UNITED STATES DEPARTMENT OF THE INTERIOR
HAROLD L. ICKES, Secretary
GEOLOGICAL SURVEY
W. C. MENDENHALL, Director

Water-Supply Paper 859

SURFACE WATER SUPPLY *of the* UNITED STATES 1938

PART 9
COLORADO RIVER BASIN

NATHAN C. GROVER, Chief Hydraulic Engineer
W. E. DICKINSON, ROBERT FOLLANSBEE, J. H. GARDINER
BERKELEY JOHNSON, and A. B. PURTON, District Engineers

Prepared in cooperation with the States of
ARIZONA, COLORADO, NEW MEXICO
UTAH, AND WYOMING

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1939

For sale by the Superintendent of Documents, Washington, D. C. - - - Price 35 cents (paper cover)

CONTENTS

	Page
Scope of work	1
Definition of terms	1
Explanation of data	1
Accuracy of field data and computed results	3
Publications	3
Records of discharge collected by agencies other than the Geological Survey	8
Cooperation	9
Division of work	9
Gaging-station records	11
Colorado River Basin	11
Colorado River main stem	11
Colorado River near Grand Lake, Colo	11
Colorado River near Granby, Colo	12
Colorado River at Hot Sulphur Springs, Colo	13
Colorado River at Glenwood Springs, Colo	14
Colorado River near Cameo, Colo	15
Colorado River near Cisco, Utah	16
Colorado River at Lees Ferry, Ariz	17
Colorado River at Bright Angel Creek, near Grand Canyon, Ariz	21
Lake Mead at Boulder Dam, Ariz-Nev	22
Colorado River near Willow Beach, Ariz	23
Colorado River near Topock, Ariz	24
Parker Reservoir near Parker Dam, Calif	25
Colorado River below Parker Dam, Calif	26
Colorado River near Picacho, Calif	27
Colorado River at Yuma, Ariz	28
Tributaries above Green River	30
Arapaho Creek below Monarch Lake, Colo	30
Willow Creek near Granby, Colo	31
Fraser River near West Portal, Colo	32
Fraser River at Granby, Colo	33
Vasquez Creek near West Portal, Colo	34
St. Louis Creek near Fraser, Colo	35
Ranch Creek above forks, near Fraser, Colo	36
Ranch Creek near Fraser, Colo	37
Ranch Creek near Tabernash, Colo	38
North Fork of Ranch Creek near Fraser, Colo	39
Middle Fork of Ranch Creek near Fraser, Colo	40
South Fork of Ranch Creek near West Portal, Colo	41
Meadow Creek near Tabernash, Colo	42
Strawberry Creek near Granby, Colo	43
Williams River below Steelman Creek, Colo	44
Williams River near Leal, Colo	45
Williams River near Parshall, Colo	46
Blue River at Dillon, Colo	47
Blue River below Green Mountain Reservoir, near Kremmling, Colo	48
Snake River at Dillon, Colo	49
Tenmile Creek at Dillon, Colo	50
Roaring Fork at Aspen, Colo	51
Roaring Fork at Glenwood Springs, Colo	52
Crystal River near Redstone, Colo	53
Willow Creek near Raven, Colo	54
Plateau Creek near Collbran, Colo	55
Plateau Creek near Cameo, Colo	56
Buzzard Creek near Heiberger, Colo	57
Buzzard Creek near Collbran, Colo	58
Taylor River at Almont, Colo	59
Gunnison River at Iola, Colo	60
Gunnison River near Grand Junction, Colo	61
East River at Almont, Colo	62
Tomichi Creek at Sargents, Colo	63
Tomichi Creek at Gunnison, Colo	64
Quartz Creek near Ohio, Colo	65
Cebolla Creek at Powderhorn, Colo	66
Lake Fork at Gateview, Colo	67
North Fork of Gunnison River near Somerset, Colo	68
East Muddy Creek near Bardine, Colo	69
Leroux Creek near Cedaredge, Colo	70
Surface Creek at Cedaredge, Colo	71
Uncompahgre River at Colona, Colo	72
Kahnah Creek near Whitewater, Colo	73
Dolores River at Dolores, Colo	74
Dolores River at Gateway, Colo	76
Green River Basin	78
Green River at Warren Bridge, near Daniel, Wyo	78
Green River at Green River, Wyo	79
Green River near Linwood, Utah	80
Green River at Green River, Utah	81
Horse Creek near Daniel, Wyo	82
New Fork near Boulder, Wyo	83

Gaging-station records--Continued.
Colorado River Basin--Continued.
Green River Basin--Continued. Page
Pine Creek at Pinedale, Wyo. 84
North Piney Creek near Mason, Wyo. 85
Labarge Creek near Labarge, Wyo. 86
Fontenelle Creek near Fontenelle, Wyo. 87
Blacks Fork above Blacks Fork ranger station, Utah 88
Blacks Fork at Blacks Fork ranger station, Utah 89
Blacks Fork near Urie, Wyo. 90
Blacks Fork near Lyman, Wyo. 91
Henrys Fork at Linwood, Utah 92
Burnt Fork at Burntfork, Wyo. 93
Yampa River at Steamboat Springs, Colo. 94
Yampa River near Maybell, Colo. 95
Elk River at Clark, Colo. 96
Little Snake River near Dixon, Wyo. 97
Little Snake River near Lily, Colo. 98
Slater Fork near Slater, Colo. 99
Ashley Creek near Vernal, Utah 100
Duchesne River at Provo River Trail, near Hanna, Utah 101
Duchesne River near Tabiona, Utah 102
Duchesne River at Duchesne, Utah 103
Duchesne River at Myton, Utah 104
Rock Creek near Mountain Home, Utah 105
Strawberry River at Duchesne, Utah 106
Currant Creek near Fruitland, Utah 107
Uinta River near Neola, Utah 108
Whiterocks River near Whiterocks, Utah 109
White River near Meeker, Colo. 110
White River near Watson, Utah 111
Price River near Heiner, Utah 112
Huntington Creek near Huntington, Utah 113
Cottonwood Creek near Orangeville, Utah 114
Fremont River Basin 115
Fremont River near Bicknell, Utah 115
San Juan River Basin 116
San Juan River at Pagosa Springs, Colo. 116
San Juan River at Rosa, N. Mex. 117
San Juan River near Blanco, N. Mex. 118
San Juan River at Farmington, N. Mex. 119
San Juan River at Ship Rock, N. Mex. 120
San Juan River near Bluff, Utah 121
Diversions from San Juan River 122
Archuleta ditch near Turley, N. Mex. 122
Bloomfield-Porter ditch at Bloomfield, N. Mex. 123
Bloomfield-Porter ditch wasteway near Bloomfield, N. Mex. 124
Citizens ditch near Turley, N. Mex. 125
Citizens ditch wasteway 1 near Bloomfield, N. Mex. 126
Jewett ditch at end, near Waterflow, N. Mex. 126
Jewett ditch at head, near Waterflow, N. Mex. 127
Jewett ditch wasteway near Waterflow, N. Mex. 128
La Pumpa wasteway near Turley, N. Mex. 129
Lower Martinez ditch near Turley, N. Mex. 130
Miller lateral from Heath-Horner ditch near Rosa, N. Mex. 131
Old Martinez ditch near Turley, N. Mex. 132
Rosa Community ditch at Rosa, N. Mex. 133
San Juan lateral wasteway 1 near Farmington, N. Mex. 134
San Juan lateral wasteway 2 near Farmington, N. Mex. 135
Turley ditch near Turley, N. Mex. 136
West Fork of San Juan River above Borns Lake, near Pagosa Springs, Colo. 137
Turkey Creek near Pagosa Springs, Colo. 138
Rio Blanco near Pagosa Springs, Colo. 139
Rito Blanco near Pagosa Springs, Colo. 140
Navajo River at Banded Peak ranch, near Chromo, Colo. 141
Navajo River near Chromo, Colo. 142
Navajo River at Edith, Colo. 143
Diversions from Navajo River 144
Garcia ditch 1 near Lumberton, N. Mex. 144
Garcia ditch 2 near Lumberton, N. Mex. 145
Gomez ditch near Lumberton, N. Mex. 146
Little Navajo River at Chromo, Colo. 147
Piedra River at Bridge ranger station, near Pagosa Springs, Colo. 148
Williams Creek near Bridge ranger station, near Pagosa Springs, Colo. 149
Weminuche Creek near Bridge ranger station, near Pagosa Springs, Colo. 150
Los Pinos River below Snowslide Canyon, near Weminuche Pass, Colo. 151
Los Pinos River near Bayfield, Colo. 152
Los Pinos River at Ignacio, Colo. 153
Diversions from Los Pinos River 154
Hirsh lateral from U. S. Indian canal, near La Boca, N. Mex. 154
South lateral from Pine River canal, near Allison, N. Mex. 155
Animas River at Howardsville, Colo. 156
Animas River at Durango, Colo. 157
Animas River near Cedar Hill, N. Mex. 158
Animas River at Farmington, N. Mex. 159

Gaging-station records--Continued.
Colorado River Basin--Continued.
San Juan River Basin--Continued. Page
Diversions from Animas River 160
Allen ditch near Farmington, N. Mex 160
Aztec ditch near Cedar Hill, N. Mex 161
Aztec and Lower Animas ditch wasteway near Aztec, N. Mex 162
Barrett lateral near Farmington, N. Mex 163
Cedar Hill ditch near Cedar Hill, N. Mex 164
Dickey lateral near Farmington, N. Mex 164
Drain wasteway at Farmington, N. Mex 165
Echo and Allen ditch wasteway near Farmington, N. Mex 166
Echo ditch near Farmington, N. Mex 167
Eledge-Mill and Halford-Independent ditch wasteway at Flora Vista, N. Mex 168
Eledge-Mill ditch near Aztec, N. Mex 169
Farmers ditch at end, at Flora Vista, N. Mex 170
Farmers ditch at head, near Aztec, N. Mex 171
Farmers ditch wasteway near Flora Vista, N. Mex 172
Farmers Mutual ditch at end, near Waterflow, N. Mex 173
Farmers Mutual ditch at head, near Kirtland, N. Mex 174
Farmers Mutual ditch wasteway 11 at Kirtland, N. Mex 175
Farmers Mutual ditch wasteway 12 at Fruitland, N. Mex 176
Farmers Mutual ditch wasteway 13 near Waterflow, N. Mex 177
Farmington drain at Farmington, N. Mex 177
Glade Arroyo at Farmington, N. Mex 178
Halford-Independent ditch near Flora Vista, N. Mex 179
Inca ditch at head, at Cedar Hill, N. Mex 180
Inca ditch wasteway at Cedar Hill, N. Mex 181
Kello-Blancett ditch at end, at Flora Vista, N. Mex 181
Kello-Blancett ditch at head, near Aztec, N. Mex 182
Lower Animas ditch near Aztec, N. Mex 183
Lower Animas ditch wasteway at Aztec, N. Mex 184
Lower Animas drain near Aztec, N. Mex 184
Miller Arroyo near Cedar Hill, N. Mex 185
North Farmington and Wright-Leggett ditch near Farmington, N. Mex 185
North Farmington ditch wasteway at Farmington, N. Mex 186
Peninsula wasteway near Farmington, N. Mex 186
Ralston ditch near Cedar Hill, N. Mex 187
Sargent ditch near Cedar Hill, N. Mex 188
Stacey ditch at Cedar Hill, N. Mex 189
Stacey ditch wasteway near Cedar Hill, N. Mex 190
Starr ditch near Farmington, N. Mex 191
Tarrell ditch at Flora Vista, N. Mex 192
Twin Rock ditch near Cedar Hill, N. Mex 193
Wright-Leggett ditch wasteway near Farmington, N. Mex 194
Mineral Creek near Silverton, Colo 195
Cascade Creek near Tacoma, Colo 196
Lightner Creek near Durango, Colo 197
Florida River near Durango, Colo 198
La Plata River at Hesperus, Colo 199
La Plata River at Colorado-New Mexico State Line 200
La Plata River near Farmington, N. Mex 201
Diversions from La Plata River 202
Cunningham ditch near La Plata, N. Mex 202
Etta Crame ditch near Farmington, N. Mex 203
Greenhorn ditch near La Plata, N. Mex 203
Highland Park ditch near La Plata, N. Mex 204
Hillside-Thomas ditch near La Plata, N. Mex 205
Helton ditch near La Plata, N. Mex 206
Jackson ditch near La Plata, N. Mex 207
La Plata Indian ditch near La Plata, N. Mex 208
Larkin-Reynolds ditch at La Plata, N. Mex 209
Left Hand ditch at La Plata, N. Mex 210
McDermott ditch at La Plata, N. Mex 211
Pickering ditch near Farmington, N. Mex 212
Cherry Creek near Red Mesa, Colo 213
West Mancos River near Mancos, Colo 214
Mancos River near Mancos, Colo 215
Mancos River near Towaoc, Colo 216
Middle Mancos River near Mancos, Colo 217
East Mancos River near Mancos, Colo 218
Paria River Basin 219
Paria River at Lees Ferry, Ariz 219
Little Colorado River Basin 220
Little Colorado River at St. Johns, Ariz 220
Little Colorado River near Woodruff, Ariz 221
Little Colorado River at Grand Falls, Ariz 222
Silver Creek near Woodruff, Ariz 223
Chevelon Fork near Winslow, Ariz 224
Clear Creek near Winslow, Ariz 225
Moenkopi Wash near Tuba, Ariz 226
Bright Angel Creek Basin 227
Bright Angel Creek near Grand Canyon, Ariz 227
Virgin River Basin 228
Virgin River at Virgin, Utah 228
Virgin River at Littlefield, Ariz 229
North Fork of Virgin River near Springdale, Utah 230

Gaging-station records--Continued.
Colorado River Basin--Continued. Page
Williams River Basin.... 231
Williams River at Planet, Ariz.... 231
Gila River Basin.... 232
Gila River near Gila, N. Mex.... 232
Gila River near Red Rock, N. Mex.... 233
Gila River at Fuller ranch, near Duncan, Ariz.... 234
Gila River near Clifton, Ariz.... 235
Gila River below Bonita Creek, near Solomonsville, Ariz.... 236
Gila River at Calva, Ariz.... 237
San Carlos Reservoir at Coolidge Dam, Ariz.... 238
Gila River at Coolidge Dam, Ariz.... 239
Gila River at Kelvin, Ariz.... 240
Gila River at Ashurst-Hayden Dam, near Florence, Ariz.... 241
Gila River at Gillespie Dam, Ariz.... 242
Gila River near Dome, Ariz.... 243
San Francisco River near Glenwood, N. Mex.... 244
San Francisco River at Clifton, Ariz.... 245
San Simon Creek near San Simon, Ariz.... 246
San Simon Creek near Solomonsville, Ariz.... 247
San Carlos River near Peridot, Ariz.... 248
San Pedro River at Palominas, Ariz.... 249
San Pedro River at Charleston, Ariz.... 250
San Pedro River near Mammoth, Ariz.... 251
San Pedro River at Winkelman, Ariz.... 252
Aravaipa Creek near Feldman, Ariz.... 253
Santa Cruz River near Nogales, Ariz.... 254
Santa Cruz River at Tucson, Ariz.... 255
Sonoita Creek near Patagonia, Ariz.... 256
Rillito Creek near Tucson, Ariz.... 257
Sabino Creek near Tucson, Ariz.... 258
Salt River near Chrysotile, Ariz.... 259
Salt River near Roosevelt, Ariz.... 262
Reservoir system on Salt River at and below Roosevelt Dam, Ariz.... 263
Salt River at Stewart Mountain Dam, Ariz.... 264
Tonto Creek near Roosevelt, Ariz.... 265
Verde River near Camp Verde, Ariz.... 266
Verde River below East Verde River, near Pine, Ariz.... 267
Verde River above Camp Creek, near McDowell, Ariz.... 268
Granite Creek near Prescott, Ariz.... 269
Hassayampa River at Box dam site, near Wickenburg, Ariz.... 270
Gillespie canal at Gillespie Dam, Ariz.... 271
Enterprise canal at Gillespie Dam, Ariz.... 272
Sulphur Spring Valley.... 273
Whitewater Draw Basin.... 273
Whitewater Draw near Douglas, Ariz.... 273
Miscellaneous discharge measurements.... 274
Index.... 281

ILLUSTRATION

Page
Plate 1. Typical river-measurement stations.... 2

SURFACE WATER SUPPLY OF THE COLORADO RIVER BASIN, 1938

SCOPE OF WORK

This volume is one of a series of 14 reports presenting results of measurements of stage and flow made on streams, lakes, and reservoirs in the United States during the water year ending September 30, 1938. The work was begun in 1888 in connection with special studies relating to irrigation. Measurements of stream flow have been made at about 7,800 points in the United States and also at many points in Alaska and the Hawaiian Islands. In July 1938, 3,830 gaging stations were being maintained by the Geological Survey and cooperating organizations. Many miscellaneous discharge measurements were made at other points.

In the execution of the work many State and private organizations have cooperated, either by furnishing data or by assisting in collecting data. Acknowledgments for cooperation of the first kind are made in connection with the description of each station affected; cooperation of the second kind is acknowledged on page 9.

DEFINITION OF TERMS

The units in which stream-flow data are presented in this report and other terms used herein are defined as follows:

"Second-feet" is an abbreviation for "cubic feet per second." A second-foot is the rate of discharge of water flowing in a channel when the cross-sectional area is 1 square foot and the average velocity is 1 foot per second.

"Second-feet per square mile" is the average number of cubic feet of water flowing per second from each square mile of area drained, on the assumption that the run-off is distributed uniformly both as regards time and area.

"Run-off in inches" is the depth to which an area would be covered if all the water flowing from it in a given period were uniformly distributed on its surface. It is used for comparing run-off with rainfall, which is usually expressed in inches.

An "acre-foot", equivalent to 43,560 cubic feet, is the quantity of water required to cover an acre to the depth of 1 foot. The term is commonly used in connection with storage for irrigation.

"Second-foot-day" is the volume of water represented by a flow of 1 second-foot for 24 hours. It is equivalent to 86,400 cubic feet, 1.983471 acre-feet, or 646,317 gallons and represents a run-off of 0.0372 inches from one square mile.

"Stage-discharge relation" is an abbreviation for the term "relation of gage height to discharge."

"Control" is a term used to designate the natural section or reach of the channel or artificial structure below the gage which determines the stage-discharge relation at the gage.

EXPLANATION OF DATA

The base data collected at gaging stations consist of records of stage, measurements of discharge, and general information used to supplement the gage heights and discharge measurements in determining the daily flow. The records of stage are obtained either

from direct readings on a nonrecording gage or from a water-stage recorder that gives a continuous record of the fluctuations. Measurements of discharge are made with a current meter by the general methods outlined in standard textbooks on the measurement of river discharge. Typical gaging stations, equipped with water-stage recorder and measuring cable and car, are shown on plate 1.

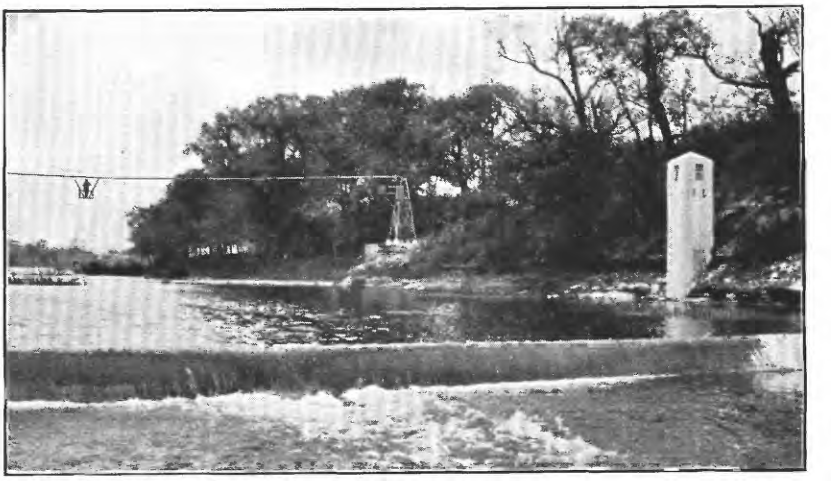
Rating tables giving the discharge for any stage are prepared from the discharge measurements. The application of the daily gage height to these rating tables gives the daily discharge, from which the monthly and yearly mean discharge are computed.

The data presented for each gaging station in the area covered by this report usually comprise a description of the station, a table showing the daily discharge of the stream, and a table of monthly and yearly discharge and run-off. Skeleton rating tables are published except for those stations whose daily discharge for the greater part of the year was determined by the shifting-control method, the slope method, or other special methods.

The description of the station gives the type of gage, its latitude and longitude determined from the best available maps, and information in regard to diversions that decrease the flow at the gage, artificial regulation from pondage or storage, and the accuracy of the records. Under "Average discharge" is given the average discharge for the number of years indicated. It is given only for stations for which there are 10 or more complete years of record. Information under "Extremes" gives 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, and also the minimum discharge if useful; and the minimum gage height except when it is of no importance. Unless otherwise qualified, the maximum discharge corresponds to the crest stage, obtained by use of a water-stage recorder or a nonrecording gage read at the time of the crest. Likewise the minimum represents the lowest discharge, unless otherwise qualified. The peak discharge for the year with the time of its occurrence is given below the table of monthly discharge for some stations. Selected lower peaks are also given if the peak discharge exceeded the mean discharge for that day by more than 10 percent. This supplementary information is generally not given for stations having drainage areas of less than 10 square miles or more than 10,000 square miles.

The table of daily discharge gives, for stations equipped with nonrecording gages, the discharge in second-feet corresponding to once-daily or the mean of twice-daily readings of the gage. For flashy floods the mean daily discharge is determined from gage-height graphs based on gage readings made once or twice daily or oftener, as stated in the station description. For stations equipped with water-stage recorders the table gives the discharge corresponding to the mean daily gage height except for stations on streams subject to sudden or rapid fluctuation. For stations subject to such fluctuation the mean daily gage height may not indicate the true mean daily discharge, which must be obtained by averaging the discharge for intervals of the day or by using the discharge integrator, an instrument for obtaining the mean daily discharge from a continuous gage-height graph and containing as an essential element the rating curve of the station.

In the table of monthly discharge the column headed "Second-foot-days" gives the sum for each month of the figures for that month given in the table of daily discharge. The column headed "Maximum" gives the maximum daily discharge and not the discharge when the water surface was at crest height. Likewise, in the column headed "Minimum" the quantity given is the minimum daily discharge. The column headed "Mean" is the average flow in



A. ARTIFICIAL CONTROL, RECORDER HOUSE, AND MEASURING CABLE ON OLENTANGY RIVER, DELAWARE, OHIO.

B. RECORDER HOUSE AND MEASURING CABLE ON KAWEAH RIVER, THREE RIVERS, CALIF.

TYPICAL RIVER-MEASUREMENT STATIONS.

cubic feet per second during the month.

ACCURACY OF FIELD DATA AND COMPUTED RESULTS

The accuracy of stream-flow data depends primarily (1) on the permanency of the stage-discharge relation and (2) on the accuracy of observation of stage, measurements of flow, and interpretation of records.

The station description gives a statement in regard to the general accuracy of the records. "Excellent" indicates that, in general, the daily records are accurate within 5 percent; "good", within 10 percent; "fair", within 15 percent; and "poor", within 20 percent or more.

The monthly means for any station may represent with high accuracy the quantity of water flowing past the gage, but the figures showing discharge per square mile and depth in inches may be subject to gross errors caused by the inclusion of large noncontributing districts in the measured drainage area, by lack of information concerning water diverted for irrigation or other use, or by inability to interpret the effect of artificial regulation of the flow of the river above the station. "Second-feet per square mile" and "run-off in inches" are therefore not computed if such errors appear probable. The computations are also omitted for stations on streams draining areas in which the annual rainfall is less than 20 inches.

Many gaging stations on streams in the irrigated areas of the United States are situated above most of the diversions from those streams, so that the discharge recorded does not show the water supply available for further development, as prior appropriations below the station must first be satisfied.

The table of monthly discharge gives a general idea of the flow at the station. The table of daily discharge allows more detailed studies of the variation in flow. It should be borne in mind, however, that the observations in each succeeding year may be expected to throw new light on data previously published, and that greater degrees of refinement in computations and records may be warranted with increased data and use of improved equipment.

PUBLICATIONS

The results of stream-flow measurements are now published annually in 14 parts, each part covering an area whose boundaries coincide with natural drainage features as indicated below:

Part 1. North Atlantic slope basins (St. John River to York River).
2. South Atlantic slope and eastern Gulf of Mexico basins (James River to Mississippi River).
3. Ohio River Basin.
4. St. Lawrence River Basin.
5. Hudson Bay and upper Mississippi River basins.
6. Missouri River Basin.
7. Lower Mississippi River Basin.
8. Western Gulf of Mexico basins.
9. Colorado River Basin.
10. The Great Basin.
11. Pacific slope basins in California.
12. Pacific slope basins in Washington and upper Columbia River Basin.
13. Snake River Basin.
14. Pacific slope basins in Oregon and lower Columbia River Basin.

Water-supply papers and other publications of the Geological Survey containing data in regard to the water resources of the United States may be obtained or consulted as explained below.

1. Copies may be purchased at nominal cost from the Superintendent of Documents, Government Printing Office, Washington, D. C., who will, on application, furnish lists giving prices.

2. Sets of the reports may be consulted in the libraries of the principal cities in the United States.

3. Sets are available for consultation in the local offices of the water-resources branch of the Geological Survey as follows:

Augusta, Maine, Statehouse.
Boston, Mass., 945 Post Office Building.
Hartford, Conn., 203 Federal Building.
Albany, N. Y., 526 Federal Building.
Trenton, N. J., 228 Federal Building.
Harrisburg, Pa., 490 Education Building.
Charlottesville, Va., University of Virginia.
South Charleston, W. Va., Naval Ordnance Plant.
Asheville, N. C., 220 Post Office Building.
Columbia, S. C., 119 United States Courthouse.
Atlanta, Ga., Georgia School of Technology.
Ocala, Fla., Post Office Building.
Montgomery, Ala., 507 Post Office Building.
Chattanooga, Tenn., 442 Post Office Building.
Louisville, Ky., 641 Federal Building.
Columbus, Ohio, 404 Engineering Experiment Station, Ohio State University.
Indianapolis, Ind., 316 Federal Building.
Urbana, Ill., 14 Post Office Annex.
Madison, Wis., 337 N. State Capitol.
St. Paul, Minn., 808 New Post Office Building.
Iowa City, Iowa, 402 Hydraulic Laboratory, University of Iowa.
St. Louis, Mo., 906 Customhouse, 1114 Market Street.
Rolla, Mo., Missouri Geological Survey Building, Missouri School of Mines and Metallurgy.
Topeka, Kans., 305 Federal Building.
Fort Smith, Ark., 6 Post Office Building.
Austin, Tex., State Highway Building.
Santa Fe, N. Mex., 3 United States Courthouse.
Tucson, Ariz., 210 Post Office Building.
Denver, Colo., 230 Customhouse.
Salt Lake City, Utah, 303 Federal Building.
Idaho Falls, Idaho, 204 Federal Building.
Boise, Idaho, 429 Federal Building.
Helena, Mont., 412 Federal Building.
Tacoma, Wash., 406 Federal Building.
Portland, Oreg., 606 Post Office Building.
San Francisco, Calif., 208 Federal Office Building.
Los Angeles, Calif., G-31 Post Office and Courthouse.
Honolulu, Hawaii, 225 Federal Building.

A list of the Geological Survey publications may be obtained by applying to the Director, Geological Survey, Washington, D. C.

Records of flow of streams in the United States have been published in the reports tabulated as follows:

Stream-flow data in reports of the Geological Survey

(A = Annual Report; B = Bulletin; W = Water-Supply Paper)

Report	Character of data	Year
10th A, pt. 2	Descriptive information only.	
11th A, pt. 2	Monthly discharge and descriptive information.....	1884 to Sept. 1890.
12th A, pt. 2	....do.....	1884 to June 30, 1891.
13th A, pt. 3	....do.....	1884 to Dec. 31, 1892.
14th A, pt. 2	Monthly discharge (long-time records, 1871-93)....	1888 to Dec. 31, 1893.
B 131.....	Descriptions, measurements, gage heights, and ratings.	1893-94.
16th A, pt. 2	Descriptive information only.	
B 140.....	Descriptions, measurements, gage heights, ratings, and monthly discharge (also many data covering earlier years).	1895.
W 11.....	Gage heights (also gage heights for earlier years)	1896.
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also similar data for some earlier years).	1895-96.
W 15.....	Descriptions, measurements, and gage heights, eastern United States, eastern Mississippi River, and Missouri River above junction with Kansas River.	1897.

Stream-flow data in reports of the Geological Survey--Continued

Report	Character of data	Year
W 16.....	Descriptions, measurements, and gage heights, western Mississippi River below junction of Missouri and Platte Rivers, and western United States.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also some long-time records).	1897.
W 27.....	Measurements, ratings, and gage heights, eastern United States, eastern Mississippi River, and Missouri River.	1898.
W 28.....	Measurements, ratings, and gage heights, Arkansas River and western United States.	1898.
20th A, pt. 4	Monthly discharge (also for many earlier years)...	1898.
W 35 to 39...	Descriptions, measurements, gage heights, and ratings.	1899.
21st A, pt. 4	Monthly discharge.....	1899.
W 47 to 52...	Descriptions, measurements, gage heights, and ratings.	1900.
22d A, pt. 4.	Monthly discharge.....	1900.
W 65, 66.....	Descriptions, measurements, gage heights, and ratings.	1901.
W 75.....	Monthly discharge.....	1901.

Note.- The reports that contain records after 1901 are given in the table on page 6.

The table on the following page gives, by years and drainage basins, the numbers of the papers on surface water supply published from 1899 to 1938. The data for any particular station will, in general, be found in the reports covering the years during which the station was maintained. For example, the data from 1910 to 1920 for any station in the area covered by part 3 are published in Water-Supply Papers 283, 303, 323, 353, 403, 433, 453, 473, and 503, which contain records for the Ohio River Basin for those years.

The records at most of the stations discussed in these reports extend over a series of years. Miscellaneous measurements at many points other than regular gaging stations have been made each year and are published under "Miscellaneous discharge measurements" at the end of each report, the streams and points of measurement listed appearing in the same relative order as the streams and gaging stations in the body of the report. An index of the records obtained prior to 1904 has been published in Water-Supply Paper 119.

Numbers of water-supply papers containing results of stream measurements, 1899-1938

(For basins included see p. 3)

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1899 a...	35	b 35, 36	36	36	36	c 36, 37	37	37	d 37, 38	38, e 39	38, f 39	38	38	38
1900 g...	47, h 48	48	48, i 49	49	49	49, j 50	50	50	50	51	51	51	51	51
1901.....	65, 75	65, 75	65, 75	65, 75	k 65, 66, 75	66, 75	k 65, 66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75
1902.....	82	b 82, 83	83	m 82, 83	k 83, 85	84	k 83, 84	84	85	85	85	85	85	85
1903.....	97	b 97, 98	98	97	k 98, 99, n 100	99	k 98, 99	99	100	100	100	100	100	100
1904.....	o 124, p 125, q 126	q 126, 127	128	129	k 128, 130	130, r 131	k 128, 131	132	133	133, s 134	134	135	135	135
1905.....	o 165, p 166, q 167	q 167, 168	169	170	171	172	k 169, 173	174	175, t 177	176, s 177	177	178	178	u 177, 178
1906.....	o 201, p 202, q 203	q 203, 204	205	206	207	208	k 205, 209	210	211, t 213	212, s 213	213	214	214	214
1907-8...	241	242	243	244	245	246	247	248	249	250, s 251	251	252	252	252
1909.....	261	262	263	264	265	266	267	268	269	270, s 271	271	272	272	272
1910.....	281	282	283	284	285	286	287	288	289	290	291	292	292	292
1911.....	301	302	303	304	305	306	307	308	309	310	311	312	312	312
1912.....	321	322	323	324	325	326	327	328	329	330	331	332-A	332-B	332-C
1913.....	351	352	353	354	355	356	357	358	359	360	361	362-A	362-B	362-C
1914.....	381	382	383	384	385	386	387	388	389	390	391	392	393	394
1915.....	401	402	403	404	405	406	407	408	409	410	411	412	413	414
1916.....	431	432	433	434	435	436	437	438	439	440	441	442	443	444
1917.....	451	452	453	454	455	456	457	458	459	460	461	462	463	464
1918.....	471	472	473	474	475	476	477	478	479	480	481	482	483	484
1919-20..	501	502	503	504	505	506	507	508	509	510	511	512	513	514
1921.....	521	522	523	524	525	526	527	528	529	530	531	532	533	534
1922.....	541	542	543	544	545	546	547	548	549	550	551	552	553	554
1923.....	561	562	563	564	565	566	567	568	569	570	571	572	573	574
1924.....	581	582	583	584	585	586	587	588	589	590	591	592	593	594
1925.....	601	602	603	604	605	606	607	608	609	610	611	612	613	614
1926.....	621	622	623	624	625	626	627	628	629	630	631	632	633	634
1927.....	641	642	643	644	645	646	647	648	649	650	651	652	653	654
1928.....	661	662	663	664	665	666	667	668	669	670	671	672	673	674
1929.....	681	682	683	684	685	686	687	688	689	690	691	692	693	694
1930.....	696	697	698	699	700	701	702	703	704	705	706	707	708	709
1931.....	711	712	713	714	715	716	717	718	719	720	721	722	723	724
1932.....	726	727	728	729	730	731	732	733	734	735	736	737	738	739
1933.....	741	742	743	744	745	746	747	748	749	750	751	752	753	754
1934.....	756	757	758	759	760	761	762	763	764	765	766	767	768	769
1935.....	781	782	783	784	785	786	787	788	789	790	791	792	793	794
1936.....	801	802	803	804	805	806	807	808	809	810	811	812	813	814
1937.....	821	822	823	824	825	826	827	828	829	830	831	832	833	834
1938.....	851	852	853	854	855	856	857	858	859	860	861	862	863	864

a Rating tables and index to Water-Supply Papers 35-39 contained in Water-Supply Paper 39. Tables of monthly discharge for 1899 in 21st Annual Report, part 4.
b James River only.
c Gallatin River.
d Green and Gunnison Rivers and Colorado River above Gunnison River.
e Mojave River only.
f Kings and Kern Rivers and south Pacific slope basins.
g Rating tables and index to Water-Supply Papers 47-52 and data on precipitation, wells, and irrigation in California and Utah contained in Water-Supply Paper 52. Monthly discharge for 1900 in 22d Annual Report, part 4.
h Wissahickon and Schuylkill Rivers to James River.
i Scioto River.
j Loup, Platte, and Elkhorn Rivers and tributaries below Platte River.
k Tributaries of Mississippi River from east.
m Lake Ontario and tributaries to St. Lawrence River proper.
n Hudson Bay only.
o New England rivers only.
p Hudson River to Delaware River, inclusive.
q Susquehanna River to Yadkin River, inclusive.
r Platte and Kansas Rivers.
s The Great Basin in California, except Truckee and Carson River Basins.
t Below junction with Gila River.
u Rogue, Umpqua, and Siletz Rivers only.

From time to time reports have been published that are compilations of records for various areas, usually a single State or drainage basin. These reports contain records previously published (some of which have been revised), as well as some records not contained in the annual series of water-supply papers. The following table gives the numbers and titles of these reports, arranged in alphabetical order by States and drainage basins.

Reports containing compilation of discharge by States and drainage basins

Water-Supply Paper	Year ending	State or drainage basin and title
		STATE
107	1903	Alabama, Water powers of, with an appendix on stream measurements in Mississippi.
298	1912	California, Water resources of, part 1, Stream measurements in Sacramento River Basin.
299	1912	California, Water resources of, part 2, Stream measurements in San Joaquin River Basin.
300	1912	California, Water resources of, part 3, Stream measurements in the Great Basin and Pacific coast river basins.
447	1918	California, Surface water supply of the southern Pacific slope of.
597e	1927	California, Surface water supply of Sacramento River Basin.
636d	1927	California, Surface water supply of San Joaquin River Basin.
636e	1927	California, Surface water supply of Pacific slope basins in.
637a	1927	California, Surface water supply of minor San Francisco Bay, northern Pacific, and Great basins in.
74	1900	Colorado, Water resources of.
197	1905	Georgia, Water resources of.
415	1915	Massachusetts, Surface waters of.
230	1906	Nebraska, Surface water supply of.
370	1910	Oregon, Surface water supply of.
850	1937	Texas, Summary of records of surface waters of.
424	1916	Vermont, Surface waters of.
492	1919	Washington, Summary of hydrometric data in.
469	1921	Wyoming, Surface waters of, and their utilization.
		DRAINAGE BASIN
395	1914	Colorado River (Colo., Utah, etc.) and its utilization, 1916.
617	1927	Colorado River, upper (Colo., Utah), and its utilization, 1929.
517	1920	Great Salt Lake Basin, Water powers of, 1924.
618	1926	Green River (Wyo., Utah) and its utilization, 1930.
198	1906	Kennebec River Basin (Maine), Water resources of, 1907.
		Milk River. (See St. Mary and Milk Rivers.)
536	1920	New-Kanawha River Basin (W. Va., Va., N. C.), Surface water supply of, 1925.
279	1909	Penobscot River Basin (Maine), Water resources of, 1912.
192	1906	Potomac River Basin (W. Va., Va., Md., etc.), 1907.
358	1913	Rio Grande Basin (N. Mex., Tex., etc.), Water resources of, 1888-1913.
491	1917	St. Mary and Milk Rivers (Mont. and Canada), Water supply of, 1920.
109	1904	Susquehanna River Basin (Pa., Md.), Hydrography of, 1905.

In addition to the records noted above, records of discharge have been published in State reports. Some of these are not contained in the publications of the Geological Survey or are revisions of records previously published in its water-supply papers. The following table contains a list of these reports.

State reports containing compilation of records of discharge

State	Year ending	Report	Issued by
Alabama....	1915	Bull. 17, Water powers of Alabama.....	Geological Survey of Alabama.
Arkansas...	1928	Stream gaging report 1.....	Arkansas Geological Survey.
Georgia....	1920	Bull. 38, Water powers of Georgia.....	Geological Survey of Georgia.
Illinois...	1937	Stream flow data of Illinois.....	Division of Waterways.
Do.....	1911	Water resources of Illinois.....	Rivers and Lakes Commission.
Indiana....	1927	Pub. 72, Surface water supply of Indiana.	Department of Conservation.
Do.....	[a]1930	Pub. 112, Surface water supply of Indiana.	Do.
Iowa.....	1932	Stream-flow records of Iowa.....	Iowa State Planning Board.
Kansas.....	[b]1919	Surface waters of Kansas.....	Kansas Water Commission.
Do.....	[c]1924	.....do.....	Do.

State reports containing compilation of records of discharge--Continued

State	Year ending	Report	Issued by
Kansas....	[d]1928	Surface waters of Kansas.....	Kansas State Board of Agriculture.
Do.....	[e]1935	Stream-flow data of Kansas.....	Do.
Kentucky...	1920	Surface waters of Kentucky.....	Kentucky Geological Survey.
Minnesota..	1913	Water resources investigation of Minnesota.	State Drainage Commission.
Missouri...	1926	Reports of Bureau of Geology and Mines, vol. 20, 2d series, Water Resources of Missouri.	Missouri Bureau of Geology and Mines.
Nebraska...	1914	1st hydrographic report.....	Bureau of Water Power, Irrigation and Drainage.
Do.....	[f]1928	2d hydrographic report.....	Do.
New Jersey.	1928	Bull. 33, Surface water supply of New Jersey.	Department of Conservation and Development.
Do.....	[g]1934	Special Report 5, Surface water supply of New Jersey.	State Water Policy Commission.
New Mexico.	1925	Surface water supply of New Mexico....	Office of the State Engineer.
North Carolina.	1923	Bull. 34, Discharge records of North Carolina streams.	Department of Conservation and Development.
Do.....	[h]1936	Bull. 39, Discharge records of North Carolina streams.	Do.
Oregon.....	1914	Bull. 4, Water resources of the State of Oregon.	Office of the State Engineer.
Do.....	[i]1924	Bull. 7, Water resources of the State of Oregon.	Do.
Do.....	[j]1930	Bull. 8, Water resources of the State of Oregon.	Do.
Do.....	[k]1936	Bull. 9, Water resources of the State of Oregon.	Do.
Pennsylvania	1911	Report of Water Supply Commission of Pennsylvania.	Water Supply Commission of Pennsylvania.
Do.....	[l]1932	Stream-flow records of Pennsylvania...	Department of Forests and Waters.
Tennessee..	1934	Bull. 34, Water resources of Tennessee.	Department of Education.
Do.....	[m]1930	Bull. 40, Surface waters of Tennessee.	Do.
Utah.....	1905	5th Biennial Report, State Engineer...	Office of the State Engineer.
Virginia...	1927	Bull. 31, Water resources of Virginia.	Conservation and Development Commission.
Washington.	1933	Bull. 5, Monthly and yearly summaries of hydrometric data.	Department of Conservation and Development.
Wisconsin..	1914	1st report of Railroad Commission of Wisconsin to Legislature on water powers.	Railroad Commission of Wisconsin.
Do.....	[n]1923	2d report of Railroad Commission of Wisconsin to Legislature on water powers.	Do.

a Includes records for the years 1927-30.
b Includes records for the years 1895-1919.
c Includes records for the years 1919-24.
d Includes records for the years 1924-28.
e Includes records for the years 1928-35.
f Includes records for the years 1914-28.
g Includes records for the years 1928-34.
h Includes records for the years 1889-1936; records of daily and monthly discharge are not included.
i Includes records for the years 1914-24.
j Includes records for the years 1924-30.
k Includes records for the years 1930-36.
l Includes records for the years 1928-32.
m Includes average weekly discharge for the years 1920-30.
n Includes records for the years 1914-23.

Note.- In addition to the records contained in the reports listed above, the following States have issued annual or biennial reports in which are contained records of discharge: California, Colorado, Idaho, Indiana, Missouri, Montana, Nebraska, New Mexico, New York (also New York City Board of Water Supply), North Dakota, Oregon, Pennsylvania, Utah, Washington, and Wyoming.

RECORDS OF DISCHARGE COLLECTED BY AGENCIES OTHER THAN THE GEOLOGICAL SURVEY

The table on the following page contains a list of gaging stations for the area covered by this report at which records of daily discharge were collected during the water year October 1937 to September 1938 by agencies other than the Geological Survey. The records for these stations are not contained in publications of the Geological Survey.

Records of daily discharge collected by agencies other than the Geological Survey

Stream	Location	Period	Collected by	Remarks
Boulger Creek	Near proposed diversion, 9 miles east of Fairview, Utah.	1938	Bureau of Reclamation.	Unpublished
Colorado River	2½ miles above Palisade, Colo.	*1934-38	....do.....	(†)
Gooseberry Creek.	At Gooseberry dam site, 8 miles northeast of Fairview, Utah.	1928-29, 1931, 1938	Bureau of Reclamation and Water Storage Commission.	Unpublished
White River...	Below Left Fork, 1 mile east of Soldier Summit, Utah.	1938	Bureau of Reclamation.	Do.
(‡)	Mexican Springs, New Mexico.	1936-38	Soil Conservation Service.	Do.

*Records for some earlier years published in water-supply papers of Geological Survey.
†Records not published because they do not include water diverted around station for development of power.
‡Four areas comprising less than 3,000 acres each, seven areas comprising between 3,000 and 10,000 acres each, and three areas comprising between 10,000 and 50,000 areas each.

COOPERATION

The work in the several States was done under cooperative agreements as follows: In Arizona (except for Virgin River at Littlefield), with the office of the State water commissioner, Jesse C. Wanslee, the Salt River Valley Water Users' Association (for certain stations in Salt River Basin), the Metropolitan Water District of Southern California (for certain stations on Williams River and on Colorado River below Boulder Dam), and the Arizona Water Conservation District (for Hassayampa River at Box dam site, near Wickenburg); in Colorado, with the office of the State engineer, M. C. Hinderlider; in New Mexico, with the office of the State engineer, Thomas M. McClure, and the New Mexico Interstate Stream Commission, Thomas M. McClure, secretary; in Utah, with the office of the State engineer, T. H. Humpherys; and in Wyoming, with the office of the State engineer, John D. Quinn.

Assistance in collecting the records was rendered by the following: In Arizona, by the Gila River water commissioner, Charles A. Firth, appointed by the United States District Court; in Colorado, by the Denver Board of Water Commissioners, the Bureau of Reclamation, and the Uncompahgre Valley Water Users' Association; in New Mexico, by the Indian Service; in Utah, by the National Park Service, the Bureau of Reclamation, the Indian Service, and the Utah Power & Light Co.; and in Wyoming, by the United States Weather Bureau.

Funds for the construction, repair, and improvement of gaging stations were allocated to the Geological Survey by the Federal Emergency Administration of Public Works.

DIVISION OF WORK

Data for stations in the several States were collected and prepared for publication under the supervision of the district engineers, as follows: In Arizona (except for Virgin River at Littlefield) and for all stations on Colorado River below the Arizona-Utah State line, W. E. Dickinson, succeeded in April 1938 by J. H. Gardiner; in Colorado (except for Los Pinos River at Ignacio), Robert Follansbee, in collaboration with M. C. Hinderlider, State engineer, and L. T. Burgess, State chief hydrographer; in New Mexico and for Los Pinos River at Ignacio, Colo., Berkeley Johnson; in Utah (except for the five

stations named below) and for Virgin River at Littlefield, Ariz., A. B. Purton; in Wyoming and for five stations in Utah, namely, Green River near Linwood, Henrys Fork at Linwood, Blacks Fork above Blacks Fork ranger station, Blacks Fork at Blacks Fork ranger station, and White River near Watson, Robert Follansbee.

COLORADO RIVER BASIN

COLORADO RIVER MAIN STEM

Colorado River near Grand Lake, Colo.

Location.- Water-stage recorder, lat. 40°14', long. 105°51', in sec. 13, T. 3 N., R. 76 W., half a mile upstream from Grand Lake outlet and 3 miles south of Grand Lake.
Drainage area.- 101 square miles.
Records available.- July 1904 to September 1909, September 1910 to September 1918, May 1934 to September 1938.
Average discharge.- 17 years, 132 second-feet.
Extremes.- Maximum discharge during year, 776 second-feet June 22 (gage height, 4.69 feet); minimum daily discharge, 17 second-feet Mar. 16-18.
1904-9, 1910-18, 1934-38: Maximum discharge, 1,840 second-feet June 15, 16, 1918 (gage height, 7.0 feet, former site and datum); minimum, 1.6 second-feet July 17,1934 (gage height, 1.32 feet).
Remarks.- Records excellent except those for periods of ice effect, Nov. 23-28, Dec. 1-3, Dec. 20 to Apr. 9, which were computed on basis of three discharge measurements and weather records and are good. Diversions for irrigation above station. Transmountain diversion by Grand River ditch through La Poudre Pass to Cache La Poudre River Basin.

Rating tables, water year 1937-38 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 31
(Shifting-control method used Oct.1-31)

2.0	24
2.2	41
2.4	65

Jan. 1 to Sept. 30
(Shifting control method used Apr. 10 to May 18)

1.9	16	2.8	140
2.0	22	3.0	190
2.2	38	3.5	340
2.4	61	4.0	514
2.6	96	4.5	700

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60	53	26	22	26	19	22	471	572	371	44	32
2	62	55	24	21	27	20	22	367	590	309	43	42
3	53	43	26	21	27	20	21	313	608	281	42	94
4	49	42	28	22	25	20	20	241	645	253	41	66
5	48	37	35	22	24	22	20	203	645	227	39	70
6	42	36	26	23	24	21	22	168	676	208	37	58
7	38	42	26	24	24	20	22	145	626	182	35	51
8	39	46	26	23	27	19	23	140	611	160	37	75
9	41	50	30	24	28	18	23	126	554	148	46	57
10	42	43	25	25	28	18	21	138	557	138	45	54
11	41	48	26	26	28	19	22	152	543	158	40	54
12	36	44	29	27	26	19	24	185	557	150	39	61
13	34	36	34	27	25	19	27	230	586	115	44	73
14	33	42	36	28	26	19	34	320	546	113	38	66
15	40	36	31	29	23	20	40	374	449	115	36	53
16	52	32	25	27	24	17	40	432	415	111	34	48
17	49	30	26	26	21	17	47	456	405	109	31	48
18	60	38	29	27	21	17	70	411	449	117	28	48
19	58	39	26	26	23	18	106	394	425	94	26	45
20	44	31	21	24	21	18	119	381	449	87	27	45
21	45	34	19	25	21	18	160	367	525	83	28	36
22	46	33	20	26	22	19	131	364	696	82	28	36
23	52	24	22	26	23	20	131	320	672	71	27	35
24	52	26	25	24	22	20	168	330	554	66	27	35
25	52	28	26	22	20	20	227	367	492	63	28	38
26	51	25	27	24	19	21	287	405	446	60	31	37
27	51	24	27	26	19	21	263	478	425	61	35	38
28	51	26	27	26	19	20	266	528	388	63	43	34
29	51	34	25	25	-	20	333	618	388	57	39	35
30	51	32	24	25	-	20	408	656	381	51	38	35
31	51	-	23	24	-	20	-	575	-	47	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,474	62	33	47.5	2,920
November	1,109	55	24	37.0	2,200
December	820	36	19	26.5	1,630
Calendar year 1937	26,160	358	18	71.7	51,890
January	767	29	21	24.7	1,520
February	663	28	19	23.7	1,320
March	599	22	17	19.3	1,190
April	3,119	408	20	104	6,190
May	10,655	656	126	344	21,130
June	15,875	696	381	529	31,490
July	4,150	371	47	134	8,230
August	1,112	46	26	35.9	2,210
September	1,499	94	32	50.0	2,970
Water year 1937-38	41,842	696	17	115	83,000

Peak discharge.- June 22 (6 p.m.) 776 sec.ft.

158585 O—39——2

Colorado River near Granby, Colo.

Location.- Water-stage recorder, lat. 40°07', long. 105°54', in sec. 22, T. 2 N., R. 76 W., 1½ miles upstream from Willow Creek and 4 miles northeast of Granby.

Drainage area.- 322 square miles.

Records available.- June 1908 to September 1911, May 1934 to September 1938.

Extremes.- Maximum discharge during year, 3,010 second-feet June 22 (gage height, 4.66 feet); minimum daily discharge, 35 second-feet Feb. 26 to Mar. 1.
1908-11, 1934-38: Maximum discharge, 4,100 second-feet June 20, 1909 (gage height, 5.5 feet, former datum); minimum occurred during period of incomplete record in winter.

Remarks.- Records excellent except those for period of ice effect, Nov. 23 to Apr. 15, which were computed on basis of three discharge measurements and weather records and are good. Diversions for irrigation above station.

