2
26	3.3	2.2			12	23	14	75	57	5.6	6.0	2.2
27	3.3	2.0			9.2	28	14	85	57	16	6.8	2.2
28	3.3	2.2			8.0	31	12	96	56	49	11	2.0
29	3.3	2.6			7.8	35	11	117	46	71	8.6	2.0
30	3.3	2.6			- - - -	38	13	149	33	10	6.8	1.8
31	3.6	- - - -			- - - -	48	- - - -	161	- - - -	16	5.6	- - - -
Total	87.7	102.2	134.0	155.0	211.2	523.6	946	2,034	2,252	570.4	794.4	75.2
Mean	2.83	3.41	4.32	5.0	7.28	16.9	31.5	65.6	75.1	18.4	25.6	2.51
Max	5.4	3.9	-	-	14	48	70	161	165	71	152	5.2
Min	1.6	2.0	2.4	-	-	7.6	11	19	33	4.8	5.6	1.8
Ac-ft	174	203	266	307	419	1,040	1,880	4,030	4,470	1,130	1,580	149

Cal yr 1967: Total 5,121.7 Mean 14.0 Max 94 Min 0 Ac-ft 10,160
 Wtr yr 1968: Total 7,885.7 Mean 21.5 Max 165 Min 1.6 Ac-ft 15,640

9-3710. Mancos River near Towaoc, Colo.

Location (revised).--Lat 37°01'39", long 108°44'27", 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 1968. 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.--40 years, 50.6 cfs (36,630 acre-ft per year).

Extremes.--Maximum discharge during year, 1,030 cfs July 28 (gage height, 4.18 ft); no flow July 4, 5, 16-25, Sept. 16, 17.

1920-43, 1941-68: 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 fair 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.7	6.2	8.0	7.5	14	41	53	62	161	6.4	88	5.0
2	3.2	6.8	7.4	5.5	13	42	59	70	92	2.9	37	3.8
3	3.5	6.2	2.9	7.5	14	48	45	69	115	.90	83	2.6
4	5.0	4.7	4.1	5.5	15	48	48	69	110	0	41	1.7
5	5.6	5.6	7.4	4.5	17	41	36	67	130	0	45	.90
6	4.7	5.6	8.0	4.0	19	40	32	72	136	.07	29	.60
7	3.5	6.2	7.5	4.5	20	41	32	77	126	17	43	.10
8	3.5	5.6	8.0	5.0	22	50	30	74	104	17	20	.07
9	3.8	5.0	6.5	5.5	22	37	26	66	86	11	20	.30
10	3.8	5.0	7.0	6.0	22	50	24	70	55	9.8	24	.90
11	3.8	5.6	8.0	7.0	24	36	24	66	34	4.4	87	.10
12	3.8	6.2	8.0	6.5	24	42	32	88	23	3.5	85	.07
13	3.2	5.6	6.5	6.0	25	30	43	134	15	1.1	75	.05
14	2.9	5.6	6.5	6.0	24	30	41	81	13	.08	343	.07
15	3.5	6.2	9.0	6.5	22	34	32	53	20	.02	275	.05
16	3.2	6.8	9.5	6.5	22	29	35	46	29	0	59	0
17	2.6	6.8	9.0	7.0	20	29	36	45	30	0	76	0
18	3.2	4.7	7.5	7.0	22	28	32	41	30	0	28	.05
19	3.5	6.8	9.0	6.5	24	25	30	48	29	0	22	.10
20	2.6	8.0	10	6.5	28	25	31	66	22	0	19	.08
21	3.2	8.0	8.5	7.0	34	25	31	103	20	0	20	.08
22	3.2	9.2	7.0	7.0	32	24	32	140	24	0	18	.08
23	4.4	9.2	6.0	6.5	32	26	42	124	17	0	15	.08
24	5.0	9.2	7.5	6.5	37	35	43	76	13	0	10	.08
25	6.2	5.6	7.0	7.0	46	45	40	40	12	0	8.0	.09
26	7.4	6.8	7.5	7.0	52	45	38	26	10	8.0	5.0	.08
27	6.2	3.8	9.0	8.0	48	45	41	87	7.4	122	13	.08
28	5.0	3.2	8.5	26	48	42	36	168	5.6	324	15	.09
29	4.7	9.8	7.5	22	48	45	30	224	8.0	87	10	.08
30	5.6	8.0	7.0	18	---	52	37	236	10	58	62	.30
31	5.6	---	8.0	14	---	52	---	256	---	41	4.7	---
Total	130.1	192.0	233.3	250.0	790	1,182	1,091	2,844	1,487.0	714.17	1,843.9	17.58
Mean	4.20	6.40	7.53	8.06	27.2	38.1	36.4	91.7	49.6	23.0	59.5	0.59
Max	7.4	9.8	10	26	52	52	59	256	161	324	343	5.0
Min	2.6	3.2	2.9	4.0	13	24	24	26	5.6	0	4.7	0
Ac-ft	258	381	463	496	1,570	2,340	2,160	5,640	2,950	1,420	3,660	35