Rating tables, water year 1937-38 except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 22

1.0	45
1.2	84
1.4	140
1.6	220

Apr. 16 to Sept. 30
(Shifting-control method used Apr. 15 to May 5, Sept. 4-28)

1.0	55	2.4	700
1.2	98	2.6	840
1.4	160	3.0	1,190
1.6	240	3.5	1,680
1.8	332	4.0	2,220
2.0	440	4.6	2,940
2.2	560		

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	119	156	56	50	48	35	46	1,240	2,080	1,730	294	133
2	137	148	54	48	42	36	50	1,100	2,210	1,540	280	150
3	128	137	52	50	46	36	52	992	2,330	1,410	271	337
4	125	131	54	50	46	38	48	805	2,520	1,280	266	412
5	119	134	62	52	44	38	45	665	2,470	1,200	258	374
6	110	122	60	54	43	38	48	518	2,500	1,090	244	303
7	105	140	58	54	42	38	52	440	2,300	974	232	271
8	107	128	60	52	42	36	52	412	2,210	880	232	276
9	107	122	64	52	43	36	50	358	2,010	848	244	240
10	105	119	62	50	44	36	50	358	2,100	819	215	211
11	100	116	68	52	44	38	50	363	2,080	784	202	202
12	97	116	72	52	44	38	58	412	2,160	721	202	219
13	94	113	76	54	42	40	68	476	2,360	581	206	244
14	92	94	78	58	42	40	74	707	2,230	686	198	262
15	107	92	78	60	40	40	90	992	1,800	819	183	240
16	122	84	64	56	42	38	136	1,300	1,690	735	171	215
17	131	92	62	54	40	38	126	1,460	1,790	672	153	198
18	156	94	66	54	38	40	168	1,350	2,000	679	143	179
19	148	94	62	52	38	40	206	1,270	1,840	595	126	160
20	131	97	54	48	40	40	202	1,240	1,880	542	115	150
21	131	97	44	48	38	40	266	1,190	2,320	512	112	143
22	128	97	45	47	38	40	303	1,160	2,890	482	104	136
23	131	75	50	46	38	42	440	1,040	2,590	440	101	129
24	131	66	54	45	40	44	560	1,030	2,090	412	101	123
25	140	68	56	45	38	44	714	1,120	1,990	384	112	129
26	144	62	58	45	35	45	777	1,270	1,790	368	115	129
27	148	54	56	46	35	46	735	1,560	1,740	358	123	118
28	156	52	56	46	35	46	749	1,810	1,720	358	150	109
29	160	54	54	45	-	46	819	2,300	1,760	348	150	106
30	164	58	54	45	-	46	974	2,510	1,820	322	140	101
31	160	-	52	44	-	46	-	2,150	-	303	143	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,933	164	92	127	7,800
November	3,012	156	52	100	5,970
December	1,851	78	44	59.7	3,670
Calendar year 1937	101,514	1,490	30	278	201,400
January	1,554	60	44	50.1	3,080
February	1,153	48	35	41.2	2,290
March	1,244	46	35	40.1	2,470
April	8,008	974	45	267	15,880
May	33,598	2,510	358	1,084	66,640
June	63,270	2,890	1,690	2,109	125,500
July	22,872	1,730	303	738	45,370
August	5,586	294	101	180	11,080
September	5,999	412	101	200	11,900
Water year 1937-38	152,080	2,890	35	417	301,600

Colorado River at Hot Sulphur Springs, Colo.

Location.- Water-stage recorder, lat. 40°05', long. 106°05', in sec. 1, T. 1 N., R. 78 W., 1 mile east of Hot Sulphur Springs and 3 miles upstream from Beaver Creek.

Drainage area.- 782 square miles.

Records available.- July 1904 to September 1909, September 1910 to September 1924, October 1925 to September 1928, and October 1933 to September 1938 in reports of Geological Survey. July 1904 to September 1909, September 1910 to September 1924, and October 1925 to September 1938 in reports of State engineer.

Average discharge.- 31 years (1904-9, 1910-23, 1925-38), 740 second-feet.

Extremes.- Maximum discharge during year, 5,110 second-feet May 30 (gage height, 4.56 feet); minimum daily discharge, 92 second-feet Feb. 21, 22.

1904-9, 1910-24, 1925-38: Maximum discharge, 10,300 second-feet June 15, 1921 (gage height, 8.7 feet, former site and datum); minimum occurred during period of no record in winter.

Remarks.- Records excellent except those for period of ice effect, Dec. 1 to Apr. 8 (computed on basis of five discharge measurements and weather records), and period of missing gage heights, Sept. 3-17 (computed on basis of records for Colorado River and Willow Creek near Granby and Fraser River at Granby), which are good. Diversions for irrigation above station. Transmountain diversion through Pioneer bore of Moffat tunnel from Fraser River Basin to South Platte River Basin. Total flow diverted during water year 1937-38 was 42,980 acre-feet (See p. 33 for record by months). Transmountain diversion by Grand River ditch through La Poudre Pass to Cache La Poudre River Basin.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	284	256	220	130	110	115	300	2,450	3,960	2,570	425	280
2	304	249	180	120	110	115	280	2,050	4,060	2,250	415	288
3	260	237	170	120	105	110	290	1,910	4,230	2,050	405	700
4	245	234	170	120	105	110	300	1,580	4,570	1,880	395	690
5	222	219	180	120	105	110	290	1,340	4,480	1,780	380	640
6	212	201	170	120	105	110	275	1,180	4,460	1,610	370	570
7	201	249	170	120	105	100	250	1,020	4,140	1,430	350	500
8	208	219	175	123	105	100	245	920	3,810	1,280	365	520
9	222	194	175	120	108	100	253	846	3,450	1,170	395	480
10	208	230	170	120	105	105	256	864	3,600	1,090	370	450
11	201	222	180	115	110	105	256	882	3,490	1,060	341	400
12	197	219	190	112	110	105	327	970	3,490	1,000	336	440
13	197	230	200	115	110	110	390	1,170	3,850	846	341	490
14	187	180	200	130	110	120	440	1,760	3,720	940	332	470
15	215	215	200	145	105	130	360	2,350	3,000	1,110	313	430
16	245	183	190	140	105	130	375	3,020	2,740	1,060	296	400
17	253	190	175	130	100	130	415	3,270	2,820	960	280	375
18	304	201	180	125	95	130	577	3,090	3,110	1,000	260	350
19	272	197	180	125	95	140	765	2,890	2,820	855	237	332
20	241	215	180	125	95	170	612	2,840	2,810	774	226	313
21	256	219	140	130	92	190	598	2,670	3,400	729	215	300
22	249	215	115	115	92	185	873	2,640	4,550	696	208	296
23	245	156	115	115	95	192	1,280	2,390	4,370	626	208	288
24	245	197	125	110	95	200	1,450	2,260	3,450	584	204	268
25	253	234	140	110	98	220	1,680	2,350	3,360	558	253	256
26	256	166	145	110	98	220	1,910	2,570	3,000	534	268	253
27	253	163	145	110	100	230	1,630	3,090	2,820	522	256	241
28	256	183	140	110	105	230	1,510	3,560	2,820	528	264	230
29	260	201	140	110	-	240	1,760	4,350	2,790	522	238	219
30	256	194	135	110	-	250	1,950	4,890	2,910	480	296	215
31	256	-	130	110	-	260	-	4,240	-	445	309	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	7,463	304	187	241	14,800
November	6,268	256	156	209	12,430
December	5,125	220	115	165	10,170
Calendar year 1937	165,135	2,420	77	452	327,500
January	3,715	145	110	120	7,370
February	2,873	110	92	103	5,700
March	4,762	260	100	154	9,450
April	21,897	1,950	245	730	43,430
May	71,412	4,890	846	2,304	141,600
June	106,080	4,570	2,740	3,536	210,400
July	32,939	2,570	445	1,063	65,330
August	9,601	425	204	310	19,040
September	11,684	700	215	389	23,170
Water year 1937-38	283,819	4,890	92	778	562,900

Colorado River at Glenwood Springs, Colo.

Location.- Water-stage recorder, lat. 39°33', long. 107°19', in sec. 9, T. 6 S., R. 89 W., at Glenwood Springs, half a mile upstream from Roaring Fork. Zero of gage is 5,720.71 feet above mean sea level.

Drainage area.- 4,560 square miles.

Records available.- January 1900 to September 1938. May to July 1899 at site just above Roaring Fork.

Average discharge.- 39 years, 3,030 second-feet.

Extremes.- Maximum discharge during year, 20,900 second-feet June 6 (gage height, 10.36 feet); minimum daily discharge, 412 second-feet Dec. 22.
1900-38: Maximum discharge, 30,100 second-feet June 14, 15, 1918 (gage height, 12.55 feet); minimum daily discharge, 286 second-feet Jan. 22, 1935.

Remarks.- Records excellent except those for period of missing gage heights, Jan. 5-8, which were computed on basis of weather records and are good. Diversions for irrigation above station. During low-water period flow is regulated by Shoshone power plant, 6 miles upstream.

Rating table, water year 1937-38 (gage height, in feet, and discharge in second-feet)

2.5	380	3.6	1,100	6.0	5,150
2.6	425	3.8	1,300	7.0	7,970
2.8	524	4.0	1,520	8.0	11,110
3.0	640	4.5	2,190	9.0	14,800
3.2	765	5.0	3,010	10	19,130
3.4	917	5.5	3,950	10.4	21,070

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	869	1,190	787	952	598	772	535	8,750	17,200	11,100	2,280	1,930
2	926	1,190	688	558	676	1,060	943	8,990	16,900	9,710	2,160	2,020
3	1,190	1,180	658	628	688	1,150	628	7,880	17,600	8,810	2,130	2,070
4	1,140	1,170	720	670	640	1,530	909	7,160	19,000	8,150	2,060	2,460
5	1,120	1,150	688	620	604	1,000	952	6,190	19,700	7,540	2,000	2,650
6	877	1,050	808	570	592	901	1,200	5,370	20,400	7,040	1,920	2,500
7	1,080	706	765	540	652	893	1,540	4,520	19,600	6,330	1,850	2,280
8	926	1,240	787	490	713	845	1,240	4,060	18,000	5,800	1,890	2,310
9	917	1,160	765	504	713	830	1,000	3,790	16,600	5,390	1,900	2,390
10	917	1,150	726	652	765	853	952	3,600	16,200	5,040	2,000	2,280
11	935	979	752	628	752	869	1,180	3,690	16,100	4,750	2,040	2,090
12	926	1,140	801	658	877	979	1,230	3,910	15,400	4,500	1,960	2,040
13	869	1,090	861	628	779	1,180	1,270	4,490	16,300	4,400	1,930	2,250
14	869	979	1,100	1,050	752	1,280	1,810	5,860	16,400	4,340	1,880	2,360
15	970	837	787	610	752	1,670	2,280	8,030	14,500	4,380	1,900	2,210
16	1,170	1,040	787	694	732	1,250	2,030	10,400	13,100	4,550	1,760	2,040
17	1,180	1,030	688	739	720	1,080	1,950	11,600	12,500	4,380	1,650	1,900
18	1,230	1,040	801	726	640	1,120	2,190	11,800	12,900	4,120	1,530	1,810
19	1,290	1,020	604	713	586	1,260	2,700	11,500	12,700	4,010	1,470	1,680
20	1,300	861	524	670	713	1,290	3,540	11,000	11,600	3,770	1,400	1,590
21	1,280	739	493	646	726	1,290	3,030	10,500	12,100	3,480	1,250	1,500
22	1,270	1,190	412	670	720	1,570	3,040	10,200	14,500	3,350	1,310	1,490
23	1,240	1,050	504	622	720	1,250	3,640	9,930	15,900	3,150	1,280	1,460
24	1,220	935	610	640	713	1,070	4,930	8,930	15,200	2,960	1,230	1,460
25	1,120	837	652	569	720	926	5,830	8,630	13,200	2,820	1,190	1,460
26	1,210	765	646	604	720	1,270	6,780	9,090	12,100	2,700	1,220	1,460
27	1,190	823	628	580	732	1,220	7,240	10,200	11,400	2,670	1,260	1,370
28	1,170	444	664	563	746	1,000	6,310	12,100	11,300	2,700	1,770	1,380
29	1,180	845	569	558	-	943	6,450	14,800	11,400	2,670	2,060	1,330
30	1,010	787	524	676	-	1,040	7,360	17,100	11,600	2,590	1,590	1,260
31	1,190	-	580	580	-	885	-	17,600	-	2,390	1,580	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	33,791	1,300	869	1,090	67,020
November	29,617	1,240	444	987	58,740
December	21,379	1,100	412	690	42,400
Calendar year 1937	742,215	10,300	412	2,033	1,472,000
January	20,008	1,050	490	645	39,690
February	19,741	877	586	705	39,160
March	34,276	1,670	772	1,106	67,990
April	84,689	7,360	535	2,823	168,000
May	271,660	17,600	3,600	8,733	538,800
June	451,400	20,400	11,300	15,050	895,300
July	149,590	11,100	2,390	4,825	296,700
August	53,450	2,280	1,190	1,724	106,000
September	57,030	2,650	1,260	1,901	113,100
Water year 1937-38	1,226,631	20,400	412	3,361	2,433,000

Colorado River near Cameo, Colo.

Location.- Water-stage recorder, lat. 39°13', long. 108°15', in sec. 6, T. 10 S., R. 97 W., 3.4 miles upstream from Plateau Creek and 6.7 miles northeast of Cameo.

Drainage area.- 8,055 square miles.

Records available.- October 1933 to September 1938.

Extremes.- Maximum discharge during year, 31,200 second-feet June 6 (gage height, 10.73 feet); minimum daily discharge, 1,080 second-feet Feb. 20.
1933-38: Maximum discharge, 36,000 second-feet June 16, 1935 (gage height, 10.91 feet); minimum daily discharge, 738 second-feet Feb. 28, 1935.

Remarks.- Records excellent except those for periods of ice effect, Dec. 24 to Feb. 10, Mar. 7-12, which were computed on basis of combined flow of Colorado River at Glenwood Springs and Roaring Fork at Glenwood Springs and are good. Many diversions for irrigation above station.

Rating table, water year 1937-38 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.0	540	4.0	4,690
1.2	680	5.0	6,770
1.4	850	6.0	9,400
1.6	1,050	7.0	12,700
2.0	1,500	8.0	17,000
2.5	2,150	9.0	21,900
3.0	2,880	10.0	27,060
3.5	3,700	10.7	31,000

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,670	1,860	1,510	1,400	1,200	1,600	1,430	15,100	26,300	19,200	3,890	2,880
2	1,790	1,870	1,450	1,420	1,220	1,730	1,250	15,400	26,100	17,300	3,650	3,370
3	1,880	1,840	1,430	1,320	1,260	3,110	1,460	13,400	26,600	15,700	3,520	3,990
4	2,050	1,840	1,510	1,250	1,240	3,910	1,280	11,600	28,400	14,400	3,400	4,310
5	2,000	1,840	1,480	1,120	1,220	3,970	1,520	10,300	29,600	13,300	3,250	4,030
6	1,930	1,820	1,460	1,130	1,200	1,720	1,740	9,160	30,400	11,800	3,090	3,830
7	1,790	1,940	1,540	1,120	1,180	1,320	1,950	7,950	30,500	10,800	3,020	3,610
8	1,930	1,950	1,540	1,160	1,220	1,300	2,000	7,100	28,000	9,910	3,050	3,570
9	1,790	1,970	1,540	1,220	1,300	1,350	1,740	6,510	26,000	9,100	3,060	3,680
10	1,780	1,860	1,490	1,330	1,400	1,420	1,640	6,160	25,500	8,640	3,170	3,650
11	1,790	1,820	1,550	1,320	1,620	1,500	1,660	6,040	25,500	8,210	3,110	3,450
12	1,800	1,780	1,620	1,310	1,820	1,680	1,840	6,370	24,600	7,920	3,030	3,700
13	1,780	1,830	1,940	1,300	1,790	1,870	1,980	7,140	25,500	7,950	3,160	3,970
14	1,750	1,780	1,740	1,300	1,340	2,010	2,370	8,960	27,100	7,950	3,240	3,830
15	2,920	1,580	1,830	1,350	1,300	2,070	3,000	12,100	24,000	7,740	3,220	3,680
16	2,440	1,690	1,570	1,550	1,330	2,250	3,140	16,400	22,000	7,640	3,060	3,400
17	2,220	1,720	1,610	1,420	1,250	1,830	3,060	18,800	21,200	7,460	2,860	3,190
18	2,400	1,720	1,540	1,400	1,230	1,730	3,140	18,800	22,000	7,050	2,670	3,030
19	2,260	1,680	1,610	1,350	1,110	1,730	4,010	18,400	22,200	6,700	2,540	2,860
20	2,160	1,740	1,330	1,320	1,080	1,820	5,410	17,700	20,900	6,440	2,370	2,720
21	2,140	1,680	1,340	1,300	1,240	1,940	5,780	16,700	21,200	5,990	2,280	2,660
22	2,090	1,630	1,170	1,280	1,230	2,010	5,620	15,900	25,900	5,700	2,190	2,550
23	2,020	1,970	1,430	1,240	1,230	2,070	6,460	15,300	27,000	5,390	2,110	2,480
24	2,010	1,770	1,490	1,220	1,220	1,790	7,900	14,300	25,500	5,110	2,020	2,460
25	1,980	1,680	1,500	1,200	1,190	1,660	9,760	13,800	23,300	4,830	1,980	2,390
26	1,900	1,570	1,470	1,200	1,170	1,620	11,300	14,600	21,400	4,610	1,930	2,330
27	1,970	1,630	1,400	1,200	1,200	1,840	11,800	16,500	20,400	4,570	1,950	2,290
28	1,900	1,500	1,360	1,200	1,340	1,790	11,100	19,600	19,800	4,590	2,080	2,190
29	1,900	1,230	1,300	1,220	-	1,640	11,000	23,500	19,900	4,550	2,250	2,120
30	1,820	1,580	1,300	1,300	-	1,580	12,500	26,300	20,400	4,430	2,370	2,050
31	1,820	-	1,290	1,310	-	1,560	-	26,800	-	4,170	2,360	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	61,680	2,920	1,670	1,990	122,300
November	52,370	1,970	1,230	1,746	103,900
December	46,340	1,940	1,170	1,495	91,910
Calendar year 1937	1,300,760	19,400	960	3,564	2,580,000
January	39,820	1,550	1,120	1,285	78,980
February	36,130	1,820	1,080	1,290	71,660
March	59,420	3,970	1,300	1,917	117,900
April	138,840	12,500	1,250	4,628	275,400
May	436,690	26,800	6,040	14,090	866,200
June	737,200	30,500	19,800	24,570	1,462,000
July	259,150	19,200	4,170	8,360	514,000
August	85,880	3,890	1,930	2,770	170,300
September	94,270	4,310	2,050	3,142	187,000
Water year 1937-38	2,047,790	30,500	1,080	5,610	4,062,000

Colorado River near Cisco, Utah

Location.- Water-stage recorder, lat. 38°49', long. 109°18', in NW¼ sec. 17, T. 23 S., R. 24 E., 1 mile downstream from Dolores River and 11 miles south of Cisco.

Drainage area.- 24,100 square miles.

Records available.- November 1914 to September 1917 and October 1922 to September 1938. October 1913 to November 1914 at Moab, 56 miles downstream. Flow about same at both sites.

Average discharge.- 20 years, 8,522 second-feet.

Extremes.- Maximum discharge during year, 53,700 second-feet June 5 (gage height, 15.78 feet); minimum, 1,580 second-feet Dec. 23 (gage height, 1.50 feet).
1914-17, 1922-33: Maximum discharge, 76,800 second-feet June 19, 1917 (gage height, 19.7 feet); minimum discharge observed, 558 second-feet July 21, 1934 (gage height, 0.44 foot).

Remarks.- Records excellent. Diversions for irrigation and power above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,200	2,940	2,680	2,070	2,500	3,210	3,580	37,000	49,100	31,300	4,780	3,680
2	2,500	2,940	2,590	2,250	2,500	3,780	3,210	39,200	48,200	27,500	4,470	4,470
3	2,500	2,940	2,500	2,280	2,500	5,210	2,760	31,300	46,800	24,100	4,070	8,620
4	2,500	2,940	2,590	2,530	2,380	8,780	2,850	25,400	48,600	22,100	3,780	11,000
5	2,680	3,030	2,850	2,680	2,680	7,180	3,030	21,700	51,900	20,100	3,680	8,780
6	2,680	3,030	2,850	2,590	2,500	4,780	4,170	18,900	52,800	18,500	3,490	7,180
7	2,500	3,210	2,850	2,590	2,280	3,490	5,100	17,300	52,300	16,600	3,400	6,690
8	2,320	4,170	2,760	2,550	2,170	3,210	4,780	15,100	50,000	15,100	3,400	6,930
9	2,390	3,120	2,850	2,500	2,170	3,030	4,270	13,600	45,000	13,300	4,070	6,930
10	2,270	3,120	2,850	2,450	2,320	2,940	3,970	12,500	41,400	12,200	4,890	6,690
11	2,200	3,210	2,760	2,420	2,760	3,030	4,780	12,200	40,500	11,600	3,970	6,690
12	2,170	3,210	3,030	2,420	3,210	3,120	7,180	12,900	38,800	10,900	3,570	8,780
13	2,150	3,030	4,070	2,390	3,420	3,300	9,660	15,100	37,400	10,300	3,780	9,360
14	2,140	3,120	4,370	2,500	3,400	3,680	10,300	18,500	42,800	10,300	4,470	7,430
15	3,970	3,030	3,490	2,500	2,850	4,370	10,900	25,400	43,200	10,900	4,780	6,930
16	5,000	2,850	3,300	2,590	2,680	4,470	9,660	33,500	37,000	10,300	4,470	6,690
17	4,170	2,850	3,120	2,680	2,590	4,170	10,300	38,800	34,400	9,960	3,970	6,100
18	3,730	3,030	3,030	2,760	2,420	3,780	12,900	39,600	33,000	9,660	3,490	5,880
19	3,780	3,030	2,850	2,760	2,280	3,680	16,600	36,600	33,900	9,070	3,210	5,430
20	3,580	3,030	2,950	2,760	2,250	3,580	21,300	34,400	32,600	8,780	2,760	5,100
21	3,490	3,030	2,750	2,590	2,280	3,680	23,700	32,200	30,900	7,950	2,500	4,680
22	3,400	2,850	2,400	2,530	2,390	4,070	25,400	29,600	35,700	7,430	2,320	4,580
23	3,300	3,030	1,800	2,500	2,400	4,580	27,500	28,800	44,100	6,930	2,140	4,270
24	3,210	3,400	1,900	2,280	2,500	4,170	30,000	26,600	43,200	6,450	1,990	4,170
25	3,210	3,120	2,150	1,880	2,340	3,680	34,400	25,400	39,600	6,100	1,860	4,170
26	3,210	3,030	2,370	1,930	2,200	3,870	37,400	26,200	35,200	5,990	1,870	3,780
27	3,120	2,850	2,500	2,010	2,150	4,370	37,000	29,200	33,000	5,990	1,840	3,680
28	3,120	2,760	2,420	2,200	2,230	4,680	31,300	33,900	30,500	5,320	1,870	3,490
29	3,120	2,680	2,420	2,170	-	4,580	31,300	41,000	29,600	5,320	1,990	3,300
30	3,030	2,590	2,250	2,340	-	4,270	33,500	48,200	30,500	5,540	2,150	3,120
31	3,120	-	2,170	2,500	-	3,870	-	51,400	-	5,210	2,760	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	92,810	5,000	2,140	2,994	184,100
November	91,170	4,170	2,590	3,039	180,800
December	85,370	4,370	1,800	2,754	169,300
Calendar year 1937	2,352,450	39,200	-	6,462	4,678,000
January	75,320	2,760	1,880	2,430	149,400
February	70,720	3,490	2,150	2,526	140,300
March	128,610	8,780	2,940	4,149	255,100
April	462,800	37,400	2,760	15,430	918,000
May	871,600	51,400	12,200	28,120	1,729,000
June	1,212,000	52,200	29,600	40,400	2,404,000
July	370,800	31,300	5,210	11,960	735,500
August	102,090	4,390	1,840	3,293	202,500
September	178,600	11,000	3,120	5,953	354,200
Water year 1937-38	3,741,890	52,800	1,800	10,250	7,422,000

Colorado River at Lees Ferry, Ariz.

Location.- Water-stage recorder, lat. 36°51'45" (revised), long. 111°33'15" (revised), in NE¼SE¼ sec. 13, T. 40 N., R. 7 E., at head of Marble Gorge, at Lees Ferry, just above mouth of Paria River, 28 miles below Utah state line, 79 miles below mouth of San Juan River, and 355 miles above Boulder Dam. Zero of gage is 3,106.16 feet above mean sea level (general adjustment of 1929) or 3,106.35 feet above mean sea level (general adjustment of 1912).

Drainage area.- 107,900 square miles.

Records available.- June 1921 to September 1938.

Average discharge.- 17 years (1921-38), 17,790 second-feet.

Extremes.- Maximum discharge during year, 101,400 second-feet June 8 (gage height, 18.40 feet); minimum, 4,120 second-feet Jan. 13 (gage height, 6.53 feet).

1921-38: Maximum discharge, 220,000 second-feet (revised) June 18, 1921 (gage height, 28.5 feet, from floodmarks), from rating curve extended above 120,000 second-feet by comparison with rating for station near Grand Canyon.

Maximum discharge known, 300,000 second-feet about July 7, 1884 (gage height, 31.5 feet, present site and datum, referenced from floodmark at mouth of Paria River), from rating curve extended above 220,000 second-feet.

The figures of maximum discharge for the water years 1921-22 and 1922-23 have been revised as follows:

1921-22: Maximum discharge, 116,000 second-feet May 31 (formerly published as June 2), gage height, 19.8 feet; maximum gage height, 19.9 feet June 2.

1922-23: Maximum discharge, 98,300 second-feet May 31 (gage height, 17.5 feet).

Remarks.- Records excellent. Discharge for periods of missing gage heights Dec. 19-25, Feb. 19-22 computed from partial gage-height record and comparison with records for station at Grand Canyon. Diversions for irrigation above station. During the year one hundred sixty-seven discharge measurements were made.

Revisions.- The figures of discharge for June to September 1921 and the water years 1921-22 and 1922-23 have been revised and supersede those published in Water-Supply Papers 549 and 569.

Discharge, in second-feet, 1921-23 and 1937-38

1921

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									-	66,200	29,600	23,800
2									-	62,000	37,000	25,200
3									-	58,300	29,600	22,500
4									-	54,200	26,600	21,800
5									-	52,400	23,500	21,100
6									-	49,500	20,700	20,100
7									-	46,700	19,400	18,100
8									-	42,400	18,800	16,200
9									-	37,300	17,500	15,100
10									-	34,000	16,600	14,200
11									-	30,800	16,200	12,800
12									-	29,600	16,600	12,100
13									153,000	29,300	16,600	11,600
14									169,000	28,100	14,800	10,900
15									185,000	28,500	15,400	10,000
16									197,000	29,300	19,400	9,630
17									204,000	28,100	16,000	9,440
18									214,000	32,000	20,400	8,500
19									201,000	31,600	17,500	8,680
20									177,000	31,200	15,600	8,150
21									152,000	32,000	24,500	8,150
22									129,000	28,900	26,200	7,980
23									114,000	29,600	36,800	7,980
24									97,300	28,500	48.200	7,980
25									88,000	27,700	64,100	7,640
26									83,300	26,600	51,900	7,810
27									80,600	26,600	46,000	7,640
28									78,900	27,700	35.200	7,310
29									74,400	33,200	30,000	7,150
30									71,500	26,200	27,700	6,830
31									-	25,500	25,200	-

Discharge, in second-feet, of Colorado River at Lees Ferry, Ariz., 1921-23 and 1937-38--Continued

1921-22

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,120	6,780	7,650	8,580	5,150	9,600	17,200	42,500	114,000	52,100	11,900	8,550
2	11,800	6,780	7,470	8,390	5,150	9,390	16,000	46,600	113,000	48,800	12,100	8,740
3	7,830	6,780	7,470	8,200	5,020	9,390	14,500	53,200	107,000	46,100	12,400	8,740
4	7,470	6,780	7,300	8,580	5,150	8,580	13,500	55,400	95,700	44,000	13,400	10,800
5	6,780	6,950	7,120	10,000	5,280	7,650	13,000	55,400	86,200	42,500	14,900	11,700
6	6,950	7,120	7,120	8,980	5,020	7,300	14,000	61,000	81,200	36,600	14,100	9,930
7	6,950	7,300	7,120	8,980	5,280	7,120	16,500	62,700	81,200	34,800	12,400	8,930
8	7,120	7,300	7,470	8,390	5,020	6,780	17,800	71,700	84,500	32,900	11,900	8,930
9	6,780	7,120	6,950	7,300	4,900	6,780	18,800	81,200	88,500	31,200	11,700	9,120
10	6,780	7,120	6,450	6,620	5,020	6,620	18,100	86,800	93,500	28,200	11,000	8,550
11	6,780	7,120	5,830	5,280	6,450	6,290	17,800	85,100	104,000	27,000	9,930	8,180
12	6,780	7,120	5,830	4,430	10,900	6,130	17,800	81,200	108,000	25,000	10,600	7,820
13	6,950	6,950	5,550	3,900	10,000	6,130	18,100	72,800	108,000	23,100	9,120	7,300
14	7,120	6,950	5,280	3,700	9,600	6,130	17,500	65,500	102,000	22,400	8,930	6,960
15	6,780	6,780	5,020	3,700	10,200	6,290	16,800	61,000	99,700	21,300	8,740	6,640
16	6,780	6,450	5,020	4,110	9,810	6,780	15,700	56,500	99,100	19,300	8,180	6,480
17	6,450	6,450	5,150	4,110	8,390	10,000	14,800	54,300	97,400	18,400	8,180	6,320
18	6,450	6,780	5,420	4,320	7,650	16,800	14,000	51,500	87,900	16,800	8,550	6,170
19	6,130	6,780	5,980	4,540	7,650	22,600	14,300	50,400	79,500	15,400	8,550	5,720
20	6,290	6,950	6,130	4,540	7,830	24,500	14,000	55,400	75,600	14,600	11,500	5,580
21	6,450	6,950	6,450	4,900	8,780	31,200	13,500	60,800	75,600	13,800	11,000	5,580
22	6,130	6,950	7,300	4,430	10,200	31,200	12,500	65,600	75,000	13,100	11,700	5,300
23	6,130	7,120	7,470	4,220	10,200	24,500	13,500	73,800	75,000	12,800	12,400	5,300
24	6,130	6,950	8,020	4,000	10,700	21,200	17,500	78,900	72,200	11,900	12,400	5,170
25	6,130	6,620	8,580	4,110	10,700	21,900	24,900	83.800	71,700	11,200	19,300	5,040
26	6,780	6,620	9,810	4,430	10,500	21,200	30,700	91,100	68,900	10,800	17,800	5,040
27	7,120	7,120	10,500	4,900	10,000	23,700	32,900	95,200	65,500	10,400	12,600	4,920
28	7,650	7,470	11,800	4,770	9,810	24,500	36,200	103,000	61,600	10,400	11,000	4,920
29	7,650	7,470	10,700	4,430	-	24,500	40,000	110,000	57,100	10,100	10,400	4,790
30	6,780	7,650	9,180	4,430	-	22,200	42,000	114,000	55,400	9,930	9,320	4,790
31	6,450	-	8,780	4,660	-	19,400	-	116,000	-	10,100	8,930	-

1922-23

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,660	5,170	7,130	5,720	6,260	7,530	8,690	21,400	94,200	58,800	25,200	21,100
2	4,540	5,300	6,640	5,870	6,090	7,340	13,100	22,500	90,700	55,400	22,700	19,400
3	4,540	5,580	7,130	6,320	6,090	7,340	16,100	26,300	89,600	51,900	22,700	15,000
4	4,540	6,020	7,130	5,720	6,090	6,980	19,400	30,400	87,800	49,600	21,500	13,600
5	4,660	6,480	6,960	5,440	6,090	6,980	21,100	31,700	85,500	47,200	20,800	13,100
6	4,660	6,480	6,800	5,870	6,090	6,980	20,800	35,400	86,100	43,800	20,800	12,600
7	4,790	6,480	6,640	5,170	5,920	7,340	20,400	40,900	85,500	41,000	20,400	12,100
8	4,790	6,640	6,960	5,300	5,400	7,910	18,300	47,300	80,300	40,400	19,000	11,100
9	4,660	6,960	7,130	5,300	5,230	7,910	17,000	50,700	75,100	39,400	17,700	10,600
10	4,540	7,130	7,130	5,580	5,230	7,530	15,800	56,500	73,900	40,400	16,400	10,400
11	4,540	7,130	6,960	6,020	5,060	7,160	15,800	58,900	71,600	42,100	17,700	9,740
12	4,540	6,960	6,800	6,170	5,060	7,160	17,700	63,800	70,400	42,100	16,700	9,740
13	4,420	6,960	6,640	6,020	5,060	7,160	19,000	67,400	69,900	41,000	22,300	9,960
14	4,420	6,960	6,800	6,170	5,230	7,530	19,000	71,500	72,800	40,400	23,500	9,960
15	4,540	7,130	6,320	6,320	5,230	7,910	18,600	71,000	77,400	38,800	28,800	9,520
16	4,540	7,130	6,170	6,480	5,400	7,720	19,000	69,200	82,000	38,200	27,900	8,690
17	4,540	7,300	5,870	6,480	5,740	7,720	21,100	63,200	85,500	39,400	27,400	8,300
18	4,540	7,300	6,170	6,320	5,920	7,720	23,100	57,100	87,800	35,600	28,400	9,310
19	4,540	6,960	6,960	6,260	6,090	7,720	24,800	54,700	87,800	35,600	29,200	15,000
20	4,540	6,640	7,130	6,260	6,260	7,720	24,800	55,300	84,400	34,100	32,100	47,800
21	4,790	6,480	7,130	6,260	6,800	7,340	25,600	57,100	79,700	32,100	29,200	28,400
22	4,790	6,480	7,130	6,090	6,800	7,160	28,400	60,800	74,500	31,600	25,200	16,700
23	4,790	6,640	7,130	6,090	6,980	6,980	30,700	67,400	70,400	31,200	22,700	13,300
24	4,790	6,800	6,480	6,090	6,980	6,980	31,200	72,700	67,500	34,100	21,500	12,100
25	4,790	6,960	6,020	6.260	7,160	6,980	32,100	73,300	64,600	31,600	19,000	14,100
26	4,790	6,960	4,920	6,260	7,340	6,980	29,700	70,400	61,200	28,400	18,000	19,000
27	4,920	6,960	4,920	6,440	7,530	6,800	26,100	72,100	59,400	27,000	16,700	17,700
28	4,920	7,130	4,920	6,620	7,530	6,620	23,100	75,600	60,000	25,600	15,300	16.100
29	5,170	6,960	4,920	6,440	-	6,620	21,500	85,400	61,200	24,400	14,100	14,400
30	5,170	6,960	5,300	6,260	-	6,440	20,800	93,100	62,300	24,000	18,600	14,100
31	5,170	-	5,580	6,260	-	6,980	-	96,200	-	26,600	18,300	-

Discharge, in second-feet, of Colorado River at Lees Ferry, Ariz., 1921-23 and 1937-38--Continued

1937-38

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15,000	6,770	6,130	4,740	5,070	6,370	14,100	59,900	88,600	59,900	11,000	5,100
2	22,600	6,520	5,950	4,580	5,260	7,150	12,300	64,500	95,900	64,500	11,200	6,930
3	10,700	6,520	5,920	4,380	5,130	11,600	11,200	69,000	93,800	63,400	11,000	11,300
4	7,640	6,490	5,840	4,260	5,310	18,600	10,100	69,000	91,700	54,200	10,300	16,200
5	6,370	6,160	5,840	4,380	5,610	19,800	9,280	61,100	91,700	47,500	9,470	19,200
6	5,780	6,160	5,900	4,770	5,750	20,500	8,890	56,400	97,000	45,400	8,700	24,500
7	5,500	6,250	5,780	4,920	5,840	19,800	9,280	50,800	100,300	42,300	8,520	22,400
8	5,360	6,250	5,840	5,200	5,950	17,400	10,100	44,400	99,200	38,400	9,080	19,800
9	5,420	6,280	5,900	5,390	6,040	15,700	10,300	40,300	98,100	35,700	7,980	20,500
10	5,450	6,430	6,130	5,340	5,920	13,600	11,000	36,600	91,700	33,100	8,330	21,100
11	5,280	6,680	6,040	4,940	5,810	12,100	11,400	32,200	84,700	29,800	8,160	22,400
12	4,940	7,210	5,900	4,550	5,610	10,700	10,700	29,800	81,700	26,700	7,980	19,800
13	4,770	7,020	7,880	4,220	5,980	10,700	10,500	26,700	78,700	24,500	12,100	19,800
14	4,770	6,620	7,050	4,190	7,310	11,400	11,900	26,000	74,500	23,800	10,700	20,500
15	4,800	6,400	6,680	4,290	7,440	10,100	16,200	28,200	73,400	21,800	9,080	23,100
16	4,820	6,340	6,930	4,580	7,980	10,500	19,800	30,600	79,700	21,100	9,470	21,100
17	4,900	6,340	8,300	4,870	8,160	11,000	21,800	45,400	76,600	20,500	10,700	17,400
18	5,420	6,220	8,120	5,150	7,810	10,500	19,800	61,100	70,200	20,500	11,000	16,200
19	7,740	6,100	7,600	5,560	7,500	10,100	18,000	66,800	65,700	19,800	9,470	15,100
20	9,160	5,920	7,500	6,220	7,200	10,500	21,100	69,000	63,400	19,200	8,330	13,600
21	8,080	5,870	7,200	7,050	6,900	11,200	31,400	70,200	62,200	18,000	7,640	12,600
22	7,570	6,040	6,700	6,840	6,500	11,400	42,300	71,300	58,700	16,200	6,840	11,600
23	7,780	6,100	6,300	6,490	6,070	10,700	46,500	67,900	61,100	15,700	6,220	11,000
24	7,670	6,100	6,100	6,490	5,780	11,000	53,000	66,800	66,800	15,700	5,780	10,300
25	7,780	5,980	5,800	6,220	5,530	11,000	57,600	62,200	73,400	14,600	5,500	9,680
26	7,740	5,980	5,450	5,840	5,390	10,700	61,100	58,700	73,400	14,100	5,100	9,280
27	7,250	6,100	5,100	5,500	5,670	11,400	64,500	56,400	67,900	13,600	4,840	8,700
28	6,930	6,340	4,840	5,150	6,010	13,600	65,700	56,400	61,100	12,600	4,720	8,520
29	6,990	6,340	4,720	4,770	-	15,700	64,500	62,200	66,800	11,900	4,600	8,160
30	7,050	6,250	4,720	4,460	-	15,700	57,600	71,300	64,500	11,900	4,360	7,640
31	6,840	-	4,700	4,670	-	15,100	-	80,700	-	11,600	4,720	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
June 13-30, 1921	2,469,000	214,000	71,500	137,200	4,897,000
July	1,114,000	66,200	25,500	35,940	2,210,000
August	823,600	64,100	14,800	26,570	1,634,000
September	376,370	25,200	6,830	12,550	746,500
The period					9,488,000
October 1921	215,490	11,800	6,130	6,951	427,400
November	209,280	7,650	6,450	6,976	415,100
December	225,920	11,800	5,020	7,288	448,100
Calendar year					
January 1922	175,930	10,000	3,700	5,675	349,000
February	220,360	10,900	4,900	7,870	437,100
March	456,360	31,200	6,130	14,720	905,200
April	583,900	42,000	12,500	19,460	1,158,100
May	2,242,400	116,000	42,500	72,340	4,447,700
June	2,584,000	114,000	55,400	86,130	5,125,300
July	725,030	52,100	9,930	23,390	1,438,100
August	354,930	19,300	8,180	11,450	704,000
September	212,010	11,700	4,790	7,067	420,500
Water year 1921-22	8,205,610	116,000	3,700	22,480	16,280,000
October 1922	145,630	5,170	4,420	4,698	288,900
November	201,040	7,300	5,170	6,701	398,800
December	199,920	7,130	4,920	6,449	396,500
Calendar year 1922	8,101,510	116,000	3,700	22,200	16,070,000
January 1923	187,860	6,620	5,170	6,060	372,600
February	170,660	7,530	5,060	6,095	338,500
March	225,240	7,910	6,440	7,266	446,800
April	642,790	32,100	8,690	21,430	1,275,000
May	1,819,300	96,200	21,400	58,690	3,608,500
June	2,299,100	94,200	59,400	76,640	4,560,200
July	1,171,800	58,800	24,000	37,800	2,324,200
August	679,800	32,100	14,100	21,930	1,348,400
September	442,920	47,800	8,300	14,760	878,500
Water year 1922-23	8,186,060	96,200	4,420	22,430	16,240,000

Discharge, in second-feet, of Colorado River at Lees Ferry, Ariz., 1921-23 and 1937-38--Continued

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1937	228,100	22,600	4,770	7,358	452,400
November	189,780	7,210	5,870	6,326	376,400
December	192,860	8,300	4,700	6,221	382,500
Calendar year 1937	6,039,640	82,000	1,560	16,550	11,980,000
January 1938	160,010	7,050	4,190	5,162	317,400
February	174,530	8,160	5,070	6,233	346,200
March	395,620	20,500	6,370	12,760	784,700
April	811,950	65,700	8,890	27,070	1,610,500
May	1,691,900	80,700	26,000	54,580	3,355,800
June	2,352,500	100,300	58,700	78,420	4,666,100
July	868,000	64,500	11,600	28,000	1,721,700
August	252,890	12,100	4,360	8,158	501,600
September	453,510	24,500	5,100	15,120	899,500
Water year 1937-38	7,771,650	100,300	4,190	21,290	15,410,000

Colorado River at Bright Angel Creek, near Grand Canyon, Ariz.

Location.- Water-stage recorder, lat. 36°05'55", long. 112°05'30", at Kaibab Bridge, a quarter of a mile upstream from Bright Angel Creek, 11 miles by trail northeast of Grand Canyon, Coconino County, and 267 miles upstream from Boulder Dam. Zero of gage is 2,418.7 feet above mean sea level (preliminary adjustment of 1929).

Drainage area.- 138,700 square miles.

Records available.- October 1922 to September 1938.

Average discharge.- 16 years, 18,090 second-feet.

Extremes.- Maximum discharge during year, 100,200 second-feet June 8 (gage height, 26.38 feet); minimum, 4,550 second-feet Jan. 15 (gage height, 2.81 feet).

1922-38: Maximum discharge, 127,000 second-feet July 2, 1927 (gage height, 29.25 feet); minimum, 700 second-feet Dec. 28, 1924 (gage height, -0.70 foot).

Maximum discharge known, 300,000 second-feet about July 8, 1884 (computed on basis of flood studies at Lees Ferry). Crest discharge of flood of June 19, 1921, 220,000 second-feet (gage height, 37.5 feet, from floodmarks), from rating curve extended logarithmically above 120,000 second-feet.

Remarks.- Records excellent. Diversions for irrigation above station. One hundred eighty-eight discharge measurements made during year.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13,900	7,180	6,520	5,090	5,110	6,700	14,600	58,600	85,400	60,200	11,300	5,570
2	23,100	7,060	6,480	5,090	5,490	7,270	13,400	63,700	94,900	60,200	10,900	6,230
3	18,700	6,850	6,350	4,930	5,620	11,200	12,200	65,500	95,600	63,100	11,300	8,400
4	10,500	6,840	6,340	4,750	5,490	19,300	11,200	69,200	94,100	56,400	10,900	15,000
5	7,750	6,730	6,180	4,630	5,620	39,100	10,300	62,600	93,400	50,500	10,200	19,300
6	6,550	6,630	6,270	4,820	5,750	28,600	9,490	56,900	95,600	45,900	9,680	22,500
7	5,960	6,660	6,240	5,330	6,010	24,400	9,150	53,100	99,400	43,000	9,030	25,400
8	5,720	6,590	6,090	5,540	6,010	20,700	9,830	46,900	98,700	40,100	8,870	21,000
9	5,610	6,620	6,130	5,820	6,140	18,400	10,300	41,100	98,700	36,600	10,400	21,300
10	5,680	6,640	6,220	5,890	6,280	16,000	10,500	37,000	94,100	33,200	10,200	21,000
11	5,740	6,780	6,410	5,750	6,140	14,400	11,200	33,600	87,500	30,200	10,000	22,200
12	5,590	7,050	6,380	5,320	6,010	12,600	11,200	30,500	84,000	28,000	9,030	22,500
13	5,350	7,570	6,340	4,850	5,880	11,600	10,700	28,300	79,200	25,900	9,350	21,000
14	5,260	7,200	8,600	4,580	6,280	11,400	10,900	26,900	76,400	24,600	12,200	20,100
15	5,220	7,020	7,300	4,580	7,570	14,400	13,200	26,300	73,100	22,700	10,700	22,200
16	5,150	6,760	6,970	4,680	7,720	12,600	17,900	28,300	77,100	20,900	10,000	23,400
17	5,100	6,630	7,420	4,970	8,340	12,600	20,700	36,600	79,200	19,800	9,680	19,600
18	5,090	6,570	8,550	5,230	8,340	12,200	21,000	51,500	71,200	20,400	11,600	17,300
19	5,590	6,500	8,340	5,540	8,020	11,600	18,700	63,700	66,700	20,400	10,700	16,800
20	8,340	6,380	7,870	5,910	7,720	11,200	18,200	68,600	63,700	19,500	9,510	15,000
21	9,030	6,240	7,740	6,660	7,420	11,600	23,400	68,600	63,100	18,700	8,550	13,800
22	7,940	6,220	7,400	7,180	7,120	11,800	36,600	70,500	61,400	17,300	7,800	12,800
23	7,810	6,310	7,020	6,950	6,700	11,400	43,400	68,600	58,600	16,300	7,070	12,000
24	8,000	6,350	6,590	6,700	6,280	11,100	47,400	67,400	62,000	16,100	6,650	11,300
25	7,640	6,390	6,490	6,620	6,010	11,200	53,100	66,100	73,100	15,300	6,230	10,700
26	7,860	6,360	6,240	6,360	5,750	11,100	56,400	59,100	73,800	14,600	5,960	10,000
27	7,800	6,310	5,790	5,970	5,750	11,200	62,000	55,300	68,600	14,200	5,570	9,510
28	7,460	6,410	5,520	5,660	6,010	12,600	66,100	54,700	63,100	13,300	5,440	9,200
29	7,210	6,660	5,320	5,390	-	13,800	65,500	58,000	62,600	12,600	5,180	9,030
30	7,180	6,630	5,180	4,990	-	16,400	57,400	66,100	64,900	12,000	5,050	8,550
31	7,260	-	5,130	4,700	-	15,700	-	74,400	-	12,000	4,790	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	245,090	23,100	5,090	7,906	486,100
November	200,140	7,570	6,220	6,671	397,000
December	205,420	8,600	5,130	6,626	407,400
Calendar year 1937	6,322,670	83,600	2,020	17,320	12,540,000
January	170,480	7,180	4,580	5,499	338,100
February	180,580	8,340	5,110	6,449	358,200
March	454,370	39,100	6,700	14,660	901,200
April	775,970	66,100	9,150	25,870	1,539,100
May	1,657,700	74,400	26,300	53,470	3,288,000
June	2,359,200	99,400	58,600	78,640	4,679,400
July	884,000	63,100	12,000	28,520	1,753,300
August	273,840	12,200	4,790	8,834	543,200
September	472,690	25,400	5,570	15,760	937,600
Water year 1937-38	7,879,480	99,400	4,580	21,590	15,630,000

COLORADO RIVER MAIN STEM

Lake Mead at Boulder Dam, Ariz.-Nev.

Location.- Water-stage indicator, lat. 36°00'59" (revised), long. 114°44'10" (revised), in SW¼ sec. 3, T. 30 N., R. 23 W. Gila and Salt River meridian, on State line in center of Boulder Dam, in Colorado River. Datum of gage is mean sea level (general adjustment of 1912).
Drainage area.- 169,800 square miles.
Records available.- February 1935 to September 1938.
Extremes.- Maximum contents during year, 23,190,000 acre-feet Sept. 24-27 (elevation of water surface, 1,175.90 feet); minimum, 14,960,000 acre-feet Feb. 13-18 (elevation, 1,094.65 feet).
1935-38: Maximum contents, that of Sept. 24-27, 1938.
Remarks.- Records of contents determined from once-daily gage readings at 7 a.m., Pacific Standard time, except those for period of missing gage heights, Apr. 18-24, which were computed from records of inflow and outflow. Total storage capacity, 28,406,000 acre-feet (elevation, 1,221.4 feet, top of automatic gates); storage not available for release, 3,325,000 acre-feet (elevation, 895.0 feet, gate sills in outlet towers). Figures shown in table of daily contents are those for total storage. Storage was begun Feb. 1, 1935, and has increased each year. Records of daily elevations and contents furnished by Bureau of Reclamation.

Elevation, in feet, at 7 a.m. Pacific Standard time, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	97.55	96.65	95.95	95.7	95.0	94.8	100.35	110.5	135.3	166.4	173.5	171.85
2	97.6	96.65	95.95	95.7	94.95	94.85	100.45	111.2	136.5	167.0	173.45	171.75
3	97.9	96.6	95.95	95.7	94.9	94.95	100.55	112.0	137.9	167.6	173.45	171.65
4	97.95	96.6	95.9	95.65	94.85	95.7	100.6	113.0	139.3	168.35	173.4	171.55
5	98.05	96.55	95.9	95.6	94.8	96.1	100.65	114.0	140.7	169.05	173.3	171.55
6	98.05	96.55	95.9	95.6	94.8	96.5	100.65	115.25	142.05	169.65	173.3	171.6
7	98.0	96.45	95.85	95.5	94.8	97.3	100.7	116.4	143.25	170.15	173.25	171.7
8	97.95	96.45	95.85	95.5	94.75	97.7	100.65	117.1	144.45	170.6	173.25	171.9
9	97.85	96.45	95.85	95.45	94.75	98.1	100.65	117.75	145.7	171.0	173.2	172.05
10	97.8	96.4	95.8	95.45	94.75	98.35	100.65	118.4	146.95	171.35	173.15	172.2
11	97.7	96.35	95.75	95.4	94.7	98.6	100.7	119.1	148.3	171.7	173.15	172.4
12	97.65	96.35	95.7	95.4	94.7	98.75	100.65	119.4	149.6	171.95	173.1	172.55
13	97.55	96.35	95.75	95.35	94.65	98.9	100.65	119.9	150.75	172.2	173.0	172.7
14	97.45	96.3	95.8	95.3	94.65	99.05	100.7	120.4	151.85	172.4	172.9	172.9
15	97.35	96.3	95.75	95.25	94.65	99.15	100.75	120.7	152.95	172.55	172.85	173.05
16	97.25	96.3	95.8	95.25	94.65	99.25	100.75	121.1	153.95	172.7	172.85	173.15
17	97.2	96.25	95.75	95.25	94.65	99.4	100.9	121.3	154.95	172.8	172.8	173.35
18	97.1	96.25	95.8	95.2	94.65	99.45	-	121.75	156.0	172.95	172.75	173.5
19	97.0	96.2	95.8	95.15	94.7	99.55	-	122.3	156.95	173.05	172.7	173.6
20	96.9	96.2	95.8	95.1	94.75	99.6	-	123.3	157.8	173.15	172.7	173.7
21	96.85	96.2	95.8	95.1	94.75	99.65	-	124.4	158.65	173.25	172.65	173.75
22	96.85	96.2	95.85	95.05	94.8	99.75	-	125.9	159.45	173.3	172.6	173.8
23	96.85	96.15	95.85	95.05	94.85	99.75	-	126.9	160.25	173.35	172.55	173.85
24	96.85	96.1	95.8	95.1	94.85	99.8	-	128.1	160.9	173.4	172.5	173.9
25	96.85	96.1	95.8	95.1	94.85	99.85	104.25	129.15	161.55	173.45	172.45	173.9
26	96.8	96.1	95.8	95.05	94.85	99.85	105.2	130.10	162.35	173.5	172.35	173.9
27	96.8	96.05	95.8	95.05	94.85	99.9	106.05	131.1	163.25	173.55	172.25	173.9
28	96.8	96.0	95.8	95.05	94.85	100.0	107.0	131.9	164.0	173.55	172.2	173.85
29	96.75	96.0	95.8	95.0	-	100.05	108.0	132.7	164.8	173.55	172.1	173.85
30	96.75	96.0	95.75	95.0	-	100.1	109.2	133.5	165.6	173.55	172.0	173.8
31	96.7	-	95.75	95.0	-	100.2	-	134.3	-	173.5	171.95	-

Note.- Add 1,000 feet to gage heights to obtain elevation above mean sea level.

Contents, in thousands of acre-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15,220	15,130	15,070	15,050	14,990	14,970	15,470	16,410	18,880	22,300	23,140	22,940
2	15,220	15,130	15,070	15,050	14,980	14,970	15,480	16,480	19,000	22,370	23,130	22,930
3	15,250	15,130	15,070	15,050	14,980	14,980	15,490	16,560	19,150	22,440	23,130	22,920
4	15,250	15,130	15,070	15,050	14,970	15,050	15,490	16,650	19,290	22,530	23,120	22,900
5	15,260	15,130	15,070	15,040	14,970	15,090	15,500	16,750	19,440	22,610	23,110	22,900
6	15,260	15,130	15,070	15,040	14,970	15,120	15,500	16,870	19,590	22,680	23,110	22,910
7	15,260	15,120	15,060	15,030	14,970	15,190	15,500	16,980	19,710	22,740	23,110	22,920
8	15,250	15,120	15,060	15,030	14,960	15,230	15,500	17,050	19,840	22,790	23,110	22,950
9	15,240	15,120	15,060	15,030	14,960	15,260	15,500	17,100	19,980	22,840	23,100	22,960
10	15,240	15,110	15,060	15,030	14,960	15,290	15,500	17,170	20,110	22,880	23,100	22,980
11	15,230	15,110	15,050	15,020	14,960	15,310	15,500	17,240	20,260	22,920	23,100	23,010
12	15,220	15,110	15,050	15,020	14,960	15,320	15,500	17,270	20,400	22,950	23,090	23,020
13	15,220	15,110	15,050	15,020	14,960	15,340	15,500	17,330	20,530	22,980	23,080	23,040
14	15,210	15,100	15,060	15,010	14,960	15,350	15,500	17,370	20,650	23,010	23,070	23,070
15	15,200	15,100	15,050	15,010	14,960	15,360	15,510	17,400	20,770	23,020	23,060	23,080
16	15,190	15,100	15,060	15,010	14,960	15,370	15,510	17,440	20,880	23,040	23,060	23,100
17	15,180	15,100	15,050	15,010	14,960	15,380	15,520	17,460	20,990	23,050	23,050	23,120
18	15,180	15,100	15,060	15,000	14,960	15,390	15,540	17,500	21,110	23,070	23,050	23,140
19	15,170	15,100	15,060	15,000	14,960	15,400	15,560	17,560	21,220	23,080	23,040	23,150
20	15,160	15,100	15,060	15,000	14,960	15,400	15,580	17,660	21,310	23,100	23,040	23,160
21	15,150	15,100	15,060	15,000	14,960	15,410	15,600	17,760	21,410	23,110	23,040	23,170
22	15,150	15,100	15,060	14,990	14,970	15,420	15,630	17,920	21,500	23,110	23,030	23,170
23	15,150	15,090	15,060	14,990	14,970	15,420	15,680	18,020	21,590	23,120	23,020	23,180
24	15,150	15,090	15,060	15,000	14,970	15,420	15,750	18,140	21,660	23,130	23,020	23,190
25	15,150	15,090	15,060	15,000	14,970	15,420	15,830	18,240	21,740	23,130	23,010	23,190
26	15,150	15,090	15,060	14,990	14,970	15,420	15,920	18,340	21,830	23,140	23,000	23,190
27	15,150	15,080	15,060	14,990	14,970	15,430	15,990	18,440	21,930	23,140	22,990	23,190
28	15,150	15,080	15,060	14,990	14,970	15,440	16,080	18,530	22,020	23,140	22,980	23,180
29	15,140	15,080	15,060	14,990	-	15,440	16,180	18,610	22,110	23,140	22,970	23,180
30	15,140	15,080	15,050	14,990	-	15,450	16,290	18,690	22,200	23,140	22,960	23,170
31	15,140	-	15,050	14,990	-	15,460	-	18,770	-	23,140	22,950	-

Colorado River near Willow Beach, Ariz.

Location.- Water-stage recorder, lat. 35°53'30", long. 114°41'15", in sec. 19 (revised), T. 29 N., R. 22 W., 2 miles upstream from Willow Beach and 10 miles downstream from Boulder Dam. Zero of gage is 594.8 feet above mean sea level (general adjustment of 1912).

Drainage area.- 169,900 square miles.

Records available.- April 1934 to September 1938.

Extremes.- Maximum discharge during year, 19,900 second-feet July 2 (gage height, 31.99 feet); minimum, 2,920 second-feet Mar. 5; minimum daily discharge, 4,580 second-feet Mar. 5; minimum gage height, 24.32 feet Jan. 24.
1935-38 (regulated): Maximum discharge, that of July 2, 1938; mirimum, 33 second-feet Feb. 11, 1935; minimum daily, 152 second-feet Feb. 10, 1935.

Remarks.- Records excellent. Diversions for irrigation above Boulder Dam. Discharge completely controlled at Boulder Dam since Feb. 1, 1935. During the year 298 discharge measurements were made.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,560	7,900	7,040	6,210	6,620	6,550	9,330	9,670	8,660	13,500	10,700	9,570
2	8,580	7,440	6,460	6,220	6,830	6,860	9,310	9,610	9,330	16,900	10,900	9,530
3	8,540	7,740	6,580	6,000	7,000	6,160	9,330	9,630	9,650	10,900	11,000	9,370
4	8,520	7,780	6,160	6,450	6,560	6,170	9,250	9,710	9,690	10,700	10,700	9,450
5	8,460	7,480	6,400	6,340	6,160	4,580	9,330	9,630	9,650	10,800	10,900	9,650
6	8,440	7,320	6,260	6,320	6,120	5,980	9,330	9,710	9,630	10,700	11,000	9,550
7	8,440	6,820	6,560	6,350	6,520	5,680	9,250	9,690	9,610	10,700	10,900	9,410
8	8,440	6,880	6,940	6,000	6,970	6,060	9,230	9,750	9,650	10,700	10,800	9,510
9	8,440	7,190	7,330	5,860	6,960	5,840	9,450	9,710	9,650	10,700	10,800	9,530
10	8,440	7,480	6,820	5,920	6,650	5,740	9,370	9,730	9,630	10,700	10,900	9,550
11	8,480	6,680	6,700	6,250	6,760	5,860	9,790	8,810	9,590	10,700	10,800	9,510
12	8,700	6,930	6,280	6,570	6,120	7,280	9,590	8,720	9,570	10,500	10,800	9,510
13	8,560	6,870	6,240	6,360	6,310	7,140	9,430	8,680	9,570	10,600	10,900	9,550
14	8,460	6,710	6,560	6,680	6,770	7,310	9,630	8,680	9,570	10,500	10,900	9,350
15	8,460	7,030	6,640	6,020	6,840	7,390	9,710	8,600	9,590	10,500	10,800	9,510
16	8,480	7,290	6,580	6,160	6,500	7,620	9,590	8,640	9,490	10,500	10,100	9,470
17	8,500	7,340	6,440	6,540	6,360	7,660	10,400	8,660	9,490	10,600	10,100	9,490
18	8,460	6,960	6,060	7,190	6,810	7,730	11,600	8,660	9,370	11,000	10,000	9,450
19	8,200	6,500	6,340	6,970	5,920	8,380	11,900	8,680	9,510	11,100	10,000	9,370
20	8,170	6,140	6,640	6,680	6,050	8,360	11,700	8,680	9,530	11,200	10,200	9,430
21	7,710	6,700	6,700	6,360	6,200	8,150	9,410	8,760	9,420	10,900	10,100	9,370
22	7,710	6,700	6,910	5,940	6,430	8,650	9,350	8,620	9,330	10,700	10,000	9,470
23	7,690	6,980	6,960	6,060	6,520	8,740	9,310	8,680	10,300	10,900	9,950	9,100
24	7,710	6,580	6,360	6,240	6,330	8,720	8,850	8,740	14,900	10,900	9,950	8,950
25	7,960	6,370	6,200	6,600	6,240	9,370	10,000	8,590	14,400	10,800	10,000	8,930
26	8,070	6,360	6,580	6,360	5,850	9,430	9,790	8,720	14,600	10,900	9,530	9,060
27	7,860	6,390	6,250	6,180	7,350	9,660	9,730	8,760	15,600	11,000	9,570	9,040
28	7,800	6,400	6,520	6,440	6,500	9,230	9,630	8,760	14,800	10,900	9,570	8,930
29	8,000	6,600	6,430	6,970	-	9,330	9,670	8,720	10,500	10,900	9,610	8,930
30	7,650	6,820	6,440	6,030	-	9,510	9,630	8,700	10,200	10,800	9,630	8,890
31	7,660	-	6,040	6,480	-	9,430	-	8,760	-	10,800	9,570	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	255,150	8,700	7,650	8,231	506,100
November	208,380	7,900	6,140	6,946	413,300
December	202,420	7,330	6,040	6,530	401,500
Calendar year 1937	3,034,090	11,300	3,910	8,313	6,018,000
January	196,750	7,190	5,860	6,347	390,200
February	182,250	7,350	5,850	6,509	361,500
March	234,570	9,660	4,580	7,567	465,300
April	291,890	11,900	8,850	9,730	579,000
May	279,460	9,750	8,590	9,015	554,300
June	314,480	15,600	8,660	10,480	623,800
July	343,000	16,900	10,500	11,060	680,300
August	320,680	11,000	9,530	10,340	636,100
September	280,430	9,650	8,890	9,348	556,200
Water year 1937-38	3,109,460	16,900	4,580	8,519	6,168,000

Colorado River near Topock, Ariz.

Location.- Water-stage recorder, lat. 34°41'15" (revised), long. 114°27'45", in NW¼ sec. 13, T. 15 N., R. 21 W., in Mohave Canyon, 3 miles downstream from Topock, 40 miles upstream from Parker Dam, and 116 miles downstream from Boulder Dam. Zero of gage is 423.02 feet (general adjustment of 1929) or 423.08 feet (general adjustment of 1912) above mean sea level.

Drainage area.- 174,300 square miles.

Records available.- February 1917 to September 1938.

Extremes.- Maximum discharge during year, 18,800 second-feet July 3 (gage height, 16.55 feet); minimum, 4,300 second-feet Mar. 6; minimum daily discharge, 5,140 second-feet Mar. 6; minimum gage height, 12.68 feet Dec. 7.

1917-34 (unregulated): Maximum discharge, 174,000 second-feet June 22, 1921; minimum, 1,480 second-feet Aug. 17, 1934.

1935-38 (regulated): Maximum discharge, that of July 3, 1938; minimum, 375 second-feet Feb. 14, 1935; minimum daily discharge, 422 second-feet Feb. 14, 1935.

Remarks.- Records excellent. Diversions for irrigation above station. Discharge completely regulated at Boulder Dam; no regulation between Boulder Dam and this station; no backwater effect during the year from Parker Dam. During the year 201 discharge measurements were made.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,120	7,330	6,500	6,030	5,740	6,620	9,160	9,360	8,440	9,480	10,600	9,480
2	8,210	7,670	6,730	5,640	6,430	6,470	9,040	9,360	8,440	11,100	10,500	9,200
3	8,210	7,670	6,580	5,960	6,500	6,950	9,160	9,440	8,520	16,900	10,500	9,200
4	8,130	7,360	6,390	5,390	6,890	7,480	9,000	9,480	9,030	10,700	10,700	9,200
5	8,080	7,440	6,100	5,920	6,620	6,360	9,040	9,360	9,120	10,500	10,800	9,040
6	8,020	7,600	5,960	6,030	6,280	5,140	9,120	9,400	9,080	10,500	10,700	9,080
7	8,020	7,360	5,670	5,820	6,360	5,360	9,200	9,360	9,040	10,400	10,700	9,240
8	8,020	6,990	6,070	6,030	5,670	5,420	9,200	9,400	9,120	10,300	10,700	9,280
9	8,090	6,320	6,470	6,210	6,650	5,670	9,160	9,360	8,840	10,400	10,600	8,960
10	7,980	6,840	6,800	6,000	6,910	5,850	9,240	9,360	8,880	10,400	10,500	9,200
11	8,020	7,140	7,060	5,220	6,650	5,850	9,280	9,320	9,120	10,500	10,700	9,280
12	8,090	6,910	6,950	5,740	6,390	5,560	9,320	9,040	9,000	10,500	10,600	9,360
13	8,050	6,210	6,800	6,030	6,390	6,250	9,280	9,480	9,000	10,400	10,700	9,320
14	8,170	6,580	5,710	6,320	6,320	7,400	9,240	8,480	9,240	10,600	10,900	9,320
15	8,050	6,540	6,250	6,280	5,710	6,990	9,480	8,520	9,160	10,400	10,800	9,320
16	8,290	6,210	6,500	6,320	6,760	7,400	9,320	8,520	9,200	10,500	10,200	9,080
17	8,050	6,840	6,390	6,070	6,620	7,210	9,440	8,370	9,040	10,500	10,200	9,280
18	8,090	7,020	6,320	5,670	6,140	7,360	9,560	8,400	9,160	10,400	9,760	9,440
19	8,090	6,990	6,180	6,470	6,140	7,440	11,000	8,370	9,120	10,400	9,800	9,280
20	7,900	6,540	6,070	6,990	6,540	7,590	11,400	8,290	9,120	11,000	9,720	9,200
21	7,710	6,360	6,070	6,850	6,180	8,210	11,600	8,210	9,200	11,200	9,920	9,240
22	7,330	6,210	6,070	6,390	5,280	8,290	10,300	8,370	9,200	10,800	9,760	9,240
23	7,290	6,320	6,250	6,000	5,960	8,330	9,400	8,370	9,240	10,500	9,640	9,200
24	7,330	6,650	6,250	5,820	6,000	8,600	9,400	8,250	9,360	10,500	9,760	9,040
25	7,250	6,730	6,500	5,460	6,070	8,640	8,440	8,210	12,700	10,700	9,640	8,800
26	7,520	6,500	6,140	6,100	5,780	8,840	9,600	8,480	14,100	10,600	9,800	8,720
27	7,780	6,430	6,650	6,320	5,740	9,080	9,480	8,330	14,100	10,500	9,600	8,600
28	7,710	6,180	6,030	6,100	6,180	9,480	9,360	8,210	14,600	10,500	9,200	8,680
29	7,580	6,390	6,000	6,000	-	9,160	9,360	8,400	15,400	10,600	9,120	8,560
30	7,440	6,070	6,140	6,250	-	9,160	9,360	8,640	10,100	10,600	9,120	8,640
31	7,480	-	6,280	6,250	-	9,160	-	8,370	-	10,700	9,480	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	244,100	8,290	7,250	7,874	484,200
November	203,400	7,670	6,070	6,780	403,400
December	195,880	7,060	5,670	6,319	388,500
Calendar year 1937	2,907,880	11,000	3,630	7,967	5,768,000
January	187,680	6,990	5,220	6,054	372,300
February	174,700	6,910	5,280	6,239	346,500
March	227,320	9,480	5,140	7,333	450,900
April	284 940	11.600	8,440	9,498	565,200
May	271,510	9,480	8,210	8,758	538,500
June	297,720	15,400	8,440	9,924	590,500
July	333,080	16,900	9,480	10,740	660,700
August	314,720	10,900	9,120	10,150	624,200
September	273,480	9,480	8,560	9,116	542,400
Water year 1937-38	3,008,530	16,900	5,140	8,243	5,967,000

Parker Reservoir near Parker Dam, Calif.

Location.- Water-stage recorder, lat. 34°19', long. 114°09', in SW¼ sec. 28, T. 3 N., R. 27 E. San Bernardino base line, at intake pumping plant of Metropolitan Water District of Southern California, 1.8 miles upstream from Parker Dam, which is 156 miles downstream from Boulder Dam. Datum of gage is at mean sea level (general adjustment of 1912) or 0.545 foot above mean sea level (general adjustment of 1929).
Drainage area.- 180,800 square miles at Parker Dam.
Records available.- July to September 1938.
Extremes.- Maximum contents during year, 35,600 acre-feet July 22 (gage height, 406.85 feet).
Remarks.- Usable capacity of reservoir, 688,000 acre-feet, between gage heights 400.00 feet at top of gate sills of dam and 450.00 feet at top of spillway gates. Dead storage below gage height 400.00 feet, 28,600 acre-feet. The dead storage capacity was filled at 7:45 p.m. July 1, 1938. Daily gage heights and contents are as of midnight (Mountain Standard Time).

Gage height, in feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1										400.64	405.83	405.37
2										403.78	405.84	405.31
3										406.64	405.80	405.28
4										406.24	405.80	405.28
5										405.92	405.81	405.26
6										405.83	405.86	405.26
7										405.82	405.92	405.26
8										405.79	405.90	405.27
9										405.75	405.97	405.29
10										405.71	406.33	405.31
11										405.69	406.66	405.33
12										405.72	406.34	405.34
13										405.73	406.00	405.34
14										405.77	405.91	405.31
15										406.13	405.93	405.30
16										406.19	405.90	405.28
17										406.28	405.80	405.32
18										406.27	405.63	405.29
19										406.38	405.55	405.32
20										406.61	405.57	405.32
21										406.79	405.55	405.32
22										406.85	405.54	405.33
23										406.81	405.51	405.32
24										406.74	405.53	405.27
25										406.72	405.53	405.11
26										406.43	405.60	405.08
27										406.08	405.55	405.10
28										405.92	405.43	405.10
29										405.89	405.35	405.09
30										405.86	405.30	405.06
31										405.86	405.30	-

Contents, in acre-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1										2,600	29,500	26,700
2										17,400	29,500	26,400
3										34,300	29,300	26,200
4										31,800	29,300	26,200
5										30,000	29,400	26,100
6										29,500	29,700	26,100
7										29,400	30,000	26,100
8										29,200	29,900	26,100
9										29,000	30,300	26,200
10										28,800	32,500	26,400
11										28,600	34,500	26,500
12										28,800	32,500	26,500
13										28,900	30,500	26,500
14										29,100	30,000	26,400
15										31,300	30,100	26,300
16										31,600	29,900	26,200
17										32,200	29,300	26,400
18										32,100	28,300	26,200
19										32,800	27,800	26,400
20										34,200	27,900	26,400
21										35,200	27,800	26,400
22										35,600	27,700	26,500
23										35,400	27,600	26,400
24										34,900	27,700	26,100
25										34,800	27,700	25,200
26										33,100	28,100	25,000
27										31,000	27,800	25,100
28										30,000	27,100	25,100
29										29,800	26,600	25,000
30										29,700	26,300	24,900
31										29,700	26,300	-

Note.- Contents do not include the dead storage.

Colorado River below Parker Dam, Calif.

(Formerly published as Colorado River near Parker, Ariz.)

Location.- Water-stage recorder, lat. 34°15'30", long. 114°09'10" (revised), in NE¼ sec. 32, T. 11 N., R. 18 W. Gila and Salt River base line or NE¼SW¼ sec. 16, T. 2 N., R. 27 E. San Bernardino base line, 4.1 miles (revised) downstream from Parker Dam, 11 miles northeast of Parker, Ariz., and 160 miles downstream from Boulder Dam. Zero of gage is 346.16 feet (general adjustment of 1929) or 345.61 feet (general adjustment of 1912) above mean sea level.

Drainage area.- 180,800 square miles.

Records available.- February 1934 to September 1938 prior to January 1935, (gage heights and fragmentary discharge records).

Extremes.- Maximum discharge during year, 33,900 second-feet Mar.4 (gage height, 32.00 feet); minimum, 250 second-feet July 1 (gage height, 20.09 feet), due to closing of construction diversion tunnel at Parker Dam; minimum daily discharge, 1,890 second-feet July 1.

1934-38: Maximum discharge, 42,400 second-feet Feb. 8, 1937; minimum. that of July 1, 1938; minimum daily discharge, 1,440 second-feet Feb. 15, 1935.

Remarks.- Records excellent. Diversions for irrigation above station. Discharge completely regulated at Boulder Dam and partially regulated at Parker Dam. Flow over spill crest at Parker Dam began July 1, 1938. Flood flow from Williams River on Mar. 4 was regulated by storing part of it at Parker Dam and thus reducing the peak discharge from about 68,000 second-feet to 33,900 second-feet. During the year 250 discharge measurements were made.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,890	7,310	5,950	6,150	5,920	7,580	9,280	9,130	8,290	1,890	10,300	9,050
2	8,110	7,280	6,370	5,880	5,630	7,360	8,760	9,250	8,210	2,620	10,300	9,130
3	8,010	7,610	6,540	5,750	6,410	10,900	8,700	9,250	8,540	8,950	10,400	9,030
4	7,980	7,250	6,290	5,920	6,610	31,000	8,870	9,360	8,610	12,100	10,300	8,970
5	7,920	7,310	6,120	5,340	6,680	15,200	8,650	9,210	9,060	10,800	10,300	8,970
6	8,010	7,520	5,810	5,980	6,710	7,710	8,250	9,440	8,830	10,400	10,400	8,920
7	8,010	7,160	5,950	6,110	6,020	5,770	8,680	9,240	9,060	10,300	10,500	8,970
8	7,950	6,920	5,530	6,050	6,080	6,200	8,800	9,170	9,020	10,200	10,500	8,940
9	8,010	6,540	6,010	6,280	5,920	5,660	8,940	9,320	8,830	9,980	10,200	9,000
10	7,980	6,400	6,370	5,820	6,680	6,310	8,870	9,360	8,940	9,980	9,300	9,030
11	7,890	6,950	6,780	5,690	6,780	6,250	9,130	9,210	9,020	9,920	9,160	9,250
12	8,040	6,860	6,710	5,280	6,340	5,880	9,210	9,280	8,980	9,950	10,900	9,250
13	8,040	6,370	6,540	5,950	6,540	5,880	9,360	8,760	9,060	10,300	11,500	9,130
14	8,110	6,260	6,380	6,110	5,950	7,160	9,320	8,250	9,170	10,100	10,500	9,160
15	7,920	6,400	5,660	6,110	6,050	7,470	9,440	8,210	9,210	9,380	10,600	9,250
16	8,080	6,340	6,280	6,210	6,110	7,160	9,510	8,250	9,130	9,920	10,700	8,940
17	8,110	6,370	6,440	5,980	6,540	7,400	9,210	8,250	9,210	10,000	10,300	9,050
18	8,200	6,810	6,310	5,880	6,380	7,360	9,170	8,210	9,020	9,860	9,920	9,110
19	8,110	6,980	6,150	5,920	6,110	7,330	9,860	8,360	8,980	10,000	9,500	9,080
20	8,110	6,630	5,980	6,950	6,340	7,260	11,000	8,390	8,980	9,720	9,470	9,050
21	7,920	6,200	6,020	6,850	5,950	7,930	11,200	8,290	9,020	10,200	9,470	9,030
22	7,640	6,180	5,850	6,380	5,980	8,470	11,400	8,360	9,020	10,400	9,440	9,080
23	7,100	6,260	6,280	6,080	5,470	8,210	9,940	8,320	9,090	10,500	9,330	9,050
24	7,220	6,290	6,340	5,790	6,110	8,360	9,280	8,110	9,090	10,500	9,300	8,970
25	7,250	6,720	6,410	5,850	5,950	8,570	9,060	8,210	9,970	10,200	9,440	8,760
26	7,370	6,430	6,210	5,590	5,660	8,760	8,650	8,210	13,300	11,100	9,580	8,590
27	7,490	6,120	5,850	6,340	5,690	9,060	9,780	8,250	12,900	11,600	9,640	8,650
28	7,770	6,040	6,410	5,950	5,850	9,060	9,590	8,110	13,400	10,700	9,190	8,700
29	7,640	6,060	5,690	5,850	-	9,170	9,130	8,000	14,400	10,700	8,970	8,650
30	7,550	6,400	6,020	6,250	-	8,940	8,940	8,180	10,100	10,500	8,940	8,480
31	7,640	-	6,080	5,950	-	8,980	-	8,290	-	10,400	8,920	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	243,070	8,200	7,100	7,841	482,100
November	199,970	7,610	6,040	6,666	396,600
December	191,330	6,780	5,530	6,172	379,500
Calendar year 1937	2,999,750	39,700	3,960	8,218	5,950,000
January	186,240	6,950	5,280	6,008	369,400
February	172,460	6,780	5,470	6,159	342,100
March	268,350	31,000	5,660	8,656	532,300
April	279,980	11,400	8,250	9,333	555,300
May	268,270	9,440	8,000	8,654	532,100
June	288,440	14,400	8,210	9,615	572,100
July	303,170	12,100	1,890	9,780	601,300
August	307,270	11,500	8,920	9,912	609,500
September	269,240	9,250	8,480	8,975	534,000
Water year 1937-38	2,977,790	31,000	1,890	8,158	5,906,000

Colorado River near Picacho, Calif.

Location.- Water-stage recorder, lat. 33°02'00", long. 114°33'00", in NW¼ sec. 22, T. 13 S., R. 23 E. San Bernardino base line, 4 miles downstream from Picacho, 14½ miles upstream from Imperial Dam for All-American canal, 133 miles downstream from Parker Dam, and 289 miles downstream from Boulder Dam. Zero of gage is 167.38 feet above mean sea level (general adjustment of 1929).

Drainage area.- 186,100 square miles.

Records available.- July 1934 to September 1938.

Extremes.- Maximum discharge during year, 25,300 second-feet Mar. 6; minimum, 990 second-feet July 4, due to closing of construction diversion tunnel at Parker Dam; minimum daily discharge, 1,560 second-feet July 3.

1934-38: Maximum discharge, 26,900 second-feet Feb. 10, 1937; minimum, that of July 4, 1938; minimum daily discharge, 1,450 second-feet Feb. 17, 1935.

Remarks.- Records excellent. Diversions for irrigation above station. Discharge completely regulated at Boulder Dam and partially regulated at Parker Dam, as explained in connection with the records for station below Parker Dam (see p. 26). There has been backwater at the station since Apr. 19, 1938, when flow started over California sluiceway sill of Imperial Dam. During the year 211 measurements were made.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,590	6,960	5,590	5,480	5,880	5,660	8,480	8,400	7,110	11,000	9,230	8,030
2	7,470	6,680	5,480	5,770	5,840	5,810	8,650	8,280	7,000	4,260	9,270	8,110
3	7,470	6,680	5,920	5,560	5,340	7,190	8,520	8,520	6,840	1,560	8,890	8,240
4	7,390	6,940	6,070	5,240	5,700	7,910	8,400	8,280	7,070	4,370	8,770	8,110
5	7,430	6,720	5,880	5,340	5,880	19,700	8,200	8,560	7,070	10,600	9,060	7,910
6	7,310	6,530	5,840	5,210	6,140	21,600	7,990	8,560	7,670	10,100	8,310	7,990
7	7,310	6,680	5,520	5,420	6,370	9,360	7,990	8,200	7,790	9,190	9,440	7,910
8	7,190	6,680	5,590	5,620	6,220	6,330	7,750	8,110	7,790	9,020	9,400	7,670
9	7,230	6,570	5,310	5,660	5,990	6,330	8,240	8,360	7,950	8,810	9,650	7,510
10	7,150	6,300	5,590	5,620	5,380	5,960	8,030	8,360	7,990	8,730	9,650	7,870
11	7,310	5,880	5,840	5,660	5,840	6,030	7,990	8,110	7,910	8,600	8,980	8,110
12	7,270	6,300	6,030	5,560	6,140	5,960	8,400	8,240	7,990	8,520	7,950	7,950
13	7,150	6,370	6,370	5,010	5,990	5,450	8,200	8,200	8,200	8,360	8,360	7,990
14	7,150	6,110	6,260	5,340	5,880	5,450	8,200	7,670	8,110	8,650	9,780	7,990
15	7,390	5,700	6,220	5,620	6,070	6,260	8,560	7,310	8,110	8,730	9,650	7,870
16	7,510	6,030	5,180	5,880	5,920	7,070	8,810	7,030	8,110	8,650	9,480	7,870
17	7,510	5,840	5,480	5,810	5,450	6,330	8,650	7,070	8,030	7,910	9,230	7,790
18	7,470	5,450	5,960	6,180	5,990	6,680	8,690	7,070	7,990	9,360	9,100	7,990
19	7,510	5,990	5,990	5,810	6,110	6,840	8,650	7,070	8,240	8,320	8,980	8,280
20	7,510	6,370	5,960	5,140	5,920	6,800	8,520	7,190	8,030	9,020	8,810	8,150
21	7,430	6,260	5,660	5,840	5,810	6,720	9,190	7,270	8,110	8,440	8,560	7,950
22	7,310	5,810	5,660	6,330	5,990	6,800	10,200	7,470	7,830	8,730	8,360	8,150
23	7,190	5,620	5,110	6,180	5,590	7,310	10,400	7,430	7,670	9,100	8,600	8,110
24	6,840	5,590	5,590	5,660	4,950	7,350	9,610	7,390	7,550	9,270	8,360	7,990
25	6,720	5,700	5,620	5,450	5,310	7,430	8,480	7,230	7,710	9,440	8,110	7,870
26	6,720	5,990	6,140	5,560	5,480	7,590	8,480	6,840	7,710	9,360	8,110	7,990
27	6,720	6,030	6,260	5,110	5,480	7,910	7,830	7,070	9,990	9,100	8,030	7,950
28	6,720	5,730	5,660	5,660	5,450	8,280	8,440	7,230	11,800	9,940	8,280	7,350
29	7,070	5,770	5,920	5,840	-	8,150	8,730	7,270	12,500	9,650	8,560	7,310
30	7,030	5,590	5,450	5,880	-	8,280	8,240	7,230	12,300	9,360	8,320	7,350
31	6,920	-	5,310	5,730	-	8,400	-	7,310	-	9,360	7,870	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	223,990	7,590	6,720	7,225	444,300
November	184,770	6,960	5,450	6,159	366,500
December	178,460	6,370	5,110	5,757	354,000
Calendar year 1937	2,679,570	23,800	3,480	7,341	5,315,000
January	174,170	6,330	5,010	5,618	345,500
February	162,110	6,370	4,950	5,790	321,500
March	242,940	21,600	5,450	7,837	481,900
April	256,520	10,400	7,750	8,551	508,800
May	238,330	8,560	6,840	7,688	472,700
June	248,170	12,500	6,840	8,272	492,200
July	265,510	11,000	1,560	8,565	526,600
August	274,150	9,780	7,870	8,844	543,800
September	237,360	8,280	7,310	7,912	470,800
Water year 1937-38	2,686,480	21,600	1,560	7,360	5,329,000

153585 O—39——3

Colorado River at Yuma, Ariz.

Location.- Water-stage recorder, lat. 32°43'45", long. 114°37'15", in NW¼NE¼ sec. 35, T. 16 S., R. 22 E. San Bernardino base line, 1,800 feet downstream from highway bridge at Yuma, 5 miles downstream from Gila River, 8 miles upstream from international boundary between California and Mexico, and 19 miles downstream from Imperial Dam. Zero of gage is 102.79 feet (general adjustment of 1929) or 102.25 feet (Yuma Project datum) above mean sea level.

Drainage area.- 244,800 square miles.

Records available.- April 1878 to September 1938 (prior to January 1902, gage heights only).

Extremes.- Maximum discharge during year, 21,700 second-feet Mar. 6 (gage height, 23.26 feet); minimum, 2,080 second-feet Jan. 9 (gage height, 17.73 feet), due to regulation at Laguna Dam; minimum daily discharge, 3,160 second-feet Jan. 14.

1902-38: Maximum daily discharge, 240,000 second-feet Jan. 22, 1916; minimum daily, 18 second-feet Aug. 25-27, 1934, due to diversion of river flow at Laguna Dam.

Remarks.- Records for flow of river excellent; those for flow of wasteway fair. Many diversions for irrigation from Colorado River and tributaries. No diversion by All-American canal during year. Considerable water diverted from river at Laguna Dam, 14 miles upstream, around station by main canal of Yuma reclamation project for power and irrigation. Water not required for irrigation is returned to river through Yuma Main canal wasteway half a mile downstream from this station (see p. 29). Colorado River completely regulated at Boulder Dam and partially regulated at Parker Dam and Imperial Dam (see p. 26). No regulation on Gila River below Gillespie Dam. Flow over California sluiceway sill of Imperial Dam began Apr. 19, 1938. Capacity of Imperial Reservoir, 85,000 acre-feet at spillway crest, (elevation 181.0 feet, general adjustment of 1929). During the year 250 discharge measurements were made. Daily-discharge records for wasteway furnished by U. S. Bureau of Reclamation.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,180	4,780	3,660	3,750	3,780	4,820	7,560	6,860	5,080	6,150	7,280	6,040
2	5,620	4,590	3,660	3,520	3,780	4,820	7,720	6,820	5,080	6,410	7,130	5,900
3	4,980	4,530	3,550	3,720	3,630	6,590	7,480	7,010	5,080	6,040	6,860	6,080
4	4,880	4,690	4,310	3,460	3,520	7,480	7,400	6,900	5,240	5,800	6,740	6,010
5	5,040	4,750	4,040	3,410	4,310	13,200	7,240	6,900	4,820	6,330	7,050	6,040
6	5,020	4,720	3,750	3,460	4,220	20,700	6,930	7,010	5,010	8,420	7,170	5,900
7	5,010	4,400	3,660	3,270	4,250	14,200	6,930	7,320	5,480	8,130	7,360	5,830
8	5,010	4,590	3,330	3,750	4,160	6,750	6,820	6,590	5,660	7,240	7,400	5,480
9	5,140	4,500	3,600	3,490	3,920	5,380	7,240	6,710	5,620	7,500	7,240	5,550
10	5,110	4,440	3,490	3,550	3,750	9,670	6,930	6,930	5,760	6,710	7,320	5,800
11	5,080	3,980	3,860	3,720	3,630	12,200	6,930	6,560	6,190	6,590	7,400	5,760
12	5,010	4,100	3,830	3,580	4,250	9,200	6,970	6,780	5,860	6,590	6,900	5,800
13	5,040	4,660	4,310	3,380	4,130	7,130	7,440	7,720	5,620	6,560	6,740	5,830
14	5,040	4,370	4,340	3,160	3,750	5,760	7,240	8,000	5,800	6,670	6,930	6,010
15	4,980	3,830	4,100	3,750	4,100	5,550	7,280	6,900	6,080	6,860	7,760	5,830
16	5,550	4,070	3,800	3,690	3,860	6,260	7,920	6,010	5,860	7,090	7,480	5,830
17	5,240	3,950	3,380	3,830	3,800	6,040	7,440	5,520	5,[illegible]70	6,440	7,440	5,970
18	5,210	3,780	4,130	4,010	3,920	5,830	7,360	5,240	6,260	6,300	7,440	6,220
19	5,180	3,800	3,950	3,890	4,160	5,970	7,130	5,180	5,800	6,820	7,240	6,040
20	5,210	4,530	3,980	3,630	4,010	5,970	6,560	5,240	5,690	6,740	6,970	6,040
21	5,380	4,500	3,890	3,630	3,780	5,940	6,860	5,480	5,800	6,970	6,930	6,010
22	5,260	4,130	3,950	4,400	4,040	6,060	7,240	5,580	5,860	6,630	6,710	6,080
23	5,350	3,860	3,630	4,370	3,920	7,050	7,680	5,350	5,660	7,090	6,590	6,150
24	4,820	3,660	3,580	4,070	5,410	7,200	7,170	5,350	5,450	7,130	6,440	6,260
25	4,560	3,890	4,040	3,720	4,820	6,870	7,640	5,450	6,220	7,600	6,260	5,940
26	4,590	4,130	3,950	3,580	5,180	6,860	6,820	5,310	5,690	7,520	6,040	5,970
27	4,590	4,370	4,250	3,600	4,720	6,860	6,670	5,140	5,800	7,090	6,630	5,690
28	4,590	3,800	4,070	3,330	4,720	6,860	6,260	5,210	5,970	7,360	6,120	5,450
29	4,850	3,630	3,690	3,920	-	7,360	6,740	4,910	6,440	7,920	6,560	5,350
30	5,310	3,550	3,830	3,800	-	7,320	7,050	5,140	6,300	8,130	6,480	5,660
31	4,660	-	3,410	3,630	-	7,560	-	5,280	-	7,130	6,410	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	156,510	5,620	4,560	5,049	310,400
November	126,580	4,780	3,550	4,219	251,100
December	119,020	4,340	3,330	3,839	236,100
Calendar year 1937	2,014,300	22,400	2,000	5,519	3,995,000
January	114,070	4,400	3,160	3,680	226,300
February	115,520	5,410	3,520	4,126	229,100
March	239,460	20,700	4,820	7,725	475,000
April	214,650	7,920	6,260	7,155	425,800
May	190,400	8,000	4,910	6,142	377,700
June	171,150	6,440	4,820	5,705	339,500
July	216,020	8,420	5,800	6,968	428,500
August	215,020	7,760	6,040	6,936	426,500
September	176,520	6,260	5,350	5,884	350,100
Water year 1937-38	2,054,920	20,700	3,160	5,630	4,076,000

COLORADO RIVER MAIN STEM

Discharge, in second-feet, of Yuma main canal wasteway at Yuma, Ariz., water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
1	1,270	1,180	1,290	1,470	1,250	4	183	839	1,030	1,020	1,07
2	1,210	1,150	1,330	1,480	1,470	62	116	546	1,020	1,170	92
3	1,260	1,160	1,460	1,320	1,530	125	458	483	1,090	1,670	92
4	1,200	1,200	1,440	1,260	1,540	0	231	455	1,000	1,660	99
5	1,100	1,270	1,500	1,270	1,370	0	200	559	1,130	996	1,240
6	1,120	1,390	1,360	1,320	1,380	100	216	678	1,050	936	1,590
7	1,160	1,550	1,340	1,380	1,230	168	303	551	1,000	930	1,600
8	1,240	1,240	1,360	1,240	1,190	140	452	515	1,040	1,010	1,050
9	1,300	1,190	1,400	1,380	1,210	183	351	553	1,110	1,090	98
10	1,360	1,200	1,430	1,320	1,320	275	512	397	1,160	1,260	1,06
11	953	1,200	1,330	1,330	1,500	350	249	559	1,070	1,000	1,14
12	923	1,290	1,330	1,430	1,350	290	298	589	1,150	933	1,330
13	1,100	1,370	1,320	1,460	1,350	283	372	110	1,050	1,010	1,420
14	1,120	1,550	1,320	1,460	1,180	97	431	0	959	1,020	1,560
15	1,180	1,250	1,340	1,340	1,140	26	478	183	993	1,120	1,060
16	1,090	1,220	1,360	1,380	1,260	49	528	45	1,000	1,170	990
17	1,220	1,270	1,430	1,240	1,390	54	558	641	1,070	1,260	1,020
18	1,120	1,340	1,350	1,220	1,410	140	435	954	1,010	1,020	1,140
19	1,110	1,420	1,380	1,270	1,340	212	318	1,100	1,120	947	1,280
20	1,140	1,370	1,290	1,330	1,320	129	304	1,220	1,070	1,020	1,560
21	1,130	1,580	1,290	1,430	1,110	35	356	1,270	948	1,110	1,690
22	1,190	1,340	1,340	1,340	1,090	60	624	1,310	954	1,200	1,060
23	1,120	1,280	1,410	1,320	998	25	644	1,080	961	1,240	1,020
24	1,290	1,250	1,520	1,290	64	0	1,180	1,070	1,040	1,320	1,020
25	1,170	1,270	1,410	1,300	0	0	526	1,100	1,010	1,060	1,130
26	1,130	1,380	1,390	1,380	0	227	445	1,140	1,130	1,010	1,330
27	1,120	1,410	1,300	1,400	110	236	486	1,200	1,020	1,090	1,390
28	1,140	1,490	1,280	1,440	105	110	604	1,140	939	1,230	1,480
29	1,220	1,330	1,300	1,200	-	90	680	1,220	967	1,400	1,080
30	1,190	1,290	1,470	1,140	-	35	591	1,110	973	1,450	985
31	1,190	-	1,710	1,170	-	73	-	1,030	-	1,480	1,040

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off acre-fe
October	36,066	1,360	923	1,163	71,5
November	39,450	1,580	1,150	1,314	78,21
December	42,780	1,710	1,280	1,380	84,85
Calendar year 1937	434,359	1,710	0	1,190	861,50
January	41,310	1,480	1,140	1,333	81,940
February	30,207	1,540	0	1,079	59,910
March	3,578	350	0	115	7,100
April	13,131	1,180	116	438	26,040
May	24,420	1,310	0	788	48,440
June	31,064	1,160	939	1,035	61,610
July	35,832	1,670	930	1,156	71,070
August	37,159	1,690	924	1,199	73,700
September	35,192	1,700	942	1,173	69,800
Water year 1937-38	370,169	1,710	0	1,014	734,200

Arapaho Creek below Monarch Lake, Colo.

Location.- Water-stage recorder, lat. 40°18', long. 105°46', in SE¼ sec. 15, T. 2 N., R. 75 W., 700 feet downstream from Roaring Fork and 10 miles east of Granby. Zero of gage is 8,244.30 feet above mean sea level (general adjustment of 1929).

Drainage area.- 59 square miles.

Records available.- June 1935 to September 1938.

Extremes.- Maximum discharge during year, 1,380 second-feet June 22 (gage height, 4.31 feet); minimum daily discharge, 6.6 second-feet Apr. 10.
1934-38: Maximum discharge, that of June 22, 1938; minimum not determined.

Remarks.- Records good except those for periods of ice effect, Nov. 26 to Dec. 3, Dec.18 to Apr. 9 (computed on basis of three discharge measurements and weather records), and period July 15 to Sept. 30, which are fair. Flow partially regulated by Monarch Lake. Small diversions for irrigation above station. Several second-feet diverted around station by power canal during summer months.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	40	15	15	11	9	8	249	651	598	155	39
2	25	36	14	14	10	9	8	222	743	523	152	50
3	29	33	14	14	10	9	8	194	840	488	148	168
4	29	36	13	14	10	9	8	158	937	428	142	201
5	30	52	13	14	10	9	8	131	726	400	139	152
6	28	39	9.6	14	10	9	8	112	721	365	131	104
7	25	34	10	15	10	9	7	92	638	335	120	82
8	25	32	16	14	10	9	7	80	611	321	112	71
9	26	30	13	14	10	9	7	76	572	321	89	59
10	24	28	9.6	14	10	9	6.6	74	668	307	40	52
11	25	25	9.6	14	10	9	8.1	76	638	293	50	52
12	25	24	8.7	14	9	9	8.7	87	629	235	59	58
13	24	16	9.6	14	9	9	8.7	104	726	184	67	76
14	23	9.6	10	15	9	9	9.0	168	651	286	71	76
15	25	8.7	11	16	9	9	11	242	541	307	71	65
16	29	8.7	11	15	9	9	13	324	536	266	63	56
17	31	11	12	14	9	9	16	346	629	256	56	46
18	28	13	12	14	9	9	18	314	690	242	46	42
19	31	15	13	13	9	9	24	296	576	218	40	36
20	32	16	13	13	8	9	39	293	629	215	38	32
21	31	17	13	13	8	9	40	283	827	198	36	33
22	30	21	13	13	8	10	45	269	1,070	184	34	31
23	29	19	13	12	8	10	56	239	818	194	33	26
24	31	18	14	12	8	10	65	242	686	201	33	25
25	33	16	15	12	9	10	78	273	704	184	34	24
26	39	14	15	12	9	10	112	335	611	177	34	22
27	39	12	15	12	9	10	120	428	646	171	34	22
28	42	13	15	11	9	11	112	567	620	161	34	22
29	42	14	15	11	-	11	117	809	638	161	36	21
30	42	14	15	11	-	10	155	796	673	164	38	19
31	42	-	15	11	-	8	-	633	-	155	39	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	934	42	20	30.1	1,850
November	665.0	52	8.7	22.2	1,320
December	395.1	16	8.7	12.7	784
Calendar year 1937	29,358.1	501	-	80.4	58,230
January	414	16	11	13.4	821
February	259	11	8	9.2	514
March	289	11	8	9.3	573
April	1,131.1	155	6.6	37.7	2,240
May	8,512	809	74	275	16,880
June	20,645	1,070	536	688	40,950
July	8,538	598	155	275	16,930
August	2,174	155	33	70.1	4,310
September	1,762	201	19	58.7	3,490
Water year 1937-38	45,718.2	1,070	6.6	125	90,660

Peak discharge.- May 29 (3 p.m.) 895 sec.-ft.; June 22 (2 a.m.) 1,380 sec.-ft.

Willow Creek near Granby, Colo.

Location.- Water-stage recorder, lat. 40°11', long. 106°00', in NW¼ sec. 34, T. 3 N., R. 77 W., 100 feet downstream from Gold Run Creek and 7 miles northwest of Granby. Zero of gage is 8,240.99 feet above mean sea level (general adjustment of 1929).

Drainage area.- 105 square miles.

Records available.- April 1935 to September 1938.

Extremes.- Maximum discharge during year, 811 second-feet May 16 (gage height, 4.49 feet); minimum daily discharge, 6 second-feet Jan. 12, Feb. 2, 3, 17-24.
1935-38: Maximum discharge, that of May 16, 1938; minimum occurred during period of ice effect.

Remarks.- Records excellent except those for period of ice effect, Nov. 11 to Apr. 17, which were computed on basis of three discharge measurements and weather records and are fair. Water diverted for irrigation of hay meadows above station.

Rating table, water year 1937-38 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 10)

0.7	17	1.3	53	2.2	180
.8	21	1.5	70	3.0	370
.9	26	1.7	95	4.0	656
1.0	32	1.8	110	4.4	782
1.1	38	2.0	142		

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	19	17	8	7	8	21	486	644	142	36	19
2	24	17	16	8	6	8	22	417	635	129	34	24
3	20	17	15	8	6	8	22	380	635	118	31	55
4	20	17	13	7	6	8	22	322	638	108	30	31
5	19	14	13	7	7	8	21	272	596	100	29	28
6	19	16	12	7	7	8	19	221	590	94	27	26
7	19	16	13	7	7	8	19	198	542	87	27	30
8	19	16	13	7	7	7	19	160	500	81	28	34
9	19	19	12	7	7	7	19	147	439	74	31	27
10	19	19	12	7	7	7	19	140	409	70	33	26
11	17	19	13	7	7	7	21	147	378	68	29	26
12	19	19	14	6	7	7	22	170	365	67	31	27
13	19	16	14	7	7	8	25	260	365	65	28	31
14	19	16	14	8	7	8	30	447	334	72	27	27
15	23	17	14	9	7	8	25	563	296	90	26	22
16	27	14	14	9	7	9	24	724	267	88	26	21
17	26	14	14	8	6	9	30	763	250	80	24	20
18	28	14	14	8	6	9	39	696	245	94	22	19
19	24	14	14	8	6	10	44	650	236	70	21	19
20	22	15	14	8	6	11	47	596	226	64	20	18
21	25	16	12	9	6	14	58	569	236	61	19	18
22	24	14	10	8	6	14	74	581	255	58	19	19
23	22	14	8	8	6	14	101	557	240	53	19	18
24	22	16	9	7	6	15	139	536	214	49	19	19
25	22	17	9	7	7	16	231	545	198	47	18	19
26	21	14	9	7	7	16	286	587	180	47	19	20
27	22	13	9	7	8	17	240	650	176	46	19	19
28	22	14	9	7	8	18	236	683	162	52	21	17
29	19	16	9	7	-	19	293	744	160	48	20	17
30	19	15	9	7	-	20	375	776	155	39	19	16
31	17	-	8	7	-	20	-	705	-	37	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	661	28	17	21.3	1,310
November	478	19	13	15.9	948
December	376	17	8	12.1	746
Calendar year 1937	18,410.5	385	-	50.4	36,520
January	232	9	6	7.5	460
February	187	8	6	6.7	371
March	346	20	7	11.2	686
April	2,543	375	19	84.8	5,040
May	14,692	776	140	474	29,140
June	10,566	644	155	352	20,960
July	2,298	142	37	74.1	4,560
August	772	36	18	24.9	1,530
September	712	55	16	23.7	1,410
Water year 1937-38	33,863	776	6	92.8	67,160

Peak discharge.- May 16 (11 p.m.) 811 sec.-ft.

Fraser River near West Portal, Colo.

Location.- Water-stage recorder, lat. 39°54'00", long. 105°46'35", in NE¼ sec. 4, T. 2 S., R. 75 W., 1½ miles northwest of West Portal and 2½ miles downstream from point of diversion for Moffat tunnel.

Drainage area.- 28 square miles.

Records available.- September 1910 to September 1930, September 1933 to September 1938 in reports of Geological Survey. September 1910 to September 1938 in reports of State engineer.

Average discharge.- 28 years, 44.1 second-feet (including diversion through Moffat tunnel).

Extremes.- Maximum discharge during year, 152 second-feet June 9 (gage height, 1.39 feet); minimum daily discharge, 4.8 second-feet Sept. 29.
1910-38: Maximum discharge, 820 second-feet June 13, 1918 (gage height, 2.9 feet); minimum, 2 second-feet Mar. 30, 1912.

Remarks.- Records excellent except those for periods of ice effect, which are good. Transmountain diversion through Pioneer bore of Moffat tunnel to South Platte River Basin since June 9, 1936. Records of flow past station combined with those of diverted flow are equivalent to records prior to June 9, 1936. Small diversion through Berthoud Pass. Records of diverted flow furnished by State engineer.