Cal yr 1967: Total 4,856.72 Mean 13.3 Max 318 Min 0 Ac-ft 9,630
Wtr yr 1968: Total 10,775.05 Mean 29.4 Max 343 Min 0 Ac-ft 21,370

Peak discharge (base, 700 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
7-28	0400	4.18	1,030	8-14	2400	3.99	867
8-2	0830	4.10	960				

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 1968.

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

Average discharge.--17 years, 42.0 cfs (30,410 acre-ft per year).

Extremes.--Maximum discharge during year, 1,010 cfs Aug. 2 (gage height, 6.05 ft); minimum daily, 17 cfs Jan. 6.

1951-68: Maximum discharge, 3,040 cfs Aug. 7, 1967 (gage height, 7.58 ft, from high-water mark in well), from rating curve extended above 2,100 cfs; minimum daily, 0.1 cfs for several days in 1951, 1956.

Remarks.--Records good except those for winter period, which are poor. 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 1967 to September 1968

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	35	44	32	40	49	26	20	20	53	184	68
2	46	33	35	26	35	43	29	23	26	46	330	60
3	46	35	28	34	39	40	33	21	33	43	158	58
4	48	30	35	28	39	39	37	25	49	44	133	56
5	47	32	34	19	34	37	30	23	52	50	111	54
6	40	32	36	17	35	37	28	39	59	60	102	54
7	37	28	33	19	37	47	35	35	64	83	162	53
8	37	29	36	22	37	65	32	33	73	86	133	54
9	34	32	27	26	40	62	29	35	83	59	126	56
10	32	32	30	28	44	70	27	44	84	49	139	47
11	33	32	34	34	54	58	26	52	75	44	193	42
12	35	30	35	30	64	68	25	87	68	37	153	43
13	37	30	27	26	62	49	24	177	70	37	117	37
14	35	28	28	28	62	44	24	112	64	35	278	35
15	34	28	42	30	52	47	24	71	64	36	353	29
16	34	27	42	30	49	44	22	64	64	34	141	27
17	34	28	40	32	52	44	22	71	64	26	97	28
18	33	29	33	32	56	44	26	79	62	30	95	33
19	32	33	42	30	94	35	35	78	58	35	92	36
20	32	33	44	30	102	33	39	71	56	33	79	36
21	32	34	36	32	99	33	35	67	60	29	81	30
22	34	36	28	32	92	30	33	46	67	32	73	30
23	34	36	27	30	106	29	30	42	67	36	78	30
24	35	36	29	30	116	30	24	46	64	58	75	28
25	36	36	28	32	124	30	21	49	62	73	65	27
26	36	34	30	32	106	33	24	50	62	117	59	26
27	36	33	37	36	76	33	28	42	60	179	126	28
28	35	32	36	100	68	33	28	29	62	153	95	30
29	34	44	34	80	56	28	24	24	60	109	71	34
30	34	46	32	60	-----	27	20	24	56	153	64	37
31	33	-----	36	50	-----	26	-----	22	-----	124	58	-----
Total	1,131	983	1,058	1,067	1,870	1,287	840	1,601	1,808	1,983	4,031	1,206
Mean	36.5	32.8	34.1	34.4	64.5	41.5	28.0	51.6	60.3	64.0	130	40.2
Max	48	46	44	100	124	70	39	177	84	179	363	68
Min	32	27	27	17	34	26	20	20	20	26	58	26
Ac-ft	2,240	1,950	2,100	2,120	3,710	2,550	1,670	3,180	3,590	3,930	8,000	2,390