Rating table, water year 1937-38 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 11 to June 5)

0.1	3.8	0.3	8.0	0.5	18	0.7	34	1.0	76
.2	5.5	.4	12.5	.6	25	.8	46	1.3	132

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	16	*12	*10	*10	*10	*12	24	35	17	5.8	5.5
2	23	15	*12	*10	*10	*10	*11	24	35	12	5.5	6.8
3	21	15	12	*9.8	*10	*10	*12	22	39	12	5.5	26
4	19	14	12	*9.1	*10	*10	12	19	53	12	5.5	63
5	18	14	*12	*9.0	*10	*10	9.8	17	107	11	5.5	53
6	17	16	*12	*9.2	*9.5	*9.8	9.4	16	101	11	5.3	47
7	17	15	*12	*9.2	*9.8	*9.8	*9.6	15	70	10	5.3	42
8	19	*14	*12	*9.4	*9.8	*10	*9.8	15	35	10	5.5	45
9	19	*13	12	*9.6	*9.5	*10	*10	15	45	9.6	5.5	38
10	18	*13	11	*9.8	*9.8	*10	*10	16	34	9.4	5.5	34
11	17	*13	11	*10	*10	*10	12	16	31	8.9	5.5	35
12	19	*13	11	*10	*10	*9.8	11	19	33	8.9	5.5	41
13	17	13	11	*10	*10	*9.6	12	24	39	8.9	5.8	36
14	17	*13	11	*10	*10	*9.6	16	30	30	9.4	5.5	34
15	19	13	11	*10	*10	*9.4	16	32	28	8.4	5.3	33
16	19	12	11	*9.8	*9.8	*9.4	14	34	27	8.0	5.3	32
17	19	12	*11	*9.8	*9.6	*9.4	12	35	25	8.0	5.2	31
18	18	13	*11	*9.8	*9.6	*9.5	14	39	24	8.0	5.2	30
19	17	13	*11	*10	*9.6	*9.8	20	39	22	7.2	5.0	29
20	17	13	*11	*10	*9.8	*9.8	22	36	22	7.2	5.0	28
21	17	13	*11	*10	*9.8	*10	12	34	33	7.0	5.0	27
22	17	12	*11	*10	*10	10	14	34	68	7.0	5.0	26
23	17	*12	*11	*10	*10	*10	16	30	42	6.8	5.0	18
24	17	*12	*11	*10	*9.8	*10	21	30	20	6.5	5.0	8.4
25	18	12	*11	*10	*9.8	10	29	30	21	6.8	5.3	5.3
26	17	*12	*11	*10	*9.8	8.4	27	31	16	6.8	6.5	5.0
27	17	*12	*11	*10	*10	11	19	32	19	7.0	6.0	5.0
28	17	12	*10	*9.8	*10	11	19	35	22	7.2	6.0	5.0
29	16	12	*10	*9.8	-	10	19	38	28	6.8	5.8	4.8
30	16	*12	*10	*9.8	-	12	26	38	27	6.0	6.5	5.0
31	16	-	*10	*10	-	*12	-	36	-	6.0	6.0	-

Month	Observed					Diversion by Moffat tunnel (acre-feet)	Adjusted for diversion	
	Second-foot-days	Discharge in second-feet			Run-off in acre-feet		Run-off in acre-feet	Mean (second-feet)
		Maximum	Minimum	Mean				
October	561	26	16	18.1	1,110	0	1,110	18.1
November	394	16	12	13.1	781	0	781	13.1
December	346	12	10	11.2	686	0	686	11.2
Calendar year 1937	6,318.3	132	5.2	17.3	12,530	11,280	23,810	32.9
January	303.9	10	9.0	9.80	603	0	603	9.80
February	276.6	10	9.6	9.88	549	0	549	9.88
March	310.3	12	8.4	10.0	615	0	615	10.0
April	456.6	29	9.4	15.2	906	87	993	16.7
May	855	39	15	27.6	1,700	3,040	4,740	77.0
June	1,131	107	16	37.7	2,240	12,380	14,620	246
July	271.0	17	6.0	8.74	538	4,760	5,300	86.2
August	170.3	6.5	5.0	5.49	338	1,560	1,900	30.9
September	798.8	63	4.8	26.6	1,580	476	2,060	34.6
Water year 1937-38	5,874.5	107	4.8	16.1	11,650	22,300	33,960	46.9

Peak discharge.- June 4 (8 p.m.) 122 sec.-ft.; June 9 (12 m) 152 sec.-ft.; Sept. 8 (1 p.m.) 143 sec.-ft.

*Stage-discharge relation affected by ice; discharge computed on basis of three discharge measurements and weather records.

Fraser River at Granby, Colo.

Location.- Water-stage recorder, lat. 40°05', long. 105°57', in sec. 1, T. 1 N., R. 76½ W., just below Tenmile Creek, half a mile southwest of Granby, and 2½ miles upstream from mouth. Prior to September 1909 at site 300 feet upstream.

Drainage area.- 285 square miles.

Records available.- August 1904 to September 1909, September 1937 to September 1938.

Extremes.- 1937-38: Maximum discharge during period, 1,080 second-feet May 30 (gage height, 2.76 feet); minimum daily discharge, 31 second-feet Jan. 11.
1904-9, 1938: Maximum daily discharge, 1,860 second-feet June 14, 15, 1906.

Remarks.- Records excellent except those for period of ice effect, Nov. 23 to Apr. 3, which were computed on basis of three discharge measurements and weather records and are fair. Transmountain diversion through Pioneer bore of Moffat tunnel to South Platte River Basin since June 9, 1936. Records of flow past station combined with those of diverted flow are equivalent to records for period 1904-9. Records of diverted flow furnished by State engineer.

Discharge, in second-feet, Sept. 15-30, 1937

Sept.15	68	Sept.19	64	Sept.23	69	Sept.27	64
16	67	20	64	24	71	28	64
17	67	21	63	25	69	29	63
18	72	22	63	26	67	30	67

Note.- Mean discharge, for period Sept. 15-30, 66.4 second-feet (run-off, 2,110 acre-feet); no diversion through Moffat tunnel.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	166	76	76	35	38	44	39	796	949	501	84	86
2	123	72	72	34	38	46	40	632	970	447	82	91
3	101	72	66	33	37	43	41	614	977	400	86	273
4	92	72	64	33	38	43	43	517	998	395	79	221
5	83	62	58	34	39	43	54	452	1,010	447	76	183
6	77	66	59	33	40	42	58	370	998	390	75	154
7	72	81	60	33	41	40	55	333	928	342	74	147
8	79	67	60	33	43	38	57	308	887	312	82	186
9	85	83	59	33	45	40	63	324	860	250	81	157
10	77	94	59	32	48	41	69	361	935	221	78	134
11	76	99	61	31	51	40	69	361	860	214	75	136
12	76	83	64	32	49	39	86	395	847	214	71	163
13	76	85	66	33	47	39	126	479	928	190	79	183
14	69	85	66	37	44	39	150	669	860	217	74	144
15	86	77	66	42	41	40	99	796	751	196	71	131
16	92	74	66	40	38	42	112	914	732	183	69	123
17	88	69	63	38	37	43	140	900	732	186	66	121
18	110	74	61	35	36	45	201	887	744	176	65	114
19	85	85	63	35	35	48	300	874	663	150	63	109
20	79	72	64	36	34	50	231	880	656	141	60	107
21	90	72	45	38	34	47	216	854	764	141	60	105
22	81	71	37	37	33	45	300	854	880	141	60	105
23	81	58	32	35	33	45	447	744	860	121	60	103
24	79	65	35	34	33	47	539	706	738	111	66	82
25	81	70	36	33	34	48	638	694	841	111	91	75
26	79	64	37	34	35	50	719	751	776	109	96	70
27	76	63	37	34	36	50	550	860	744	111	78	69
28	77	67	37	36	39	49	512	928	764	111	74	67
29	74	72	36	36	-	47	590	998	706	109	76	66
30	74	70	35	37	-	42	669	1,040	694	93	100	64
31	72	-	35	39	-	37	-	977	-	84	109	-

Month	Observed					Diversion by Moffat tunnel (acre-feet)	Adjusted for diversion	
	Second-foot-days	Discharge in second-feet			Run-off in acre-feet		Run-off in acre-feet	Mean (second-feet)
		Maximum	Minimum	Mean				
October	2,656	166	69	85.7	5,270	0	5,270	85.7
November	2,220	99	58	74.0	4,440	0	4,400	74.0
December	1,675	76	32	54.0	3,320	0	3,320	54.0
Calendar year								
January	1,085	42	31	35.0	2,150	0	2,150	35.0
February	1,096	51	33	39.1	2,170	0	2,170	39.1
March	1,352	50	37	43.6	2,680	0	2,680	43.6
April	7,213	719	39	240	14,310	148	14,460	243
May	21,268	1,040	308	686	42,180	6,270	48,450	788
June	25,052	1,010	656	835	49,690	22,570	72,260	1,214
July	6,814	501	84	220	13,520	9,790	23,310	379
August	2,360	109	60	76.1	4,680	3,370	8,050	131
September	3,769	273	64	126	7,480	827	8,310	140
Water year 1937-38	76,560	1,040	31	210	151,800	42,980	194,800	269

Peak discharge.- Apr. 30 (11 p.m.) 1,010 sec.-ft.; May 30 (4:30 a.m.) 1,080 sec.-ft.

Vasquez Creek near West Portal, Colo.

Location.- Water-stage recorder, lat. 39°55'15", long. 105°47'05", in NW¼ sec. 33, T. 1 S., R. 75 W., a quarter of a mile upstream from mouth, 1½ miles downstream from point of Moffat tunnel division, and 2½ miles northwest of West Portal.

Drainage area.- 27.8 square miles.

Records available.- June 1907 to October 1909, August 1934 to September 1938.

Extremes.- Maximum discharge during year, 263 second-feet June 29 (gage height, 2.27 feet); minimum daily discharge, 0.3 second-foot July 11-14.
1934-38: Maximum discharge, 396 second-feet June 15, 1935 (gage height, 2.64 feet); minimum daily discharge, 0.2 second-foot July 12, 1937.

Remarks.- Records good except those for periods of ice effect, Nov. 8-12, 14, Nov. 23 to Dec. 2, Dec. 15 to Apr. 22, which were computed on basis of four discharge measurements, and weather records and are fair. Transmountain diversion through Pioneer bore of Moffat tunnel to South Platte River Basin since May 26, 1937. Records of flow past station combined with those of diverted flow are equivalent to records prior to May 26, 1937. Records of diverted flow furnished by State engineer.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	13	9.0	9.5	8.2	8.3	7.2	17	16	6.0	4.5	5.2
2	19	12	10	9.0	8.0	8.0	7.2	15	14	3.9	4.1	6.0
3	19	12	11	8.7	7.5	8.0	7.4	16	18	3.0	4.1	16
4	18	12	10	8.5	7.5	7.8	8.0	14	22	9.0	4.1	31
5	16	13	10	8.0	7.5	7.2	8.5	12	33	98	3.9	31
6	15	16	10	7.8	7.0	6.8	8.0	11	31	69	3.4	29
7	14	11	9.9	7.5	7.0	6.8	8.5	9.5	19	43	3.1	29
8	16	9	10	8.0	7.2	7.0	8.8	9.0	19	27	3.2	34
9	15	10	10	8.5	7.6	7.2	9.0	8.2	21	1.4	3.2	29
10	15	10	10	9.0	7.8	7.0	9.0	8.2	32	.4	3.1	26
11	15	11	10	9.5	7.4	7.0	9.0	7.6	18	.3	3.1	26
12	15	12	10	9.5	7.2	7.2	10	8.2	14	.3	3.2	32
13	15	11	10	10	7.1	7.2	11	12	20	.3	3.6	32
14	14	11	9.9	10	7.0	7.4	12	17	12	.3	3.2	28
15	16	11	9.7	10	7.2	7.6	13	20	4.5	.4	3.0	25
16	15	11	9.7	9.5	7.6	7.4	12	22	5.4	1.7	3.0	24
17	15	13	9.5	9.5	7.4	7.2	11	22	6.0	2.1	3.0	24
18	14	13	9.5	9.5	7.0	7.1	12	25	3.9	2.1	2.8	22
19	14	14	9.2	10	7.0	7.4	14	25	2.6	2.0	3.1	22
20	19	11	9.0	9.5	7.4	7.6	15	21	2.4	2.4	4.3	22
21	14	11	9.0	9.2	7.6	7.2	14	21	6.5	2.1	4.3	21
22	14	12	9.5	10	8.0	7.2	16	19	14	2.1	4.3	21
23	14	10	10	9.0	7.6	7.8	13	19	7.1	1.8	4.3	16
24	15	11	10	9.0	7.2	7.8	14	19	3.0	1.9	4.5	5.7
25	15	12	11	8.8	7.0	8.0	18	19	218	2.0	4.7	4.3
26	15	11	10	9.0	7.4	7.5	21	20	197	3.2	5.4	4.1
27	15	10	9.6	9.0	7.6	7.0	16	26	197	5.7	5.0	3.9
28	15	9	9.0	8.5	8.0	7.0	11	20	207	6.0	5.2	3.9
29	13	10	9.0	8.2	-	7.0	12	22	200	5.7	5.4	3.9
30	13	11	9.0	8.0	-	7.0	15	45	35	5.4	6.0	3.9
31	13	-	10	8.0	-	6.6	-	22	-	5.2	5.7	-

Month	Observed					Diversion by Moffat tunnel (acre-feet)	Adjusted for diversion	
	Second-foot-days	Discharge in second-feet			Run-off in acre-feet		Run-off in acre-feet	Mean (second-feet)
		Maximum	Minimum	Mean				
October	477	22	13	15.4	946	0	946	15.4
November	343	16	9.	11.4	680	0	680	11.4
December	302.5	11	9.0	9.76	600	0	600	9.76
Calendar year 1937	4,626.6	106	.2	12.7	9,180	10,400	19,570	27.0
January	278.2	10	7.5	8.97	552	0	552	8.97
February	208.0	8.2	7.0	7.43	413	0	413	7.43
March	227.3	8.3	6.6	7.33	451	0	451	7.33
April	350.6	21	7.2	11.7	695	61	756	12.7
May	551.7	45	7.6	17.8	1,090	3,230	4,320	70.3
June	1,398.4	218	2.4	46.6	2,770	10,190	12,960	218
July	313.7	98	.3	10.1	622	5,030	5,650	91.9
August	123.8	6.0	2.8	3.99	246	1,810	2,060	33.5
September	580.9	34	3.9	19.4	1,150	351	1,500	25.2
Water year 1937-38	5,551.1	218	.3	14.1	10,220	20,670	30,890	42.7

Peak discharge.- June 29 (11 p.m.) 263 sec.-ft.

St. Louis Creek near Fraser, Colo.

Location.- Water-stage recorder, lat. 39°54'45", long. 105°52'35", in sec. 34, T. 1 S., R. 76 W., a third of a mile downstream from confluence of East and West Branches and 4½ miles southwest of Fraser.

Drainage area.- 32.8 square miles.

Records available.- August 1934 to September 1938.

Extremes.- Maximum discharge during year, 312 second-feet June 21 (gage height, 2.54 feet); minimum daily discharge, 5.7 second-feet Mar. 26.
1934-38: Maximum discharge, 353 second-feet June 15, 1935 (gage height, 2.58 feet); minimum, 3.2 second-feet Apr. 9, 1935 (gage height, 0.75 foot).

Remarks.- Records good except those for periods of ice effect, Nov. 8-19, Nov. 23 to Mar. 20, Mar. 22, 23, which were computed on basis of three discharge measurements, gage heights, and weather records and are fair. No regulation or diversion.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	15	11	8.8	10	10	6.8	37	158	208	51	39
2	24	15	11	8.6	10	10	6.0	32	174	197	49	42
3	22	15	11	8.6	10	9.8	6.4	29	214	198	48	53
4	21	14	11	8.4	10	9.2	6.0	25	225	180	46	43
5	19	16	10	8.2	10	8.8	6.0	20	233	166	44	40
6	17	20	10	8.0	10	8.4	6.4	17	230	153	42	37
7	17	15	10	8.0	10	8.6	6.0	17	216	143	43	40
8	20	14	10	8.2	10	9.0	6.4	15	216	138	43	45
9	19	14	10	8.6	10	9.0	6.8	17	225	138	42	39
10	18	15	10	9.0	10	8.8	7.2	20	239	130	40	36
11	17	16	11	9.8	10	8.1	7.6	21	225	118	39	36
12	17	16	11	9.8	10	8.5	7.6	23	247	112	41	42
13	16	16	11	9.6	10	8.5	8.4	31	256	110	46	39
14	15	16	10	9.4	10	8.5	8.4	44	233	116	38	35
15	16	16	10	9.4	10	8.2	8.4	51	216	101	35	33
16	16	16	10	9.2	10	8.0	8.0	57	219	95	34	33
17	18	16	10	9.2	10	7.8	7.6	61	230	93	32	33
18	16	17	10	9.4	10	7.4	8.8	66	230	88	30	31
19	17	17	9.8	9.6	10	7.0	11	67	216	81	29	30
20	19	14	9.6	9.8	10	6.9	12	64	225	77	29	29
21	17	14	9.5	10	10	6.8	11	66	267	76	28	29
22	17	12	9.5	10	10	6.8	11	66	284	73	26	28
23	16	12	9.8	10	10	6.8	15	61	284	69	26	28
24	14	12	10	10	9.5	6.8	17	63	272	66	33	29
25	14	12	10	10	9.2	6.0	22	69	261	63	41	29
26	15	12	9.2	10	9.5	5.7	26	81	256	62	43	27
27	15	12	9.0	10	9.8	7.2	22	95	247	63	35	26
28	16	11	9.0	10	10	7.2	22	121	236	62	34	25
29	15	11	9.0	10	-	7.2	25	153	230	58	41	25
30	16	11	9.0	10	-	7.2	33	156	228	55	47	24
31	15	-	9.0	10	-	7.2	-	148	-	52	43	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	546	28	14	17.6	1,080
November	432	20	11	14.4	857
December	309.4	11	9.0	9.98	614
Calendar year 1937	10,677.0	136	7.4	29.3	21,180
January	289.6	10	8.0	9.34	574
February	278.0	10	9.2	9.93	551
March	245.4	10	5.7	7.92	487
April	355.8	33	6.0	11.9	706
May	1,793	156	15	57.8	3,560
June	6,992	284	158	233	13,870
July	3,331	208	52	107	6,610
August	1,198	51	26	38.6	2,380
September	1,024	53	24	34.1	2,030
Water year 1937-38	16,794.2	284	5.7	46.0	33,320

Peak discharge.- May 29 (8 p.m.) 194 sec.-ft.; June 5 (8 p.m.) 258 sec.-ft.; June 12 (8 p.m.) 286 sec.-ft.; June 21 (6 p.m.) 312 sec.-ft.

Ranch Creek above forks, near Fraser, Colo.

Location.- Water-stage recorder, lat. 39°56'30", long. 105°44'00", in SW¼ sec. 24, T. 1 S., R. 75 W., 0.8 mile upstream from North Fork and 4 miles east of Fraser.

Drainage area.- 3.8 square miles.

Records available.- April 1937 to September 1938.

Extremes.- Maximum discharge during year, 67 second-feet June 21 (gage height, 3.45 feet); minimum daily discharge, 1.9 second-feet Nov. 3, and less during period of no records.

1937-38: Maximum discharge, that of June 21, 1938; minimum daily discharge, 1.2 second-feet Apr. 18-21, 24, 25, Apr. 28 to May 1, 1937, probably lower during period of no records.

Remarks.- Records fair. None for Nov. 5 to May 23. No diversion or regulation.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	2.0						-	33	38	6.8	3.6
2	2.5	2.0						-	38	36	6.5	5.3
3	2.5	1.9						-	45	33	6.2	9.0
4	2.4	2.0						-	49	33	5.9	5.3
5	2.3	-						-	48	29	5.3	6.5
6	2.2	-						-	47	26	5.0	5.0
7	2.1	-						-	45	23	5.0	4.5
8	2.3	-						-	43	22	5.0	4.5
9	2.3	-						-	44	20	5.0	4.3
10	2.2	-						-	49	19	4.8	4.3
11	2.2	-						-	48	18	4.5	4.1
12	2.2	-						-	51	18	4.5	3.4
13	2.1	-						-	52	17	4.8	2.7
14	2.1	-						-	48	17	4.1	3.4
15	2.2	-						-	47	16	3.8	3.2
16	2.2	-						-	47	16	3.6	2.9
17	2.2	-						-	48	15	3.4	2.7
18	2.1	-						-	47	15	3.4	2.6
19	3.2	-						-	45	13	3.2	2.5
20	3.4	-						-	47	13	2.9	2.5
21	2.1	-						-	54	12	2.7	2.5
22	2.1	-						-	56	11	2.7	2.4
23	2.2	-						-	53	10	2.7	2.4
24	2.2	-						6.5	51	9.4	2.6	2.4
25	2.1	-						6.8	49	9.0	2.9	2.4
26	2.1	-						9.8	48	8.7	3.6	2.3
27	2.1	-						16	45	8.4	2.9	2.4
28	2.1	-						21	44	8.0	2.9	2.6
29	2.3	-						30	44	8.0	3.1	2.6
30	2.2	-						34	44	7.7	3.4	2.6
31	2.0	-						30	-	7.1	3.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	70.8	3.4	2.0	2.28	140
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year					
January					
February					
March					
April					
May 24-31	154.1	34	6.5	19.3	306
June	1,409	56	33	47.0	2,790
July	536.3	38	7.1	17.3	1,060
August	126.6	6.8	2.6	4.08	251
September	106.9	9.0	2.3	3.56	212
Water year					

Ranch Creek near Fraser, Colo.

Location.- Water-stage recorder, lat. 39°55'15", long. 105°47'05", in NE¼ sec. 22, T. 1 S., R. 75 W., 150 yards downstream from South Fork and 3 miles east of Fraser.

Drainage area.- 19.9 square miles.

Records available.- August 1934 to September 1938.

Extremes.- Maximum discharge during year, 266 second-feet June 21 (gage height, 3.35 feet); minimum daily discharge, 3.9 second-feet Jan. 4-14, Mar. 4-13, Apr. 7-9.
1934-38: Maximum discharge, 299 second-feet June 15, 1935 (gage height, 3.37 feet); minimum daily discharge, 1.5 second-feet (estimated), Feb. 3-7, Mar. 18-21, 1935.

Remarks.- Records good except those for period of ice effect, Nov. 8 to Jan. 4, which were computed on basis of weather records and are fair. No diversions above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	7.5	6.6	4.2	4.4	4.2	4.0	34	184	125	16	11
2	8.8	7.3	6.6	4.0	4.4	4.0	4.0	31	191	100	15	12
3	7.8	7.3	6.6	4.0	4.3	4.0	4.0	30	212	93	14	33
4	7.5	7.3	6.2	3.9	4.2	3.9	4.0	24	235	91	14	18
5	6.7	9.8	6.0	3.0	4.2	3.9	4.0	21	224	78	13	16
6	6.5	13	6.0	3.9	4.2	3.9	4.0	19	216	73	13	13
7	6.3	8.0	6.0	3.9	4.2	3.9	3.9	18	198	67	13	12
8	7.1	7.0	6.0	3.9	4.2	3.9	3.9	16	184	62	14	12
9	6.9	7.0	6.0	3.9	4.2	3.9	3.9	16	192	58	14	12
10	6.7	7.0	6.0	3.9	4.2	3.9	4.0	17	200	55	13	11
11	6.7	7.2	6.0	3.9	4.2	3.9	4.0	17	195	51	12	12
12	6.7	7.2	6.0	3.9	4.4	3.9	4.3	19	202	47	12	16
13	6.5	7.0	6.0	3.9	4.9	3.9	4.8	27	212	44	14	15
14	6.1	7.0	5.8	3.9	4.8	4.0	6.3	43	188	46	12	12
15	7.3	7.0	5.5	4.0	4.8	4.2	6.7	49	178	42	11	12
16	7.8	7.0	5.2	4.0	4.6	4.0	5.2	58	173	39	11	12
17	7.3	7.6	5.0	4.0	4.6	4.0	5.2	61	178	39	10	12
18	6.9	8.0	5.0	4.0	4.4	4.2	6.3	63	173	36	9.8	11
19	6.7	8.2	5.0	4.2	4.3	4.2	7.8	66	164	34	9.5	11
20	10	8.0	5.0	4.3	4.3	4.2	6.5	66	173	33	9.2	11
21	7.5	7.5	5.0	4.4	4.2	4.2	6.5	68	205	30	9.0	11
22	7.3	7.2	5.0	4.4	4.2	4.2	7.1	66	212	28	8.8	11
23	7.5	7.2	5.2	4.3	4.2	4.2	8.5	62	191	26	8.8	11
24	8.2	7.0	5.2	4.3	4.2	4.2	9.5	62	179	24	8.5	11
25	8.0	7.0	5.4	4.3	4.0	4.2	13	66	172	23	9.2	11
26	7.8	6.8	4.8	4.3	4.0	4.0	19	77	164	22	11	10
27	7.8	6.8	4.4	4.3	4.2	4.2	16	92	157	22	9.5	10
28	7.8	6.8	4.2	4.3	4.2	4.2	14	121	147	21	10	10
29	7.5	6.8	4.0	4.4	-	4.2	19	164	149	20	10	10
30	7.5	6.8	4.0	4.6	-	4.2	29	184	144	18	12	9.8
31	7.5	-	4.2	4.4	-	4.2	-	175	-	17	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	231.7	11	6.1	7.47	460
November	225.3	13	6.8	7.51	447
December	167.9	6.6	4.0	5.42	333
Calendar year 1937	5,609.6	83	3.4	15.4	11,130
January	127.6	4.6	3.9	4.12	253
February	121.0	4.9	4.0	4.32	240
March	126.0	4.2	3.9	4.06	250
April	238.4	29	3.9	7.95	473
May	1,832	184	16	59.1	3,630
June	5,592	235	144	186	11,090
July	1,464	125	17	47.2	2,900
August	357.3	16	8.5	11.5	709
September	378.8	33	9.8	12.6	751
Water year 1937-38	10,862.0	235	3.9	29.8	21,540

Peak discharge.- June 3 (8 p.m.) 260 sec.-ft.; June 12 (9 p.m.) 238 sec.-ft.; June 21 (7 p.m.) 266 sec.-ft.

Ranch Creek near Tabernash, Colo.

Location.- Water-stage recorder, lat. 39°59'55", long. 105°49'10", in sec. 6, T. 1 S., R. 75 W., a quarter of a mile upstream from Meadow Creek and 1½ miles east of Tabernash.

Drainage area.- 50.7 square miles.

Records available.- September 1934 to September 1938.

Extremes.- Maximum discharge during year, 450 second-feet June 4 (gage height, 4.30 feet); minimum daily discharge, 6.0 second-feet Feb. 20-24.
1934-38: Maximum discharge, 506 second-feet June 15, 1935 (gage height, 4.40 feet); no flow Feb. 15 to Mar. 13, 1937.

Remarks.- Records excellent except those for periods of ice effect, Nov. 17-19, Nov. 23 to Apr. 22, which were computed on basis of three discharge measurements and weather records and are fair. Several small diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	17	16	7.8	7.2	6.8	7	139	356	206	24	19
2	25	17	16	7.8	7.2	6.8	7	120	372	182	22	22
3	22	16	15	7.8	7.2	6.8	8	100	386	171	22	71
4	20	16	14	7.6	7.2	6.8	9	96	417	168	20	33
5	17	14	13	7.6	7.2	6.8	9	78	402	150	19	30
6	15	20	13	7.6	7.2	6.7	10	63	382	130	18	25
7	14	16	13	7.6	7.2	6.6	10	60	356	118	18	26
8	17	20	13	7.6	7.4	6.6	10	53	340	105	20	29
9	17	22	13	7.6	7.4	6.4	11	60	330	97	22	24
10	17	20	13	7.6	7.6	6.4	11	67	356	90	20	22
11	16	20	13	7.2	7.8	6.4	13	68	328	82	18	22
12	16	21	14	7.2	7.6	6.4	15	79	332	76	17	30
13	15	18	14	7.2	7.4	6.6	18	102	358	72	20	30
14	14	18	15	7.4	7.2	6.6	21	148	322	81	17	24
15	18	15	15	7.4	7.0	6.8	17	170	292	75	16	22
16	20	15	14	7.2	6.6	7.0	19	194	284	68	15	20
17	20	15	14	7.2	6.4	7.2	22	206	286	63	15	20
18	23	16	14	7.0	6.4	7.4	28	204	292	62	14	19
19	18	16	14	6.8	6.2	7.6	30	206	268	52	13	18
20	20	17	14	6.8	6.0	7.8	45	208	274	51	12	17
21	19	15	11	7.0	6.0	7.6	60	202	312	48	13	17
22	17	15	9.0	7.0	6.0	7.6	55	212	352	44	12	17
23	17	15	7.5	7.0	6.0	7.4	85	180	326	40	12	17
24	20	15	7.8	6.8	6.0	7.3	78	177	290	37	15	17
25	20	15	8.0	6.8	6.2	7.2	88	184	280	35	15	17
26	20	15	8.4	6.8	6.2	7.4	94	208	256	34	17	16
27	19	15	8.4	6.8	6.2	7.6	76	250	250	34	14	15
28	19	15	8.4	6.8	6.4	7.2	68	288	236	34	14	15
29	18	16	8.4	7.0	-	7.2	82	346	228	31	19	15
30	17	16	8.2	7.0	-	7.0	125	384	238	28	24	15
31	17	-	8.0	7.2	-	6.8	-	354	-	27	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	581	34	14	18.7	1,150
November	501	22	14	16.7	994
December	373.1	16	7.5	12.0	740
Calendar year 1937	11,459.5	188	0	31.4	22,730
January	224.2	7.8	6.8	7.23	445
February	190.4	7.8	6.0	6.80	378
March	216.8	7.8	6.4	6.99	430
April	1,131	125	7	37.7	2,240
May	5,206	384	53	163	10,330
June	9,501	417	228	317	18,840
July	2,491	206	27	80.4	4,940
August	539	24	12	17.4	1,070
September	684	71	15	22.8	1,360
Water year 1937-38	21,638.5	417	6.0	59.3	42,920

Peak discharge.- May 30 (2 a.m.) 426 sec.-ft.; June 4 (2 a.m.) 450 sec.-ft.; June 17 (1 a.m.) 340 sec.-ft.; June 22 (2 a.m.) 399 sec.-ft.; June 30 (1 a.m.) 292 sec.-ft.

North Fork of Ranch Creek near Fraser, Colo.

Location.- Water-stage recorder, lat. 39°57'00", long. 105°44'20", in northeast corner of sec. 23, T. 1 S., R. 75 W., 0.6 mile upstream from mouth and 4 miles east of Fraser.

Drainage area.- 3.4 square miles.

Records available.- April 1937 to September 1938.

Extremes.- Maximum discharge during year, 62 second-feet June 21 (gage height, 2.00 feet); minimum, 1.2 second-feet Aug. 24 (gage height, 0.85 foot) and probably less during period of no record.

1937-38: Maximum discharge, that of June 21, 1938; minimum, that of Aug. 24, 1938.

Remarks.- Records good. None for Nov. 5 to May 23. No diversion or regulation.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.9	1.7						-	26	28	2.8	1.9
2	2.8	1.6						-	29	26	2.7	2.6
3	2.6	1.6						-	36	24	2.6	5.1
4	2.5	1.6						-	46	22	2.6	3.2
5	2.2	-						-	46	19	2.3	3.1
6	2.0	-						-	45	19	2.2	2.8
7	2.0	-						-	42	15	2.3	2.8
8	2.1	-						-	41	13	2.2	2.8
9	2.0	-						-	42	12	2.1	2.6
10	2.1	-						-	45	11	2.1	2.6
11	2.0	-						-	39	11	2.1	2.9
12	2.0	-						-	41	10	2.2	3.6
13	2.0	-						-	46	9.2	2.3	3.2
14	1.9	-						-	42	8.9	2.0	3.0
15	2.1	-						-	41	8.2	1.9	2.9
16	2.0	-						-	41	7.8	1.8	2.9
17	2.0	-						-	44	7.2	1.7	2.9
18	1.7	-						-	41	7.0	1.6	2.9
19	1.9	-						-	40	6.4	1.6	2.9
20	2.0	-						-	41	6.4	1.5	2.9
21	1.8	-						-	47	5.7	1.5	2.9
22	1.8	-						-	43	5.1	1.4	2.9
23	2.0	-						-	39	4.8	1.4	2.9
24	2.0	-						6.6	37	4.4	1.3	2.9
25	2.0	-						6.9	35	4.3	1.5	3.0
26	1.9	-						8.0	34	4.2	1.9	2.8
27	1.9	-						11	34	4.2	1.6	2.8
28	1.9	-						14	33	3.7	1.7	2.7
29	1.7	-						19	32	3.2	1.8	2.7
30	1.7	-						23	31	3.1	2.0	2.6
31	1.7	-						24	-	2.9	1.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	63.2	2.9	1.7	2.04	125
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year					
January					
February					
March					
April					
May 24-31	112.5	24	6.6	14.1	223
June	1,179	47	26	39.3	2,340
July	316.7	28	2.9	10.2	628
August	60.6	2.8	1.3	1.95	120
September	87.8	5.1	1.9	2.93	174
Water year					

Middle Fork of Ranch Creek near Fraser, Colo.

Location.- Water-stage recorder, lat. 39°56'00", long. 105°44'40", on line between secs. 25 and 26, T. 1 S., R. 75 W., 1.6 miles upstream from South Fork and 4.2 miles east of Fraser.

Drainage area.- 4.4 square miles.

Records available.- April 1937 to September 1938.

Extremes.- Maximum discharge during year, 124 second-feet June 21 (gage height, 1.28 feet); minimum, 1.3 second-feet Aug. 23 (gage height, 0.61 foot) and less during period of no record.

1937-38: Maximum discharge, that of June 21, 1938; minimum occurred during period of no record.

Remarks.- Records good. None for Nov. 5 to May 23. No diversion or regulation.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.5	1.6						-	32	36	4.5	2.2
2	2.2	1.6						-	36	35	4.3	3.1
3	2.2	1.5						-	46	34	4.1	6.1
4	2.0	1.4						-	58	33	4.0	4.0
5	1.8	-						-	57	27	3.8	3.4
6	1.7	-						-	52	23	3.4	3.2
7	1.6	-						-	49	20	3.2	3.2
8	1.9	-						-	46	18	3.2	3.1
9	1.8	-						-	52	18	2.9	2.9
10	1.8	-						-	61	16	2.7	2.7
11	1.8	-						-	65	16	2.6	3.1
12	1.8	-						-	73	14	2.7	4.0
13	1.7	-						-	75	14	2.9	3.8
14	1.6	-						-	61	14	2.4	3.4
15	1.9	-						-	60	13	2.3	3.2
16	1.8	-						-	57	12	2.2	3.4
17	1.7	-						-	61	12	2.0	3.2
18	1.5	-						-	60	11	1.8	3.2
19	1.5	-						-	57	9.2	1.7	3.1
20	3.7	-						-	60	8.9	1.5	3.1
21	2.9	-						-	82	8.0	1.7	3.1
22	1.6	-						-	75	7.4	1.5	2.9
23	1.7	-						-	66	6.8	1.5	2.9
24	1.7	-						8.6	61	6.3	1.4	2.9
25	1.7	-						9.2	57	6.1	1.7	2.9
26	1.7	-						11	49	6.1	2.0	2.7
27	1.7	-						14	43	5.9	1.9	2.6
28	1.7	-						18	39	5.4	2.0	2.4
29	1.6	-						22	42	5.0	2.0	2.4
30	1.6	-						28	40	4.7	2.3	2.3
31	1.6	-						28	-	4.5	2.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	58.0	3.7	1.5	1.87	115
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year					
January					
February					
March					
April					
May 24-31	138.8	28	8.6	17.4	275
June	1,672	82	32	55.7	3,320
July	450.3	36	4.5	14.5	893
August	78.5	4.5	1.4	2.53	156
September	94.5	6.1	2.2	3.15	187
Water year					

South Fork of Ranch Creek near West Portal, Colo.

Location.- Water-stage recorder, lat. 39°54'45", long. 105°44'40", in SE¼ sec. 35, T. 1 S., R. 75 W., 2.8 miles upstream from mouth and 5 miles northeast of West Portal.

Drainage area.- 2.4 square miles.

Records available.- November 1936 to September 1938.

Extremes.- Maximum discharge during year, 59 second-feet June 1 (gage height, 1.43 feet); minimum recorded, 0.5 second-foot Nov. 2 (gage height, 0.20 foot) or less during period of no record.

1936-38: Maximum discharge, that of June 1, 1938; probably no flow at times during ice period.

Remarks.- Records good. No records Nov. 3 to May 23. No diversion or regulation.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	1.0						-	33	15	2.9	1.9
2	1.5	1.0						-	32	13	2.9	3.0
3	1.4	1.0						-	41	13	3.0	2.7
4	1.3	-						-	34	12	2.9	1.8
5	1.2	-						-	34	11	2.9	1.6
6	1.1	-						-	34	10	2.7	1.5
7	1.0	-						-	33	8.8	2.9	1.4
8	1.2	-						-	31	8.3	2.7	1.5
9	1.2	-						-	33	7.5	2.6	1.5
10	1.2	-						-	35	7.1	2.5	1.4
11	1.2	-						-	37	6.6	2.5	1.6
12	1.2	-						-	39	6.2	2.5	1.9
13	1.1	-						-	37	6.2	2.6	1.6
14	1.1	-						-	35	6.0	2.4	1.5
15	1.2	-						-	33	5.3	2.3	1.5
16	1.1	-						-	32	5.3	2.2	1.6
17	1.1	-						-	31	5.3	2.2	1.5
18	1.0	-						-	29	4.8	2.1	1.5
19	1.1	-						-	28	4.4	2.1	1.5
20	1.1	-						-	28	4.2	2.0	1.5
21	1.1	-						-	31	4.1	2.0	1.5
22	1.0	-						-	34	3.8	1.9	1.5
23	1.1	-						-	32	3.5	1.9	1.5
24	1.2	-						9.5	29	3.5	1.8	1.5
25	1.2	-						11	26	3.5	2.0	1.5
26	1.1	-						12	23	3.4	2.2	1.4
27	1.1	-						17	22	3.8	2.0	1.4
28	1.1	-						23	19	3.5	1.9	1.3
29	1.0	-						29	19	3.1	2.1	1.3
30	1.0	-						29	17	3.1	2.2	1.3
31	1.0	-						31	-	2.9	2.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	35.6	1.5	1.0	1.15	71
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May 4-31	161.5	31	9.5	20.2	320
June	921	41	17	30.7	1,830
July	198.2	15	2.9	6.39	393
August	73.0	3.0	1.8	2.35	145
September	48.2	3.0	1.3	1.61	96
Water year					

Meadow Creek near Tabernash, Colo.

Location.- Water-stage recorder, lat. 40°02'55", long. 105°46'20", in sec. 15, T. 1 N., R. 75 W., 5 miles northeast of Tabernash.

Drainage area.- 7.0 square miles.

Records available.- May 1936 to September 1938.

Extremes.- Maximum discharge during year, 197 second-feet June 3 (gage height, 3.67 feet); minimum discharge, 0.1 second-foot Nov. 10 (estimated).
1936-38: Maximum discharge, that of June 3, 1938; probably no flow at times during ice periods.

Remarks.- Records good except those for Oct. 1 to July 5, which are fair. Those for period of ice effect, Nov. 17 to May 20, computed on basis of four discharge measurements, weather records, and records for Arapaho Creek below Monarch Lake. No diversions above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.1	3.8						37	140	47	3.9	2.3
2	6.6	3.2						32	156	40	3.9	4.0
3	6.4	3.1						27	159	39	3.8	12
4	6.0	2.9						24	150	35	3.6	5.4
5	3.8	1.6		*2.6				20	134	29	3.3	3.9
6	2.7	1.1						17	117	26	3.2	3.3
7	2.0	1.0						14	110	25	3.4	3.6
8	2.8	1.0						12	101	22	3.4	4.8
9	3.2	.7						11	112	19	3.4	2.8
10	3.3	.4						11	114	17	2.9	2.3
11	2.8	.8			†2.3			12	104	16	2.7	2.9
12	2.3	.9						13	105	14	2.7	4.8
13	1.8	1.1						16	112	13	3.2	5.6
14	1.6	2.1						24	80	18	2.7	3.9
15	3.2	2.2						34	72	16	2.3	3.1
16	3.8	2.2						48	74	12	2.0	2.7
17	3.8	2.5						51	85	12	1.9	2.5
18	3.4	2.9						49	79	12	1.8	2.2
19	3.8	3.2						45	69	9.6	1.6	2.1
20	3.3	3.7						44	80	8.5	1.6	1.7
21	2.9	4.0						40	106	7.6	1.6	1.8
22	2.9	4.5					*2.3	36	105	7.1	1.5	1.8
23	2.9	4.1						32	90	6.4	1.5	1.6
24	4.2	3.6				*2.1		37	75	5.6	1.6	1.6
25	5.2	3.2						45	72	5.4	1.6	1.6
26	4.6	2.6						69	61	5.2	1.9	1.6
27	4.4	2.2						104	59	5.2	1.6	1.5
28	4.6	2.2						121	57	4.8	1.6	1.4
29	3.8	2.3						141	61	4.5	2.2	1.4
30	4.4	2.5						141	62	4.2	3.4	1.4
31	3.8	-						127	-	3.9	2.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	117.4	7.1	1.6	3.79	233
November	71.6	4.5	.4	2.39	142
December	68.2	-	-	2.2	135
Calendar year					
January	83.7	-	-	2.7	166
February	64.4	-	-	2.3	128
March	65.1	-	-	2.1	129
April	111	-	-	3.7	220
May	1,434	141	11	46.3	2,840
June	2,901	159	57	96.7	5,750
July	490.0	47	3.9	15.8	972
August	78.7	3.9	1.5	2.54	156
September	91.6	12	1.4	3.05	182
Water year 1937-38	5,576.7	159	.4	15.3	11,050

*Discharge measurement.
†Estimate on basis of discharge measurement 5 miles downstream.

Strawberry Creek near Granby, Colo.

Location.- Water-stage recorder, lat. 40°05'10", long. 105°49'30", in SW¼SW¼ sec. 32, T. 2 N., R. 75 W., 0.6 mile below Little Strawberry Creek and 6 miles east of Granby.

Drainage area.- 12.6 square miles.

Records available.- May 1936 to September 1938.

Extremes.- Maximum discharge during year, 132 second-feet May 29 (gage height, 2.91 feet); probably no flow during extremely cold weather.
1936-38: Maximum discharge, that of May 29, 1938; probably no flow during extremely cold weather in each year.

Remarks.- Records good for June 10 to Sept. 30; others fair. No records for Oct. 18 to Apr. 26. Two diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.0						-	65	115	12	3.3	3.3
2	5.2						-	63	108	11	3.0	1.8
3	5.0						-	58	106	11	3.0	2.0
4	4.7						-	50	97	12	3.5	5.5
5	4.2						-	44	87	13	2.4	3.0
6	3.5						-	44	73	12	2.0	2.5
7	3.3						-	35	60	11	1.8	2.5
8	4.0						-	30	53	11	2.1	4.0
9	4.5						-	29	46	13	2.4	2.1
10	5.8						-	29	43	12	2.0	1.8
11	5.2						-	31	36	12	1.7	2.2
12	5.2						-	36	32	11	1.5	3.0
13	4.5						-	49	29	11	2.0	4.5
14	4.0						-	63	24	12	1.8	2.8
15	5.2						-	85	22	12	1.5	2.2
16	5.8						-	103	18	11	1.2	2.1
17	6.3						-	114	17	11	1.1	2.0
18	-						-	119	19	17	.9	1.7
19	-						-	115	16	13	.8	1.7
20	-						-	106	18	11	.6	1.4
21	-						-	99	19	9.3	.3	1.4
22	-						-	93	17	8.3	.3	1.4
23	-						-	87	15	7.2	.3	1.4
24	-						-	83	13	6.0	.6	1.4
25	-						-	84	15	6.0	1.2	1.5
26	-						-	91	14	6.0	1.2	1.3
27	-						37	98	13	6.0	.8	1.2
28	-						40	111	13	5.2	.7	1.2
29	-						41	121	15	5.0	.9	1.1
30	-						55	119	16	4.2	2.2	1.0
31	-						-	119	-	3.8	2.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1-17	82.4	6.3	3.3	4.85	163
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year					
January					
February					
March					
April					
May	2,373	121	29	76.5	4,710
June	1,169	115	13	39.0	2,320
July	306.0	17	3.8	9.87	607
August	48.8	3.3	.3	1.57	97
September	65.0	5.5	1.0	2.17	129
Water year					

153585 O—39——4

Williams River below Steelman Creek, Colo.

Location.- Water-stage recorder, lat. 39°46'45", long. 105°55'30", in sec. 20 T. 3 S., R. 78 W., just downstream from Steelman Creek and 7 miles southeast of Leal.

Drainage area.- 16.3 square miles.

Records available.- October 1933 to September 1938 in reports of Geological Survey; July 1933 to September 1938 in reports of State engineer.

Extremes.- Maximum discharge during year, 441 second-feet June 21 (gage height, 2.48 feet); minimum discharge occurred during period of ice effect.
1933-38: Maximum discharge, that of June 21, 1938; minimum discharge observed, 2.0 second-feet (discharge measurement) Mar. 26, 1935.

Remarks.- Records good except those for periods of ice effect, Nov. 5, 6, Nov. 8 to May 25, which were computed on basis of records for station near Leal, and are fair. No diversions above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	11						9	125	196	31	22
2	15	12						9	147	175	31	23
3	13	11						9	189	158	31	25
4	13	9.4						10	192	147	28	22
5	11	8.5						10	206	125	27	20
6	10	10						11	186	110	25	19
7	9.1	12						11	168	97	28	20
8	10	9.5						12	154	93	28	25
9	9.7	10						14	175	87	25	20
10	10	11						16	168	83	24	18
11	9.7	9.6						20	178	78	25	21
12	10	8.2						22	231	75	23	25
13	10	7.3						24	238	78	26	25
14	8.8	7.0						26	203	89	22	21
15	10	7.5						28	192	84	20	20
16	10	7.9						32	206	78	18	18
17	9.7	7.8						36	231	72	17	18
18	10	7.5						44	210	68	16	18
19	16	7.0						48	196	61	14	16
20	18	7.1						53	224	61	13	16
21	10	7.2						55	325	57	12	16
22	9.4	7.1						56	313	52	12	14
23	10	6.6						56	281	48	12	16
24	11	6.0						54	253	46	13	16
25	11	5.9						54	245	44	17	14
26	11	6.0						56	231	43	21	14
27	11	5.8						63	242	44	18	13
28	11	5.5						89	231	41	16	12
29	12	5.4						134	234	38	16	12
30	11	5.4						108	224	35	22	12
31	11	-						100	-	33	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	347.4	18	8.8	11.2	689
November	242.2	12	5.4	8.07	480
December	142.6	-	-	4.6	283
Calendar year 1937	8,037.5	147	2.6	22.0	15,940
January	120.9	-	-	3.9	240
February	100.8	-	-	3.6	200
March	99.2	-	-	3.2	197
April	153.0	-	-	5.1	303
May	1,269	134	9	40.9	2,520
June	6,398	325	125	213	12,690
July	2,496	196	33	80.5	4,950
August	657	31	12	21.2	1,300
September	551	25	12	18.4	1,090
Water year 1937-38	12,577.1	325	-	34.5	24,940

Peak discharge.- June 5 (6 p.m.) 257 sec.-ft.; June 12 (5 p.m.) 305 sec.-ft.; June 21 (5 p.m.) 441 sec.-ft.; June 27 (8 p.m.) 337 sec.-ft.; June 29 (6 p.m.) 353 sec.-ft.

Williams River near Leal, Colo.

Location.- Water-stage recorder, lat. 39°50', long. 106°03', in sec. 31, T. 2 S., R. 77 W., just downstream from Kinney Creek and 2 miles north of Leal.

Drainage area.- 84 square miles.

Records available.- October 1933 to September 1938 in reports of Geological Survey. July 1933 to September 1938 in reports of State engineer.

Extremes.- Maximum discharge observed during year, 1,530 second-feet June 21 (gage height, 3.81 feet); minimum daily discharge, 19 second-feet Mar. 7, 23, 26, 30.
1933-38: Maximum discharge, that of June 21, 1936; minimum daily discharge, 14 second-feet Mar. 22, 1936.

Remarks.- Records excellent except those for period of ice effect, Nov. 27 to Dec. 5 (computed on basis of weather records) and those for June 8-14 (computed on basis of records for stations below Steelman and near Parshall), which are good. One small diversion for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64	46	31	24	24	23	21	146	637	754	134	88
2	54	42	27	24	22	22	20	120	710	677	124	92
3	51	41	28	24	22	21	22	108	902	603	130	106
4	50	44	28	24	22	20	22	91	1,120	569	120	86
5	44	32	26	24	22	20	20	75	1,120	464	113	79
6	41	36	27	24	22	20	20	72	1,130	443	99	73
7	39	40	28	24	22	19	20	67	962	417	92	77
8	44	32	28	23	22	20	20	62	860	391	99	102
9	44	38	28	23	21	20	22	65	960	345	88	75
10	45	41	29	23	24	20	22	68	880	328	81	66
11	42	38	29	24	22	20	25	73	1,070	294	81	77
12	41	34	30	24	25	20	24	84	1,120	282	84	99
13	41	33	30	24	21	20	26	116	1,000	267	95	92
14	39	32	28	24	23	20	30	184	890	307	86	77
15	46	40	27	24	22	20	27	224	850	286	77	70
16	46	40	28	24	23	20	26	248	814	260	73	65
17	46	39	27	24	23	20	25	260	915	242	66	65
18	44	39	27	24	22	20	30	264	957	223	63	62
19	41	39	26	24	23	20	41	264	826	205	59	59
20	41	39	26	24	23	21	34	260	868	202	56	56
21	46	40	25	24	23	22	31	260	1,430	199	55	56
22	46	36	27	22	22	21	33	264	1,320	193	52	56
23	46	30	26	24	21	19	41	213	1,170	169	52	56
24	48	40	26	24	20	20	51	206	1,040	162	55	62
25	49	39	25	24	22	20	67	220	915	152	66	56
26	48	32	27	24	22	19	82	269	887	126	86	55
27	46	25	28	23	22	20	80	359	908	157	73	51
28	48	28	28	24	23	23	75	482	915	150	63	48
29	46	29	28	24	-	21	89	626	929	130	65	47
30	45	30	24	24	-	19	123	632	862	122	88	46
31	46	-	24	23	-	20	-	576	-	130	110	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,417	64	39	45.7	2,810
November	1,096	48	25	36.5	2,170
December	846	31	24	27.3	1,680
Calendar year 1937	29,350	444	16	80.4	58,200
January	737	24	22	23.8	1,460
February	625	25	20	22.3	1,240
March	630	23	19	20.3	1,250
April	1,169	123	20	39.0	2,320
May	6,958	632	62	224	13,800
June	28,967	1,430	637	966	57,460
July	9,239	754	122	298	18,330
August	2,385	134	52	83.4	5,130
September	2,099	106	46	70.0	4,160
Water year 1937-38	56,368	1,430	19	154	111,800

Peak discharge.- May 29 (10 p.m.) 800 sec.-ft.; June 3 (11 p.m.) 1,400 sec.-ft.
Note.- Recorder installation washed out June 7; replaced Aug. 4. Discharge June 15 to Aug. 3 computed from daily staff gage readings.

Williams River near Parshall, Colo.

Location.- Water-stage recorder, lat. 40°00', long. 106°11', in sec. 1, T. 1 S., R. 79 W., 2½ miles upstream from Battle Creek and 4 miles south of Parshall. Prior to Aug. 9, 1938, recorder located 150 feet upstream at different datum. Zero of gage is 7,805.00 feet above mean sea level.

Drainage area.- 184 square miles.

Records available.- July 1904 to September 1924, and October 1933 to September 1938 in reports of Geological Survey. July 1904 to September 1924, and June 1933 to September 1938 in reports of State engineer.

Average discharge.- 25 years (1904-24, 1933-38), 167 second-feet.