Cal yr 1967: Total 17,054.5 Mean 46.7 Max 1,200 Min 6.0 Ac-ft 33,830
 Wtr yr 1968: Total 18,865 Mean 51.5 Max 363 Min 17 Ac-ft 37,420

Peak discharge (base, 500 cfs)

Date	Time	Gage height	Discharge	Date	Time	Gage height	Discharge
7-30	2130	5.94	948	8-10	0130	5.19	556
8- 2	0900	6.05	1,010	8-15	0130	5.36	624

Transmountain diversions from Arkansas River basin to South Platte River basin in Colorado

7-0863. Aurora-Homestake pipeline diverts water from Arkansas River in sec.8, T.12 S., R.79 W., to Elevenmile Canyon Reservoir (South Platte River) in sec.29, T.13 S., R.72 W., in South Platte River basin. Diversion began Aug. 24, 1967. Pipeline is equipped with a discharge recorder and venturi meter. Records furnished by State engineer. Diversions for water year October 1967 to September 1968 are given below.

Diversions in acre-feet, water year October 1967 to September 1968												Water year
Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
323	372	26	0	1,000	708	655	676	1,670	1,430	728	835	8,420

Transmountain diversions from Colorado River basin in Colorado

There are 23 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.), in Colorado River basin, 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.

9-0637. Homestake tunnel diverts water from Homestake Lake (Middle Fork Homestake Creek), in sec.17, T.8 S., R.81 W., in Eagle River basin, to Lake Fork in sec.10, T.9 S., R.81 W., in Arkansas River basin. Water is imported to Homestake Lake from tributaries of Homestake Creek by collection conduits that extend from right bank of French Creek in sec.28, T.7 S., R.81 W., and left bank of East Fork Homestake Creek in sec.9, T.8 S., R.81 W., and intercept intermediate tributaries.

Transmountain diversions from Colorado River basin in Colorado--Continued

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.2, T.11 S., R.83 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.

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-Lohr 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 1967 to September 1968

Diversion	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Water year
TO PLATTE RIVER BASIN													
9-0100. Grand River ditch.....	0	0	0	0	0	0	0	0	6,730	6,910	2,370	246	16,260
9-0120. Eureka ditch.....	0	0	0	0	0	0	0	0	25	26	11	0	63
9-0130. Alva B. Adams tunnel.....	17,630	14,350	22,110	26,740	21,980	21,440	13,780	11,690	1,680	17,340	14,900	15,020	198,600
9-0215. Berthoud Pass ditch.....	0	0	0	0	0	0	0	0	331	327	50	0	708
9-0225. Moffat water tunnel.....	1,910	1,770	1,250	976	783	783	964	3,900	30,350	15,550	5,690	3,220	67,340
9-0460. Boreas Pass ditch.....	0	0	0	0	0	0	0	0	7.1	35	0	0	42
9-0505.9. Harold D. Roberts tunnel.	4,690	722	1,870	2,010	2,180	3,560	2,050	5,290	1,460	7,670	9,300	4,850	45,660
Total.....	24,230	16,840	25,230	29,730	24,940	25,780	16,790	20,880	40,780	47,860	32,320	23,340	328,700
TO ARKANSAS RIVER BASIN													
9-0420. Hoosier Pass tunnel.....	0	0	0	0	0	0	0	597	5,000	2,450	900	1,130	10,080
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	70	1,260	234	181	0	1,750
9-0620. Ewing ditch.....	0	0	0	0	0	0	0	127	570	200	121	0	1,020
9-0625. Wurtz ditch.....	0	0	0	0	0	0	0	271	1,570	244	182	0	2,270
9-0637. Homestake tunnel.....	0	0	0	0	0	0	2,740	9,400	2,570	3,480	1,240	930	20,370
9-0730. Twin Lakes tunnel.....	999	490	221	369	325	272	257	4,560	26,150	9,090	5,880	1,250	49,860
9-0775. Busk-Ivanhoe tunnel.....	0	0	0	0	0	0	40	453	4,750	1,020	685	177	7,130
9-1150. Larkspur ditch.....	0	0	0	0	0	0	0	0	147	9.9	0	0	157
Total.....	999	490	221	369	325	272	3,040	15,480	42,020	16,730	9,190	3,490	92,640
TO RIO GRANDE BASIN													
9-1182. Tarbell ditch.....	63	0	0	0	0	0	0	0	142	47	0	0	252
9-1210. Tabor ditch.....	4.4	0	0	0	0	0	0	118	446	98	185	70	921
9-3410. Treasure Pass ditch.....	0	0	0	0	0	0	0	5.6	160	28	0	0	194
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	12	124	0	0	137
9-3510. Fuchs ditch.....	0	0	0	0	0	0	0	0	276	148	0	0	425
9-3515. Raber-Loehr ditch.....	0	0	0	0	0	0	0	0	873	515	0	0	1,390
Total.....	67	0	0	0	0	0	0	124	1,910	960	185	70	3,320
Grand Total.....	25,300	17,330	25,450	30,100	25,270	26,060	19,830	36,480	84,710	65,550	41,700	26,890	424,600