Extremes.- Maximum discharge during year, 1,230 second-feet June 22 (gage height, 3.77 feet, former site and datum); minimum daily discharge, 29 second-feet Mar. 31.
1904-24, 1933-38: Maximum discharge, 2,750 second-feet (estimated) June 16, 1918; minimum daily discharge, 10 second-feet Sept. 15-17, 1934.

Remarks.- Records excellent except those for period of ice effect, Nov. 7 to Apr. 28, which were computed on basis of five discharge measurements and records for station near Leal, and are fair. Diversions for irrigation above station.

Rating tables, water year 1937-38 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Aug. 8 (Shifting-control method used Oct. 1-15)

0.8	30	1.3	92	1.8	260	3.0	820
1.0	47	1.4	117	2.0	342	3.5	1,070
1.1	58	1.6	182	2.5	576	3.7	1,190
1.2	73						

Aug. 9 to Sept. 30 (Shifting-control method used Aug. 9-14)

1.4	62	1.7	134
1.5	82	1.8	166
1.6	106	2.0	242

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	100	50	45	36	36	37	31	334	690	785	107	170
2	97	47	42	36	36	37	30	260	925	715	130	173
3	82	45	43	36	37	38	32	240	995	658	120	206
4	79	45	43	35	38	35	32	179	1,060	600	107	173
5	70	39	40	33	35	33	30	149	1,040	542	107	160
6	64	38	41	33	34	32	30	114	1,080	490	114	147
7	61	38	42	32	33	30	30	107	985	446	123	140
8	66	39	43	32	34	30	33	92	930	404	136	191
9	70	45	44	33	37	31	35	94	880	368	131	156
10	66	47	45	34	39	31	42	102	960	351	123	140
11	62	47	46	34	37	31	48	114	890	334	120	137
12	61	48	46	34	39	31	54	136	895	325	120	156
13	61	50	45	34	36	31	55	166	985	317	134	177
14	58	52	43	36	35	31	60	329	910	338	134	147
15	68	55	42	37	36	31	58	414	835	325	126	128
16	70	56	43	37	36	32	58	451	890	304	117	117
17	67	52	42	37	36	32	58	446	900	280	112	109
18	72	50	40	36	35	33	62	446	940	268	106	99
19	61	50	39	35	34	34	73	451	855	232	99	89
20	60	51	38	34	35	34	68	456	855	216	94	84
21	67	51	38	35	34	33	77	466	980	212	89	82
22	62	46	39	37	32	32	85	504	1,140	201	84	84
23	61	47	38	36	31	32	96	418	1,060	162	84	80
24	64	50	37	35	33	31	110	400	980	149	87	87
25	62	54	36	34	35	30	130	414	945	139	117	87
26	58	54	39	35	36	30	135	504	905	136	140	82
27	56	45	40	36	36	31	130	595	865	149	131	80
28	55	42	40	36	37	33	185	696	885	172	123	76
29	52	45	40	36	-	32	240	885	845	159	117	72
30	51	46	38	35	-	30	280	960	665	149	147	68
31	49	-	36	35	-	29	-	860	-	133	177	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,032	100	49	65.5	4,030
November	1,424	56	38	47.5	2,820
December	1,273	46	36	41.1	2,520
Calendar year 1937	38,321	618	31	105	76,010
January	1,084	37	32	35.0	2,150
February	992	39	31	36.4	1,970
March	997	38	29	32.2	1,980
April	2,387	280	30	79.6	4,730
May	11,802	960	92	381	23,410
June	28,170	1,140	835	939	55,870
July	10,059	785	133	324	19,950
August	3,656	177	84	118	7,250
September	3,697	206	68	123	7,330
Water year 1937-38	67,573	1,140	29	185	134,000

Peak discharge.- June 22 (3 a.m.) 1,230 sec.-ft.; June 30 (4 a.m.) 960 sec.-ft.

Blue River at Dillon, Colo.

Location.- Water-stage recorder, lat. 39°36'50", long. 106°03'05", in sec. 18, T. 5 S., R. 77 W., at edge of Dillon, a short distance upstream from Snake River and Tenmile Creek. Zero of gage is 8,821.42 feet above mean sea level.
Drainage area.- 129 square miles.
Records available.- October 1910 to September 1938.
Average discharge.- 28 years, 123 second-feet.
Extremes.- Maximum discharge during year, 732 second-feet June 6 (gage height, 3.37 feet); minimum daily discharge, 14 second-feet Dec. 22, Jan. 6, 8.
1910-38: Maximum discharge observed, 1,180 second-feet June 2, 1914, June 14, 1924; maximum gage height observed, 4.35 feet June 2, 1914; minimum discharge observed, 7.4 second-feet Mar. 22, 1933 (discharge measurement).
Remarks.- Records excellent except those for period of ice effect, Nov. 28 to Apr. 5 (computed on basis of three discharge measurements and weather records), those for period of missing gage heights, May 30 to June 3 (computed on basis of records for Snake River at Dillon), and those for Oct. 1-31, all of which are good. Practically all water diverted above station is returned to river.

Rating table, water year 1937-38 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 4 to Nov. 27, July 28 to Sept. 30)

1.0	20	1.8	112
1.1	26	2.0	152
1.2	34	2.2	198
1.3	42	2.4	254
1.4	52	2.6	326
1.5	64	3.0	525
1.6	78	3.5	610

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	37	26	19	19	19	19	161	540	430	150	126
2	48	37	23	18	19	21	19	170	600	395	144	140
3	48	36	24	16	19	20	21	156	620	370	144	148
4	45	36	26	16	20	19	22	134	646	344	146	150
5	44	34	29	15	20	19	24	116	657	326	134	156
6	42	33	28	14	19	20	26	99	708	315	124	150
7	40	32	30	15	19	20	25	98	652	285	120	140
8	39	33	28	14	18	21	26	86	602	271	124	138
9	39	32	27	15	21	20	25	84	574	261	128	138
10	38	32	27	17	22	22	27	84	569	254	124	128
11	38	31	26	18	22	22	28	91	525	251	124	124
12	38	32	27	18	22	21	25	101	520	248	132	128
13	38	32	28	19	23	22	25	122	569	245	144	138
14	37	31	27	19	21	21	28	154	569	245	154	136
15	37	30	26	19	18	20	25	198	514	299	140	126
16	38	30	25	18	18	22	22	239	503	281	126	118
17	39	30	23	18	19	25	22	261	508	248	118	108
18	40	30	21	17	18	22	23	268	536	233	108	103
19	39	30	20	17	17	21	26	274	503	219	101	96
20	38	31	19	16	17	19	31	278	481	211	94	91
21	37	31	17	16	17	20	32	278	530	208	91	88
22	37	31	14	17	18	20	34	311	613	203	88	86
23	37	30	15	16	17	19	42	296	602	188	84	84
24	40	30	17	17	17	19	50	274	542	179	83	84
25	40	30	18	18	16	19	58	264	508	174	81	83
26	40	27	19	18	16	19	68	264	486	170	89	80
27	40	27	20	19	17	19	84	281	476	167	99	78
28	40	25	21	19	18	18	105	344	465	174	99	75
29	40	27	19	19	-	19	122	450	486	174	101	72
30	38	29	18	19	-	20	148	580	455	165	112	71
31	38	-	18	19	-	20	-	560	-	156	122	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,238	48	37	39.9	2,460
November	936	37	25	31.2	1,860
December	706	30	14	22.8	1,400
Calendar year 1937	27,839.8	552	7.6	76.3	55,230
January	535	19	14	17.3	1,060
February	527	23	16	18.8	1,050
March	628	25	18	20.3	1,250
April	1,232	148	19	41.1	2,440
May	7,076	580	84	228	14,040
June	16,559	708	455	552	32,840
July	7,689	430	156	248	15,250
August	3,628	154	81	117	7,200
September	3,381	156	71	113	6,710
Water year 1937-38	44,135	708	14	121	87,560

Blue River below Green Mountain Reservoir, near Kremmling, Colo.

Location.- Water-stage recorder, lat. 39°56', long. 106°21', in NE¼ sec. 33, T. 1 S., R. 80 W., just downstream from Spring Creek, about 4 miles downstream from Green Mountain reservoir dam site and 10 miles southeast of Kremmling.

Drainage area.- 823 square miles.

Records available.- October 1937 to September 1938.

Extremes.- Maximum discharge during year, 4,000 second-feet June 4 (gage height, 5.93 feet); minimum daily discharge, 80 second-feet Feb. 18-24.

Remarks.- Records excellent except those for Oct. 1-21 (computed on basis of combined discharge of Blue River, Snake River, and Tenmile Creek at Dillon) and those for periods of ice effect, Nov. 28, 29, Dec. 3, 4, Dec. 20 to Mar. 28 (computed on basis of three discharge measurements and weather records), all of which are fair. Many diversions for irrigation above station. Green Mountain Reservoir is under construction.

Rating table, water year 1937-38 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.3	104	2.0	306	4.0	1,640
1.4	120	2.5	514	5.0	2,820
1.5	140	3.0	800	6.0	4,090
1.6	166	3.5	1,150		

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	245	214	134	130	100	95	150	1,110	2,780	2,520	659	583
2	242	207	143	130	100	95	156	926	2,920	2,220	636	598
3	238	200	138	130	95	95	136	884	3,280	2,060	648	718
4	234	193	135	125	95	95	138	730	3,540	1,940	625	694
5	230	166	145	125	95	95	161	572	3,530	1,820	593	670
6	225	161	158	130	90	95	134	552	3,620	1,620	572	614
7	220	204	173	130	86	95	110	514	3,130	1,440	593	598
8	215	173	161	130	85	95	107	482	2,930	1,350	593	653
9	210	173	166	130	85	95	117	468	2,840	1,310	604	614
10	210	197	183	125	90	100	126	486	3,160	1,280	593	543
11	210	183	190	125	90	100	126	505	2,830	1,230	593	538
12	210	176	193	120	90	100	148	588	2,930	1,210	583	593
13	205	158	180	120	90	100	190	609	3,340	1,240	631	664
14	205	158	166	120	85	100	210	898	2,960	1,220	642	593
15	205	176	156	125	85	110	210	1,230	2,620	1,290	604	533
16	205	158	158	125	85	110	180	1,520	2,660	1,260	543	491
17	205	163	150	120	85	115	200	1,500	2,750	1,140	491	464
18	205	169	148	120	80	115	242	1,460	2,930	1,080	442	433
19	205	163	140	115	80	115	321	1,510	2,580	1,010	420	411
20	208	176	138	110	80	120	321	1,420	2,570	978	407	390
21	215	183	120	110	80	125	288	1,380	3,050	919	403	378
22	228	180	115	110	80	135	329	1,510	3,620	898	390	371
23	228	148	110	110	80	145	433	1,250	3,380	842	378	371
24	224	173	115	105	80	150	500	1,170	2,890	793	367	363
25	228	173	125	105	85	160	598	1,210	2,720	768	378	355
26	228	148	135	105	85	160	706	1,320	2,580	751	446	344
27	224	126	145	105	90	150	670	1,600	2,590	800	491	333
28	224	130	145	105	90	145	625	2,090	2,700	807	509	317
29	214	135	140	105	-	138	712	2,720	2,760	772	491	306
30	214	140	140	105	-	124	328	2,920	2,830	724	524	299
31	214	-	135	105	-	153	-	2,590	-	682	593	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	6,773	245	205	218	13,430
November	5,104	214	126	170	10,120
December	4,580	193	110	148	9,080
Calendar year					
January	3,655	130	105	118	7,250
February	2,441	100	80	87.2	4,840
March	3,625	160	95	117	7,190
April	9,172	828	107	306	18,190
May	37,724	2,920	468	1,217	74,820
June	89,020	3,620	2,570	2,967	176,600
July	37,968	2,520	682	1,225	75,310
August	16,442	659	367	530	32,610
September	14,832	718	299	494	29,420
Water year 1937-38	231,336	3,620	80	634	458,900

Peak discharge.- June 4 (4 a.m.) 4,000 sec.-ft.

Snake River at Dillon, Colo.

Location.- Water-stage recorder, lat. 39°36'50", long. 106°03'05", in sec. 18, T. 5 S., R. 77 W., at private bridge at Dillon, 100 yards upstream from mouth. Zero of gage is 8,820.54 feet above mean sea level.

Drainage area.- 92 square miles.

Records available.- October 1910 to September 1919, December 1929 to September 1938.

Average discharge.- 18 years, 72.5 second-feet.

Extremes.- Maximum discharge during year, 884 second-feet June 21 (gage height, 3.92 feet); minimum daily discharge, 6.6 second-feet Feb. 25.
1910-19, 1929-38: Maximum discharge, 1,200 second-feet June 13, 1935 (gage height, 4.25 feet); minimum daily discharge, 3 second-feet Nov. 9, 1912.

Remarks.- Records excellent above 125 second-feet and good below except those for periods of ice effect, which are fair. One diversion for power around station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	9.5	*7.4	*6.0	8.5	8.8	*7.6	94	400	451	61	83
2	10	9.2	*7.8	*7.8	8.5	8.5	*7.4	64	478	410	59	85
3	10	9.2	*8.5	*8.0	8.8	8.0	*7.6	57	574	395	63	100
4	9.8	8.5	*10	*7.4	8.5	8.0	7.8	39	604	365	56	96
5	9.5	9.2	*9.5	*6.8	*8.2	8.8	8.0	36	658	355	48	83
6	9.2	9.2	11	*7.2	*7.8	8.5	7.8	32	616	300	48	82
7	9.2	8.8	10	*6.8	*7.6	8.8	*7.6	30	517	258	48	80
8	9.5	*8.0	10	*7.4	9.2	*8.6	*7.6	30	484	236	47	78
9	9.5	*7.8	9.8	*8.6	9.2	9.5	*8.4	29	490	214	43	61
10	9.8	*8.0	9.8	*8.8	9.2	9.5	10	32	506	205	42	53
11	9.8	*8.2	10	*9.0	9.5	*9.0	11	39	478	196	43	61
12	10	*8.4	11	*9.5	9.8	9.5	11	44	574	196	45	85
13	9.8	*8.6	10	*9.5	*9.0	8.8	12	61	628	190	62	78
14	8.8	*9.0	10	*9.0	*7.4	8.5	12	91	539	196	52	64
15	9.2	11	10	8.8	*7.8	9.5	12	118	490	190	44	61
16	10	10	9.8	8.5	*8.2	12	10	114	500	174	39	57
17	10	10	*9.5	8.5	*8.0	8.8	10	112	495	167	64	52
18	12	10	*9.3	8.2	*7.0	8.8	13	114	490	155	75	47
19	13	*9.5	*9.2	8.2	*7.2	*8.2	16	112	435	141	59	44
20	14	11	*7.6	*7.4	*7.4	*8.2	14	118	484	126	35	41
21	12	11	*6.7	*7.8	7.5	*8.4	13	122	652	120	33	39
22	11	11	*7.8	*7.4	7.3	*8.0	16	126	682	112	30	39
23	12	*8.0	*8.6	*8.0	7.1	*7.8	26	104	652	98	25	35
24	14	*8.0	*9.2	8.5	7.1	8.0	38	104	574	92	24	29
25	16	*8.5	*10	8.5	*6.6	8.0	61	110	544	94	23	27
26	14	*8.2	*10	8.8	*7.2	8.0	74	130	512	91	50	24
27	14	*7.8	*9.0	8.8	*7.4	*7.8	50	172	508	91	44	21
28	9.5	*8.2	*8.0	8.8	*8.2	8.0	49	239	539	89	96	19
29	9.2	*9.0	*8.0	8.5	-	8.0	57	295	586	78	75	18
30	9.5	*8.5	*8.0	8.8	-	*8.0	82	340	544	69	98	16
31	9.5	-	*8.5	8.5	-	*7.6	-	355	-	63	104	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	334.8	16	8.8	10.8	664
November	271.3	11	7.8	9.04	538
December	284.0	11	6.7	9.16	563
Calendar year 1937	13,979.2	292	6.7	38.3	27,740
January	255.8	9.5	6.8	8.25	507
February	225.2	9.8	6.6	8.04	447
March	265.9	12	7.6	8.58	527
April	666.8	82	7.4	22.2	1,320
May	3,463	355	29	112	6,870
June	16,231	682	400	541	32,190
July	5,937	451	63	192	11,780
August	1,635	104	23	52.7	3,240
September	1,658	100	16	55.3	3,290
Water year 1937-38	31,227.8	682	6.6	85.6	61,940

Peak discharge.- June 12 (9 p.m.) 786 sec.-ft.; June 21 (8 p.m.) 884 sec.-ft.; June 22 (12 p.m.) 779 sec.-ft.

*Stage-discharge relation affected by ice; discharge computed on basis of two discharge measurements, gage heights, and weather records.

Tenmile Creek at Dillon, Colo.

Location.- Water-stage recorder, lat. 39°36'45", long. 106°03'15", in sec. 18, T. 5 S., R. 77 W., at highway bridge at Dillon, 300 yards upstream from mouth. Zero of gage is 8,819.97 feet above mean sea level.

Drainage area.- 113 square miles.

Records available.- October 1910 to September 1919, April 1930 to September 1938.

Average discharge.- 18 years (1910-19, 1929-38), 130 second-feet.

Extremes.- Maximum discharge during year, 1,380 second-feet June 3 (gage height, 5.42 feet); minimum daily discharge, 18 second-feet Jan. 6-8, 18-23, Feb. 8, 19-21, 23-26. 1910-19, 1930-38: Maximum discharge, 2,010 second-feet June 1, 1933 (gage height, 5.82 feet); minimum, 2 second-feet Feb. 15-17, 20, 1918.

Remarks.- Records good except those for period of ice effect, Nov. 18 to Mar. 26, which were computed on basis of three discharge measurements and weather records and are fair. Diversions for irrigation and mining above station. Robinson Reservoir (capacity, 2,520 acre-feet) constructed above station in November 1936.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	37	35	22	20	21	27	260	848	423	94	94
2	36	29	34	22	20	22	24	190	856	376	92	81
3	36	31	33	21	20	21	24	170	1,000	351	100	73
4	35	34	34	20	21	21	23	143	1,030	328	87	73
5	34	30	34	19	20	20	22	128	1,040	302	81	80
6	32	32	34	18	19	21	23	119	968	264	89	78
7	35	37	34	18	19	21	24	116	800	238	112	75
8	34	32	33	18	18	21	23	108	751	223	104	92
9	36	34	33	19	19	22	24	104	744	220	94	78
10	34	33	32	19	20	23	25	102	779	213	94	70
11	32	35	31	20	21	23	27	110	702	213	96	78
12	32	34	31	20	21	23	28	126	800	216	102	87
13	32	37	31	20	22	24	29	154	840	230	100	87
14	31	41	31	20	20	23	31	274	695	227	92	72
15	35	38	30	20	20	23	36	310	625	245	83	68
16	33	41	29	20	20	25	30	264	653	212	78	65
17	32	38	28	19	19	27	32	289	674	177	70	62
18	30	38	27	18	19	26	37	342	632	174	66	59
19	33	38	26	18	18	25	51	487	564	161	61	55
20	37	38	25	18	18	24	54	440	577	146	66	54
21	39	38	23	18	18	25	54	451	765	141	63	51
22	37	38	21	18	19	25	59	423	824	131	63	49
23	33	37	22	18	18	25	75	310	667	124	55	49
24	34	37	22	19	18	24	100	310	583	124	55	51
25	36	37	23	19	18	25	128	324	557	116	63	49
26	32	36	23	19	18	25	141	396	537	116	78	49
27	31	35	23	20	19	26	128	481	518	124	72	47
28	30	36	23	20	20	24	133	716	505	119	81	47
29	31	36	23	20	-	28	159	896	524	110	81	45
30	32	37	23	20	-	29	210	824	481	102	98	43
31	36	-	22	20	-	29	-	772	-	98	94	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,050	40	30	33.9	2,080
November	1,074	41	29	35.8	2,130
December	873	35	21	28.2	1,730
Calendar year 1937	30,700	480	21	84.1	60,890
January	600	22	18	19.4	1,190
February	542	22	18	19.4	1,080
March	741	29	20	23.9	1,470
April	1,781	210	22	59.4	3,530
May	10,119	896	102	326	20,070
June	21,539	1,040	481	718	42,720
July	6,244	423	98	201	12,380
August	2,564	112	55	82.7	5,090
September	1,961	94	43	65.4	3,890
Water year 1937-38	49,088	1,040	18	134	97,360

Peak discharge.- May 29 (9 p.m.) 1,200 sec.-ft.; June 3 (9 p.m.) 1,380 sec.-ft.; June 5 (9 p.m.) 1,340 sec.-ft.

Roaring Fork at Aspen, Colo.

Location.- Water-stage recorder, lat. 39°11'20", long. 106°48'55", in sec. 7, T. 10 S., R. 84 W., at Aspen, three-quarters of a mile upstream from Hunter Creek.

Drainage area.- 109 square miles.

Records available.- January 1911 to September 1921 and January 1934 to September 1938 in reports of Geological Survey. January 1911 to September 1921 and April 1932 to September 1938 in reports of State engineer. Prior to Feb. 24, 1915, at site half a mile upstream; Feb. 24, 1915, to Oct. 5, 1935, at site a quarter of a mile downstream.

Average discharge.- 16 years, 168 second-feet (including flow through Twin Lakes tunnel).

Extremes.- Maximum discharge during year, 1,130 second-feet June 22 (gage height, 4.85 feet); minimum daily discharge, 16 second-feet Feb. 6, 7, 14, 18, 23, 26, Mar. 6-8.
1911-21, 1933-38: Maximum discharge, 3,170 second-feet June 18, 1917 (gage height, 7.2 feet, former site and datum, from high-water marks); minimum daily discharge, 15 second-feet July 15, 16, 1934; minimum daily discharge since Twin Lakes diversion started, 5.8 second-feet Sept. 21, 1937.

Remarks.- Records good except those for periods of ice effect, Nov. 27 to Dec. 3, Dec. 6, Dec. 18 to Jan. 16, Jan. 22 to Feb. 10, Feb. 18-20, which were computed on basis of one discharge measurement and records for station at Glenwood Springs and are fair. Transmountain diversion at point 15 miles upstream through Twin Lakes tunnel to Arkansas River Basin since May 24, 1935. Records of flow past station combined with those of diverted flow are equivalent to records prior to May 24, 1935. Records of diverted flow furnished by State engineer.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	33	20	20	22	18	21	193	532	612	66	46
2	37	29	22	21	24	18	21	148	516	544	61	54
3	32	29	26	22	24	18	21	142	572	520	66	55
4	29	30	25	20	23	18	22	118	705	414	56	50
5	26	25	25	20	22	17	22	106	684	305	51	51
6	26	26	24	19	16	16	23	87	717	259	50	50
7	25	32	23	18	16	16	22	84	604	228	61	50
8	26	28	23	20	17	16	21	75	552	213	57	61
9	27	26	21	23	20	18	22	75	520	204	51	47
10	27	30	22	25	24	18	24	75	568	188	56	41
11	26	29	22	24	22	17	24	72	482	175	56	49
12	25	28	23	26	21	18	28	78	516	175	58	63
13	25	25	23	29	18	18	33	90	717	180	50	63
14	25	26	23	28	16	18	37	159	540	172	54	66
15	32	28	22	27	18	18	32	231	467	177	47	66
16	33	25	22	26	17	18	34	312	501	152	43	61
17	30	26	23	25	18	20	38	309	556	138	41	60
18	31	26	22	24	16	20	47	269	850	130	40	55
19	29	25	20	24	18	18	68	280	532	126	35	51
20	27	26	18	25	18	20	65	252	524	118	29	49
21	32	28	17	24	18	21	61	255	797	110	28	48
22	29	27	18	26	18	20	68	269	954	102	26	50
23	30	25	20	22	18	18	72	207	713	106	26	48
24	31	28	21	20	18	22	88	222	738	92	28	46
25	34	25	20	19	16	21	114	252	722	84	25	45
26	35	23	18	18	16	21	132	294	738	80	25	42
27	32	18	18	18	18	21	108	410	730	87	28	41
28	28	21	18	19	18	22	100	520	696	100	25	40
29	29	21	18	22	-	22	120	580	776	90	24	39
30	29	20	19	21	-	21	165	564	734	78	24	39
31	32	-	21	21	-	21	-	532	-	70	25	-

Month	Observed					Diversion by Twin Lakes tunnel (acre-feet)	Adjusted for diversion	
	Second-foot-days	Discharge in second-feet			Run-off in acre-feet		Run-off in acre-feet	Mean (second-feet)
		Maximum	Minimum	Mean				
October	915	37	25	29.5	1,810	236	2,050	33.4
November	786	33	18	26.2	1,560	260	1,820	30.6
December	657	26	17	21.2	1,300	194	1,490	24.4
Calendar year 1937	24,934.8	518	5.8	68.3	49,450	32,610	82,060	113
January	696	29	18	22.5	1,380	155	1,540	25.0
February	530	24	16	18.9	1,050	122	1,170	21.1
March	588	22	16	19.0	1,170	130	1,300	21.1
April	1,653	165	21	55.1	3,280	365	3,640	61.2
May	7,260	580	72	234	14,400	5,040	19,440	316
June	19,053	954	467	635	37,790	23,700	61,490	1,033
July	6,029	612	70	194	11,960	10,340	22,300	363
August	1,310	66	24	42.3	2,600	2,470	5,070	82.4
September	1,526	66	39	50.9	3,030	2,450	5,480	92.1
Water year 1937-38	41,003	954	16	112	81,330	45,460	126,800	175

Peak discharge.- May 30 (2 a.m.) 629 sec.-ft.; June 4 (5 a.m.) 789 sec.-ft.; June 18 (5 a.m.) 759 sec.-ft.; June 22 (3 a.m.) 1,130 sec.-ft.; June 30 (3 a.m.) 839 sec.-ft.

Roaring Fork at Glenwood Springs, Colo.

Location.- Water-stage recorder, lat. 39°33', long. 107°20', in sec. 9, T. 6 S., R. 89 W., at Glenwood Springs, 1,500 feet upstream from mouth. Zero of gage is 5,720.73 feet above sea level.

Drainage area.- 1,460 square miles.

Records available.- April 1906 to September 1909, September 1910 to September 1931, and October 1933 to September 1938 in reports of Geological Survey. April 1906 to September 1909 and September 1910 to October 1938 in reports of State engineer.

Average discharge.- 31 years, 1,530 second-feet.

Extremes.- Maximum discharge during year, 13,400 second-feet June 22 (gage height, 7.68 feet); minimum discharge, 242 second-feet Feb. 25 (gage height, 0.82 foot); minimum daily discharge, 277 second-feet Feb. 18, 19.

1906-9, 1910-38: Maximum discharge, 17,800 second-feet June 14, 1918 and June 14, 1921; minimum 145 second-feet Jan. 21, 1935 (gage height, 0.65 foot); minimum daily discharge, 179 second-feet Jan. 21, 1935.

Remarks.- Records excellent except those for Oct. 1-31 and Apr. 1 to May 15, which are good. Diversions for irrigation above station. Transmountain diversion through Twin Lakes tunnel to Arkansas River Basin. Total flow diverted during water year 1937-38 was 45,460 acre-feet (see p. 51 for record by months).

Rating table, for period May 1 to Sept. 30, 1938 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 1-15)

1.2	555	3.0	2,490
1.4	700	4.0	4,200
1.6	865	5.0	6,340
2.0	1,250	6.0	8,840
2.5	1,820	7.0	11,500

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	632	546	389	436	350	372	367	3,900	7,280	5,910	1,500	892
2	640	539	412	466	345	384	340	2,890	7,180	5,540	1,470	1,040
3	610	532	473	492	330	492	367	2,540	7,960	5,340	1,420	1,240
4	595	525	448	406	335	546	367	3,750	8,890	4,960	1,330	1,180
5	567	499	430	372	325	394	394	1,940	8,840	4,540	1,250	1,120
6	546	473	442	367	290	362	454	1,680	9,200	4,090	1,170	1,050
7	532	553	454	335	286	350	389	1,520	8,430	3,730	1,270	1,070
8	532	574	436	378	350	340	367	1,360	7,660	3,550	1,240	1,330
9	539	506	424	406	320	362	378	1,330	7,000	3,410	1,240	1,160
10	539	525	442	400	330	356	406	1,320	7,400	3,320	1,220	1,050
11	532	525	436	400	320	356	412	1,370	6,730	3,160	1,180	1,100
12	525	499	454	372	362	375	454	1,680	7,130	3,060	1,160	1,300
13	512	486	466	372	315	418	525	1,810	9,280	3,500	1,220	1,400
14	506	486	473	356	290	430	618	2,720	7,930	3,160	1,290	1,220
15	670	492	442	378	340	389	618	3,710	6,730	3,200	1,250	1,110
16	718	480	436	378	310	372	595	4,600	6,900	2,900	1,120	1,040
17	655	486	424	367	315	406	640	4,580	6,050	2,680	1,040	984
18	710	492	424	372	277	400	742	4,070	7,730	2,540	984	928
19	648	486	384	362	277	378	1,040	4,070	6,860	2,490	901	892
20	602	492	362	356	335	400	1,260	3,860	6,660	2,380	840	865
21	574	512	300	350	315	454	1,180	3,570	8,660	2,310	806	856
22	567	518	325	325	305	400	1,390	3,750	11,000	2,160	756	856
23	574	473	430	356	300	378	1,620	3,250	8,580	1,960	732	814
24	574	473	473	335	300	400	2,050	3,230	7,760	1,870	708	797
25	588	473	454	335	277	400	2,430	3,550	7,260	1,770	685	780
26	588	448	430	350	290	389	2,750	4,140	7,030	1,710	678	748
27	581	406	442	325	315	372	2,340	5,000	6,050	1,780	685	700
28	574	448	430	345	320	384	2,240	6,240	6,030	1,760	685	655
29	567	460	418	372	-	400	2,560	7,930	5,540	1,760	678	625
30	553	400	448	362	-	378	3,170	7,900	5,700	1,690	670	611
31	553	-	460	320	-	340	-	6,930	-	1,590	692	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	18,103	718	506	584	35,910
November	14,807	574	400	494	29,370
December	13,261	473	300	428	26,300
Calendar year 1937	400,157	8,110	286	1,096	793,600
January	11,546	492	320	372	22,900
February	8,824	362	277	315	17,500
March	12,180	546	340	393	24,160
April	32,463	3,170	340	1,082	64,390
May	110,190	7,930	1,320	3,555	218,600
June	225,450	11,000	5,540	7,515	447,200
July	93,820	5,910	1,590	3,026	186,100
August	31,870	1,500	670	1,028	63,210
September	29,413	1,400	611	980	58,340
Water year 1937-38	601,927	11,000	277	1,649	1,194,000

Peak discharge.- June 22 (5:30 a.m.) 13,400 sec.-ft.

Crystal River near Redstone, Colo.

Location.- Water-stage recorder, lat. 39°18', long. 107°13', in NE¼ sec. 9, T. 9 S., R. 88 W., 75 feet downstream from Nettle Creek and 7 miles downstream from Redstone.

Drainage area.- 197 square miles.

Records available.- May 1935 to September 1938. 1908-9 at site 3 miles downstream; records not equivalent.

Extremes.- Maximum discharge during year, 4,400 second-feet June 21 (gage height, 5.96 feet); minimum daily discharge, 50 second-feet Feb. 25.
1935-38: Maximum discharge, that of June 21, 1938; minimum daily discharge, that of Feb. 25, 1938.

Remarks.- Records good except those for periods of ice effect, Nov. 29 to Dec. 4, Dec. 19-22, 25-27, Jan. 6, 7, 24, 25 (computed on basis of weather records and records for Roaring Fork at Glenwood Springs), and those for period of missing gage heights, June 1-4 (computed on basis of records for Roaring Fork at Glenwood Springs), which are fair. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	123	116	80	74	72	68	82	1,000	2,350	2,130	472	260
2	116	110	80	80	67	72	84	829	2,200	2,070	452	302
3	112	105	85	84	67	116	84	684	2,300	2,080	460	308
4	105	99	80	79	64	116	86	575	2,350	1,920	428	266
5	103	88	79	75	62	90	103	530	2,270	1,770	408	245
6	97	88	77	75	58	77	114	480	2,190	1,580	384	224
7	95	116	75	70	64	77	97	448	2,190	1,400	412	245
8	92	116	74	68	74	77	90	428	1,960	1,310	388	320
9	90	112	77	65	65	80	90	420	1,820	1,300	374	248
10	92	116	77	65	72	77	103	440	1,820	1,240	371	224
11	88	114	79	64	79	75	107	484	1,640	1,220	344	266
12	86	105	95	62	84	86	132	570	1,960	1,210	317	347
13	82	101	99	68	67	92	162	692	2,400	1,410	332	362
14	77	92	92	72	74	90	178	1,040	1,820	1,230	350	296
15	135	90	86	79	74	80	162	1,320	1,490	1,180	317	263
16	128	86	88	80	67	77	158	1,480	1,730	1,020	257	233
17	110	88	84	79	72	82	183	1,360	1,960	937	216	199
18	130	86	88	79	60	77	219	1,190	2,000	883	208	186
19	116	82	90	79	64	74	314	1,180	1,760	847	205	175
20	107	82	80	75	68	77	344	1,050	1,790	756	191	165
21	107	88	80	68	64	90	377	910	2,780	708	165	162
22	105	84	75	72	59	84	365	901	3,390	618	188	158
23	110	74	80	74	59	88	400	812	2,330	580	183	150
24	114	79	82	73	53	92	428	874	2,740	545	186	145
25	125	74	85	72	50	86	520	1,020	2,580	510	188	135
26	123	70	80	72	54	86	648	1,230	2,530	555	188	130
27	118	65	80	72	56	82	606	1,620	2,480	590	191	128
28	116	80	74	74	62	92	642	1,860	2,600	525	178	125
29	114	85	74	74	-	95	865	2,390	2,690	520	168	121
30	116	85	82	72	-	90	937	2,440	2,420	488	160	116
31	114	-	82	72	-	80	-	2,450	-	456	191	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,346	135	77	108	6,640
November	2,778	116	65	92.5	5,510
December	2,539	99	74	81.9	5,040
Calendar year 1937	123,772	1,770	58	339	245,500
January	2,267	84	62	73.1	4,500
February	1,831	84	50	65.4	3,630
March	2,625	116	68	84.7	5,210
April	8,680	937	82	289	17,220
May	32,707	2,450	420	1,055	64,870
June	66,530	3,390	1,490	2,218	132,000
July	33,588	2,130	456	1,083	66,620
August	8,872	472	160	286	17,600
September	6,504	382	116	217	12,900
Water year 1937-38	172,265	3,390	50	472	341,700

Peak discharge.- May 28 (11 p.m.) 3,140 sec.-ft.; June 21 (9 p.m.) 4,400 sec.-ft.; June 29 (11 p.m.) 3,090 sec.-ft.

Willow Creek near Raven, Colo.

Location.- Water-stage recorder, lat. 39°16', long. 107°31', in sec. 13, T. 9 S., R. 91 W., 350 yards upstream from mouth and 15 miles south of Raven.

Drainage area.- 12 square miles.

Records available.- May 1935 to September 1938 (discontinued).

Extremes.- Maximum discharge during year, 250 second-feet May 16 (gage height, 4.44 feet, from recorded range in stage); no flow July 31 to Aug. 8, Aug. 12, 18-30.
1935-38: Maximum discharge, that of May 16, 1938; no flow at times in nearly every year.

Remarks.- Records good except those for Oct. 1 to Nov. 7 and May 14-22, which are fair. Discharge for periods of missing gage heights, Oct. 17-21, May 14-22, computed on basis of one discharge measurement and records for Buzzard Creek near Heiberger. No diversions above station.

Rating table, water 1937-38 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 7, Apr. 17-22, Sept. 12-30)

0.1	0.1	1.0	12.0
.2	.8	1.5	32.5
.3	1.7	2.0	62
.4	2.7	3.0	130
.6	5.0	4.0	210
.8	7.5	4.5	255

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.5	1.7					-	116	74	6.2	0	2.3
2	.4	1.7					-	85	70	5.6	0	1.7
3	.3	1.5					-	77	63	4.9	0	2.2
4	.4	1.7					-	66	58	4.2	0	2.2
5	.4	2.1					-	67	53	3.6	0	2.2
6	.4	2.2					-	55	48	3.7	0	1.6
7	.5	2.1					-	50	41	3.6	0	.9
8	.5	-					-	49	39	3.0	0	2.1
9	.4	-					-	47	35	3.0	.2	1.6
10	.4	-					-	57	35	2.9	.8	.7
11	.6	-					-	78	34	2.7	.4	2.1
12	.7	-					-	92	26	2.5	0	4.8
13	.7	-					-	123	34	2.4	.4	7.2
14	1.8	-					-	150	24	3.1	.5	5.0
15	1.7	-					-	165	20	2.8	.2	4.0
16	2.0	-					-	175	19	2.1	0	3.2
17	2.0	-					7.0	160	16	2.0	0	2.4
18	2.7	-					10	140	14	1.9	0	2.1
19	1.8	-					17	130	12	1.4	0	1.7
20	1.8	-					20	125	11	1.1	0	1.5
21	1.7	-					21	115	11	1.6	0	1.3
22	1.7	-					29	110	13	1.4	0	1.8
23	1.8	-					47	108	12	1.2	0	1.7
24	1.9	-					63	110	13	.7	0	1.5
25	1.7	-					82	115	9.0	.4	0	1.7
26	1.6	-					70	122	7.9	.4	0	1.8
27	1.8	-					71	126	7.5	1.1	0	1.4
28	1.8	-					84	122	7.4	1.2	0	1.2
29	1.9	-					98	109	9.9	.8	0	1.1
30	1.7	-					129	93	8.3	.2	0	1.0
31	1.7	-					-	84	-	0	1.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	39.3	2.7	0.3	1.27	78
November 1-7	13.0	2.2	1.5	1.86	26
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 17-30	748.0	129	7.0	53.4	1,480
May	3,221	175	47	104	6,390
June	825.0	74	7.4	27.5	1,640
July	71.7	6.2	0	2.31	142
August	3.7	1.2	0	.12	7.3
September	66.0	7.2	.7	2.20	131
Water year					

Peak discharge.- Apr. 30 (9 p.m.) 198 sec.-ft.; May 16 (about 8 p.m.) 250 sec.-ft.; May 27 (6 p.m.) 183 sec.-ft.

Plateau Creek near Collbran, Colo.

Location.- Water-stage recorder, lat. 39°15', long. 107°50', in NW¼ sec. 24, T. 9 S., R. 94 W., 7 miles east of Collbran.
Drainage area.- 88 square miles.
Records available.- August 1921 to September 1927 (monthly discharge) ard October 1933 to September 1938 in reports of Geological Survey. August 1921 to September 1938 in reports of State engineer.
Average discharge.- 17 years, 108 second-feet.
Extremes.- Maximum discharge during year, 1,690 second-feet June 2 (gage height, 4.50 feet); minimum daily discharge, 11 second-feet Oct. 9, 10.
1921-38: Maximum discharge, 2,800 second-feet May 28, 1922 (gage height, 6.72 feet, former datum); minimum daily discharge, 3 second-feet Sept. 21, 1926.
Remarks.- Records excellent except those for Oct. 26-30, Nov. 11-13 (computed on basis of records for station near Cameo), those for periods of ice effect, Nov. 26 to Dec. 5, Dec. 15, 19-25, Jan. 18 to Feb. 14, Feb. 18 (computed on basis of two discharge measurements and weather records), and those for May 26 to June 8, all of which are fair. Five small diversions above station.

Rating tables, water year 1937-38 except periods of ice effect (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Oct. 1-16, May 28 to June 8)

Oct. 1 to May 27

1.1	9.7	2.2	56	3.4	510
1.2	12.6	2.4	72	3.6	730
1.4	19.5	2.6	103	3.8	1,000
1.6	27	2.8	150	4.0	1,350
1.8	35	3.0	220		
2.0	45	3.2	340		

May 28 to Sept. 30

1.6	2.0	2.8	90	4.0	600
1.8	7.2	3.0	138	4.2	780
2.0	13	3.2	196	4.4	1,040
2.2	20	3.4	262	4.6	1,380
2.4	35	3.6	345	4.8	1,800
2.6	58	3.8	455		

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	18	16	14	14	13	18	650	1,420	273	18	19
2	17	17	15	14	15	14	17	420	1,340	245	18	35
3	14	17	16	14	14	17	17	298	1,200	222	18	50
4	13	17	17	13	16	17	18	235	1,240	193	18	44
5	12	13	18	13	15	16	20	208	1,240	172	22	22
6	12	14	17	13	12	17	20	177	1,200	152	22	19
7	12	18	16	13	13	16	20	145	970	133	24	20
8	12	14	16	14	14	16	20	132	876	115	24	26
9	11	19	18	13	14	16	19	132	876	101	25	23
10	11	20	15	13	18	16	20	129	804	90	24	20
11	12	20	14	13	16	15	22	134	828	85	24	71
12	12	20	17	13	16	16	26	162	804	81	23	79
13	12	19	17	13	16	17	35	356	1,010	86	30	72
14	12	19	16	12	15	16	44	684	750	112	31	40
15	39	16	16	13	14	17	38	916	592	110	30	25
16	33	15	15	12	14	17	35	1,060	511	66	21	21
17	23	16	15	12	15	18	44	1,020	504	53	19	19
18	30	15	15	14	15	18	62	834	476	47	18	17
19	21	17	15	13	15	18	103	718	455	42	18	16
20	18	17	13	12	14	19	129	520	455	37	17	16
21	19	17	13	12	14	20	145	420	700	36	18	17
22	18	16	13	13	14	20	180	396	616	32	17	19
23	21	16	14	13	14	20	284	364	497	29	18	24
24	22	17	16	13	13	19	372	501	437	27	19	19
25	21	16	15	12	14	20	438	716	370	25	18	15
26	20	14	15	12	14	20	404	972	332	30	18	14
27	19	13	15	13	13	19	340	1,270	318	43	17	14
28	18	15	14	14	13	20	372	1,340	309	33	15	13
29	18	16	14	14	-	20	501	1,520	395	23	17	12
30	17	16	14	13	-	18	684	1,360	327	20	17	13
31	17	-	14	13	-	18	-	1,420	-	20	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	557	39	11	18.0	1,100
November	497	20	13	16.6	986
December	474	18	13	15.3	940
Calendar year 1937	32,132.2	1,260	6.2	88.0	63,730
January	403	14	12	13.0	799
February	404	18	12	14.4	801
March	543	20	13	17.5	1,080
April	4,447	684	17	148	8,820
May	19,211	1,520	129	620	38,100
June	21,852	1,420	309	728	43,340
July	2,733	273	20	88.2	5,420
August	640	31	15	20.6	1,270
September	814	79	12	27.1	1,610
Water year 1937-38	52,575	1,520	11	144	104,300

Peak discharge.- May 16 (11 p.m.) 1,290 sec.-ft.; June 2 (4 p.m.) 1,690 sec.-ft.; June 13

Plateau Creek near Cameo, Colo.

Location.- Water-stage recorder, lat. 39°11', long. 108°16', in SW¼ sec. 18, T. 10 S., R. 97 W., 1.1 miles upstream from mouth and 4 miles northeast of Cameo.

Drainage area.- 604 square miles.

Records available.- April 1936 to September 1938.

Extremes.- Maximum discharge during year, 2,550 second-feet May 29 (gage height, 6.07 feet); minimum daily discharge, 47 second-feet Aug. 5.
1936-38: Maximum discharge, that of May 29, 1938; minimum daily discharge, 19 second-feet July 24, 1936.

Remarks.- Records good except those for periods of ice effect, Dec. 25 to Feb. 10, Feb. 19-26, which were computed on basis of one discharge measurement and weather records and are fair. Many diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	57	78	68	70	70	105	114	1,710	1,830	458	56	71
2	54	75	71	72	74	90	103	1,060	1,800	375	54	101
3	54	75	78	76	74	176	116	864	1,980	328	54	394
4	54	75	77	76	76	147	112	654	2,000	285	50	191
5	54	77	68	72	78	127	138	612	1,980	255	47	145
6	56	82	77	68	70	93	171	530	1,870	213	49	124
7	56	122	80	66	62	92	134	490	1,550	191	64	114
8	56	97	78	70	64	84	134	422	1,290	178	93	118
9	56	75	78	72	68	88	136	418	1,240	161	66	116
10	56	78	80	72	80	86	150	413	1,240	145	80	116
11	61	77	82	78	107	84	152	490	1,200	136	61	184
12	64	75	99	76	124	127	186	672	1,200	131	61	289
13	64	75	143	80	80	120	223	858	1,660	127	68	273
14	64	73	95	80	78	124	320	1,350	1,330	134	78	184
15	204	75	80	78	80	127	340	1,720	942	154	69	154
16	143	69	93	76	73	105	258	1,960	810	127	66	138
17	109	71	93	76	71	114	292	1,910	708	107	62	131
18	156	73	99	75	64	109	332	1,570	702	90	61	122
19	112	71	66	72	70	95	525	1,530	642	84	59	118
20	95	73	61	70	74	105	612	1,260	636	75	57	112
21	93	78	64	70	74	124	577	1,090	918	71	52	107
22	90	80	73	70	74	101	768	1,070	1,210	71	54	107
23	109	75	86	68	72	101	900	930	822	64	54	107
24	99	77	82	68	68	109	1,090	1,040	750	59	56	107
25	90	73	64	65	62	120	1,290	1,280	600	57	54	99
26	88	69	66	66	58	122	1,350	1,480	519	56	54	93
27	82	61	66	70	54	114	906	1,760	474	59	57	93
28	80	73	66	74	80	129	1,030	2,040	463	66	59	88
29	78	73	68	70	-	147	1,240	2,160	554	62	61	86
30	84	69	70	68	-	118	1,500	1,970	600	61	66	82
31	84	-	72	70	-	107	-	1,830	-	56	64	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,602	204	54	83.9	5,160
November	2,294	122	61	76.5	4,550
December	2,443	143	61	78.8	4,850
Calendar year 1937	58,574	1,500	23	160	116,200
January	2,234	80	65	72.1	4,430
February	2,079	124	54	74.2	4,120
March	3,490	176	84	113	6,920
April	15,199	1,500	103	507	30,150
May	37,143	2,160	413	1,198	73,670
June	33,520	2,000	463	1,117	66,490
July	4,438	458	56	143	8,800
August	1,886	93	47	60.8	3,740
September	4,164	394	71	139	8,260
Water year 1937-38	111,492	2,160	47	305	221,100

Peak discharge.- May 29 (2 a.m.) 2,550 sec.-ft.; June 4 (1 a.m.) 2,470 sec.-ft.; Sept. 3 (8 p.m.) 2,350 sec.-ft.

Buzzard Creek near Heiberger, Colo.

Location.- Water-stage recorder, lat. 39°17', long. 107°43', in NE¼ sec. 13 (revised), T. 9 S., R. 93 W., 1.1 miles downstream from Hightower ranger station and 3 miles east of Heiberger.

Drainage area.- 76.5 square miles.

Records available.- April 1936 to September 1938.

Extremes.- Maximum discharge during year, 720 second-feet Apr. 30 (gage height, 4.45 feet, present datum); no flow Aug. 29-31.
1936-38: Maximum discharge, that of Apr. 30, 1938; no flow on several days of each year.

Remarks.- Records good except those for period of missing gage heights, Oct. 1-6, Nov. 6, 7, 20-22, 27-30, which were computed on basis of records for station near Collbran and are fair. No records for Dec. 1 to Apr. 19. One diversion above station to West Divide Creek for irrigation.

Rating table, water year 1937-38 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 20 to Nov. 30, Sept. 14-30)

1.0	1.1	1.6	17	2.4	89
1.1	2.1	1.7	22	2.6	122
1.2	3.7	1.9	34	2.8	164
1.3	6.0	2.0	42	3.1	245
1.4	9	2.2	63	4.2	625

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	2.0					-	502	345	33	0.5	1.9
2	.2	1.8					-	366	342	27	.5	6.9
3	.2	1.7					-	300	356	22	.4	16
4	.3	1.6					-	242	338	20	.3	20
5	.4	1.6					-	236	331	20	.2	11
6	.4	3.5					-	181	310	16	.2	8.1
7	.6	5.2					-	151	254	15	.2	8.4
8	.6	5.8					-	134	210	14	.2	8.4
9	.6	4.8					-	155	196	11	.2	8.4
10	.6	5.8					-	181	193	7.5	.2	8.7
11	.6	4.6					-	272	202	5.5	.2	9.0
12	.6	4.2					-	359	181	5.5	.1	16
13	.7	4.4					-	440	296	4.6	.1	22
14	.8	3.5					-	597	210	9.8	1.3	13
15	8.1	3.9					-	580	126	13	1.8	6.9
16	12	1.9					-	583	110	6.9	1.0	5.5
17	8.7	3.5					-	534	100	4.2	.6	4.4
18	12	3.4					-	502	97	3.1	.4	3.4
19	9.0	2.7					-	457	85	2.1	.3	2.6
20	5.3	3.4					166	415	82	1.7	.2	1.8
21	3.4	4.0					191	359	99	1.0	.2	1.6
22	3.2	3.8					215	348	128	.8	.1	1.7
23	3.2	3.2					331	306	91	.6	.1	1.3
24	3.1	4.2					415	352	83	.6	.1	1.1
25	3.7	3.2					464	376	64	.6	.1	1.1
26	3.7	3.1					412	373	40	.6	.1	1.0
27	3.4	3.0					359	401	36	3.1	.1	1.0
28	2.7	3.2					398	450	54	2.3	.1	1.0
29	2.4	3.5					496	443	68	1.4	0	1.0
30	2.3	3.2					583	387	43	.8	0	1.1
31	2.6	-					-	352	-	.5	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	95.5	12	0.1	3.08	189
November	103.9	5.8	1.6	3.46	206
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 20-30	4,030	583	166	366	7,990
May	11,334	597	134	366	22,480
June	5,070	356	36	169	10,060
July	254.4	33	.5	8.21	505
August	9.8	1.8	0	.32	19
September	194.3	22	1.0	6.48	385
Water year					

Peak discharge.- Apr. 25 (9 p.m.) 625 sec.-ft.; Apr. 30 (9 p.m.) 720 sec.-ft.; May 14 (8 p.m.) 712 sec.-ft.

Buzzard Creek near Collbran, Colo.

Location.- Water-stage recorder, lat. 39°16', long. 107°52', in sec. 14, T. 9 S., R. 94 W., half a mile upstream from mouth of Brush Creek and 7 miles east of Collbran.

Drainage area.- 139 square miles.

Records available.- August 1921 to September 1927 (monthly discharge only) and October 1933 to September 1938 in reports of Geological Survey. August 1921 to September 1938 in reports of State engineer.

Average discharge.- 17 years, 56.1 second-feet.

Extremes.- Maximum discharge during year, 877 second-feet May 16 (gage height, 6.63 feet); minimum daily discharge, 0.5 second-foot Oct. 1, Aug. 27-31.
1921-38: Maximum discharge, 1,270 second-feet May 8, 1922 (gage height, 7.8 feet); minimum, 0.1 second-foot Aug. 27, 1934 (gage height, 0.76 foot).

Remarks.- Records good except those for period of ice effect and those affected by beaver dams, which are fair. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.5	4.5	4.7	‡5.4	‡6.2	9.0	16	598	359	57	†1.0	†2.5
2	1.0	4.5	4.9	‡5.0	‡6.6	9.5	12	375	345	45	†1.0	†8.0
3	2.3	4.3	5.0	‡5.4	‡6.8	13	13	334	356	37	†1.0	†15
4	2.3	4.5	4.5	‡5.8	‡6.2	45	22	278	347	32	†.9	22
5	†2.4	4.0	‡4.4	‡5.2	‡5.8	35	55	284	330	28	†.8	14
6	†2.5	4.3	‡4.6	‡4.8	‡5.2	23	41	242	321	23	†.8	8.4
7	†2.5	5.8	5.2	‡5.6	‡5.2	20	31	221	280	21	†.7	6.2
8	†2.7	6.4	5.0	‡4.8	‡5.2	17	18	188	246	26	†.6	5.2
9	†3.2	6.2	5.2	‡5.2	‡6.0	13	39	258	226	17	†.6	6.0
10	4.3	6.6	5.8	‡5.8	‡7.0	12	42	258	222	11	†.6	7.9
11	5.0	6.6	6.0	‡5.8	‡8.8	13	49	296	222	9.5	†.6	12
12	5.4	6.2	12	‡6.0	‡8.6	15	96	366	194	7.4	†.6	32
13	6.0	5.4	13	‡6.6	*8.3	15	140	433	269	7.4	†.6	35
14	7.0	5.6	7.9	‡6.8	‡8.6	16	120	592	226	8.4	1.4	15
15	36	5.6	7.7	‡6.4	‡8.8	17	89	654	155	13	1.3	9.2
16	26	4.9	7.9	‡6.0	‡8.4	13	136	672	137	13	1.9	6.8
17	13	5.4	6.6	*5.9	‡7.7	22	215	622	126	8.4	†1.2	5.6
18	23	5.8	6.6	‡6.2	8.2	19	230	538	123	6.8	†1.0	†4.5
19	17	5.2	6.8	‡6.0	7.9	20	345	518	113	4.9	†.8	†4.0
20	9.7	6.4	6.0	‡5.8	8.2	31	388	446	107	3.3	†.8	†3.7
21	7.0	7.9	‡5.0	‡5.8	8.2	39	424	390	129	3.3	†.7	†3.2
22	6.4	8.2	‡4.8	‡6.0	7.7	30	462	381	158	3.3	†.7	3.4
23	6.2	6.8	‡5.0	‡5.8	7.7	15	534	341	121	3.0	†.6	†3.2
24	5.4	5.8	‡5.6	‡5.6	7.7	17	564	375	110	2.2	†.6	†2.8
25	6.0	5.6	‡5.0	‡5.4	8.2	31	588	406	86	2.5	†.6	†2.5
26	6.2	4.9	‡4.8	‡5.4	8.4	23	536	392	74	2.6	†.6	†2.4
27	6.2	‡4.4	‡5.0	‡5.6	8.4	18	383	428	67	2.5	†.5	†2.3
28	5.6	‡4.8	‡5.0	‡6.0	8.4	31	435	464	74	†3.2	†.5	†2.3
29	5.0	5.8	‡5.0	‡6.4	-	26	504	456	93	†2.0	†.5	†2.4
30	4.9	5.2	‡5.2	‡6.2	-	16	644	415	79	†1.2	†.5	†2.5
31	4.7	-	‡5.6	‡6.0	-	12	-	368	-	†1.0	†.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	235.4	36	0.5	7.59	467
November	167.6	8.2	4.0	5.59	332
December	185.8	13	4.4	5.99	369
Calendar year 1937	12,038.0	450	.3	33.0	23,880
January	178.7	6.8	4.8	5.76	354
February	208.4	8.8	5.2	7.44	413
March	635.5	45	9.0	20.5	1,260
April	7,171	644	12	239	14,220
May	12,599	672	188	406	24,990
June	5,695	359	67	190	11,300
July	405.9	57	1.0	13.1	805
August	24.5	1.9	.5	.79	49
September	250.0	35	2.3	8.33	496
Water year 1937-38	27,756.8	672	.5	76.0	55,060

Peak discharge.- Apr. 26 (1 a.m.) 852 sec.-ft.; May 1 (1 a.m.) 874 sec.-ft.; May 16 (3 a.m.) 877 sec.-ft.; June 13 (5 p.m.) 377 sec.-ft.

*Discharge measurement.

†Stage-discharge relation affected by beaver dams; discharge computed on basis of records for station near Heiberger.

‡Stage-discharge relation affected by ice; discharge computed on basis of two discharge measurements and weather records.

Taylor River at Almont, Colo.

Location.- Water-stage recorder, lat. 38°40', long. 106°51', in sec. 22, T. 51 N., R. 1 E., in Almont, 800 feet upstream from confluence with East River. Zero of gage is 8,011.98 feet above mean sea level.

Drainage area.- 440 square miles.

Records available.- July 1910 to September 1931 and October 1933 to September 1938 in reports of Geological Survey. July 1910 to September 1938 in reports of State engineer.

Average discharge.- 28 years, 368 second-feet.

Extremes.- Maximum discharge during year, 1,920 second-feet June 6 (gage height, 4.16 feet); minimum daily discharge, 24 second-feet Mar. 12.

1910-38: Maximum discharge, 3,760 second-feet June 9, 1920 (gage height, 5.0 feet); minimum before storage started in Taylor Park Reservoir, 50 second-feet several days in August 1913 (gage height, 1.2 feet); minimum daily discharge, that of Mar. 12, 1938.

Remarks.- Records good except those for periods of ice effect, Nov. 28, Dec. 17 to Feb. 20, Feb. 24-26, which were computed on basis of two discharge measurements, weather records, and records for East River at Almont, and are fair. Taylor Park Reservoir (capacity, 106,000 acre-feet), 24 miles upstream from station, completed and storage started in September 1937. Diversions for irrigation from tributaries above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	74	60	46	47	60	30	38	774	1,430	1,030	232	586
2	68	50	50	50	64	38	30	694	1,590	1,000	237	534
3	62	50	60	53	64	54	36	666	1,650	955	224	453
4	64	52	58	51	64	58	34	574	1,690	870	206	358
5	60	45	52	50	62	43	38	568	1,790	814	250	315
6	54	46	46	48	58	32	40	479	1,820	729	387	250
7	56	60	46	47	57	28	36	453	1,790	638	387	127
8	62	52	52	48	56	30	90	447	1,760	568	310	106
9	62	46	48	48	54	30	121	437	1,730	534	224	115
10	64	66	43	50	53	30	50	442	1,710	500	232	112
11	41	58	48	52	52	30	50	474	1,630	490	215	127
12	37	54	52	54	54	24	72	479	1,600	479	202	159
13	39	50	52	56	58	34	86	490	1,580	447	206	190
14	39	52	50	57	60	38	100	528	1,500	468	202	159
15	52	58	50	58	60	36	76	574	1,450	463	186	144
16	60	46	52	58	58	34	74	598	1,390	490	182	148
17	52	54	54	59	57	38	81	586	1,310	500	237	144
18	60	54	54	60	52	32	137	556	1,320	490	402	134
19	58	54	47	58	55	30	206	544	1,320	484	397	124
20	66	54	42	57	56	34	264	539	1,330	479	422	118
21	72	56	42	57	45	38	334	539	1,400	463	479	282
22	70	54	42	58	49	32	432	556	1,400	447	506	264
23	70	45	46	56	50	30	539	506	1,410	315	556	162
24	68	60	50	56	52	34	598	339	1,390	287	550	170
25	68	54	43	58	53	32	652	402	1,350	278	544	155
26	68	56	44	52	55	38	701	586	1,320	268	544	152
27	66	56	44	54	56	33	680	687	1,250	282	539	148
28	66	55	43	56	33	33	722	955	1,200	282	539	152
29	64	54	43	58	-	34	750	1,310	1,150	264	544	144
30	64	45	48	60	-	36	782	1,340	1,080	228	539	137
31	64	-	52	58	-	30	-	1,320	-	224	550	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,870	74	37	60.3	3,710
November	1,598	66	45	53.3	3,170
December	1,499	60	42	48.4	2,970
Calendar year 1937	91,635	1,430	37	251	181,700
January	1,684	60	47	54.3	3,340
February	1,547	64	33	55.2	3,070
March	1,073	58	24	34.6	2,130
April	7,849	782	30	262	15,570
May	19,442	1,340	339	627	38,560
June	44,340	1,820	1,080	1,478	87,950
July	15,766	1,030	224	509	31,270
August	11,230	556	182	362	22,270
September	6,169	586	106	206	12,240
Water year 1937-38	114,067	1,820	24	313	226,200

152385 O—39——5

Gunnison River at Iola, Colo.

Location.- Water-stage recorder, lat. 38°29', long. 107°06', in NW¼ sec. 28, T. 49 N., R. 2 W., 1,000 feet upstream from highway bridge and 3,000 feet northeast of Iola.

Drainage area.- 2,490 square miles.

Records available.- April to September 1938. April 1900 to November 1903 at site 1,000 feet downstream; records equivalent.

Extremes.- Maximum discharge during period, 5,750 second-feet June 5 (gage height, 4.37 feet); minimum daily discharge, 296 second-feet Sept. 30.
1900-1903, 1938: Maximum discharge recorded, 7,400 second-feet May 20, 1901 (gage height, 5.70 feet, former site and datum); minimum daily discharge, 221 second-feet at times in period July to October 1902.

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

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	2,790	4,670	2,750	730	948
2							-	2,300	4,900	2,540	741	1,120
3							-	2,000	5,180	2,370	775	1,120
4							-	1,670	5,500	2,210	708	1,020
5							-	1,480	5,640	1,990	719	889
6							-	1,310	5,610	1,800	889	877
7							-	1,190	5,500	1,540	912	663
8							-	1,070	5,170	1,390	936	630
9							-	1,050	4,900	1,280	775	564
10							-	1,020	4,880	1,180	866	512
11							-	1,070	4,570	1,130	797	543
12							-	1,200	4,330	1,120	730	708
13							-	1,270	4,550	1,130	741	866
14							-	1,750	4,570	1,150	764	775
15							-	2,340	4,220	1,210	696	696
16							-	2,710	3,970	1,200	597	663
17							-	2,690	3,840	1,180	554	630
18							-	2,400	3,860	1,120	730	575
19							-	2,210	3,620	1,070	696	522
20							1,130	2,040	3,490	1,030	674	491
21							1,250	1,860	4,020	1,000	730	470
22							1,470	1,960	4,550	1,000	730	652
23							1,640	1,860	4,370	936	809	440
24							1,970	1,740	4,110	900	832	419
25							2,230	1,820	3,890	900	820	409
26							2,670	2,210	3,690	854	797	389
27							2,320	2,790	3,420	900	797	368
28							2,300	3,450	3,180	1,000	797	340
29							2,360	4,390	3,140	924	609	323
30							2,490	4,720	3,120	843	809	296
31							-	4,600	-	764	820	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 20-30	21,830	2,670	1,130	1,985	43,300
May	66,960	4,720	1,020	2,160	132,800
June	130,460	5,640	3,120	4,349	258,800
July	40,411	2,750	764	1,304	80,150
August	23,780	936	554	767	47,170
September	18,918	1,120	296	631	37,520
The period					599,700

Gunnison River near Grand Junction, Colo.

Location.- Water-stage recorder, lat. 39°02', long. 108°34', in NW¼ sec. 35, T. 1 S., R. 1 W. Ute meridian, half a mile downstream from Redlands power canal and 2 miles upstream from mouth.

Drainage area.- 8,020 square miles.

Records available.- October 1894 to December 1895 and May 1897 to September 1899 (at site near mouth), April 1917 to September 1928, and January 1934 to September 1938 in reports of Geological Survey. April 1917 to September 1930 and January 1934 to September 1938 in reports of State engineer.

Average discharge (river and power canal).- 18 years (1917-30, 1933-38), 2,887 second-feet.

Extremes.- Combined flow (river and power canal): Maximum discharge, 17,600 second-feet May 31; minimum daily discharge, 524 second-feet Aug. 23.
1917-30, 1933-38: Maximum discharge, 35,700 second-feet May 23, 1920 (gage height, 14.95 feet); minimum daily discharge, 106 second-feet July 20, 1934.

Remarks.- Records excellent except those for periods of ice effect, Dec. 24 to Jan. 2, Jan. 4-11, 25-31, which were computed on basis of weather records and are good. Diversions for irrigation above stations. Combined flow of river and Redlands power canal minus about 40 second-feet diverted during irrigation season represents entire flow that enters Colorado River from Gunnison River Basin. Discharge tables include flow of power canal.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	825	999	966	935	817	1,020	1,090	16,000	16,200	8,540	1,010	974
2	867	999	904	872	862	1,100	1,050	14,800	15,900	7,350	917	1,030
3	855	999	922	894	862	1,160	1,020	10,700	15,500	6,630	825	3,010
4	864	1,130	1,090	876	854	1,730	975	9,050	16,300	6,140	809	4,070
5	869	1,060	1,130	824	853	1,670	1,160	7,620	16,800	5,620	829	2,850
6	745	1,010	1,010	807	805	1,240	1,710	6,560	16,800	4,800	756	2,400
7	743	1,090	1,000	891	756	1,030	1,930	5,510	16,500	4,150	728	2,010
8	728	1,130	1,070	769	759	972	1,520	5,040	15,600	3,590	795	1,970
9	712	1,150	1,080	787	777	956	1,300	4,420	13,900	3,170	1,130	1,960
10	679	1,120	1,040	834	821	1,020	1,350	4,340	12,400	2,900	1,190	1,810
11	648	1,070	1,030	851	918	1,020	1,760	4,500	12,000	2,690	1,040	1,920
12	615	1,070	1,080	894	1,010	1,020	2,000	5,460	11,300	2,440	1,060	2,620
13	604	1,050	1,500	917	1,090	1,220	2,570	6,740	11,100	2,320	1,050	2,900
14	597	1,020	1,590	959	918	1,330	3,470	9,070	14,100	2,370	1,290	2,600
15	747	974	1,290	908	838	1,480	3,790	12,000	12,000	2,490	1,430	2,380
16	1,430	974	1,200	959	838	1,210	3,050	14,000	10,400	2,520	1,240	2,140
17	1,400	999	1,140	1,020	798	1,120	3,400	14,600	10,200	2,380	1,090	2,030
18	1,220	982	1,080	968	766	1,250	4,230	14,000	10,200	2,260	936	1,920
19	1,180	1,020	1,010	923	735	1,240	6,120	12,800	10,200	2,060	790	1,800
20	1,200	1,040	949	908	572	1,160	7,700	12,100	9,610	1,830	719	1,650
21	1,160	918	825	885	706	1,300	8,830	11,500	9,940	1,690	636	1,530
22	1,120	1,220	743	855	825	1,630	9,840	10,300	13,200	1,570	580	1,440
23	1,080	1,200	739	805	811	1,350	11,100	10,100	14,600	1,510	524	1,400
24	1,090	1,170	830	765	795	1,220	12,900	9,370	13,200	1,500	525	1,540
25	1,070	1,030	810	839	771	1,300	14,300	9,300	11,700	1,340	530	1,140
26	1,040	1,070	835	878	749	1,330	15,500	10,100	10,800	1,840	554	1,170
27	1,040	1,050	840	879	749	1,460	14,600	11,700	10,200	1,230	637	1,110
28	1,040	946	828	888	815	1,470	12,600	13,500	9,440	1,090	625	1,020
29	1,030	931	863	902	-	1,590	13,500	15,400	8,690	1,340	530	951
30	996	1,020	902	953	-	1,510	14,700	17,300	8,880	1,270	559	893
31	990	-	889	925	-	1,280	-	17,000	-	1,130	688	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	29,184	1,430	597	941	57,890
November	31,431	1,220	918	1,048	62,340
December	31,185	1,590	739	1,006	61,850
Calendar year 1937	762,675	15,100	211	2,090	1,513,000
January	27,370	1,020	765	883	54,290
February	22,870	1,090	572	817	45,360
March	39,388	1,730	956	1,271	78,120
April	179,065	15,500	975	5,969	355,200
May	324,880	17,300	4,340	10,480	644,400
June	377,560	16,800	8,690	12,590	749,100
July	91,760	8,540	1,090	2,960	182,000
August	26,022	1,430	524	839	51,610
September	56,238	4,070	893	1,875	111,500
Water year 1937-38	1,237,053	17,300	524	3,389	2,454,000

Peak discharge.- Apr. 19 (3 p.m.) 7,450 sec.-ft.; May 31, 17,600 sec.-ft.

East River at Almont, Colo.

Location.- Water-stage recorder, lat. 38°40', long. 106°51', in sec. 22, T. 51 N., R. 1 E., at Almont, 400 feet upstream from mouth. Zero of gage is 8,009.51 feet above mean sea level.

Drainage area.- 295 square miles.

Records available.- April to October 1905, July 1910 to April 1922 and October 1934 to September 1938.

Average discharge.- 11 years (1910-13, 1916-20, 1934-38), 391 second-feet.

Extremes.- Maximum discharge during year, 2,620 second-feet June 4 (gage height, 4.86 feet); minimum daily discharge, 54 second-feet Mar. 7.

1905, 1910-22, 1934-38: Maximum discharge, about 6,500 second-feet June 15, 1921 (gage height, 6.6 feet, former site and datum); minimum, 19 second-feet Aug. 13, 1913.

Remarks.- Records good except those for periods of ice effect, Nov. 24, 25, 27-29, Dec. 1, Dec. 21 to Feb. 9, Feb. 12, 13 (computed on basis of one discharge measurement and weather records) and those for Nov. 6, 7 (computed on basis of records for Taylor River at Almont), which are fair. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	105	134	90	86	81	61	61	1,230	2,060	1,050	280	171
2	103	132	103	90	83	60	61	913	2,070	968	284	252
3	101	144	100	88	85	61	61	791	2,260	936	288	249
4	100	147	94	86	85	57	69	662	2,450	899	268	231
5	100	163	91	83	83	56	72	621	2,410	857	264	198
6	98	158	93	80	81	57	74	535	2,360	778	280	185
7	94	130	94	78	76	54	70	485	2,250	704	322	177
8	90	114	91	79	72	56	67	436	2,040	668	322	185
9	96	112	94	79	69	60	69	426	1,820	633	327	168
10	98	112	96	80	69	60	75	458	1,820	604	345	155
11	93	103	98	81	66	57	77	507	1,600	581	318	160
12	91	96	107	83	70	64	90	569	1,580	604	296	207
13	88	100	105	84	76	64	124	698	1,830	633	288	234
14	86	116	98	84	77	63	132	976	1,690	604	300	201
15	100	110	91	84	75	56	120	1,220	1,500	639	272	177
16	100	101	94	82	72	56	124	1,390	1,500	563	238	171
17	107	109	100	81	67	61	147	1,260	1,480	524	227	160
18	114	109	100	83	64	64	198	1,040	1,540	463	220	152
19	105	114	94	80	69	58	284	984	1,360	441	201	142
20	100	137	90	79	77	63	354	906	1,280	401	191	126
21	100	134	89	81	67	69	401	857	1,570	377	182	116
22	98	114	88	82	67	66	463	892	2,040	377	168	110
23	100	101	92	78	64	63	535	830	1,730	368	163	109
24	98	103	97	76	60	67	716	928	1,490	358	163	109
25	114	100	92	77	61	70	878	1,040	1,420	331	157	107
26	116	96	89	75	67	72	1,040	1,180	1,400	331	160	107
27	118	98	89	76	75	69	899	1,480	1,300	354	160	103
28	122	98	89	80	60	72	968	1,710	1,230	381	163	93
29	122	97	90	80	-	66	1,060	2,240	1,300	368	157	91
30	120	100	92	80	-	64	1,160	2,190	1,220	340	155	91
31	122	-	93	80	-	58	-	2,040	-	300	152	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,199	122	86	103	6,350
November	3,482	163	96	116	6,910
December	2,923	107	88	94.3	5,800
Calendar year 1937	107,623	2,060	49	295	213,500
January	2,515	90	75	81.1	4,990
February	2,018	85	60	72.1	4,000
March	1,924	72	54	62.1	3,820
April	10,449	1,160	61	348	20,730
May	31,494	2,240	426	1,016	62,470
June	51,600	2,450	1,220	1,720	102,300
July	17,435	1,050	300	562	34,580
August	7,311	345	152	236	14,500
September	4,737	252	91	158	9,400
Water year 1937-38	139,087	2,450	54	381	275,800

Peak discharge.- May 30 (6 a.m.) 2,430 sec.-ft; June 4 (9 a.m.) 2,620 sec.-ft.

Tomichi Creek at Sargents, Colo.

Location.- Water-stage recorder, lat. 38°24', long. 106°25', in SW¼ sec. 21, T. 48 N., R. 5 E., half a mile downstream from Marshall Creek and three-quarters of a mile south of Sargents. Gage used prior to 1922 at site 1,000 feet upstream at different datum.

Drainage area.- 155 square miles (revised).

Records available.- April to September 1938. May 1917 to September 1922 at site 1,000 feet upstream; records equivalent.

Extremes.- Maximum discharge during period, 424 second-feet May 30 (gage height, 2.48 feet); minimum daily discharge, 23 second-feet Aug. 20-23, 25-27.
1917-22, 1938: Maximum discharge, 792 second-feet June 9, 1921 (gage height, 4.05 feet, former site and datum); minimum discharge recorded, 8 second-feet Nov. 16, 1920.

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

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	175	379	89	30	45
2							-	157	367	84	29	41
3							-	155	367	79	30	53
4							-	135	359	71	29	46
5							-	128	353	63	28	40
6							-	111	342	60	29	35
7							-	93	308	58	33	36
8							-	95	286	52	37	45
9							-	89	275	46	36	33
10							-	87	266	41	33	33
11							-	93	241	41	33	38
12							-	104	236	44	34	50
13							-	116	250	47	34	52
14							-	161	222	47	32	41
15							-	217	212	55	28	38
16							-	252	202	47	25	38
17							-	252	184	42	25	38
18							189	241	175	38	25	35
19							194	233	159	37	24	33
20							135	230	153	40	23	32
21							153	244	155	40	23	32
22							147	247	149	37	23	32
23							159	227	157	37	23	32
24							161	222	128	35	24	30
25							179	233	111	34	23	30
26							179	250	104	34	23	32
27							155	275	107	40	23	30
28							153	308	104	40	24	30
29							155	379	107	37	24	30
30							161	394	109	34	24	30
31							-	382	-	30	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 18-30	2,120	194	135	163	4,200
May	6,285	394	87	203	12,470
June	6,567	379	104	219	13,030
July	1,479	89	30	47.7	2,930
August	857	37	23	27.6	1,700
September	1,110	53	30	37.0	2,200
The period					36,530

Tomichi Creek at Gunnison, Colo.

Location.- Water-stage recorder, lat. 38°32', long. 106°56', in sec. 11, T. 49 N., R. 1 W., half a mile upstream from mouth and 1 mile south of Gunnison. Gage used prior to 1910 at same site at different datum.

Drainage area.- 1,020 square miles.

Records available.- November, December 1910 (gage heights only, former datum), and April to September 1938.

Extremes.- Maximum discharge during period, 950 second-feet June 2 (gage height, 2.35 feet); minimum daily discharge, 77 second-feet July 12.

Remarks.- Records fair.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	584	931	388	134	163
2							-	578	938	345	136	216
3							-	505	918	307	139	230
4							-	475	918	256	143	230
5							-	408	905	212	143	216
6							-	384	886	170	139	204
7							-	364	905	143	143	195
8							-	316	879	134	160	183
9							-	307	816	109	178	146
10							-	284	750	98	178	136
11							-	265	708	86	183	167
12							-	265	642	77	183	221
13							-	270	612	82	178	297
14							-	288	648	86	178	256
15							-	379	666	111	170	212
16							-	510	562	150	156	195
17							-	589	530	121	143	187
18							-	636	505	105	139	178
19							-	624	490	92	128	156
20							530	584	475	89	118	146
21							550	515	510	87	114	134
22							545	510	545	92	109	128
23							567	556	567	124	105	124
24							584	525	600	153	105	126
25							606	456	572	167	107	128
26							624	461	461	150	100	124
27							624	515	388	150	96	118
28							545	606	369	191	98	111
29							535	714	360	191	100	109
30							525	853	403	174	102	103
31							-	905	-	143	109	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 20-30	6,235	624	525	567	12,370
May	15,231	905	265	491	30,210
June	19,459	938	360	649	38,600
July	4,783	388	77	154	9,490
August	4,214	183	96	136	8,360
September	5,139	297	103	171	10,190
The period					109,200

Quartz Creek near Ohio, Colo.

Location.- Water-stage recorder, lat. 38°34', long. 106°38', in SW¼ sec. 27, T. 50 N., R. 3 E., half a mile downstream from mouth of Willow Creek and 1 mile southwest of Ohio.

Drainage area.- 101 square miles.

Records available.- April to September 1938.

Extremes.- Maximum discharge during period, 572 second-feet May 30 (gage height, 2.71 feet); minimum daily discharge, 32 second-feet Aug. 20, 22.

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

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	145	434	112	47	78
2							-	119	414	104	48	66
3							-	102	434	92	55	78
4							-	85	418	78	50	58
5							-	78	414	83	48	51
6							-	68	405	88	52	45
7							-	72	346	83	60	51
8							-	83	325	76	62	55
9							-	51	307	70	57	50
10							-	55	304	62	51	50
11							-	66	268	57	45	54
12							-	74	292	62	43	85
13							-	102	313	68	43	92
14							-	162	248	78	42	78
15							-	206	248	70	38	72
16							-	231	234	64	40	72
17							-	228	214	62	40	60
18							-	225	197	57	40	52
19							-	217	174	54	36	42
20							-	222	169	57	32	43
21							-	222	184	58	33	42
22							-	222	197	62	32	44
23							-	187	187	66	33	42
24							-	184	169	62	33	36
25							-	203	155	51	34	38
26							-	262	152	48	34	36
27							-	313	150	52	33	34
28							-	402	143	52	38	36
29							126	469	148	52	44	39
30							140	499	140	51	43	37
31							-	446	-	51	50	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May	6,000	499	51	194	11,900
June	7,783	434	140	259	15,440
July	2,082	112	48	67.2	4,130
August	1,336	62	32	43.1	2,650
September	1,616	92	34	53.9	3,210
The period					37,330

Peak discharge.- May 30 (2 a.m.) 572 sec.-ft.

Cebolla Creek at Powderhorn, Colo.

Location.- Water-stage recorder, lat. 38°17'30", long. 107°07'00", in SE¼ sec. 29, T. 47 N., R. 2 W., 250 feet downstream from Powderhorn Creek and half a mile north of Powderhorn.

Drainage area.- 334 square miles.

Records available.- April to September 1938.

Extremes.- Maximum discharge during period, 1,060 second-feet May 29 (gage height, 2.40 feet); minimum daily discharge, 54 second-feet Sept. 29.

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

Rating table, Apr. 21 to Sept. 30, 1938 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 21 to May 17, June 15 to July 2)

0.6	38	1.4	282
.7	58	1.6	422
.8	84	2.0	734
1.0	138	2.5	1,145
1.2	200		

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	498	670	194	68	74
2							-	245	537	181	68	84
3							-	236	607	168	76	102
4							-	211	726	153	74	94
5							-	200	568	135	76	87
6							-	187	514	130	79	97
7							-	168	386	124	84	89
8							-	171	330	116	87	92
9							-	187	282	105	74	84
10							-	181	268	97	92	71
11							-	187	241	110	84	97
12							-	218	245	102	76	102
13							-	218	393	110	89	102
14							-	323	316	127	81	97
15							-	430	264	124	79	92
16							-	430	273	110	74	87
17							-	422	273	100	76	87
18							-	372	296	94	68	81
19							-	364	264	94	68	74
20							-	343	277	94	66	68
21							254	323	330	92	63	66
22							259	364	357	94	71	66
23							309	289	393	94	63	63
24							336	282	330	81	71	61
25							430	330	264	79	71	63
26							490	422	245	76	68	63
27							350	545	225	94	74	61
28							372	646	214	102	68	56
29							460	830	232	81	71	54
30							553	766	232	81	76	56
31							-	678	-	74	74	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 21-30	3,813	553	254	381	7,560
May	11,066	830	168	357	21,950
June	10,552	726	214	352	20,930
July	3,416	194	74	110	6,780
August	2,309	92	63	74.5	4,580
September	2,370	102	54	79.0	4,700
The period					66,500

Peak discharge.- Apr. 25 (12 p.m.) 686 sec.-ft.; May 1 (1 a.m.) 758 sec.-ft.; May 29 (8 a.m.) 1,060 sec.-ft.; June 4 (6 a.m.) 1,050 sec.-ft.

Lake Fork at Gateview, Colo.

Location.- Water-stage recorder, lat. 38°07'50", long. 107°13'25", in sec. 29, T. 47 N., R. 3 W., at old village of Gateview, a quarter of a mile upstream from Indian Creek and about 15 miles upstream from mouth.

Drainage area.- 324 square miles.

Extremes.- Maximum discharge during period, 2,620 second-feet June 21 (gage height, 4.00 feet); minimum daily discharge, 98 second-feet Sept. 29.

Remarks.- Records good except those for periods of missing gage heights, Aug. 1-24, Sept. 18-24 (computed on basis of one discharge measurement, weekly gage heights, and records for Gunnison River at Iola and Cebolla Creek at Powderhorn), and those for June 1-25, all of which are fair. Chain gage read twice daily Aug. 24 to Sept. 17. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	562	1,700	1,540	340	196
2							-	404	1,610	1,410	290	222
3							-	333	1,820	1,320	230	285
4							-	293	1,960	1,280	210	323
5							-	262	1,820	1,190	204	266
6							-	239	1,710	1,070	210	239
7							-	226	1,340	1,080	240	213
8							-	205	998	858	240	191
9							-	199	832	824	230	179
10							-	190	950	794	230	183
11							-	196	838	741	230	200
12							-	230	889	689	230	208
13							-	262	1,500	689	220	208
14							-	373	1,190	654	220	196
15							-	571	1,030	671	210	183
16							-	682	1.110	666	196	183
17							-	710	1,360	632	185	179
18							-	624	1,550	609	175	170
19							-	603	1.440	587	165	160
20							-	553	1,560	566	162	140
21							-	558	2,130	534	160	150
22							-	599	2,100	508	155	170
23							-	536	2,050	476	150	125
24							468	544	1,870	466	150	115
25							510	639	1,830	435	147	108
26							493	838	1,870	430	147	105
27							412	1,100	1,760	435	162	102
28							392	1,330	1,610	450	158	105
29							468	1,630	1,640	430	162	98
30							585	1,630	1,720	400	162	102
31							-	1,640	-	380	204	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 24-30	3,328	585	392	475	6,600
May	18,761	1,640	190	605	37,210
June	45,787	2,130	832	1,526	90,820
July	22,814	1,540	380	736	45,250
August	6,174	340	147	199	12,250
September	5,304	323	98	177	10,520
The period					202,600

North Fork of Gunnison River near Somerset, Colo.

Location.- Water-stage recorder, lat. 38°56', long. 107°26', in sec. 10, T. 13 S., R. 90 W., 2 miles east of Somerset.

Drainage area.- 521 square miles.

Records available.- March 1934 to September 1938.

Extremes.- Maximum discharge during year, 5,360 second-feet Apr. 30, May 16; maximum gage height, 5.62 feet May 16; minimum daily discharge, 30 second-feet Dec. 20.
1934-38: Maximum discharge, that of Apr. 30, May 16, 1938; minimum daily discharge, 28 second-feet Sept. 19, 1934.

Remarks.- Records good except those for periods of ice effect, which are fair. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	115	126	48	*72	65	117	136	3,800	3,580	1,050	168	136
2	101	123	72	*76	67	132	119	2,540	3,400	1,070	160	146
3	97	119	101	86	65	217	132	2,120	3,560	898	158	168
4	95	113	78	74	65	290	143	1,780	3,480	860	148	183
5	89	103	57	72	65	155	214	1,580	3,300	737	141	148
6	89	97	71	76	58	126	236	1,370	3,200	674	141	123
7	86	123	84	71	*58	126	181	1,220	2,950	653	163	132
8	84	117	74	*70	74	119	170	1,120	2,660	519	160	173
9	82	99	69	71	71	121	186	1,060	2,390	530	153	143
10	80	107	72	72	72	117	243	1,130	2,410	480	148	126
11	78	101	76	71	80	119	278	1,360	2,200	431	136	146
12	80	95	132	71	95	143	396	1,820	2,180	442	134	197
13	78	91	130	67	87	186	513	2,680	2,680	480	160	230
14	78	84	103	69	76	178	597	3,640	2,330	496	165	183
15	165	89	93	65	89	141	491	4,280	1,980	442	146	160
16	181	82	87	69	78	136	566	4,300	1,870	406	132	150
17	138	87	80	67	80	163	681	3,720	1,710	391	126	138
18	163	89	80	67	57	148	920	3,240	1,760	363	119	130
19	143	84	45	67	74	150	1,270	3,220	1,680	328	107	119
20	117	91	30	67	89	178	1,380	3,020	1,680	294	109	115
21	113	109	*40	65	78	208	1,450	2,700	2,170	278	107	117
22	107	105	*52	*60	72	163	1,780	2,520	2,280	270	103	115
23	109	87	72	60	76	146	2,200	2,230	1,920	254	91	109
24	111	91	78	60	71	170	2,810	2,410	1,600	233	87	107
25	115	87	78	60	65	183	3,400	2,700	1,450	217	87	107
26	126	67	*68	*60	74	189	3,360	3,140	1,320	217	84	105
27	136	47	82	*62	89	170	2,520	3,500	1,280	240	87	101
28	138	95	74	*65	91	192	2,770	4,080	1,230	258	87	99
29	136	72	*66	69	-	178	3,400	3,520	1,360	227	87	103
30	134	47	*66	69	-	150	4,060	3,600	1,110	194	86	103
31	132	-	*76	74	-	123	-	3,520	-	181	97	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,496	181	78	113	6,930
November	2,827	126	47	94.2	5,610
December	2,334	132	30	75.3	4,630
Calendar year 1937	149,372	3,800	30	409	296,200
January	2,124	86	60	68.5	4,210
February	2,081	95	57	74.3	4,130
March	4,934	290	117	159	9,790
April	36,602	4,060	119	1,220	72,600
May	82,920	4,300	1,060	2,675	164,500
June	66,720	3,580	1,110	2,224	132,300
July	14,113	1,070	181	455	27,990
August	3,877	168	84	125	7,690
September	4,112	230	99	137	8,160
Water year 1937-38	226,140	4,300	30	620	448,500

Peak discharge.- Apr. 25 (11 p.m.) 4,870 sec.-ft.; Apr. 30 (11:40 p.m.) 5,360 sec.-ft.; May 16 (12:30 a.m.) 5,360 sec.-ft.; May 28 (2 p.m.) 4,590 sec.-ft.

*Stage-discharge relation affected by ice; discharge computed on basis of one discharge measurement, gage heights, and weather records.

East Muddy Creek near Bardine, Colo.

Location.- Water-stage recorder, lat. 39°01', long. 107°22', in sec. 17, T. 12 S., R. 89 W., a quarter of a mile downstream from Spring Creek and 6½ miles above Bardine.

Drainage area.- 136 square miles.

Records available.- May 1935 to September 1938.

Extremes.- Maximum discharge during year, 1,330 second-feet Apr. 30 (gage height, 2.68 feet); minimum daily discharge, 13 second-feet Nov. 5 or may have been less during period of no record.

1935-38: Maximum discharge, that of Apr. 30, 1938; minimum daily discharge, 6 second-feet Aug. 28, 1936.

Remarks.- Records excellent except those for Nov. 26-30, which were estimated and are fair.

Rating tables, water year 1937-38 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 30

0.6	5
.7	14
.8	29
.9	48

Mar. 25 to Sept. 30

0.5	8	1.4	238
.6	16	1.7	375
.7	33	1.9	495
.8	54	2.4	880
1.0	108	2.7	1,150
1.2	168		

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	20				-	52	889	736	155	30	62
2	23	18				-	54	632	680	136	28	54
3	22	17				-	52	523	688	130	26	75
4	17	16				-	59	424	656	122	26	54
5	17	13				-	83	397	595	102	23	39
6	17	16				-	94	350	558	91	24	33
7	17	22				-	83	320	476	80	28	31
8	17	23				-	70	294	482	77	30	41
9	17	17				-	75	294	402	77	28	33
10	17	20				-	83	325	402	72	26	31
11	17	20				-	91	414	402	62	24	37
12	17	18				-	114	516	365	62	23	46
13	17	20				-	128	656	419	94	24	46
14	16	20				-	142	934	370	75	31	26
15	40	22				-	142	1,040	316	57	30	23
16	35	18				-	142	1,070	302	57	26	23
17	26	17				-	175	970	280	54	24	21
18	28	20				-	234	864	267	52	19	19
19	26	23				-	289	848	255	52	18	19
20	23	26				-	335	768	246	48	19	19
21	20	28				-	325	712	276	46	18	19
22	20	28				-	370	680	294	44	16	19
23	20	24				-	450	632	255	39	15	18
24	18	28				-	595	680	231	37	16	19
25	22	23				75	728	760	199	37	16	19
26	22	22				75	720	824	185	39	16	19
27	22	20				70	588	898	168	50	16	19
28	23	18				77	712	988	178	44	18	19
29	22	18				72	832	1,020	209	37	19	19
30	23	16				67	997	889	175	33	19	19
31	23	-				64	-	808	-	31	21	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	670	40	16	21.6	1,330
November	611	28	13	20.4	1,210
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March 25-31	500	77	64	71.4	992
April	8,814	997	52	294	17,460
May	21,419	1,070	294	691	42,480
June	11,067	736	168	369	21,950
July	2,092	155	31	67.5	4,150
August	697	31	15	22.5	1,380
September	921	75	18	30.7	1,830
Water year					

Peak discharge.- Apr. 30 (10 p.m.) 1,330 sec.-ft.; May 15 (9 p.m.) 1,250 sec.-ft.; May 28 (9 p.m.) 1,300 sec.-ft.

Leroux Creek near Cedaredge, Colo.

Location.- Water-stage recorder, lat. 38°55', long. 107°48', in sec. 16, T. 13 S., R. 93 W., 200 feet upstream from head gate of Overland ditch and 7.2 miles northeast of Cedaredge.

Drainage area.- 43.0 square miles.

Records available.- October 1936 to September 1938.

Extremes.- Maximum discharge during year, 1,120 second-feet May 28 (gage height, 5.01 feet); minimum daily discharge, 5.9 second-feet Oct. 11, probably less during period of no record.

1936-38: Maximum discharge, that of May 28, 1938; minimum daily discharge, 4.5 second-feet Nov. 24, 1936, probably less during period of no record.

Remarks.- Records good except those for periods Oct. 1 to Nov. 30, Apr. 11 to May 13, June 9-12, which are fair. Those for period Nov. 28-30 were estimated, and those for periods Apr. 29 to May 1, June 9-12 were computed on basis of records for East Muddy Creek near Bardine. One small diversion and several small irrigation reservoirs above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	12					-	170	635	98	29	21
2	12	12					-	145	590	84	28	25
3	10	12					-	107	660	76	31	31
4	8.8	11					-	93	586	70	33	24
5	7.2	8.8					-	90	529	62	32	21
6	6.8	12					-	77	480	61	34	21
7	6.5	9.2					-	58	412	62	37	18
8	6.5	7.2					-	87	362	61	32	20
9	6.5	11					-	105	355	55	29	18
10	6.5	12					-	152	350	52	28	17
11	5.9	10					12	222	355	50	28	39
12	6.5	10					12	294	375	50	28	46
13	6.3	9.5					14	559	441	52	32	37
14	6.6	9.0					15	529	317	58	29	21
15	29	9.0					14	645	264	52	21	19
16	30	8.2					16	665	250	48	20	17
17	20	8.0					23	529	233	43	22	16
18	15	9.5					44	365	218	43	23	14
19	13	9.2					77	326	208	40	23	14
20	12	8.5					90	277	206	39	24	13
21	12	8.5					136	281	250	43	26	13
22	12	9.0					141	303	255	41	26	13
23	16	7.8					199	339	218	35	26	13
24	17	9.8					247	339	192	34	26	13
25	19	9.2					276	468	162	33	24	13
26	18	8.8					287	650	140	37	24	13
27	16	8.0					237	655	131	45	24	12
28	15	10					283	564	115	48	22	12
29	15	9.0					320	660	113	42	23	13
30	14	9.5					370	655	110	39	22	12
31	13	-					-	612	-	32	19	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	396.1	30	5.9	12.8	786
November	287.7	12	7.2	9.59	571
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 11-30	2,813	370	12	141	5,580
May	11,021	665	58	356	21,860
June	9,512	660	110	317	18,870
July	1,585	98	32	51.1	3,140
August	825	37	19	26.6	1,640
September	579	46	12	19.3	1,150
Water year					

Peak discharge.- May 28 (5 p.m.) 1,120 sec.-ft.

Surface Creek at Cedaredge, Colo.

Location.- Water-stage recorder and concrete control, lat. 38°52', long. 107°55', in sec. 20, T. 13 S., R. 94 W., at Cedaredge.

Drainage area.- 43 square miles.

Records available.- May 1917 to September 1927 and October 1933 to September 1938 in reports of Geological Survey. May 1917 to September 1938 in reports of State engineer.

Average discharge.- 21 years, 29.2 second-feet.

Extremes.- Maximum discharge during year, 510 second-feet May 14 (gage height, 1.70 feet); practically no flow at times during winter.
1917-38: Maximum discharge, 715 second-feet May 24, 1920 (gage height, 1.95 feet); practically no flow at times during winter.

Remarks.- Records good except those for period of ice effect, Nov. 28 to Mar. 18, which were computed on basis of two discharge measurements and weather records and are fair. Flow regulated by many reservoirs. Water is brought into the Surface Creek Basin from adjacent streams. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	11				2.6	3.8	216	122	51	27	25
2	8.8	11				2.6	5.6	106	166	47	35	36
3	10	10				2.6	2.9	76	309	47	35	40
4	10	8.8				2.2	2.4	67	316	46	29	30
5	8.8	6.9				2.2	2.4	60	276	47	29	28
6	8.2	4.2				2.2	2.9	50	222	49	19	25
7	6.2	3.4				2.2	2.4	42	163	49	15	22
8	8.2	3.8				2.4	2.4	42	140	53	15	18
9	8.8	6.2				2.4	3.8	59	124	49	21	13
10	8.8	6.2				2.4	3.4	72	112	69	25	13
11	9.4	4.7				2.2	3.8	88	112	76	22	28
12	10	4.2				2.2	4.2	124	110	99	23	29
13	11	4.2				2.2	5.6	166	197	95	27	33
14	9.4	4.2				2.2	6.9	246	153	97	24	17
15	22	4.2				2.2	4.2	302	112	95	24	15
16	15	3.4			*3.1	2.0	4.7	283	100	71	22	15
17	11	2.9				2.0	10	184	91	56	20	15
18	12	2.9				2.0	25	144	88	42	21	13
19	11	3.4				2.0	47	124	86	34	20	12
20	11	3.4				2.0	38	112	89	33	25	13
21	13	3.4				2.0	24	104	117	29	26	10
22	9.4	2.9		*1.9		2.4	97	117	122	31	25	9.4
23	9.4	2.9				1.1	108	129	95	39	24	8.2
24	9.4	3.4				1.6	147	147	81	34	35	9.4
25	8.2	2.9				1.6	246	179	71	33	42	8.8
26	9.4	3.8				1.6	228	201	57	35	42	13
27	9.4	3.8				1.6	166	240	53	36	43	11
28	9.4	2.8				1.6	252	234	47	35	43	8.2
29	9.4	2.6				1.6	258	246	60	34	42	7.5
30	7.5	2.6				1.6	153	175	59	31	39	6.9
31	6.9	-				2.9	-	140	-	28	35	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	312.0	22	6.2	10.1	619
November	140.1	11	2.6	4.67	278
December	77.5	-	-	2.5	154
Calendar year 1937	11,136.8	456	-	30.5	22,100
January	62.0	-	-	2.0	123
February	78.4	-	-	2.8	156
March	64.4	2.9	1.1	2.08	128
April	1,860.4	258	2.4	62.0	3,690
May	4,475	302	42	144	8,880
June	3,850	316	47	128	7,640
July	1,570	99	28	50.6	3,110
August	874	43	15	28.2	1,730
September	532.4	40	6.9	17.7	1,060
Water year 1937-38	13,896.2	316	-	38.1	27,570

Peak discharge.- May 14 (7 p.m.) 510 sec.-ft.; May 16 (8 p.m.) 395 sec.-ft.; May 26 (6 p.m.) 395 sec.-ft.
*Discharge measurement.

TRIBUTARIES ABOVE GREEN RIVER

Uncompahgre River at Colona, Colo.

Location.- Water-stage recorder, lat. 38°19'50", long. 107°46'40", in NW¼ sec. 17, T. 47 N., R. 8 W., a quarter of a mile east of Colona.

Drainage area.- 437 square miles.

Records available.- March 1935 to September 1938. April 1903 to June 1906 and April 1917 to November 1934 at site 3 miles upstream; records practically equivalent.

Extremes.- Maximum discharge during year, 3,390 second-feet June 22 (gage height, 4.60 feet); minimum daily discharge, 54 second-feet Jan. 22, 25-27.
1903-6, 1917-38: Maximum discharge, 4,080 second-feet June 13, 14, 1921; minimum, 16 second-feet Sept. 3, 1918.

Remarks.- Records good except those for period of ice effect, Dec. 5 to Mar. 14, which were computed on basis of two discharge measurements, weather records, and records for North Fork of Gunnison River near Somerset and are fair. Gage heights and results of most of discharge measurements furnished by Uncompahgre Valley Water Users' Association. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	210	118	75	62	58	100	95	986	1,430	1,390	311	166
2	134	118	75	68	60	115	95	650	1,250	1,290	296	282
3	104	118	77	72	62	140	115	465	1,490	1,310	285	532
4	104	115	77	70	62	150	158	420	1,760	1,320	260	496
5	104	104	72	68	63	125	194	390	1,760	1,210	250	375
6	104	101	74	67	60	115	154	355	1,660	1,100	243	343
7	106	104	74	66	57	112	128	345	1,360	984	264	339
8	98	106	74	66	57	110	122	312	1,010	904	296	357
9	90	104	74	68	58	108	125	316	853	879	296	300
10	92	101	76	68	65	105	151	320	972	802	311	278
11	90	101	80	68	72	112	161	350	944	680	271	415
12	95	90	98	66	80	125	218	415	1,170	638	246	395
13	92	90	92	64	76	145	231	488	2,210	631	274	385
14	90	90	88	64	74	130	252	818	1,400	624	271	319
15	90	92	82	62	76	106	194	1,140	1,400	673	243	282
16	194	90	80	60	*78	125	397	1,100	1,560	696	226	271
17	161	92	74	62	76	151	530	1,010	1,720	680	220	264
18	164	98	72	60	76	125	570	818	1,800	638	211	240
19	141	95	68	60	78	112	740	776	1,860	584	187	217
20	138	98	64	57	82	144	810	706	2,000	538	172	208
21	141	101	64	56	78	134	912	706	2,390	520	156	202
22	141	98	66	*54	78	106	1,000	748	2,900	479	145	181
23	144	90	68	55	76	106	1,080	602	2,290	446	138	172
24	147	95	70	56	74	138	1,230	602	1,910	425	131	166
25	144	90	72	54	68	122	1,150	720	1,850	385	126	153
26	144	84	68	54	70	125	920	1,020	1,790	375	126	150
27	144	77	72	54	72	115	642	1,220	1,720	395	119	138
28	141	84	70	56	76	122	747	1,370	1,480	371	113	128
29	138	80	68	56	-	118	896	1,570	1,740	357	111	126
30	128	77	66	58	-	104	1,150	1,440	1,540	339	124	119
31	125	-	70	60	-	109	-	1,380	-	319	145	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,938	210	90	127	7,810
November	2,901	118	77	96.7	5,750
December	2,300	98	64	74.2	4,560
Calendar year 1937	80,740	1,160	50	221	160,200
January	1,917	72	54	61.8	3,800
February	1,962	82	57	70.1	3,890
March	3,754	151	100	121	7,450
April	15,167	1,230	95	506	30,080
May	23,558	1,570	312	760	46,730
June	49,219	2,900	853	1,641	97,620
July	21,982	1,390	319	709	43,600
August	6,567	311	111	212	13,030
September	7,999	532	119	267	15,870
Water year 1937-38	141,264	2,900	54	387	280,200

Peak discharge.- June 13 (10 a.m.) 2,560 sec.-ft.; June 21 (2 a.m.) 2,950 sec.-ft.; June 22 (2 a.m.) 3,390 sec.-ft.

*Discharge measurement.

Kahnah Creek near Whitewater, Colo.

Location.- Water-stage recorder and concrete control, lat. 38°59', long. 108°14', in sec. 34, T. 12 S., R. 97 W., a quarter of a mile downstream from intake of pipe line for Grand Junction water supply and 17 miles east of Whitewater.

Drainage area.- 55.0 square miles.

Records available.- October 1917 to September 1921 and October 1933 to September 1938 in reports of Geological Survey. October 1917 to September 1921 and August 1922 to September 1938 in reports of State engineer.

Average discharge (including flow diverted by pipe line above station).- 20 years, 41.4 second-feet.

Extremes (combined flow).- Maximum discharge during year, 992 second-feet May 28; minimum daily discharge, 5.7 second-feet Apr. 1.
1917-21, 1922-38: Maximum discharge, 1,630 second-feet June 6, 1921 (gage height, 4.5 feet, former site and datum); minimum daily discharge that of Apr. 1, 1938.