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 1968

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	1965-68	10- 3-67 11-28-67 1-10-68 5-15-68 6-20-68 7- 9-68 8- 7-68 8-28-68	0.02 .03 0 .44 4.17 .23 .29 .06

* Also a crest-stage station.

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	1965-68	6- 5-68	(a)	b12

* Also a low-flow partial-record station.

a Gage height not determined. Maximum gage height, 1.64 ft (backwater from ice).

b Estimated.

	Page		Page
Alamosa Creek above Terrace Reservoir.....	134	Cherry Creek, at Denver.....	30
Alva B. Adams tunnel at east portal, near Estes Park.....	155	below Cherry Creek Reservoir.....	29
diversion by.....	387,389	near Franktown.....	27
Animas River, at Durango.....	378	near Melvin.....	28
at Howardsville.....	376	Cherry Creek Reservoir near Denver.....	29
near Cedar Hill, N. Mex.....	382	Cimarron River near Cimarron.....	284
Antelope Creek near Kremmling.....	182	Clear Creek (Arkansas River basin) above Clear Creek Reservoir.....	74
Apishapa River near Fowler.....	94	Clear Creek (Colorado River basin) near De Beque.....	259
Arapaho Creek at Monarch Lake Outlet.....	157	Clear Creek (Platte River basin), at mouth, near Derby..	34
Arkansas River, above Pueblo.....	84	near Golden.....	33
at Buena Vista.....	75	near Lawson.....	32
at Canon City.....	82	Clear Fork ditch, diversion by.....	288
at Catlin Dam, near Fowler.....	95	Clear Fork near Ragged Mountain.....	288
at Granite.....	73	Coal Creek (Green River basin) near Meeker.....	356
at La Junta.....	96	Coal Creek (Platte River basin) near Plainview.....	42
at Lamar.....	110	Colorado River, at Hot Sulphur Springs.....	167
at Las Animas.....	97	at New Castle.....	252
at Parkdale.....	80	below Baker Gulch, near Grand Lake.....	153
at Salida.....	78	below Glenwood Springs.....	251
below John Martin Reservoir.....	109	below Lake Granby.....	159
near Avondale.....	90	near Cameo.....	261
near Coolidge, Kans.....	112	near Colorado-Utah State line.....	315
near Leadville.....	69	near De Beque.....	257
near Nathrop.....	77	near Dotsero.....	227
near Nepesta.....	93	near Granby.....	160
near Portland.....	83	near Grand Lake.....	154
near Pueblo.....	85	near Kremmling.....	203
near Wellsville.....	79	Columbine ditch at Deadman Hill, diversion by.....	58
August P. Gumlick Tunnel, diversion by.....	175	Columbine ditch near Fremont Pass, diversion by.....	387,389
Aurora Homestake pipeline above Elevenmile Canyon Reservoir near Hartsel, diversion by.....	387	Conejos River, below Platoro Reservoir.....	142
		near Lasauces.....	147
Bear Creek, at Morrison.....	25	near Mogote.....	143
at mouth, at Sheridan.....	26	Cotton Creek near Mineral Hot Springs.....	127
Beaver Brook near Estes Park.....	46	Cottonwood Creek (Arkansas River basin) below Hot Springs, near Buena Vista.....	76
Beaver Creek (tributary to Colorado River) near Rifle.....	255	Cottonwood Creek (Gunnison River basin) near Grand Mesa.....	300
Beaver Creek (tributary to East Fork Dallas Creek) near Ridgway.....	308	Cottonwood Creek (Rio Grande basin) near Crestone.....	130
Bemrose-Hoosier diversion near Hoosier Pass.....	186	Cow Creek (tributary to Leroux Creek) near Cedaredge....	295
Berthoud Pass ditch at Berthoud Pass, diversion by.....	387,389	Cow Creek (tributary to Uncompahgre River) near Ridgway.....	310
Big Thompson River, at Estes Park.....	47	Crest-stage partial-record stations.....	391
at mouth, near La Salle.....	52	Cross Creek near Minturn.....	215
at mouth of canyon, near Drake.....	49	Crystal Creek near Maher.....	285
near Estes Park.....	48	Crystal River, above Avalanche Creek, near Restone.....	245
Bighorn Creek near Minturn.....	218	at Placita.....	244
Black Creek below Black Lake, near Dillon.....	199	Cucharas River at Boyd Ranch, near La Veta.....	92
Black Gore Creek near Minturn.....	217	Culebra Creek, at San Luis.....	150
Blue Mesa Reservoir near Sapinero.....	280	near Chama.....	148,149
Blue River, above Green Mountain Reservoir.....	198	Cunningham Creek near Norrie.....	236
below Dillon.....	193	Curecanti Creek near Sapinero.....	282
below Green Mountain Reservoir.....	202		
near Dillon.....	188	Dallas Creek, near Ridgway.....	309
Bob Creek ditch near Glendevey, diversion by.....	58	East Fork, near Ridgway.....	307
Bobtail Creek near Jones Pass.....	168,169	West Fork, near Ridgway.....	306
Bonny Reservoir near Hale.....	67	Darling Creek near Leal.....	173
Booth Creek near Minturn.....	220	Dickson Creek near Minturn.....	205
Boreas Pass ditch at Boreas Pass, diversion by.....	387,389	Dillon Reservoir at Dillon.....	192
Boulder Brook near Estes Park.....	44	Dirty George Creek near Grand Mesa.....	297
Boulder Creek (Colorado River basin) at upper station, near Dillon.....	196	Disappointment Creek near Dove Creek.....	318
Boulder Creek (Platte River basin) near Orodell.....	40	Dolores River, at Dolores.....	317
Brush Creek near Eagle.....	224	below Rico.....	316
Busk-Ivanhoe tunnel at east portal, near Malta, diversion by.....	388,389	Dry Creek near Naturita.....	321
Buzzard Creek, below Owens Creek, near Heiberger.....	264	Eagle River, at Red Cliff.....	211
near Collbran.....	265	below Gypsum.....	226
		East Brush Creek at Yeoman Park, near Eagle.....	223
Cache la Poudre River, at mouth of canyon, near Fort Collins near Greeley.....	59	East Meadow Creek near Minturn.....	207
near Rustic.....	60	East River, at Almont.....	271
South Fork, near Rustic.....	57	below Cement Creek, near Crested Butte.....	270
Cameron Pass ditch at Cameron Pass, diversion by.....	58	Egeria Creek near Toponas.....	210
Carnero Creek near La Garita.....	131	Elevenmile Canyon Reservoir near Lake George, contents of.....	50,51
Carter Lake near Berthoud, contents of.....	50,51	Elk River, at Clark.....	333
Catact Creek near Kremmling.....	200	South Fork, near Clark.....	331,332
Cattle Creek near Carbondale.....	249	Elkhead Creek, near Clark.....	336
Chapman Gulch near Norrie.....	233	near Elkhead.....	337
Cheesman Lake near Deckers, contents of.....	50,51	North Fork, near Elkhead.....	338
		Eureka ditch near Flattop Mountain, diversion by.....	387,389
		Ewing ditch at Tennessee Pass, diversion by.....	387,389