Remarks.- Records excellent except those for period of ice effect, Dec. 19 to Feb. 1, Feb. 5-14, 18-26, which were computed on basis of two discharge measurements and weather records and are good. Figures of diverted flow for Grand Junction water supply (obtained from several readings made each day on Cippoletti weir) are furnished by State engineer and added to monthly discharge to give total flow of stream. Records of combined flow excellent. Regulation by a few small reservoirs above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.7	2.8	7.4	1.4	1.7	1.6	0.5	111	355	57	27	20
2	2.6	3.3	6.9	2.0	1.6	1.4	1.2	79	299	44	26	33
3	3.3	3.3	6.5	2.5	1.6	3.3	.6	66	304	38	24	42
4	2.4	2.8	3.3	2.3	1.6	2.2	.8	64	263	31	24	39
5	2.2	2.8	5.1	2.0	1.4	1.8	1.0	62	272	28	24	16
6	2.0	2.6	3.7	1.5	1.2	1.2	1.8	53	245	26	23	13
7	2.0	3.3	3.3	.5	1.0	2.0	.6	46	236	24	24	10
8	2.0	3.3	4.2	1.0	1.0	1.8	.6	42	232	22	27	10
9	1.8	2.8	3.7	1.5	1.4	1.8	1.2	42	232	18	27	8.3
10	1.8	2.4	2.8	2.0	2.3	1.8	2.4	51	224	18	24	9.1
11	1.8	2.4	2.8	2.1	2.2	1.8	2.4	62	206	26	20	23
12	1.8	2.2	5.1	1.8	2.0	2.6	4.2	74	202	28	18	28
13	2.2	2.4	4.6	2.1	1.4	2.2	6.9	102	224	28	24	24
14	2.2	2.8	4.2	1.4	1.5	1.8	7.4	158	194	27	21	20
15	5.6	2.8	4.6	2.0	1.6	1.6	6.0	224	158	27	20	18
16	5.1	3.3	3.3	2.3	1.8	1.8	7.4	268	132	30	13	15
17	6.5	3.7	3.3	2.0	1.8	2.4	10	272	121	28	13	14
18	8.3	3.7	2.8	2.3	1.3	2.2	18	236	105	28	13	13
19	6.9	3.3	1.8	2.1	1.3	1.6	30	215	87	27	11	13
20	5.6	3.3	.8	2.4	1.4	2.4	27	186	82	28	18	13
21	4.2	3.7	.8	*2.7	1.5	2.2	27	170	121	36	20	12
22	4.6	3.7	.8	2.2	1.6	1.4	38	190	139	39	23	13
23	4.2	3.3	1.4	2.5	1.5	1.6	55	202	105	38	24	22
24	3.7	3.7	1.8	2.8	1.4	2.0	66	250	87	34	21	23
25	3.3	3.3	1.0	2.5	1.4	2.0	84	326	64	34	21	18
26	3.3	3.7	1.3	2.0	1.6	2.2	74	410	55	33	23	12
27	3.3	2.8	1.3	2.0	1.8	2.2	57	446	48	31	23	11
28	3.3	4.2	1.2	2.2	1.8	2.2	71	496	46	30	21	12
29	2.8	4.2	1.2	2.5	-	1.2	92	365	59	27	18	11
30	2.8	5.1	1.6	2.7	-	.6	114	390	69	26	16	13
31	2.8	-	2.0	2.0	-	.6	-	365	-	24	20	-

Month	Observed					Diverted by Grand Junction pipe line (acre-feet)	Adjusted for diversion	
	Second-foot-days	Discharge in second-feet			Run-off in acre-feet		Run-off in acre-feet	Mean (second-feet)
		Maximum	Minimum	Mean				
October	108.1	8.3	1.8	3.49	214	409	623	10.1
November	97.0	5.1	2.2	3.23	192	374	566	9.51
December	94.6	7.4	.8	3.05	188	360	548	8.91
Calendar year 1937	9,077.4	425	-	24.9	18,000	4,990	23,000	31.8
January	63.3	2.8	.5	2.04	126	360	486	7.90
February	43.7	2.3	1.0	1.56	87	325	412	7.42
March	57.5	3.3	.6	1.85	114	340	454	7.38
April	808.0	114	.5	26.9	1,600	364	1,960	32.9
May	6,023	496	42	194	11,960	480	12,430	202
June	4,966	355	46	166	9,850	465	10,320	173
July	935	57	18	30.2	1,850	516	2,370	38.5
August	651	27	11	21.0	1,290	502	1,790	29.1
September	528.4	42	8.3	17.6	1,050	451	1,500	25.2
Water year 1937-38	14,375.6	496	.5	39.4	28,510	4,950	33,460	46.2

Peak discharge (combined flow).- May 15 (8 p.m.) 312 sec.-ft.; May 28 (7 p.m.) 992 sec.-ft.; June 13 (1 p.m.) 307 sec.-ft.

*Discharge measurement.

Dolores River at Dolores, Colo.

Location.- Water-stage recorder, lat. 37°28', long. 108°30', in sec. 9, T. 37 N., R. 15 W., in Dolores, a quarter of a mile upstream from Lost Canyon Creek.

Drainage area.- 508 square miles.

Records available.- June 1895 to October 1903, August 1910 to December 1912, May 1922 to September 1927 (monthly discharge), and October 1933 to September 1938 in reports of Geological Survey. June 1895 to October 1903, August 1910 to December 1912, and April 1922 to September 1938 in reports of State engineer. Records prior to December 1912 were obtained at site just downstream from mouth of Lost Canyon Creek.

Average discharge.- 17 years (1921-38), 486 second-feet.

Extremes.- Maximum discharge during year ending Sept. 30, 1937, 3,880 second-feet May 13 (gage height, 6.35 feet); minimum, 35 second-feet Feb. 25.

Maximum discharge during year ending Sept. 30, 1938, 5,090 second-feet Apr. 25 (gage height, 6.85 feet); minimum daily discharge, 34 second-feet Dec. 26, Jan. 7, 8, 11.

1895-1903, 1910-12, 1922-38: Maximum discharge, 10,000 second-feet Oct. 5, 1911 (gage height, 10.2 feet, former site and datum); minimum daily discharge, 8 second-feet Aug. 16, 1896.

Remarks.- Records good except those for periods of ice effect, Dec. 3, 1936, to Mar. 30, 1937 (computed on basis of three discharge measurements and records for Animas River at Durango) and Nov. 20, 1937 to Mar. 21, 1938 (computed on basis of four discharge measurements and records for Los Pinos River near Bayfield), which are fair. Diversions for irrigation above station.

Revisions.- Revised records for the water year October 1936 to September 1937 supersede those published in Water-Supply Paper 829.

•

Discharge, in second-feet, 1936-38

1936-37

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	88	120	76	54	44	38	130	1,660	1,760	506	209	214
2	85	110	61	52	46	40	186	2,230	1,690	491	191	180
3	81	75	58	56	43	43	198	2,770	1,650	427	207	182
4	80	73	63	62	43	42	180	3,170	1,560	382	174	144
5	78	108	70	62	44	43	190	3,240	1,350	413	184	118
6	85	95	56	64	45	47	236	2,730	1,180	364	230	113
7	81	93	58	64	40	51	217	2,610	1,090	374	202	130
8	76	84	60	64	40	56	239	3,080	1,170	427	166	120
9	72	78	54	64	41	62	350	3,410	1,190	378	148	106
10	70	80	48	58	42	68	490	3,450	1,120	452	134	90
11	67	79	46	60	42	74	676	3,550	1,220	554	122	73
12	63	75	48	56	42	82	875	3,410	1,280	688	105	70
13	60	80	49	62	40	88	1,060	3,430	1,170	608	92	65
14	59	86	53	56	41	80	1,330	3,500	1,110	502	87	61
15	60	86	57	56	43	86	1,870	3,500	968	424	94	59
16	60	88	62	60	42	92	2,310	3,320	968	371	97	52
17	60	90	68	57	40	100	2,170	3,380	1,020	340	120	49
18	60	90	64	57	39	105	1,960	3,400	1,040	306	111	47
19	63	85	60	60	38	105	2,010	2,980	968	276	103	48
20	99	80	60	47	37	105	1,930	2,590	912	246	89	42
21	102	80	62	54	37	110	2,460	2,580	897	222	79	40
22	93	79	64	60	38	120	2,850	2,590	882	200	76	40
23	82	73	61	60	37	130	2,370	2,480	798	189	79	47
24	81	60	59	54	36	130	1,710	2,290	704	184	75	55
25	75	70	62	52	35	130	1,620	1,890	655	184	70	51
26	74	75	64	49	36	125	2,100	1,590	698	195	72	43
27	75	78	58	55	38	120	2,540	1,500	644	207	94	37
28	67	73	56	49	38	120	1,940	1,700	567	284	97	36
29	67	82	64	50	-	115	1,500	2,200	534	287	95	58
30	93	61	58	47	-	115	1,330	2,530	518	254	90	214
31	120	-	60	48	-	120	-	2,060	-	222	139	-

Discharge, in second-feet, of Dolores River at Dolores, Colo., 1936-38--Continued

1937-38

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	154	73	38	38	40	80	175	2,980	3,180	1,580	170	182
2	125	70	39	38	44	90	170	2,020	2,870	1,340	160	287
3	116	69	41	40	43	130	162	1,600	3,280	1,170	150	311
4	111	66	41	40	42	135	214	1,360	3,460	1,040	140	345
5	103	65	40	39	43	112	273	1,170	3,320	932	137	275
6	90	61	40	36	41	110	270	1,030	3,070	828	135	221
7	81	63	41	34	38	110	217	905	2,750	740	154	224
8	75	75	41	34	40	112	246	798	2,330	656	176	240
9	72	63	41	35	42	112	340	760	2,210	609	174	226
10	70	61	40	36	45	112	510	766	2,270	552	164	198
11	69	63	42	34	44	120	676	897	2,070	507	176	410
12	66	58	43	38	48	115	944	1,190	2,200	460	180	443
13	65	43	44	39	43	120	968	1,490	2,860	460	204	426
14	62	42	44	40	43	120	897	2,390	2,250	474	246	311
15	75	55	43	43	46	110	682	3,180	2,030	465	181	269
16	164	46	42	43	45	140	682	3,150	1,960	418	162	254
17	127	49	43	40	45	150	889	2,890	1,900	386	146	219
18	110	51	43	42	41	150	1,320	2,250	1,960	341	133	195
19	110	48	40	43	42	150	1,870	2,140	1,770	311	122	191
20	89	49	40	43	44	160	2,080	1,740	1,580	298	112	166
21	84	49	39	44	43	170	2,510	1,650	1,950	287	105	156
22	84	48	37	42	43	154	2,750	1,830	2,410	294	98	148
23	86	47	38	43	45	162	3,130	1,700	2,020	287	97	140
24	84	48	37	41	46	249	3,520	1,890	1,700	254	102	133
25	84	46	35	37	45	292	3,810	2,280	1,550	234	100	130
26	82	45	34	40	44	350	3,320	2,730	1,470	219	107	123
27	79	43	35	43	48	301	2,170	3,020	1,390	221	110	117
28	81	41	39	43	55	260	2,610	3,280	1,300	240	102	112
29	79	42	40	43	-	217	3,050	3,680	2,010	219	112	114
30	78	40	40	40	-	189	3,220	3,520	2,090	200	132	111
31	75	-	40	38	-	180	-	3,300	-	184	146	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1936	2,376	120	59	76.6	4,710
November	2,486	120	60	82.9	4,930
December	1,839	76	46	59.3	3,650
Calendar year 1936	147,303	2,470	-	404	292,200
January 1937	1,749	64	47	56.4	3,470
February	1,127	46	35	40.2	2,240
March	2,742	130	38	88.5	5,440
April	39,027	2,850	130	1,301	77,410
May	84,820	3,550	1,500	2,736	168,200
June	31,313	1,760	518	1,044	62,110
July	10,957	688	184	353	21,730
August	3,831	230	70	124	7,600
September	2,584	214	36	86.1	5,130
Water year 1936-37	184,851	3,550	35	506	366,600
October 1937	2,830	164	62	91.3	5,610
November	1,619	75	40	54.0	3,210
December	1,240	44	34	40.0	2,460
Calendar year 1937	190,489	3,550	-	522	377,900
January 1938	1,229	44	34	39.6	2,440
February	1,228	55	38	43.9	2,440
March	4,962	350	80	160	9,840
April	43,875	3,810	162	1,456	86,630
May	63,586	3,680	760	2,051	126,100
June	67,210	3,460	1,300	2,240	133,300
July	16,206	1,580	184	523	32,140
August	4,443	246	97	143	8,810
September	6,677	443	111	223	13,240
Water year 1937-38	214,905	3,810	34	589	426,200

Peak discharge 1938.- Apr. 25 (1 a.m.) 5,090 sec.-ft.; Apr. 26 (1 a.m.) 4,870 sec.-ft.; May 29 (5 a.m.) 4,500 sec.-ft.

153385 O—39——6

Dolores River at Gateway, Colo.

Location.- Water-stage recorder, lat. 38°41', long. 108°58', in SW¼ sec. 15, T. 51 N., R. 19 W., 0.3 mile southwest of Gateway, 0.3 mile downstream from West Creek, and 8 miles upstream from Colorado-Utah State line. Zero of gage is 4,547.44 feet above mean sea level.

Drainage area.- 4,350 square miles.

Records available.- March 1937 to September 1938.

Extremes.- Maximum discharge during period ending Sept. 30, 1937, 10,200 second-feet Apr. 17 (gage height, 10.28 feet); minimum daily discharge, 93 second-feet Sept. 18. 1937-38: Maximum discharge during year, 13,000 second-feet Apr. 25 (gage height, 11.65 feet); minimum daily discharge, 89 second-feet Jan. 25.

Remarks.- Records excellent for period May to September 1937, good for March, April, October, and November 1937 and period June 11 to Sept. 30, 1938, and fair for period Dec. 1, 1937, to June 10, 1938. Diversions for irrigation above and below station. Montezuma Irrigation District diverts water from Dolores River Basin for irrigation just below station at Dolores.

Discharge, in second-feet 1937-38

1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						*280	344	3,760	2,440	619	419	513
2						*270	348	3,930	1,910	513	371	627
3						276	398	4,720	1,690	487	316	498
4						252	551	5,420	1,730	451	276	348
5						257	589	6,230	1,770	422	243	344
6						238	509	6,440	1,570	402	322	325
7						252	551	5,630	1,380	391	616	290
8						276	619	5,360	1,250	378	562	238
9						287	543	5,640	1,220	1,110	344	190
10						287	657	6,090	1,220	775	225	165
11						293	1,100	6,070	1,200	756	180	152
12						282	2,050	6,040	1,240	1,490	176	144
13						338	2,560	5,860	1,280	2,010	184	135
14						391	3,480	5,780	1,290	1,050	167	121
15						426	4,760	5,700	1,170	764	160	112
16						426	7,600	5,630	1,060	680	188	108
17						472	9,530	5,470	1,060	608	196	96
18						494	9,240	5,170	1,080	528	322	93
19						581	8,350	4,980	1,130	444	357	103
20						547	8,940	4,490	1,120	371	273	99
21						458	9,160	3,870	1,080	296	200	98
22						426	9,550	3,440	1,060	243	171	98
23						415	9,490	3,310	995	212	156	155
24						440	7,760	3,170	956	190	153	196
25						480	6,000	3,020	859	171	142	121
26						440	5,460	2,670	834	162	136	109
27						436	6,140	2,170	783	158	144	102
28						402	6,410	2,150	680	282	169	97
29						364	5,420	2,160	661	218	391	153
30						338	4,370	2,370	623	426	1,020	282
31						335	-	2,900	-	521	966	-

Discharge, in second-feet, of Dolores River at Gateway, Colo., 1937-38--Continued

1937-38

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	284	142	132	144	167	902	472	7,510	4,710	2,840	265	995
2	227	139	135	158	155	699	426	6,700	4,600	2,200	255	616
3	182	136	162	172	180	830	408	5,160	4,280	1,690	243	733
4	141	134	178	206	165	2,290	433	4,230	4,290	1,380	243	846
5	141	114	169	225	156	1,390	581	3,660	4,660	1,200	225	872
6	144	110	147	192	139	787	1,080	3,210	4,710	1,070	293	593
7	134	121	150	115	121	524	1,020	2,800	4,470	1,020	225	532
8	125	138	153	106	120	398	779	2,450	4,140	956	240	990
9	117	131	150	109	127	348	665	2,170	3,640	872	578	532
10	112	125	155	122	142	402	714	1,900	3,210	822	391	385
11	109	124	158	129	391	338	1,480	1,670	3,040	779	265	798
12	107	122	190	144	344	408	3,050	1,680	2,880	684	265	2,290
13	103	121	385	160	502	524	4,290	1,880	2,900	623	368	1,580
14	103	128	312	153	402	559	5,140	2,360	3,550	612	521	802
15	135	124	218	182	293	574	4,120	3,140	3,410	635	465	589
16	540	125	192	216	255	551	2,630	4,390	2,820	635	348	490
17	344	131	182	296	214	465	3,330	4,770	2,620	635	257	419
18	236	132	174	354	182	426	4,950	4,470	2,610	578	188	381
19	176	139	163	290	158	426	7,610	3,870	2,590	536	163	319
20	172	145	144	220	174	381	9,180	3,600	2,420	498	150	290
21	186	147	113	186	172	388	9,070	3,360	2,300	451	141	270
22	180	152	113	144	176	559	10,800	2,890	2,860	429	134	257
23	162	155	125	136	165	597	11,100	2,760	3,460	412	128	255
24	156	156	147	109	153	436	11,200	2,590	3,150	371	129	240
25	152	155	153	83	150	483	11,400	2,480	2,620	368	127	223
26	150	162	167	102	150	454	10,800	2,670	2,400	371	121	216
27	150	155	174	102	148	1,090	8,800	3,100	2,250	378	118	208
28	145	144	163	104	178	912	7,220	3,580	2,220	341	117	200
29	141	132	168	139	-	737	7,160	4,020	2,060	348	115	196
30	142	139	121	165	-	642	7,520	4,740	2,380	312	114	192
31	142	-	115	155	-	547	-	4,980	-	300	260	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
March 1937	11,459	581	238	370	22,730
April	132,479	9,550	344	4,416	262,800
May	139,640	6,440	2,150	4,505	277,000
June	36,341	2,440	623	1,211	72,080
July	17,128	2,010	158	553	33,970
August	9,545	1,020	136	308	18,930
September	6,112	627	93	204	12,120
The period					699,600
October 1937	5,338	540	103	172	10,590
November	4,080	162	110	136	8,090
December	5,198	385	113	168	10,310
Calendar year					
January 1938	5,124	354	89	165	10,160
February	5,679	502	120	203	11,260
March	20,067	2,290	338	647	39,800
April	147,428	11,400	408	4,914	292,400
May	108,790	7,510	1,670	3,509	215,800
June	97,250	4,710	2,060	3,242	192,900
July	24,356	2,840	300	786	48,310
August	7,452	578	114	240	14,780
September	17,309	2,290	192	577	34,330
Water year 1937-38	448,071	11,400	89	1,228	888,700

Peak discharge.- Mar. 4 (11 a.m.) 3,090 sec.-ft.; Apr. 22 (11 a.m.) 12,200 sec.-ft.; Apr. 25 (12 m.) 13,000 sec.-ft.; May 30 (7 p.m.) 5,240 sec.-ft.

Green River at Warren Bridge, near Daniel, Wyo.

Location.- Water-stage recorder, lat. 43°00', long. 110°07', in sec. 8, T. 35 N., R. 111 W., at Warren Bridge, 12 miles north of Daniel. Zero of gage is 7,468.09 feet above mean sea level.

Drainage area.- 468 square miles.

Records available.- October 1931 to September 1938.

Extremes.- Maximum discharge during year, 2,630 second-feet June 24 (gage height, 4.57 feet); minimum not determined occurred during winter.
1931-38: Maximum discharge, 3,260 second-feet June 26, 1932 (gage height, 5.08 feet); minimum not determined, occurred during winter.

Remarks.- Records good except those for periods of ice effect and missing gage heights, Oct. 10 to Apr. 24, which were computed on basis of two discharge measurements and records for New Fork near Boulder and are fair. Natural regulation by lakes in Green River Basin.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	178						160	1,040	1,810	2,400	820	445
2	172						165	892	1,760	2,310	829	534
3	170						170	740	1,870	2,160	820	564
4	170						170	663	1,990	2,050	756	546
5	174				*119		160	582	2,130	1,940	670	504
6	174						150	510	2,230	1,820	600	470
7	172						140	475	2,340	1,700	564	445
8	170						155	445	2,420	1,490	546	426
9	168						165	430	2,450	1,300	546	426
10	166						170	430	2,310	1,320	534	418
11	165						180	450	1,940	1,430	540	414
12	165						205	486	1,750	1,500	540	422
13	170						215	570	1,810	1,500	522	398
14	175						220	756	1,850	1,470	534	370
15	180						215	928	1,700	1,540	570	342
16	180						220	991	1,610	1,590	546	326
17	175						230	1,190	1,660	1,590	460	306
18	180						240	1,280	1,860	1,540	406	290
19	170						250	1,060	2,050	1,480	374	278
20	168						*323	919	2,030	1,400	350	270
21	165						410	780	1,950	1,260	330	263
22	164						440	796	2,130	1,140	310	256
23	164						520	910	2,400	1,050	302	252
24	162						580	1,030	2,590	1,000	310	246
25	160						594	1,230	2,550	1,020	342	246
26	160						656	1,420	2,500	1,030	398	242
27	160						656	1,710	2,460	991	422	238
28	158						656	1,830	2,460	937	418	232
29	158						719	1,980	2,400	868	402	229
30	156						812	1,970	2,340	796	394	229
31	156						-	1,900	-	804	402	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	5,205	180	156	168	10,320
November	4,200	-	-	140	8,330
December	3,875	-	-	125	7,690
Calendar year					
January	3,720	-	-	120	7,380
February	3,220	-	-	115	6,390
March	4,340	-	-	140	8,610
April	9,946	812	140	332	19,730
May	30,393	1,980	430	980	60,280
June	63,350	2,590	1,610	2,112	125,700
July	44,423	2,400	796	1,433	88,110
August	15,557	829	302	502	30,860
September	10,627	564	229	354	21,080
Water year 1937-38	198,856	2,590	-	545	394,500

*Discharge measurement.

Green River at Green River, Wyo.

Location.- Chain gage, lat. 41°32', long. 109°29', in sec. 22, T. 18 N., R. 107 W., 100 feet downstream from railroad bridge at town of Green River. Zero of gage is 6,071.07 feet above mean sea level (general adjustment of 1929).

Drainage area.- 7,670 square miles.

Records available.- May 1895 to October 1906 and March 1915 to September 1938.

Average discharge.- 33 years (1895-99, 1900-1906, 1915-38), 1,888 second-feet.

Extremes.- Maximum discharge observed during year, 10,200 second-feet June 9 (gage height, 4.65 feet); minimum daily discharge, about 300 second-feet Jan. 21 or 22. 1895-1906, 1915-38: Maximum discharge observed, 22,200 second-feet June 19, 1916 (gage height, 12.3 feet); minimum observed, 160 second-feet Nov. 17, 1898.

Remarks.- Records good except those for period of ice effect, Nov. 16 to Mar. 28 (computed on basis of two discharge measurements and records for station near Linwood, Utah), and those for periods of backwater from ties and dredging, Oct. 12 to Nov. 15, June 25 to August 5 (computed on basis of record for station near Linwood), which are fair. Diversions for irrigation above station. Gage-height records collected in co-operation with U. S. Weather Bureau.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	538					410	1,090	2,990	6,620	5,950	1,750	1,950
2	576					430	930	3,160	6,290	6,000	1,700	3,020
3	538				*420	460	966	3,560	6,140	6,000	1,650	2,400
4	538					480	954	3,450	6,480	5,800	1,550	1,810
5	538					470	1,110	3,040	7,030	5,650	1,500	1,510
6	576			*339		440	966	2,780	7,890	5,300	1,410	1,400
7	557					450	1,080	2,440	8,880	4,950	1,290	1,290
8	538					450	1,040	2,240	9,420	4,400	1,160	1,150
9	595					450	1,060	2,000	9,900	4,000	1,130	1,290
10	538					450	1,090	2,000	10,000	3,650	1,080	1,740
11	538					460	1,050	1,860	9,580	3,500	1,090	1,610
12	530					470	1,380	1,820	8,350	3,000	1,060	1,400
13	530					480	1,380	1,740	7,100	2,750	1,040	1,350
14	530					470	2,040	1,620	6,690	2,550	1,000	1,400
15	530					460	2,490	1,720	6,920	2,500	1,000	1,270
16	530					470	2,560	2,100	6,690	2,700	1,000	1,150
17	530					480	3,910	2,990	5,820	2,750	1,050	1,040
18	540					500	5,130	4,000	5,250	2,700	1,010	978
19	580					510	5,620	4,390	5,040	2,650	978	920
20	600					550	6,010	4,330	5,660	2,600	920	890
21	600					620	4,770	3,780	6,110	2,600	880	890
22	600					700	4,000	3,260	5,500	2,600	822	870
23	590					660	3,910	2,820	5,560	2,600	798	860
24	590					640	3,970	2,560	6,010	2,550	774	814
25	580					640	3,680	2,490	6,200	2,350	774	814
26	570					660	3,600	2,510	6,150	2,200	1,360	814
27	560					680	3,630	2,780	6,100	2,200	850	766
28	560					700	3,420	3,470	6,100	2,200	890	758
29	540					715	3,160	4,390	6,000	2,100	990	782
30	540					822	2,940	5,220	5,950	1,950	942	766
31	540					920	-	6,550	-	1,800	1,190	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	17,240	600	530	556	34,200
November	14,250	-	-	475	28,260
December	11,625	-	-	375	23,060
Calendar year 1937	580,658	9,950	325	1,591	1,152,000
January	10,540	-	-	340	20,910
February	11,200	-	-	400	22,210
March	17,097	920	410	552	33,910
April	78,936	6,010	930	2,631	156,600
May	94,360	6,550	1,620	3,044	187,200
June	205,430	10,000	5,040	6,848	407,500
July	104,550	6,000	1,800	3,373	207,400
August	34,698	1,750	774	1,119	68,820
September	37,702	3,020	758	1,257	74,780
Water year 1937-38	637,628	10,000	-	1,747	1,265,000

*Discharge measurement.

Green River near Linwood, Utah

Location.- Water-stage recorder, lat. 40°58', long. 109°35', in SW¼ sec. 29, T. 3 N., R. 21 E., a quarter of a mile upstream from Henrys Fork, 2 miles south of Wyoming-Utah State line, and 5 miles southeast of Linwood. Zero of gage is 5,844.64 feet above mean sea level.

Drainage area.- 14,300 square miles.

Records available.- October 1928 to September 1938.

Average discharge.- 10 years, 1,686 second-feet.

Extremes.- Maximum discharge during year, 10,000 second-feet June 10 (gage height, 7.87 feet); minimum daily discharge, 300 second-feet Jan. 21, 22.
1928-38: Maximum discharge, 15,200 second-feet June 4, 1936 (gage height, 10.11 feet from recorded range of stage and high-water marks); minimum, 196 second-feet Nov. 27, 1934 (gage height, -0.10 foot).

Remarks.- Records good except those for periods of ice effect, Nov. 19 to Mar. 11, Apr. 6-8, which were computed on basis of two discharge measurements and weather records and are fair. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	506	558	380	350	410	620	1,010	4,630	8,500	6,620	1,950	1,540
2	494	551	380	340	430	670	1,090	4,870	8,180	6,710	1,830	2,980
3	488	544	380	350	440	700	995	5,380	7,890	6,860	1,760	5,410
4	494	544	380	350	440	720	977	5,460	7,890	6,810	1,700	5,010
5	500	537	390	340	420	700	959	4,890	8,090	6,500	1,660	3,870
6	500	537	400	340	400	680	910	4,210	8,480	6,060	1,600	2,730
7	506	537	410	*356	390	660	930	3,780	9,330	5,690	1,530	1,940
8	518	537	400	340	410	650	1,180	3,460	9,630	5,480	1,460	1,640
9	537	530	390	340	420	640	1,450	3,120	9,740	5,120	1,360	1,620
10	537	537	390	340	480	670	1,520	2,970	9,980	4,550	1,300	1,510
11	544	537	420	340	*495	710	1,380	2,730	9,740	4,000	1,280	1,940
12	544	537	410	340	510	725	1,340	2,500	9,180	3,480	1,240	1,810
13	537	537	400	340	500	770	1,500	2,360	8,570	3,140	1,250	1,600
14	537	544	390	360	480	707	1,740	2,250	7,690	2,940	1,180	1,550
15	537	544	380	380	440	896	2,780	2,250	7,490	2,780	1,130	1,570
16	544	537	390	390	420	932	3,200	2,340	7,580	2,970	1,120	1,420
17	551	524	400	380	400	1,160	3,540	3,870	7,460	2,980	1,100	1,310
18	565	518	400	360	370	1,040	5,300	5,870	6,740	3,000	1,090	1,220
19	608	470	380	340	360	959	6,890	6,480	6,320	2,940	1,080	1,120
20	656	390	370	310	370	1,060	7,400	6,280	6,110	2,840	1,040	1,060
21	648	400	380	300	400	1,190	7,370	5,960	6,710	2,790	986	1,010
22	648	410	390	300	410	1,660	6,470	5,010	6,770	2,740	923	977
23	632	400	390	320	450	1,630	5,790	4,280	6,470	2,900	887	950
24	624	390	400	340	470	1,460	5,410	3,750	6,600	2,820	842	914
25	608	380	380	350	460	1,550	5,310	3,540	6,710	2,680	806	878
26	586	400	360	350	470	1,370	5,230	3,440	7,180	2,500	788	842
27	579	390	350	350	520	1,240	5,280	3,490	7,180	2,330	986	815
28	579	400	330	350	560	1,180	5,350	3,920	6,820	2,310	1,280	779
29	572	400	330	350	-	1,130	5,160	5,040	7,150	2,340	1,120	761
30	565	380	340	360	-	1,080	4,870	6,300	6,600	2,180	1,090	743
31	558	-	350	390	-	950	-	7,470	-	2,050	1,060	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	17,302	656	488	558	34,320
November	14,500	558	380	483	28,760
December	11,840	420	330	382	23,480
Calendar year 1937	674,669	9,800	330	1,848	1,338,000
January	10,746	390	300	347	21,310
February	12,325	560	360	440	24,450
March	30,109	1,660	620	971	59,720
April	102,331	7,400	910	3,411	203,000
May	131,900	7,470	2,250	4,255	261,600
June	232,780	9,980	6,110	7,759	461,700
July	119,110	6,860	2,050	3,842	236,300
August	38,428	1,950	788	1,240	76,220
September	51,519	5,410	743	1,717	102,200
Water year 1937-38	772,890	9,980	300	2,118	1,533,000

*Discharge measurement.

Green River at Green River, Utah

Location.- Water-stage recorder, lat. 39°00', long. 110°09', in NW¼SW¼ sec. 15, T. 21 S., R. 16 E., 1 mile southeast of Green River and 22 miles upstream from San Rafael River.

Drainage area.- 40,600 square miles.

Records available.- October 1894 to October 1899, February 1905 to December 1911, and June 1924 to September 1938. December 1910 to June 1924 at site at Little Valley, 7 miles downstream; records practically equivalent.

Average discharge.- 38 years (1894-99, 1905-38), 7,194 second-feet.

Extremes.- Maximum discharge during year, 32,000 second-feet June 2 (gage height, 11.95 feet); minimum, 690 second-feet Dec. 28 (gage height, 4.87 feet).
1894-99, 1905-38: Maximum discharge, about 68,800 second-feet May 29, 1897 (gage height, about 16.5 feet, present datum); minimum, 255 second-feet Nov. 26, 1931 (gage height, 4.17 feet); minimum gage height, 4.08 feet Aug. 1, Dec. 5, 1934.

Remarks.- Records excellent except those for period of ice effect, Jan. 6-17, which were computed on basis of two discharge measurements and weather records and are fair. Diversions for irrigation above station.

Rating table, water year 1937-38 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 13 to Sept. 30)

4.8	620	5.8	2,050	8.0	9,140	10.5	22,800
5.0	830	6.0	2,450	8.5	11,600	11.0	25,800
5.2	1,080	6.5	3,670	9.0	14,100	11.5	28,800
5.4	1,370	7.0	5,200	9.5	16,800	12.0	32,000
5.6	1,700	7.5	7,040	10.0	19,800		

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,530	2,200	2,140	1,820	1,750	2,340	3,540	17,400	28,200	15,700	3,950	2,900
2	1,510	2,200	2,010	1,780	1,910	2,410	3,400	18,000	30,600	15,100	3,670	4,400
3	1,580	2,180	2,010	1,700	1,890	3,020	3,270	19,800	30,600	14,100	3,540	4,100
4	1,650	2,140	1,940	1,600	1,980	4,240	3,140	21,600	30,000	13,600	3,400	6,650
5	1,600	2,090	1,960	1,530	2,140	5,720	3,020	21,000	30,000	13,100	3,270	6,840
6	1,530	2,050	1,960	1,400	2,160	7,640	2,900	18,000	30,000	12,600	3,020	9,140
7	1,500	2,030	1,850	1,300	2,140	7,040	3,020	16,200	30,000	12,100	2,900	8,060
8	1,510	2,010	1,870	1,200	2,220	6,270	3,140	14,600	29,400	11,100	2,900	9,850
9	1,500	2,010	1,840	1,100	2,220	5,040	3,140	12,800	29,400	10,400	5,370	10,800
10	1,480	2,000	1,870	1,000	2,180	4,240	3,140	11,600	28,800	9,600	3,810	8,480
11	1,450	2,030	1,820	1,000	2,140	3,810	3,400	10,400	28,200	9,140	3,020	6,650
12	1,450	2,010	1,890	1,100	2,260	3,400	3,670	9,370	27,000	8,480	3,140	5,540
13	1,480	1,980	2,220	1,400	2,450	3,270	3,670	8,700	25,800	7,850	4,460	5,720
14	1,560	2,000	2,450	1,600	2,560	3,400	3,670	8,700	25,200	7,040	3,270	5,540
15	1,960	2,000	2,900	1,800	2,900	3,540	3,670	9,140	23,400	6,650	3,020	5,200
16	1,920	2,000	2,900	1,900	2,900	3,950	3,810	11,100	21,600	6,270	2,560	4,870
17	1,960	2,000	2,780	1,900	2,670	4,550	4,100	15,100	20,400	6,080	2,560	4,400
18	2,900	2,010	2,560	1,910	2,450	5,200	5,200	19,200	18,600	5,720	2,450	3,950
19	2,430	2,050	2,390	1,940	2,200	5,040	7,640	22,200	17,400	5,370	2,390	3,810
20	2,450	2,050	2,370	2,000	2,090	4,400	8,920	27,000	17,400	5,200	2,260	3,670
21	3,140	2,050	2,450	2,000	1,890	4,100	11,600	28,800	16,200	5,200	2,200	3,540
22	2,560	2,050	2,450	2,050	2,090	3,950	14,600	29,400	15,700	5,200	2,140	3,270
23	2,370	2,070	2,180	2,070	2,300	3,810	16,200	26,400	15,100	5,040	2,090	3,140
24	2,320	2,090	1,960	2,000	2,300	3,670	15,100	22,800	16,200	4,710	2,010	3,020
25	2,390	2,130	1,450	1,770	2,300	3,810	14,100	19,800	16,200	4,550	1,980	2,900
26	2,450	2,180	950	1,870	2,340	4,240	14,600	18,600	15,700	4,400	1,910	2,780
27	2,430	2,220	902	1,870	2,340	4,550	16,200	18,000	15,100	4,240	1,910	2,670
28	2,320	2,220	742	1,670	2,340	4,240	17,400	19,200	15,100	4,240	1,940	2,560
29	2,240	2,340	830	1,600	-	3,950	18,600	21,000	15,700	4,240	1,920	2,560
30	2,200	2,300	1,210	1,500	-	3,950	18,000	23,400	15,100	4,100	2,010	2,450
31	2,200	-	1,700	1,560	-	3,810	-	26,400	-	4,100	2,370	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	61,590	3,140	1,450	1,987	122,200
November	62,690	2,340	1,980	2,090	124,300
December	60,554	2,900	742	1,953	120,100
Calendar year 1937	2,102,574	26,800	742	5,760	4,171,000
January	50,940	2,070	1,000	1,643	101,000
February	63,110	2,900	1,750	2,254	125,200
March	132,600	7,640	2,340	4,277	263,000
April	235,860	18,600	2,900	7,862	467,800
May	565,710	29,400	8,700	18,250	1,122,000
June	676,100	30,600	15,100	22,600	1,345,000
July	245,220	15,700	4,100	7,910	486,400
August	87,440	5,370	1,910	2,821	173,400
September	149,460	10,800	2,450	4,982	296,400
Water year 1937-38	2,393,274	30,600	742	6,557	4,747,000

Horse Creek near Daniel, Wyo.

Location.- Water-stage recorder, lat. 42°56', long. 110°12', in sec. 10, T. 34 N., R. 112 W., 12 miles northwest of Daniel. Zero of gage is 7,349.88 feet above mean sea level (general adjustment of 1929).

Drainage area.- 124 square miles.

Records available.- October 1931 to September 1938.

Extremes.- Maximum discharge during year, 820 second-feet June 5 (gage height, 2.41 feet); minimum daily discharge, 9 second-feet Oct. 12.
1931-38: Maximum discharge, 1,670 second-feet May 31, 1936 (gage height, 3.53 feet); minimum daily discharge, 1.7 second-feet July 18, 19, 1934.

Remarks.- Records for period June 17 to Sept. 30 are good; those for Oct. 1 to Nov. 15 and Apr. 23 to June 16 are fair; none for Nov. 16 to Apr. 22. Those for periods of missing gage heights, Oct. 11-14, June 14-16, Aug. 5-11, computed on basis of records for North Piney Creek near Mason. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	12					-	330	512	142	13	18
2	10	12					-	231	580	106	15	24
3	10	12					-	173	604	97	13	26
4	10	12					-	157	682	88	13	20
5	10	12					-	136	730	75	12	18
6	10	11					-	115	714	67	12	18
7	10	12					-	103	706	62	11	17
8	11	12					-	99	658	51	11	18
9	11	13					-	101	604	38	11	20
10	11	13					-	84	459	33	11	18
11	11	14					-	72	384	25	11	19
12	9	13					-	74	399	20	11	19
13	10	14					-	97	459	17	11	18
14	11	14					-	148	410	16	12	18
15	12	11					-	157	360	55	12	17
16	11	-					-	169	320	42	12	16
17	11	-					-	183	293	29	12	15
18	13	-					-	176	266	20	12	14
19	12	-					-	157	266	13	12	13
20	11	-					-	115	218	13	12	13
21	11	-					-	120	190	12	12	14
22	11	-					-	176	235	12	13	14
23	10	-					324	266	190	12	14	13
24	10	-					249	429	163	13	14	12
25	10	-					282	362	131	15	14	13
26	10	-					276	377	103	15	15	12
27	10	-					231	474	99	15	14	12
28	12	-					200	504	97	15	14	12
29	12	-					235	497	106	14	14	12
30	12	-					276	466	145	14	14	12
31	12	-					-	512	-	13	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	334	13	9	10.8	662
November 1-15	187	14	11	12.5	371
December	-	-	-	-	-
Calendar year					-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 23-30	2,073	324	200	259	4,110
May	7,060	512	72	228	14,000
June	11,083	730	97	369	21,980
July	1,159	142	12	37.4	2,300
August	397	20	11	12.8	787
September	485	26	12	16.2	962
Water year					

Peak discharge.- May 26 (6 a.m.) 558 sec.-ft.; May 28 (8 a.m.) 730 sec.-ft.; June 5 (12 m.) 820 sec.-ft.

New Fork near Boulder, Wyo.

Location.- Water-stage recorder, lat. 42°45', long. 109°44', in sec. 9, T. 32 N., R. 108 W., an eighth of a mile upstream from Boulder Creek and half a mile southwest of Boulder.

Drainage area.- 578 square miles.

Records available.- May 1915 to September 1938.

Average discharge.- 23 years, 401 second-feet.

Extremes.- Maximum discharge during year, 3,080 second-feet June 9 (gage height, 5.75 feet); minimum not determined, probably occurred during winter.
1915-38: Maximum discharge observed, 12,300 second-feet June 17, 1918 (gage height, 8.7 feet); minimum, 42 second-feet Dec. 15-17, 1915.

Remarks.- Records excellent except those for period of ice effect, Nov. 18 to Apr. 14, which were computed on basis of one discharge measurement and weather records and are fair. Diversions for irrigation above station.

Rating table, water year 1937-38 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 24 to Sept. 30)

1.8	86	2.6	284	4.5	1,480
2.0	118	3.0	440	5.0	2,000
2.2	158	3.5	710	5.5	2,680
2.4	214	4.0	1,070	5.8	3,160

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	105	107					140	270	1,430	2,710	436	255
2	105	105					140	288	1,630	2,480	416	245
3	105	104					145	326	1,700	2,400	392	228
4	110	102			*121		150	341	1,920	2,170	372	224
5	115	99					145	349	2,200	1,940	345	221
6	113	99					140	341	2,530	1,790	330	214
7	112	105					130	352	2,700	1,650	337	205
8	113	102					125	345	2,960	1,470	326	202
9	113	99					150	318	3,040	1,270	333	248
10	113	105					170	299	2,850	1,120	326	238
11	113	101					185	259	2,580	1,010	299	228
12	112	102					190	224	2,340	773	284	241
13	115	101					190	202	2,320	766	277	238
14	122	102					210	196	2,400	801	260	228
15	127	105					248	231	2,260	864	250	224
16	129	102					288	352	2,030	766	270	205
17	123	99					404	495	1,880	731	259	196
18	134	92					617	600	1,920	759	248	199
19	125	88					634	662	2,200	801	241	199
20	122	88					535	628	2,200	850	234	193
21	120	90					400	555	2,100	976	231	190
22	116	90					337	486	2,220	948	224	187
23	115	90					322	408	2,570	808	224	161
24	113	88					273	368	2,960	738	228	158
25	112	88					252	352	2,760	674	234	154
26	110	90					221	384	2,600	644	238	149
27	112	90					205	500	2,430	639	228	149
28	108	90					196	738	2,370	606	214	147
29	108	90					196	1,110	2,320	595	205	147
30	107	92					208	1,460	2,470	565	205	154
31	107	-					-	1,490	-	510	228	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,554	134	105	115	7,050
November	2,905	107	88	96.8	5,760
December	2,945	-	-	95	5,840
Calendar year 1937	119,462	2,030	-	327	236,900
January	3,255	-	-	105	6,460
February	3,080	-	-	110	6,110
March	3,875	-	-	125	7,690
April	7,546	634	125	252	14,970
May	14,929	1,490	196	482	29,610
June	69,890	3,040	1,430	2,330	138,600
July	34,824	2,710	510	1,123	69,070
August	8,744	436	205	282	17,340
September	6,047	255	147	202	11,990
Water year 1937-38	161,594	3,040	-	443	320,500

*Discharge measurement.

Pine Creek at Pinedale, Wyo.

Location.- Water-stage recorder, lat. 42°52', long. 109°52', in sec. 33, T. 34 N., R. 109 W., at Pinedale, 3 miles upstream from mouth. Zero of gage is 7,164.3 feet above mean sea level.

Drainage area.- 128 square miles.

Records available.- April to October 1904 and May 1915 to September 1938.

Average discharge.- 23 years, 137 second-feet.

Extremes.- Maximum discharge during year, 1,260 second-feet June 26 (gage height, 3.96 feet); minimum daily discharge, 7.5 second-feet Nov. 16.
1904, 1915-38: Maximum discharge, 2,310 second-feet June 17, 1918 (gage height, 5.0 feet); minimum, 2 second-feet Apr. 1-26, May 6-8, 1931.

Remarks.- Records fair. Discharge for periods of ice effect, Nov. 30 to Apr. 17, computed on basis of one discharge measurement and weather records, that for periods of missing gage heights, Oct. 1-9, Oct. 12 to Nov. 13, June 5-12, computed on basis of records for New Fork near Boulder. Diversions for irrigation above station. Flow regulated by storage in Fremont Lake.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	11					18	44	379	1,020	162	83
2	22	11					19	51	629	1,010	152	81
3	22	11					20	59	589	966	144	80
4	22	11					20	25	683	891	135	83
5	22	10			*36		20	87	750	812	131	83
6	20	10					20	92	820	724	142	84
7	18	11					20	102	960	622	142	83
8	16	10					19	104	1,050	550	141	87
9	14	10					19	76	1,170	463	141	99
10	13	9					20	69	1,150	415	131	95
11	13	9					21	42	1,100	311	118	99
12	13	9					21	17	1,000	246	111	100
13	13	8					21	25	932	256	107	99
14	13	7.8					21	32	866	248	110	99
15	13	7.8					22	41	775	142	122	97
16	13	7.5					25	70	717	122	116	97
17	13	7.8					30	95	710	166	112	95
18	13	11					36	107	768	214	109	92
19	13	24					29	107	812	246	107	89
20	13	20					23	100	820	254	99	86
21	13	21					24	94	843	254	95	84
22	12	20					29	86	982	243	92	83
23	12	20					30	66	1,160	233	91	58
24	12	20					31	70	1,190	221	87	38
25	12	21					24	97	1,160	207	87	36
26	12	20					19	131	1,160	196	89	33
27	12	25					25	168	1,100	184	87	32
28	11	19					31	207	1,050	178	84	32
29	11	19					30	264	1,000	190	80	31
30	11	17					36	289	1,010	182	74	31
31	11	-					-	308	-	172	78	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	450	22	11	14.5	893
November	417.9	25	7.5	13.9	829
December	930	-	-	30	1,840
Calendar year 1937	35,304.9	768	7.5	96.7	70,030
January	992	-	-	32	1,970
February	952	-	-	34	1,890
March	992	-	-	32	1,970
April	723	36	18	24.1	1,430
May	3,125	308	17	101	6,200
June	27,335	1,190	379	911	54,220
July	11,938	1,020	122	385	23,680
August	3,484	162	74	112	6,910
September	2,269	100	31	75.6	4,500
Water year 1937-38	53,607.9	1,190	7.5	147	106,300

*Discharge measurement.

North Piney Creek near Mason, Wyo.

Location.- Water-stage recorder, lat. 32°40', long. 110°21', in sec. 19, T. 31 N., R. 113 W., 4 miles northwest of Mason.

Drainage area.- 58 square miles.

Records available.- May 1915 to October 1916 and October 1931 to September 1938.

Extremes.- Maximum discharge during year, 380 second-feet June 7 (gage height, 3.37 feet); minimum not determined, occurred during winter.
1915-16, 1931-38: Maximum discharge, 613 second-feet June 19, 1916 (gage height, 3.93 feet); minimum not determined, probably occurred during winter.

Remarks.- Records fair. Small diversions above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*20	17					-	91	228	210	*58	*50
2	*19	17					-	78	240	230	*60	44
3	19	16					-	69	253	184	*58	44
4	20	15					-	65	271	171	*55	40
5	20	†14					-	60	299	160	*52	36
6	20	†15					-	54	325	151	51	34
7	19	16					-	52	368	138	50	33
8	18	17					-	51	361	127	50	35
9	18	18					-	52	354	121	51	48
10	18	15					-	54	323	115	47	41
11	18	15					-	62	299	*110	45	38
12	15	16					-	71	291	*90	44	35
13	17	19					-	89	308	*95	44	33
14	18	19					-	104	280	*70	46	31
15	19	16					-	115	255	*105	*46	30
16	18	-					-	144	269	96	*46	30
17	21	-					-	138	284	91	*46	30
18	28	-					-	127	318	83	*45	29
19	*26	-					-	112	291	77	*40	28
20	*24	-					-	104	271	75	*40	28
21	*22	-					-	98	291	71	*44	27
22	*22	-					-	97	308	67	*44	27
23	*19	-					-	105	293	62	*42	26
24	*18	-					-	118	*265	60	*42	26
25	*18	-					75	136	*240	*54	*44	26
26	18	-					65	164	230	*54	*46	25
27	18	-					58	189	236	*54	*46	24
28	18	-					60	204	222	*54	*48	24
29	17	-					74	242	236	*52	*50	24
30	17	-					89	232	226	*50	*54	23
31	17	-					-	224	-	*56	*62	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	599	28	15	19.3	1,190
November 1-15	245	19	14	16.3	486
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 25-30	421	89	58	70.2	835
May	3,501	242	51	113	6,940
June	8,435	368	222	281	16,730
July	3,153	210	56	102	6,250
August	1,512	62	42	48.8	3,000
September	969	50	23	32.3	1,920
Water year					

*Gage-height missing; discharge computed on basis of records for Horse Creek near Daniel.
†Stage-discharge relation affected by ice; discharge computed on basis of records for Horse Creek near Daniel.

Labarge Creek near Labarge, Wyo.

Location.- Water-stage recorder, lat. 42°14', long. 110°12', in sec. 18, T. 26 N., R. 112 W., 2 miles south of Labarge.

Drainage area.- 193 square miles.

Records available.- April 1932 to September 1938.

Extremes.- Maximum discharge during year, 269 second-feet May 3 (gage height, 2.89 feet); minimum daily discharge, 11 second-feet July 29 to Aug. 2.
1932-38: Maximum discharge, 442 second-feet May 16, 1936 (gage height, 3.57 feet); no flow July 6-17, 1934.

Remarks.- Records good except those for period of ice effect, Nov. 14 to Apr. 18 (computed on basis of one discharge measurement and weather records) and those for period of backwater from ties, May 21 to June 21 (computed on basis of record for Fontenelle Creek near Fontenelle), which are fair. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	40					32	225	230	20	11	115
2	41	40					35	221	210	22	11	95
3	42	40					37	201	200	22	12	91
4	43	40					38	185	190	22	14	79
5	44	41					35	171	185	20	13	75
6	49	42					32	140	180	20	13	70
7	53	46			*44		30	126	175	20	17	67
8	52	49					32	120	160	20	25	75
9	52	48					34	110	140	18	25	109
10	50	50					36	105	120	17	25	92
11	51	48					44	112	110	17	24	75
12	53	47					45	120	100	17	24	72
13	52	44					55	131	100	16	23	69
14	51	45					60	154	98	16	22	64
15	53	42					70	171	85	17	22	64
16	53	37					110	191	76	17	22	64
17	50	35					130	221	74	15	22	67
18	57	32					185	231	71	17	22	69
19	52	30					215	215	71	17	24	67
20	50	34					189	217	68	19	23	66
21	46	36					189	215	52	21	22	66
22	41	32					193	180	45	18	22	66
23	40	30					187	160	33	19	22	66
24	40	32					185	150	28	18	22	65
25	40	34					185	155	31	17	24	63
26	40	35					171	160	63	17	25	60
27	40	34					173	170	51	15	25	59
28	36	32					183	200	27	12	33	59
29	33	34					201	225	20	11	39	60
30	38	36					219	240	20	11	41	60
31	40	-					-	255	-	11	48	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,420	57	33	45.8	2,820
November	1,167	50	30	38.9	2,310
December	1,054	-	-	34	2,090
Calendar year 1937	18,747.4	218	4.0	51.4	37,190
January	1,147	-	-	37	2,280
February	1,120	-	-	40	2,220
March	1,364	-	-	44	2,710
April	3,330	219	30	111	6,600
May	5,477	255	105	177	10,860
June	3,015	230	20	100	5,980
July	539	22	11	17.4	1,070
August	717	48	11	23.1	1,420
September	2,169	115	59	72.3	4,300
Water year 1937-38	22,519	255	11	61.7	44,660

Peak discharge.- May 3 (1 p.m.) 269 sec.-ft.; Sept. 1 (4 p.m.) 138 sec.-ft.
*Discharge measurement.

Fontenelle Creek near Fontenelle, Wyo.

Location.- Water-stage recorder, lat. 42°06', long. 110°13', in sec. 3, T. 24 N., R. 113 W., 6 miles west of Fontenelle. Prior to July 30, staff gage 150 feet upstream at different datum.

Drainage area.- 224 square miles.

Records available.- May 1915 to September 1919 and October 1931 to September 1938.

Extremes.- Maximum discharge observed during year, 922 second-feet Apr. 19 (gage height, 4.00 feet, former site and datum); minimum daily discharge, 20 second-feet Aug. 7-10, 13, 14.

1915-19, 1931-38: Maximum discharge observed, that of Apr. 19, 1938; no flow Aug. 1-5, Aug. 23 to Sept. 15, 1934.