	Page		Page
Fall Creek near Rustic.....	54	Los Pinos River (San Juan River basin), at La Boca.....	374
Fish Creek (tributary to Trout Creek) near Milner.....	334	near Bayfield.....	373
Fish Creek (tributary to Yampa River) at upper station, near Steamboat Springs.....	328	Lost Creek near Buford.....	350
Florida River, at Bondad.....	381	Low-flow partial-record stations, discharge measurements at.....	390
below Florida Farmers ditch, near Durango.....	379	Luning Arroyo near Model.....	103
Fountain Creek, at Security.....	89		
near Colorado Springs.....	87	McCullough-Spruce-Crystal diversion near Hoosier Pass...	187
Fraser River near Winter Park.....	163	McElmo Creek near Colorado-Utah State line.....	386
Freeman Creek near Minturn.....	206	Main Hubbard Creek near Paonia.....	291
Fremont Pass ditch at Fremont Pass, diversion by.....	387, 389	Mancos River near Towaoc.....	385
Frijole Creek near Alfalfa.....	100	Michigan ditch at Cameron Pass, diversion by.....	58
Frontier ditch near Coolidge, Kans.....	111	Michigan River, North Fork, near Gould.....	11
Fryingpan River, at Meredith.....	240	Middle Boulder Creek at Nederland.....	39
at Norrie.....	234	Middle Creek near Minturn.....	221
near Ivanhoe Lake.....	230	Middle Hubbard Creek near Paonia.....	292
near Ruedi.....	242	Milk Creek near Thornburg.....	342
North Fork, above Cunningham Creek, near Norrie.....	235	Moffat water tunnel at east portal, diversion by.....	387, 389
North Fork, below Cunningham Creek, near Norrie.....	237	Monte Cristo diversion near Hoosier Pass.....	185
North Fork, near Norrie.....	238	Morrow Point Reservoir near Cimarron.....	283
South Fork, at upper station, near Norrie.....	232	Mosca Creek near Mosca.....	133
Fuchs ditch at Weminuche Pass, diversion by.....	388, 389	Muddy Creek near Kremmling.....	181
Glacier Creek near Estes Park.....	45	Navajo River, above Chromo.....	366
Goose Creek (Platte River basin) above Cheesman Lake.....	17	at Banded Peak Ranch, near Chromo.....	365
Goose Creek (Rio Grande basin) at Wagonwheel Gap.....	117	at Edith.....	367
Gore Creek at upper station, near Minturn.....	216	North Clear Creek below Continental Reservoir.....	114
Grand River ditch at La Poudre Pass, diversion by.....	387, 389	North Crestone Creek near Crestone.....	129
Grape Creek near Westcliffe.....	81	North Platte River near Northgate.....	12
Green Mountain Reservoir near Kremmling.....	201	North Thompson Creek near Carbondale.....	246
Gunnison River, below Blue Mesa Dam.....	281		
below Gunnison tunnel.....	286	Ohio Creek, at Baldwin.....	272
near Grand Junction.....	314	near Baldwin.....	273
near Gunnison.....	274	Owens Creek ditch, diversion by.....	264
near Lazear.....	296		
North Fork, near Somerset.....	290	Paonia Reservoir, contents of.....	290
Gunnison tunnel, diversion by.....	286	Parachute Creek near Grand Valley.....	256
Gypsum Creek near Gypsum.....	225	Pass Creek near Kremmling.....	184
		Piceance Creek below Ryan Gulch, near Rio Blanco.....	359
Halfmoon Creek near Malta.....	70, 71	Piedra Pass ditch at Piedra Pass, diversion by.....	388, 389
Harold D. Roberts tunnel at Grant, diversion by.....	387, 389	Piedra River, near Arboles.....	370
Hermosa Creek near Hermosa.....	377	near Piedra.....	369
Homestake Creek near Red Cliff.....	214	Piney River, below Piney Lake, near Minturn.....	204
Homestake tunnel near Gold Park, diversion by.....	387, 389	near State bridge.....	208
Hoosier Pass tunnel at Hoosier Pass, diversion by.....	387, 389	Pinos Creek near Del Norte.....	120
Horsetooth Reservoir near Fort Collins, contents of.....	50, 51	Pitkin Creek near Minturn.....	219
Huerfano River, at Manzanares Crossing, near Redwing.....	91	Plateau Creek, near Cameo.....	266
Hunter Creek above Midway Creek, near Aspen.....	229	near Collbran.....	263
		Platoro Reservoir at Platoro.....	141
Ivanhoe Creek near Norrie.....	231	Plum Creek near Louviers.....	23
		Prince Creek near Carbondale.....	248
John Martin Reservoir at Caddoa.....	108	Purgatoire River, at Ninemile Dam, near Higbee.....	106
		at Trinidad.....	98
Kannah Creek near Whitewater.....	313	near Alfalfa.....	102
Kerber Creek at Ashley Ranch, near Villa Grove.....	126	near Hoehne.....	99
Keystone Gulch near Dillon.....	190	near Las Animas.....	107
Kiser Creek near Grand Mesa.....	299	near Thatcher.....	105
La Garita Creek near La Garita.....	132	Quartz Creek near Ohio.....	277
La Jara Creek at Gallegos Ranch, near Capulin.....	135		
La Plata River, at Colorado-New Mexico State line.....	384	Raber-Lohr ditch at Weminuche Pass, diversion by.....	388, 389
at Hesperus.....	383	Ranch Creek near Fraser.....	166
Lake Creek above Twin Lakes Reservoir.....	72	Raspberry Creek near Villa Grove.....	125
Lake Fork at Gateview.....	279	Red Dirt Creek near Kremmling.....	183
Lake Granby near Granby.....	158	Red Sandstone Creek near Minturn.....	222
Landsman Creek near Hale.....	66	Republican River, South Fork, near Hale.....	68
Laramie River, near Glendevey.....	13	South Fork, near Idalia.....	65
near Jelm, Wyo.....	14	Rio Blanco near Pagosa Springs.....	364
Laramie-Poudre tunnel near Chambers Lake, diversion by.....	58	Rio Grande, above mouth of Trinchera Creek, near Lasasues.....	136
Larkspur ditch at Marshall Pass, diversion by.....	388, 389	at Alamosa.....	123
Leroux Creek near Cedaredge.....	294	at Colorado-New Mexico State line.....	152
Lime Creek near Troutville.....	239	at Thirtymile Bridge, near Creede.....	113
Little Beaver Creek, near Idylwilde.....	55	at Wagonwheel Gap.....	116
near Rustic.....	56	near Del Norte.....	119
Little Grizzly Creek near Coalmont.....	10	near Lobatos.....	151
Little Snake River, near Baggs, Wyo.....	347	near Monte Vista.....	122
near Lily.....	348	South Fork, at South Fork.....	118
near Slater.....	344		
Los Pinos River (Rio Grande basin) near Ortiz.....	145		

	Page		Page
Roan Creek, above Clear Creek, near De Beque.....	258	Transmountain diversions from Arkansas River basin to	
near De Beque.....	260	South Platte River basin in Colorado.....	387
Roaring Fork River, at Glenwood Springs.....	250	Transmountain diversions from Colorado River basin in	
near Aspen.....	228	Colorado.....	387-389
Rock Creek (tributary to Blue River) near Dillon.....	194,195	Treasure Pass ditch at Wolf Creek Pass, diversion by.....	388,389
Rock Creek (tributary to Colorado River) near Toponas.....	209	Trinchera Creek, above Turners Ranch, near Fort Garland.....	137
Rock Creek (tributary to Rio Grande) near Monte Vista.....	124	below Smith Reservoir, near Blanca.....	140
Ruedi Reservoir near Basalt.....	241	Troublesome Creek, East Fork, near Troublesome.....	180
		near Pearmont.....	179
Saguache Creek near Saguache.....	128	Turkey Creek near Red Cliff.....	213
St. Louis Creek near Fraser.....	165	Twin Lakes tunnel at east portal, near Twin Lakes,	
St. Vrain Creek, at Lyons.....	37	diversion by.....	388,389
at mouth, near Platteville.....	43		
near Longmont.....	38	Uncompahgre River, at Colona.....	311
Salt Creek near Oxford.....	380	at Delta.....	312
San Antonio River, at mouth, near Manassa.....	146	near Ridgway.....	305
at Ortiz.....	144	Ute Creek near Fort Garland.....	139
San Francisco Creek (Arkansas River basin) near Alfalfa.....	101		
San Francisco Creek (Rio Grande basin) at upper station,		Vallecito Creek near Bayfield.....	371
near Del Norte.....	121	Vallecito Reservoir near Bayfield.....	372
San Juan River, at Pagosa Springs.....	363	Van Bremer Arroyo near Model.....	104
East Fork, above Sand Creek, near Pagosa Springs.....	361	Vasquez Creek near Winter Park.....	164
East Fork, near Pagosa Springs.....	362	Vega Reservoir near Collbran.....	262
near Carracas.....	368		
San Miguel River, at Naturita.....	320	Ward Creek near Grand Mesa.....	298
near Placerville.....	319	Walton Creek near Steamboat Springs.....	326,327
Sangre de Cristo Creek near Fort Garland.....	138	Wearyman Creek near Red Cliff.....	212
Service Creek near Oak Creek.....	324,325	West Divide Creek, below Willow Creek, near Raven.....	253
Shadow Mountain Lake near Grand Lake.....	156	near Raven.....	254
Skyline ditch at Chambers Lake, diversion by.....	58	West Hubbard Creek near Paonia.....	293
Slate Creek at upper station, near Dillon.....	197	West Monument Creek near Pikeview.....	87
Slater Fork near Slater.....	345	West Muddy Creek near Somerset.....	289
Smith Fork near Crawford.....	287	West Sopris Creek near Basalt.....	243
Snake River near Montezuma.....	189	White River, above Coal Creek, near Meeker.....	355
South Boulder Creek near Eldorado Springs.....	41	below Meeker.....	358
South Platte River, above Elevenmile Canyon Reservoir,		near Meeker.....	357
near Hartsel.....	15	near Watson, Utah.....	360
at Balzac.....	63	North Fork, above Ripple Creek, near Trapper's Lake...	349
at Denver.....	31	North Fork, at Buford.....	352
at Henderson.....	35	North Fork, near Buford.....	351
at Julesburg.....	64	South Fork, at Buford.....	354
at Littleton.....	24	South Fork, near Buford.....	353
at South Platte.....	21	Williams Fork (tributary to Colorado River), above	
at Waterton.....	22	Darling Creek, near Leal.....	172
below Cheesman Lake.....	18	below Steelman Creek.....	170,171
near Kersey.....	61	below Williams Fork Reservoir.....	178
near Lake George.....	16	near Leal.....	175
near Weldona.....	62	near Parshall.....	176
North Fork, at South Platte.....	20	South Fork of, near Leal.....	174
North Fork, below Geneva Creek, at Grant.....	19	Williams Fork (tributary to Yampa River), East Fork of,	
South St. Vrain Creek near Ward.....	36	above Willow Creek.....	339
Spring Creek (Green River basin) near Steamboat Springs.....	329	East Fork of, near Pagoda.....	340
Spring Creek (San Juan River basin) at La Boca.....	375	South Fork of, near Pagoda.....	341
Squaw Pass ditch at Squaw Pass, diversion by.....	388,389	Williams Fork Reservoir near Parshall.....	177
Surface Creek, at Cedaredge.....	303	Willow Creek (tributary to Colorado River) below Willow	
near Cedaredge.....	302	Creek Reservoir.....	162
		Willow Creek (tributary to Little Snake River) near	
Tabor ditch at Spring Creek Pass, diversion by.....	388,389	Dixon, Wyo.....	346
Tarbell ditch near Cochetopa Pass, diversion by.....	388,389	Willow Creek (tributary to Rio Grande) at Creede.....	115
Taylor Park Reservoir at Taylor Park.....	267	Willow Creek Pump Canal, diversion by.....	162
Taylor River, at Almont.....	269	Willow Creek Reservoir near Granby.....	161
below Taylor Park Reservoir.....	268	Wilson supply ditch near Eaton Reservoir, diversion by..	58
Templeton Gap Floodway at Colorado Springs.....	88	Wurtz ditch near Tennessee Pass, diversion by.....	387,389
Tennile Creek below North Fork, at Frisco.....	191		
Thompson Creek feeder ditch, diversion by.....	246	Yampa River, at Steamboat Springs.....	330
Thompson Creek near Carbondale.....	247	near Hayden.....	335
Tomichi Creek, at Gunnison.....	278	near Maybell.....	343
at Parlin.....	276	near Oak Creek.....	323
at Sargents.....	275	near Toponas.....	322
Tongue Creek at Cory.....	304	Youngs Creek near Grand Mesa.....	301
Transbasin diversions from North Platte River basin to			
Cache la Poudre River basin in Colorado.....	58		