Remarks.- Records fair except those for period of ice effect, Nov. 12 to Apr. 11, which were estimated and are poor. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	33					30	251	236	54	31	188
2	29	34					32	229	229	64	30	80
3	27	31					34	195	232	51	25	75
4	27	33					36	162	222	50	23	53
5	27	31					35	144	215	43	22	46
6	32	33					30	126	210	42	21	42
7	31	32					25	122	199	38	20	40
8	31	33					27	112	186	36	20	48
9	31	34					28	104	173	33	20	108
10	31	34					30	102	135	30	20	71
11	31	32					34	106	131	28	21	54
12	33	31					40	114	129	26	21	51
13	32	29					63	122	126	34	20	49
14	33	33					94	151	129	30	20	45
15	33	32					78	177	118	38	22	43
16	34	31					170	220	104	44	23	42
17	34	29					321	263	104	63	23	40
18	60	27					503	253	104	60	24	39
19	54	24					720	232	114	45	26	38
20	38	25					695	195	110	43	27	37
21	36	27					344	188	100	39	26	36
22	36	31					431	173	102	36	25	36
23	35	29					416	170	100	36	24	35
24	34	27					330	170	90	35	27	35
25	34	26					302	175	82	36	29	34
26	34	26					278	181	71	37	34	34
27	33	26					239	215	66	35	34	34
28	33	25					222	241	56	33	33	34
29	34	25					234	253	54	33	33	33
30	33	25					256	266	58	32	33	33
31	33	-					-	251	-	32	44	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,052	60	27	33.9	2,090
November	888	34	24	29.6	1,760
December	1,178	-	-	38	2,340
Calendar year 1937	22,022	341	24	60.3	43,680
January	930	-	-	30	1,840
February	896	-	-	32	1,780
March	1,054	-	-	34	2,090
April	6,077	720	25	203	12,050
May	5,663	266	102	183	11,230
June	3,985	236	54	133	7,900
July	1,236	64	26	39.9	2,450
August	801	44	20	25.8	1,590
September	1,533	188	33	51.1	3,040
Water year 1937-38	25,293	720	20	69.3	50,160

Peak discharge.- Apr. 19 (6 p.m.) 922 sec.-ft.

Blacks Fork above Blacks Fork ranger station, Utah

Location.- Water-stage recorder, lat. 40°56', long. 110°36', in sec. 5, T. 2 N., R. 12 E., 1 mile upstream from Middle Fork and 3 miles upstream from Blacks Fork ranger station.

Drainage area.- 48.8 square miles.

Records available.- October 1937 to September 1938.

Extremes.- Maximum discharge during period, 643 second-feet June 6 (gage height, 3.92 feet); minimum daily discharge, 10 second-feet Feb. 18.

Remarks.- Records excellent except those for period of ice effect, Nov. 16 to Mar. 31 (computed on basis of three discharge measurements and weather records), those for period of missing gage heights, Apr. 1 to May 16 (computed on basis of records for Blacks Fork near Lyman, Utah, Bear River near Evanston, Wyo., and Little Snake River at Dixon, Wyo.), and those for July 27 to Aug. 3 (computed on basis of records for station at ranger station), all of which are fair. No diversions above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	23	13	15	26	25	18	108	470	155	37	51
2	-	22	12	17	26	27	20	140	473	140	34	40
3	-	22	12	18	25	28	22	140	486	123	31	36
4	-	25	14	17	23	27	22	130	505	114	29	32
5	-	20	15	16	22	24	22	120	521	109	29	29
6	-	18	16	18	20	22	22	110	524	106	27	27
7	-	20	16	19	20	21	20	108	408	87	26	27
8	-	21	15	20	21	21	20	104	364	83	30	31
9	-	26	14	21	22	20	22	102	387	82	36	30
10	-	23	14	22	24	22	24	100	364	78	35	26
11	-	19	16	23	24	24	24	102	346	77	37	26
12	-	18	16	25	20	24	26	110	335	75	33	30
13	-	22	15	26	16	24	28	120	268	72	34	29
14	-	18	14	27	17	24	30	140	205	112	30	26
15	-	17	12	28	18	24	34	170	199	85	27	25
16	-	14	13	28	15	27	44	220	242	77	26	24
17	-	12	14	28	12	29	52	278	288	72	24	24
18	-	13	14	26	10	26	70	207	286	67	23	23
19	-	15	13	24	12	28	84	152	209	63	21	22
20	-	18	11	22	14	29	80	129	209	64	20	22
21	-	19	12	23	14	26	80	123	249	62	19	22
22	-	19	14	24	15	23	86	129	249	54	19	21
23	-	17	14	26	17	25	82	159	240	50	19	21
24	-	17	11	24	19	25	80	199	207	48	21	24
25	26	17	13	26	20	22	78	242	181	47	26	21
26	22	19	15	26	20	24	80	335	185	47	24	19
27	24	18	16	28	22	25	80	450	183	52	24	19
28	23	18	15	26	24	23	80	502	178	48	27	18
29	22	18	15	26	-	20	80	518	237	46	28	18
30	24	16	16	26	-	16	88	405	185	43	34	20
31	24	-	17	26	-	16	-	435	-	40	38	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 25-31	165	26	22	23.6	327
November	564	26	12	18.8	1,120
December	437	17	11	14.1	867
Calendar year					
January	721	28	15	23.3	1,430
February	538	26	10	19.2	1,070
March	741	29	16	23.9	1,470
April	1,498	88	18	49.9	2,970
May	6,287	518	100	203	12,470
June	9,183	524	178	306	18,210
July	2,378	155	40	76.7	4,720
August	868	38	19	28.0	1,720
September	783	51	18	26.1	1,550
The period					47,920

Peak discharge.- May 29 (2 a.m.) 636 sec.-ft.; June 6 (4:30 a.m.) 643 sec.-ft.

Blacks Fork at Blacks Fork ranger station, Utah.

Location.- Water-stage recorder, lat. 40°58', long. 110°35', in sec. 27, T. 3 N., R. 12 E., half a mile south of Blacks Fork ranger station and 1 mile downstream from East Fork.

Drainage area.- 129 square miles.

Records available.- October 1937 to September 1938.

Extremes.- Maximum discharge during period, 1,400 second-feet June 5 (gage height, 4.90 feet); minimum daily discharge, 19 second-feet Feb. 18.

Remarks.- Records good except those for period of ice effect, Nov. 16 to . 31 (computed on basis of three discharge measurements and weather records), those for period of missing gage heights, Apr. 1 to May 16 (computed on basis of records for Blacks Fork near Lyman, Wyo., Bear River near Evanston, Wyo., and Snake River at Dixon, Wyo.) and those for period Aug. 12-25 (computed on basis of records for station above Blacks Fork ranger station), all of which are fair. No diversions above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	50	33	31	40	38	32	240	1,090	402	109	127
2	-	41	31	35	42	39	32	300	1,100	362	105	113
3	-	48	32	36	42	40	34	280	1,130	319	100	116
4	-	53	33	34	39	42	35	260	1,190	302	92	102
5	-	49	35	33	35	38	38	240	1,200	282	89	93
6	-	52	36	35	32	34	35	230	1,110	278	84	90
7	-	49	37	34	34	30	30	225	930	236	81	90
8	-	50	34	36	36	30	34	200	896	225	90	105
9	-	62	33	38	37	32	37	210	929	223	98	102
10	-	52	32	39	38	34	38	210	858	215	94	92
11	-	49	38	40	39	35	40	220	797	212	120	93
12	-	45	37	42	32	34	44	230	755	207	110	109
13	-	53	35	43	26	36	48	250	615	228	115	109
14	-	52	32	43	25	32	52	300	498	372	85	94
15	-	45	30	44	26	35	60	350	471	231	75	89
16	-	36	33	46	23	42	72	520	544	215	70	88
17	-	35	33	40	21	46	100	710	655	202	68	83
18	-	33	35	39	19	37	160	542	665	188	62	78
19	-	34	33	38	20	40	180	417	489	178	50	74
20	-	37	30	36	23	41	150	338	466	185	47	73
21	-	42	31	37	22	36	130	317	544	185	44	72
22	-	40	32	39	26	34	150	324	562	156	44	72
23	-	38	33	42	28	37	160	353	548	144	44	71
24	-	38	28	39	32	37	160	442	493	138	47	74
25	59	37	30	41	32	34	155	537	419	138	72	65
26	56	39	33	42	31	37	160	725	436	138	66	60
27	58	38	35	43	35	39	160	930	444	154	66	56
28	55	39	34	42	38	38	160	1,090	440	146	79	55
29	52	39	34	40	-	36	170	1,110	591	129	88	54
30	50	35	35	42	-	32	190	962	471	122	96	56
31	55	-	36	43	-	30	-	1,030	-	114	110	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 25-31	385	59	50	55.0	764
November	1,310	62	33	43.7	2,600
December	1,033	38	28	33.3	2,050
Calendar year					
January	1,212	46	31	39.1	2,400
February	373	42	19	31.2	1,730
March	1,124	46	30	36.3	2,230
April	2,846	190	30	94.9	5,640
May	14,092	1,110	200	455	27,950
June	21,336	1,200	419	711	42,320
July	6,556	402	114	211	13,000
August	2,500	120	44	80.6	4,960
September	2,555	127	54	85.2	5,070
The period					110,700

Peak discharge.- May 28 (11 p.m.) 1,270 sec.-ft.; June 5 (11 p.m.) 1,400 sec.-ft.; June 18 (2 a.m.) 874 sec.-ft.

Blacks Fork near Urie, Wyo.

Location.- Water-stage recorder, lat. 41°21', long. 110°20', in sec. 23, T. 16 N., R. 115 W., 2 miles downstream from Quartz Creek and 2½ miles north of Urie (revised). Staff gage 300 feet upstream used 1913-24.

Drainage area.- 261 square miles.

Records available.- August 1913 to September 1924, October 1937 to September 1938.

Extremes.- Maximum discharge during period, 701 second-feet May 16 (gage height, 3.62 feet); minimum daily discharge, 2.5 second-feet Aug. 23.
1913-24; 1937-38: Maximum discharge, 2,680 second-feet June 20, 1917 (gage height, 4.72 feet, former datum); minimum daily discharge, 0.3 second-foot Aug. 28 to Sept. 5, Sept. 18, 19, 1924.

Remarks.- Records good except those for period of ice effect, Nov. 27 to Apr. 2 (computed on basis of six discharge measurements and weather records), and those for period of missing gage heights, June 27 to July 2 (computed on basis of records for station near Lyman), which are fair. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	18	20	20	35	60	48	264	463	45	5.5	16
2	-	18	19	19	35	58	40	219	476	34	4.7	28
3	-	19	20	20	38	58	31	147	495	28	4.3	11
4	-	20	21	20	36	55	29	109	568	31	4.3	8.0
5	-	19	21	18	34	52	37	62	578	20	4.3	5.9
6	-	20	25	19	32	48	29	41	578	24	4.7	5.1
7	-	20	25	18	28	46	24	34	413	22	4.3	4.7
8	-	20	22	19	30	44	27	22	326	16	4.0	4.3
9	-	19	18	20	34	46	29	19	305	14	4.3	4.0
10	-	19	20	22	40	48	29	18	290	12	5.9	4.3
11	-	19	24	28	44	52	28	14	236	10	4.7	4.3
12	-	18	26	26	44	58	29	16	228	9.0	4.3	4.7
13	-	18	24	24	38	59	31	18	176	9.5	4.3	5.1
14	-	19	22	24	36	56	49	126	132	14	4.0	5.5
15	-	20	18	38	34	60	31	314	76	20	4.0	5.1
16	-	21	20	39	32	72	56	585	31	13	3.6	5.1
17	-	22	22	38	30	62	74	568	37	10	3.2	4.3
18	-	26	23	32	28	68	116	353	129	10	3.0	4.7
19	-	24	22	26	31	70	155	239	126	10	3.0	4.7
20	-	28	16	25	34	74	102	163	71	9.0	2.7	4.7
21	28	34	18	30	36	66	56	87	45	9.5	2.7	4.3
22	28	27	22	37	38	58	65	78	51	9.5	2.7	5.1
23	26	21	22	36	40	64	74	60	58	7.5	2.5	5.1
24	22	23	20	34	44	62	69	58	67	6.6	3.0	5.1
25	18	26	16	36	48	60	76	80	58	7.0	3.6	5.5
26	18	28	18	38	50	64	74	147	45	7.5	4.0	5.5
27	18	27	19	36	52	66	69	326	42	8.0	4.3	4.7
28	17	28	19	34	58	62	71	450	70	9.5	4.7	4.7
29	17	27	18	36	-	52	104	599	68	7.5	4.7	5.1
30	17	26	18	37	-	46	200	470	54	6.6	4.7	5.1
31	18	-	18	38	-	49	-	419	-	6.2	6.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 21-31	227	28	17	20.6	450
November	674	34	18	22.5	1,340
December	636	26	16	20.5	1,260
Calendar year					
January	887	39	18	28.6	1,760
February	1,059	58	28	37.8	2,100
March	1,795	74	44	57.9	3,560
April	1,852	200	24	61.7	3,670
May	6,105	599	14	197	12,110
June	6,292	578	31	210	12,480
July	445.9	45	6.2	14.4	884
August	126.6	6.6	2.5	4.08	251
September	189.7	28	4.0	6.32	376
The period					40,240

Peak discharge.- May 1 (7 a.m.) 329 sec.-ft.; May 16 (11 a.m.) 701 sec.-ft.; May 29 (2 p.m.) 687 sec.-ft.; June 6 (1 p.m.) 687 sec.-ft.; Sept. 2 (4 p.m.) 296 sec.-ft.

Blacks Fork near Lyman, Wyo.

Location.- Water-stage recorder, lat. 41°27', long. 110°10', in sec. 21, T. 17 N., R. 113 W., 4 miles downstream from Cottonwood Creek and 12 miles northeast of Lyman.

Drainage area.- 821 square miles.

Records available.- October 1937 to September 1938.

Extremes.- Maximum discharge during period, 1,440 second-feet May 17 (gage height, 4.75 feet); minimum daily discharge, 6.7 second-feet Aug. 22, 23.

Remarks.- Records excellent except those for period of missing gage heights, Nov. 7-10 (computed on basis of records for station near Urie), and those for period of ice effect, Nov. 28 to Apr. 6 (computed on basis of five discharge measurements and weather records), which are fair. Diversions for irrigation above station.

Rating table, water year 1937-38 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 21 to Nov. 27, Apr. 7-27)

0.9	6.0	1.8	101
1.0	8.4	2.0	137
1.1	12.8	2.2	188
1.2	20	2.4	262
1.4	43	4.6	1,360

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	24	40	34	42	70	64	580	975	315	21	26
2	-	26	38	36	42	70	66	560	1,030	267	15	41
3	-	26	39	36	44	68	66	510	990	219	11	137
4	-	26	40	34	42	66	64	320	1,080	171	11	47
5	-	31	40	34	40	64	66	230	1,100	195	9.7	27
6	-	24	45	32	36	60	68	155	1,060	296	8.8	18
7	-	28	45	32	34	56	74	133	1,040	182	8.8	13
8	-	28	44	32	32	52	88	123	920	139	8.4	12
9	-	30	40	34	36	54	101	109	735	103	9.7	14
10	-	28	42	36	40	58	100	100	645	83	9.7	14
11	-	27	44	38	46	64	100	98	590	65	12	12
12	-	31	46	36	48	66	98	98	560	47	10	13
13	-	26	48	34	48	66	100	106	525	42	9.7	14
14	-	28	46	36	44	68	111	180	450	50	9.3	14
15	-	30	40	36	42	74	139	635	360	77	8.8	13
16	-	43	40	38	42	80	135	1,080	258	82	9.3	12
17	-	43	42	42	42	78	133	1,350	168	74	8.4	11
18	-	47	42	48	44	87	168	1,140	180	61	9.3	10
19	-	51	42	40	47	92	230	880	345	60	8.4	9.7
20	-	46	38	30	49	94	267	650	258	53	7.4	9.3
21	28	56	38	32	52	88	222	455	158	51	7.0	9.3
22	33	56	40	38	52	80	185	325	121	39	6.7	9.3
23	35	49	40	40	56	82	246	242	129	33	6.7	9.3
24	33	42	40	40	60	76	238	208	160	32	7.0	10
25	29	49	36	42	62	74	246	242	180	33	7.0	11
26	24	56	36	44	62	74	272	340	166	32	23	11
27	23	49	36	42	66	76	234	605	148	35	31	11
28	22	50	36	40	68	76	208	900	142	41	12	9.7
29	23	49	34	40	-	72	222	1,060	202	43	10	11
30	23	48	34	42	-	68	380	1,200	325	36	10	12
31	24	-	36	43	-	63	-	1,000	-	29	19	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 21-31	297	35	22	27.0	589
November	1,147	56	24	38.2	2,280
December	1,247	48	34	40.2	2,470
Calendar year					
January	1,161	48	30	37.5	2,300
February	1,318	68	32	47.1	2,610
March	2,216	94	52	71.5	4,400
April	4,691	380	64	156	9,300
May	15,614	1,350	98	504	30,970
June	15,010	1,100	121	500	29,770
July	2,985	315	29	96.3	5,920
August	345.1	31	6.7	11.1	684
September	570.6	137	9.3	19.0	1,130
The period					92,420

Peak discharge.- May 1 (4 p.m.) 650 sec.-ft.; May 17 (2 p.m.) 1,440 sec.-ft.; May 29 (11 p.m.) 1,240 sec.-ft.

153585 O—39——7

Henrys Fork at Linwood, Utah

Location.- Water-stage recorder, lat. 41°00', long. 109°39', in sec. 23, T. 12 N., R. 109 W., 200 feet north of Wyoming-Utah State line, at Linwood. Prior to Aug. 6, 1938, staff gage at same site and datum. Zero of gage is 5,992.57 feet above mean sea level.

Drainage area.- 531 square miles.

Records available.- October 1928 to September 1938.

Extremes.- Maximum discharge observed during year, 922 second-feet June 29 (gage height, 4.12 feet); minimum daily discharge, 6.5 second-feet Aug. 8, 9.
1929-38: Maximum discharge, 6,750 second-feet Aug. 3, 1936 (gage height, 7.19 feet, from floodmarks) by slope-area method; no flow several days in 1934 and 1935.

Remarks.- Records good except those for period of ice effect, Dec. 24 to Mar. 13 (computed on basis of two discharge measurements and weather records), and those for period of missing gage heights July 30 to Aug. 1 (estimated), which are fair. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	70	59			60	67	126	636	277	28	107
2	52	69	59			63	62	126	691	240	16	101
3	52	63	59			64	58	122	757	199	14	167
4	51	62	59			58	72	109	796	175	11	227
5	51	60	58			56	85	101	757	142	11	231
6	52	60	56	*40		53	76	96	757	118	9.2	203
7	53	66	53			51	56	85	581	112	7.5	179
8	52	63	51			49	60	83	520	101	6.5	162
9	56	59	53			49	50	70	451	98	6.5	162
10	55	59	55			52	74	60	436	91	9.2	162
11	55	56	58		*38	60	93	55	417	56	13	160
12	55	58	62			60	114	51	408	48	17	186
13	59	58	67			58	118	39	413	48	25	175
14	59	58	65			55	130	38	244	42	16	153
15	56	53	65			55	120	126	214	172	16	132
16	55	55	67			65	138	311	175	153	16	123
17	53	58	65			74	138	399	186	112	15	118
18	77	60	69			96	182	385	196	66	14	114
19	98	63	65			90	203	427	240	56	12	109
20	79	67	63			86	240	555	227	53	12	102
21	80	76	66			82	153	485	136	51	11	102
22	82	77	63			46	125	315	155	41	11	104
23	80	67	62			46	115	227	175	39	11	101
24	62	62	60			60	117	167	179	33	11	98
25	77	60	52			72	115	148	162	28	12	98
26	74	62	53			73	110	192	153	24	16	91
27	72	59	53			58	104	319	148	26	19	90
28	72	62	51			74	102	432	126	45	30	86
29	72	59	51			58	96	664	456	48	27	85
30	67	60	53			70	104	696	332	46	38	88
31	67	-	50			63	-	636	-	32	60	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,993	98	48	64.3	3,950
November	1,861	77	53	62.0	3,690
December	1,822	69	50	58.8	3,610
Calendar year 1937	34,232.3	463	5.8	93.8	67,890
January	1,488	-	-	48	2,950
February	1,260	-	-	45	2,500
March	1,956	96	46	63.1	3,880
April	3,277	240	50	109	6,500
May	7,645	696	38	247	15,160
June	11,124	796	126	371	22,060
July	2,772	277	24	89.4	5,500
August	520.9	60	6.5	16.8	1,030
September	4,015	231	85	134	7,960
Water year 1937-38	39,733.9	796	6.5	109	78,790

*Discharge measurement.

Burnt Fork at Burntfork, Wyo.

Location.- Chain gage, lat. 41°02', long. 110°01', in sec. 11, T. 12 N., R. 112 W., a quarter of a mile west of Burntfork and 1 mile upstream from mouth. Zero of gage is 7,098.70 feet above mean sea level.

Drainage area.- 73 square miles.

Records available.- July 1929 to September 1938.

Extremes.- Maximum discharge observed during year, 182 second-feet June 5 (gage height, 3.82 feet); minimum daily discharge, 2.2 second-feet Mar. 4, 8, 9, 14, 18.
1929-38: Maximum discharge, 4,360 second-feet Aug. 2, 1936 (gage height, 9.60 feet, from floodmarks), by slope-area method; no flow June 27, 30, July 2, 5-7, 17, 18, 25, 1934.

Remarks.- Records good except those for periods of ice effect, Nov. 30 to Dec. 5, Dec. 8 to Mar. 19, which were computed on basis of one discharge measurement and weather records and are fair. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	14	-			3.2	6.5	24	132	25	5.1	29
2	17	14	-			3.4	6.5	22	150	23	5.3	42
3	17	12	-			3.6	6.3	21	156	14	5.1	89
4	17	9.5	-			2.2	4.2	20	158	11	4.6	72
5	17	13	-			2.4	5.1	14	164	10	4.2	57
6	17	14	7.0			2.4	5.3	9.8	144	9.8	3.9	48
7	17	14	7.8			2.4	4.8	9.8	100	10	4.2	42
8	17	11	-			2.2	5.1	10	103	11	4.8	39
9	17	12	-			2.2	4.2	10	106	10	4.1	45
10	17	12	-			2.4	4.4	9.2	95	9.0	6.0	39
11	16	10	-		*3.6	2.6	4.8	10	85	5.3	4.2	40
12	16	11	-			2.6	5.3	13	82	4.8	4.6	40
13	16	11	-			2.8	5.3	15	67	21	4.4	39
14	17	11	-			2.2	5.8	49	46	18	11	35
15	17	11	-			2.4	6.3	106	42	21	10	33
16	17	11	-			2.8	6.3	121	40	15	8.2	30
17	17	10	-			2.4	6.3	107	47	14	5.6	29
18	17	10	-			2.2	6.0	80	48	11	5.3	27
19	16	10	-			2.4	6.3	74	25	7.5	5.6	22
20	16	11	-			2.4	6.3	62	23	8.0	6.0	22
21	16	11	-			2.5	6.5	40	28	7.2	5.8	21
22	16	11	-			2.7	7.0	40	32	5.6	6.8	21
23	16	11	-			3.0	7.5	43	40	4.6	6.3	20
24	16	12	-			3.3	8.2	48	38	4.4	6.3	20
25	16	11	-			3.2	10	51	23	3.9	7.8	19
26	15	10	-			4.1	9.2	54	21	4.1	9.8	19
27	15	9.5	-			5.1	12	82	19	7.5	15	19
28	14	9.2	-			6.0	14	119	18	10	22	18
29	14	9.0	-			6.5	14	138	22	10	30	18
30	14	8.5	-			6.3	21	112	25	8.2	33	18
31	14	-	-			6.3	-	103	-	4.4	29	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	501	17	14	16.2	994
November	333.7	14	8.5	11.1	662
December	186	-	-	6.0	369
Calendar year 1937	4,654.0	78	.8	12.8	9,240
January	139.5	-	-	4.5	277
February	84	-	-	3.0	167
March	100.2	6.5	2.2	3.23	199
April	220.5	21	4.2	7.35	437
May	1,616.8	138	9.2	52.2	3,210
June	2,079	164	18	69.3	4,120
July	328.3	25	3.9	10.6	651
August	284.0	33	3.9	9.16	563
September	1,012	89	18	33.7	2,010
Water year 1937-38	6,885.0	164	-	18.9	13,660

*Discharge measurement.

Yampa River at Steamboat Springs, Colo.

Location.- Water-stage recorder, lat. 40°29', long. 106°50', in sec. 17, T. 6 N., R. 84 W., at Steamboat Springs, a quarter of a mile upstream from Soda Creek.

Drainage area.- 604 square miles.

Records available.- May 1904 to October 1906, March 1910 to December 1913, and January 1914 to September 1926 (monthly discharge only), and October 1933 to September 1938 in reports of Geological Survey. May 1904 to October 1906 and March 1910 to September 1938 in reports of State engineer.

Average discharge.- 30 years, 497 second-feet.

Extremes.- Maximum discharge during year, 4,340 second-feet June 5 (gage height, 5.60 feet); minimum daily discharge, 58 second-feet Oct. 2.
1904-6, 1910-38: Maximum discharge, 6,820 second-feet June 14, 1921 (gage height, 7.08 feet); minimum daily discharge, 4 second-feet Sept. 8, 1934.

Remarks.- Records excellent except those for period of ice effect, Dec. 23 to Mar. 25 (computed on basis of records for White River near Meeker), and that for Apr. 10 (estimated), which are fair. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	63	130	165	169	162	200	201	2,180	3,270	697	132	171
2	58	132	192	170	168	210	182	1,740	3,300	586	124	224
3	63	122	188	170	172	220	179	1,480	3,530	493	130	313
4	72	130	168	166	172	225	192	1,260	3,680	433	127	253
5	70	117	149	159	165	235	260	1,170	3,760	388	122	232
6	74	110	132	150	155	240	343	982	3,700	348	117	185
7	70	154	146	148	150	230	271	856	3,380	293	107	157
8	79	135	140	145	160	225	253	758	2,960	260	107	160
9	88	120	143	148	185	220	267	697	2,560	238	114	204
10	84	149	149	154	180	210	275	679	2,630	208	140	171
11	79	140	168	162	170	240	305	715	2,480	192	132	160
12	74	130	198	172	165	240	433	868	2,270	174	124	188
13	70	124	221	172	150	245	661	1,140	2,240	171	165	249
14	65	112	198	170	150	250	868	1,690	2,000	192	176	214
15	74	124	182	170	150	235	982	2,020	1,850	214	168	174
16	86	122	174	169	150	230	927	2,350	1,820	224	162	160
17	110	130	174	167	150	240	934	2,360	1,790	228	151	151
18	104	132	157	167	145	240	934	2,250	1,520	256	138	140
19	107	124	140	168	140	235	1,430	2,240	1,370	238	124	132
20	110	154	174	167	145	235	1,150	1,920	1,250	204	114	132
21	114	176	168	166	155	250	975	1,680	1,330	188	104	127
22	122	192	149	165	155	235	1,050	1,690	1,290	174	102	130
23	135	151	142	160	160	230	1,230	1,650	1,150	165	97	130
24	149	162	138	158	160	230	1,380	1,840	1,150	149	90	127
25	154	174	140	150	160	230	1,560	2,110	934	143	86	132
26	143	117	144	150	162	224	1,750	2,520	830	149	100	130
27	138	97	148	150	180	218	1,520	2,840	752	151	110	122
28	135	135	150	151	190	253	1,420	2,960	758	160	100	120
29	146	151	155	152	-	256	1,590	3,460	727	160	88	114
30	143	140	160	152	-	224	1,800	3,500	810	149	88	112
31	127	-	165	155	-	208	-	3,260	-	140	110	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,106	154	58	100	6,160
November	4,086	192	97	136	8,100
December	4,997	221	132	161	9,910
Calendar year 1937	120,474	2,580	45	330	239,000
January	4,972	172	145	160	9,860
February	4,506	190	140	161	8,940
March	7,163	256	200	231	14,210
April	25,322	1,800	179	844	50,230
May	56,865	3,500	679	1,834	112,800
June	61,091	3,760	727	2,036	121,200
July	7,765	697	140	250	15,400
August	3,749	176	86	121	7,440
September	5,014	313	112	167	9,950
Water year 1937-38	188,636	3,760	58	517	374,200

Peak discharge.- June 3 (10 p.m.) 4,210 sec.-ft.; June 4 (10 p.m.) 4,280 sec.-ft.; June 5 (10 p.m.) 4,340 sec.-ft.

Yampa River near Maybell, Colo.

Location.- Water-stage recorder, lat. 40°30', long. 108°02', in sec. 2, T. 6 N., R. 95 W., 3 miles east of Maybell.

Drainage area.- 3,410 square miles.

Records available.- April 1904 to October 1905, June 1910 to November 1912, April 1916 to September 1917, and October 1917 to September 1926 (monthly discharge), and October 1933 to September 1938 in reports of Geological Survey. April 1916 to September 1938 in reports of State engineer.

Average discharge.- 22 years (1916-38), 1,704 second-feet.

Extremes.- Maximum discharge during year, 12,100 second-feet May 19 (gage height, 8.62 feet); minimum daily discharge, 173 second-feet Oct. 1, 2.

1904-5, 1910-12, 1916-38: Maximum discharge observed, 17,900 second-feet May 19, 1917 (gage height, about 10.4 feet, former site); minimum daily discharge, 2 second-feet July 17-19, 1934.

Remarks.- Records excellent except those for period of ice effect, Dec. 14 to Mar. 16, which were computed on basis of one discharge measurement and records for White River near Watson, Utah, and are fair. Diversions for irrigation above station.

Rating table, water year 1937-38 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 1-13, Sept. 8-30)

1.5	165	3.0	1,020	7.0	7,430
1.6	203	3.5	1,500	8.0	10,000
1.8	288	4.0	2,060	8.5	11,650
2.0	384	5.0	3,450		
2.5	650	6.0	5,300		

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	173	345	302	365	365	700	848	7,750	9,250	3,240	433	345
2	173	340	326	360	370	760	780	9,220	8,620	2,860	404	394
3	180	340	321	360	380	890	735	7,340	8,620	2,440	394	692
4	195	335	297	360	390	870	699	5,940	8,700	2,140	369	750
5	199	321	297	355	450	770	671	4,920	9,100	1,920	345	772
6	207	316	330	340	420	700	699	4,270	9,220	1,720	350	602
7	211	312	499	325	410	630	765	3,680	9,370	1,540	330	546
8	215	321	364	335	430	610	772	3,060	8,740	1,370	326	478
9	235	360	321	350	450	595	870	2,900	7,940	1,250	326	408
10	248	374	399	365	480	580	938	2,570	7,200	1,130	335	374
11	256	335	389	370	490	580	998	2,800	7,320	1,030	345	394
12	274	345	404	360	495	590	1,100	3,220	7,200	945	364	404
13	284	345	418	370	485	600	1,240	3,970	6,540	892	374	438
14	279	355	418	380	470	630	1,520	5,220	6,480	870	355	443
15	274	340	415	390	410	680	1,920	7,180	5,900	930	369	514
16	312	326	410	390	390	750	2,320	8,360	4,800	848	399	488
17	335	326	410	380	365	855	2,610	10,300	4,840	892	384	413
18	423	345	400	360	355	840	2,800	11,500	5,160	855	360	355
19	509	369	395	360	360	802	2,920	11,200	4,920	885	335	335
20	562	364	385	360	370	780	3,640	11,000	4,310	840	312	307
21	525	369	370	340	385	938	3,930	8,340	4,390	772	279	284
22	433	433	360	370	405	1,080	3,730	6,920	4,580	685	239	274
23	399	488	390	360	425	998	4,150	6,390	5,060	626	219	270
24	379	448	400	340	435	998	5,100	6,100	4,480	596	195	266
25	360	340	410	340	470	1,070	6,140	6,300	4,240	552	188	261
26	364	394	400	340	520	1,100	6,990	6,920	3,680	525	188	252
27	374	355	385	340	570	1,010	7,480	7,800	3,180	493	184	248
28	369	256	370	340	620	952	6,370	8,600	3,060	478	252	248
29	335	350	360	340	-	1,000	6,020	9,100	3,050	483	195	243
30	340	340	360	350	-	1,020	6,860	10,200	3,060	473	192	231
31	340	-	365	360	-	990	-	10,500	-	468	288	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	9,762	562	173	315	19,360
November	10,587	488	256	353	21,000
December	11,670	499	297	376	23,150
Calendar year 1937	467,669	10,000	106	1,336	967,200
January	11,055	390	325	357	21,930
February	12,166	620	355	434	24,130
March	25,368	1,100	580	818	50,320
April	85,615	7,480	671	2,854	169,800
May	213,570	11,500	2,570	6,889	423,600
June	183,010	9,370	3,050	6,100	363,000
July	34,748	3,240	468	1,121	68,920
August	9,628	433	184	311	19,100
September	12,029	772	231	401	23,860
Water year 1937-38	619,207	11,500	173	1,696	1,228,000

Peak discharge.- May 17 (10 p.m.) 11,800 sec.-ft.; May 19 (9:30 a.m.) 12,100 sec.-ft.; May 30 (10 p.m.) 11,000 sec.-ft.

Elk River at Clark, Colo.

Location.- Water-stage recorder, lat. 40°43', long. 106°55', in sec. 28, T. 9 N., R. 85 W., at Clark.

Drainage area.- 206 square miles.

Records available.- May 1910 to November 1913 and December 1913 to September 1922 (monthly discharge), and October 1933 to September 1936 in reports of Geological Survey. May 1910 to September 1922 and April 1930 to September 1938 in reports of State engineer.

Average discharge.- 20 years, 382 second-feet.

Extremes.- Maximum discharge during year, 3,760 second-feet May 16 (gage height, 5.50 feet); minimum not determined, occurred during period of ice effect.
1910-22, 1930-38: Maximum daily discharge, 4,470 second-feet June 6, 9, 1912; minimum discharge observed, 22 second-feet Apr. 7, 1935 (gage height, 0.62 foot).

Remarks.- Records excellent except those for period of ice effect, Nov. 28 to Apr. 20, which were computed on basis of records for White River near Meeker and are fair. Practically no diversion or regulation.

Rating table, water year 1937-38 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-10, July 5 to Sept. 4)

0.8	46	2.5	545
.9	58	2.7	660
1.1	88	3.1	1,000
1.3	108	4.0	1,940
1.9	300	5.0	3,120

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	59	75					175	1,930	1,930	1,000	171	119
2	57	69					170	1,210	1,970	860	164	119
3	53	69					170	960	2,060	748	188	183
4	56	68					170	716	2,120	654	164	142
5	56	48					180	600	2,170	606	152	130
6	57	56					240	504	2,180	545	142	102
7	58	69					230	454	1,980	500	137	88
8	65	51					210	438	1,960	462	140	85
9	69	64					220	463	1,940	450	154	92
10	62	68					230	572	2,010	422	152	90
11	58	66					240	676	1,900	406	144	85
12	56	64					250	876	1,860	398	135	96
13	54	62					260	1,190	1,860	374	132	142
14	53	54					280	1,620	1,520	374	132	108
15	78	61					320	2,000	1,220	378	126	88
16	96	57					360	3,110	1,350	362	126	83
17	85	57					360	2,300	1,520	350	117	80
18	121	62					400	2,600	1,480	327	110	72
19	88	65					420	2,030	1,320	296	100	66
20	77	68					450	1,500	1,330	278	94	65
21	77	77					410	1,280	1,560	258	88	65
22	77	78					430	1,210	1,660	249	83	66
23	83	69					504	1,230	1,440	222	83	65
24	86	85					660	1,310	1,330	210	86	64
25	86	74					1,020	1,500	1,160	201	102	66
26	83	74					1,230	1,720	1,070	201	119	62
27	80	86					1,060	1,950	1,150	210	119	59
28	78	84					1,160	2,200	1,150	216	126	58
29	77	80					1,440	2,460	1,170	199	142	58
30	75	80					1,780	2,120	1,200	186	110	57
31	71	-					-	1,900	-	178	106	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,231	121	53	72.0	4,430
November	2,040	86	48	68.0	4,050
December	2,790	-	-	90	5,530
Calendar year 1937	133,783	2,650	-	367	265,400
January	2,852	-	-	92	5,660
February	2,980	-	-	106	5,910
March	5,360	-	-	173	10,630
April	15,029	1,780	170	501	29,810
May	44,649	3,110	438	1,440	88,560
June	48,570	2,180	1,070	1,619	96,340
July	12,120	1,000	178	391	24,040
August	3,944	188	83	127	7,820
September	2,655	183	57	88.5	5,270
Water year 1937-38	145,220	3,110	-	398	288,000

Peak discharge.- Apr. 30 (12 m) 3,010 sec.-ft.; May 16 (3 a.m.) 3,760 sec.-ft.; May 28 (11 p.m.) 2,980 sec.-ft.

Little Snake River near Dixon, Wyo.

Location.- Water-stage recorder, lat. 41°02', long. 107°32', in sec. 6, T. 12 N., R. 90 W., 600 feet upstream from Willow Creek and 1 mile west of Dixon. Chain gage at same site and datum used 1910-23. Zero of gage is 6,332.81 feet above mean sea level.

Drainage area.- 982 square miles.

Records available.- May 1910 to September 1923 and March to September 1938.

Extremes.- Maximum discharge during period, 5,880 second-feet May 19 (gage height, 7.34 feet); minimum daily discharge, 8.8 second-feet Aug. 24, 25.
1910-23, 1938: Maximum daily discharge observed, 8,960 second-feet May 23, 1920 (gage height, 8.3 feet); minimum daily, 5 second-feet Aug. 6, 1911.

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

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						-	149	4,190	3,320	561	18	46
2						-	103	3,030	3,300	468	17	37
3						-	107	2,450	3,270	396	15	36
4						-	180	2,030	3,300	353	15	55
5						-	236	1,780	3,280	293	15	44
6						-	372	1,490	3,270	236	14	36
7						-	180	1,330	3,080	201	13	27
8						-	210	1,200	2,900	176	14	22
9						-	227	1,080	2,680	161	15	23
10						-	353	1,180	2,660	117	13	20
11						-	298	1,350	2,360	74	16	23
12						-	396	1,690	2,140	55	15	31
13						-	579	2,110	2,030	51	15	35
14						-	794	2,990	1,900	43	15	52
15						214	754	3,340	1,640	40	16	46
16						185	768	4,250	1,540	32	15	37
17						249	832	4,500	1,460	38	13	34
18						176	946	4,980	1,410	40	12	32
19						149	1,490	5,500	1,220	42	11	32
20						267	1,440	3,900	1,180	35	12	30
21						302	1,310	3,290	1,170	26	11	29
22						180	1,510	2,900	1,200	23	10	28
23						172	1,700	2,750	1,060	21	9.4	30
24						206	2,690	2,800	954	20	8.8	28
25						180	2,560	2,930	917	20	8.8	26
26						189	3,020	3,250	780	20	9.1	26
27						164	2,490	3,560	705	26	9.4	18
28						227	2,370	3,790	657	26	12	15
29						193	3,010	4,180	627	22	13	14
30						127	3,330	4,120	615	20	15	14
31						172	-	3,560	-	20	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March 15-31	3,352	302	127	197	6,650
April	34,404	3,330	103	1,147	68,240
May	91,500	5,500	1,080	2,952	181,500
June	56,625	3,300	615	1,888	112,300
July	3,656	561	20	118	7,250
August	410.5	18	8.8	13.2	814
September	926	55	14	30.9	1,840
The period					378,600

Little Snake River near Lily, Colo.

Location.- Water-stage recorder, lat. 40°32', long. 108°25', in sec. 20, T. 7 N., R. 98 W., 6 miles north of Lily and 8 miles upstream from mouth.

Drainage area.- 3,730 square miles.

Records available.- June to August 1904, May 1922 to September 1927, and October 1933 to September 1938 in reports of Geological Survey. June to August 1904 and May 1922 to September 1938 in reports of State engineer.

Extremes.- Maximum discharge during year, 8,590 second-feet May 20 (gage height, 6.91 feet); minimum daily discharge, 20 second-feet Aug. 22, 23, 28, 27.
1904, 1922-38: Maximum discharge, 14,200 second-feet May 27, 1926 (gage height, 10.5 feet); no flow at times in 1924, 1930, 1931, 1934-36.

Remarks.- Records good except those for period of ice effect, Dec. 1 to Apr. 7, which were computed on basis of one discharge measurement, weather records, and records for Yampa River near Maybell and are fair. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	100	85	125			370	3,440	4,140	608	38	52
2	44	98	95	130			370	4,480	3,480	580	35	520
3	36	95	110	140			370	3,830	3,310	532	33	1,580
4	32	95	110	130			400	2,750	3,260	479	32	735
5	32	98	105	120			430	2,310	3,310	405	32	474
6	32	100	110	115			440	1,950	3,290	335	32	277
7	29	100	120	112			450	1,720	3,320	310	32	170
8	33	95	110	110			451	1,520	3,230	263	31	122
9	35	88	105	115			345	1,300	2,970	225	45	128
10	35	90	115	120			320	1,250	2,750	178	212	118
11	36	98	115	125			330	1,180	2,540	149	37	65
12	37	79	120	125			456	1,290	2,500	128	29	67
13	37	82	130	127			416	1,500	2,200	108	28	145
14	37	98	125	127			526	2,060	2,040	90	31	48
15	49	98	120	130			872	2,860	1,890	77	25	45
16	69	95	115	130			1,000	3,480	1,740	72	23	48
17	56	88	110	135			980	4,480	1,560	77	38	48
18	92	90	105	138			1,040	6,150	1,480	65	28	53
19	92	98	105	138			1,160	6,260	1,420	98	23	51
20	100	90	110	136			1,500	7,950	1,360	216	21	45
21	115	122	115	134			1,850	6,280	1,200	108	21	42
22	125	112	110	130			1,590	4,960	1,200	85	20	39
23	125	225	110	128			1,640	3,230	1,280	76	20	37
24	122	277	105	125			1,850	2,920	1,220	76	22	36
25	118	220	110	125			2,340	2,910	1,040	66	22	34
26	115	152	115	125			2,890	2,990	952	58	20	33
27	112	152	110	128			3,370	3,310	907	52	20	32
28	108	112	110	130			2,610	3,620	772	48	112	31
29	105	100	110	132			2,550	3,990	706	48	60	31
30	100	77	115	135			2,990	4,360	713	44	62	29
31	100	-	120	138			-	4,740	-	42	131	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,210	125	29	71.3	4,380
November	3,424	277	77	114	6,790
December	3,450	130	85	111	6,840
Calendar year					
January	3,958	140	110	128	7,850
February	4,340	-	-	155	8,610
March	9,920	-	-	320	19,680
April	35,906	3,370	320	1,197	71,220
May	105,130	7,950	1,180	3,391	208,500
June	61,780	4,140	706	2,059	122,500
July	5,698	608	42	184	11,300
August	1,315	212	20	42.4	2,610
September	5,135	1,580	29	171	10,190
Water year 1937-38	242,266	7,950	20	664	480,500

Slater Fork near Slater, Colo.

Location.- Water-stage recorder, lat. 40°59', long. 107°23', in SW¼ sec. 21, T. 12 N., R. 89 W., about 1 mile upstream from mouth and 1½ miles south of Slater.

Drainage area.- 161 square miles.

Records available.- May 1910 to May 1912 and October 1933 to September 1936 in reports of Geological Survey. May 1910 to May 1912 and June 1931 to September 1938 in reports of State engineer.

Extremes.- Maximum discharge during year, 1,190 second-feet May 17 (gage height, 10.40 feet), from rating curve extended above 600 second-feet; minimum daily discharge, 4.7 second-feet Aug. 20.
1910-12, 1931-38: Maximum daily discharge, 1,700 second-feet May 19, 1912; no flow Aug. 2-10, 1934, Aug. 18, 25-27, 1936.

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

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.0	22	15	19	21	46	26	652	519	112	10	19
2	9.6	22	18	19	21	42	25	407	513	92	10	23
3	8.8	21	24	20	22	64	25	344	515	81	10	27
4	8.6	21	21	18	22	42	33	260	506	68	10	31
5	9.4	15	19	16	23	24	48	221	488	57	9.0	22
6	11	17	21	16	20	18	45	188	490	53	6.9	17
7	10	19	20	17	22	22	35	166	484	44	4.9	14
8	10	15	19	18	23	18	29	155	445	37	7.5	13
9	11	19	19	19	23	24	29	151	424	32	8.4	13
10	11	22	21	19	28	22	43	187	401	28	12	13
11	11	20	26	19	28	24	34	233	382	24	12	12
12	12	21	42	19	29	38	52	310	365	22	8.4	14
13	14	21	35	19	21	50	79	418	336	22	8.4	14
14	11	20	29	19	23	36	91	543	307	21	11	14
15	21	22	23	19	25	31	88	582	271	21	7.5	13
16	35	20	29	19	23	33	84	946	271	20	7.0	12
17	26	25	25	20	25	33	111	1,140	266	19	6.8	12
18	47	20	23	19	20	27	158	935	265	19	5.9	12
19	31	13	21	19	25	30	265	674	262	17	5.0	11
20	24	26	14	18	26	38	235	511	259	15	4.7	11
21	23	30	15	17	25	35	250	463	234	15	5.7	10
22	20	25	21	19	25	30	286	494	213	14	4.9	12
23	24	17	22	18	24	31	345	476	191	13	5.0	13
24	21	23	21	18	23	32	339	480	187	12	7.5	13
25	20	16	21	18	24	31	406	502	165	12	10	13
26	20	18	22	19	25	32	436	534	143	12	9.6	13
27	19	10	23	19	26	31	353	571	134	14	9.8	13
28	19	24	21	19	28	32	363	587	133	15	10	12
29	20	23	19	20	-	29	466	618	127	14	14	12
30	19	14	20	20	-	21	543	572	130	12	14	13
31	20	-	20	20	-	29	-	522	-	11	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	555.4	47	8.6	17.9	1,100
November	601	30	10	20.0	1,190
December	689	42	14	22.2	1,370
Calendar year					
January	578	20	16	18.6	1,150
February	670	29	20	23.9	1,330
March	995	64	16	32.1	1,970
April	5,322	543	25	177	10,560
May	14,842	1,140	151	479	29,440
June	9,426	519	127	314	18,700
July	948	112	11	30.6	1,880
August	278.9	23	4.7	9.00	553
September	441	31	10	14.7	875
Water year 1937-38	35,346.3	1,140	4.7	96.8	70,120

Ashley Creek near Vernal, Utah

Location.- Water-stage recorder, lat. 40°35', long. 109°37', in sec. 1, T. 3 S., R. 20 E., three-quarters of a mile upstream from head of Utah Power & Light Co.'s canal and 12 miles northwest of Vernal.

Drainage area.- 101 square miles.

Records available.- June 1914 to September 1938. March 1900 to December 1904 (fragmentary) at site below mouth of Dry Fork. October 1911 to June 1914 at site at power plant 1½ miles downstream.

Average discharge.- 22 years (1914-16, 1918-38), 105 second-feet.

Extremes.- Maximum daily discharge determined during year, 900 second-feet June 3, on basis of records for Whiterocks River near Whiterocks; minimum discharge recorded, 19 second-feet Apr. 7.

1911-38: Maximum discharge, 2,050 second-feet May 29, 1921; minimum recorded, 16 second-feet Mar. 21, 1937.

Remarks.- Records good except those for period when recorder clock was not running, Apr. 27 to June 29, which were computed on basis of weekly gage readings and records for Whiterocks River near Whiterocks and Uinta River near Neola and are fair. No diversions above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	42	28	24	23	*21	21	150	820	208	106	73
2	58	42	28	24	22	21	21	140	860	196	101	87
3	56	40	28	24	22	21	21	130	900	172	98	138
4	56	39	28	24	22	21	21	125	780	163	96	114
5	54	37	28	24	22	21	21	116	720	158	94	89
6	54	37	28	23	21	21	21	110	620	155	96	84
7	*52	37	28	23	21	21	20	105	540	146	98	82
8	*50	37	28	23	21	*21	20	100	520	135	98	80
9	*48	36	26	23	21	*21	20	100	500	124	108	87
10	*47	39	26	23	21	21	21	95	455	121	140	80
11	*46	37	24	23	21	*21	21	110	420	116	114	78
12	45	34	26	23	21	*21	21	130	410	114	98	91
13	45	34	26	23	21	*21	21	150	380	119	96	91
14	45	34	27	23	21	*21	21	300	350	124	98	78
15	48	33	27	23	21	*21	21	400	330	158	91	80
16	50	34	27	23	*21	*21	21	560	329	181	89	78
17	52	34	27	23	21	*21	21	580	330	184	89	76
18	50	34	27	23	*21	*21	24	470	340	187	84	73
19	48	34	*26	23	*21	21	29	420	270	143	84	76
20	48	34	*25	23	*21	*21	32	350	240	130	82	73
21	*49	34	*25	23	*21	*21	33	310	250	146	82	73
22	52	33	*24	23	*21	*21	36	280	230	130	78	76
23	50	33	24	23	*21	*21	42	280	215	116	76	76
24	50	33	*24	23	21	21	50	300	200	114	76	73
25	48	32	*25	23	*21	21	71	350	195	114	73	71
26	47	32	*25	23	*21	21	91	475	190	114	73	69
27	45	32	*25	23	*21	21	96	600	190	138	76	67
28	44	32	*26	23	*21	21	101	740	180	181	76	69
29	42	30	27	23	-	21	110	820	330	166	73	67
30	44	29	27	23	-	21	140	700	244	124	73	65
31	42	-	24	23	-	21	-	760	-	114	78	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,521	58	42	49.1	3,020
November	1,048	42	29	34.9	2,080
December	814	28	24	26.3	1,610
Calendar year 1937	39,260	920	17	108	77,870
January	718	24	23	23.2	1,420
February	594	23	21	21.2	1,180
March	651	21	21	21.0	1,290
April	1,209	140	20	40.3	2,400
May	10,256	820	95	331	20,340
June	12,338	900	180	411	24,470
July	4,491	208	114	145	8,910
August	2,794	140	73	90.1	5,540
September	2,414	138	65	80.5	4,790
Water year 1937-38	38,848	900	20	106	77,060

*Gage height missing; discharge interpolated.

Duchesne River at Provo River Trail, near Hanna, Utah

Location.- Water-stage recorder, lat. 40°37', long. 110°54', in SE¼ sec. 27, T. 3 N., R. 9 W. Uinta meridian, 400 feet downstream from Provo River trail bridge, 7 miles upstream from Hades Creek, and 12 miles northwest of Hanna. Altitude, about 8,120 feet.

Drainage area.- 39 square miles.

Records available.- July 1929 to September 1933 and October 1935 to September 1938.

Extremes.- Maximum daily discharge during year, 600 second-feet May 29, June 3, 4, minimum not determined.
1929-33, 1935-38: Maximum discharge recorded, 888 second-feet June 24, 1932; minimum, 1 second-foot (estimated), Aug. 30, 31, 1931.

Remarks.- Records good except those for periods of missing gage heights, Nov. 16 to May 20, May 26 to June 14, Sept. 10-19, 21-30, which were computed on basis of records for other stations on Duchesne River and are fair. Records show flow of water at proposed diversion tunnel to Provo River. No diversion above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9	10						40	560	85	20	17
2	8	10						35	580	72	20	17
3	8	9						35	600	61	18	17
4	8	9						30	600	57	18	16
5	8	8						30	580	55	16	15
6	8	8						30	560	55	16	15
7	8	9						30	500	48	16	15
8	8	8						30	450	43	17	16
9	8	9						30	400	40	20	16
10	7	9						30	360	38	19	15
11	8	8						30	320	35	20	15
12	8	8						35	280	35	18	14
13	7	9						60	250	35	17	15
14	8	8						100	220	50	16	16
15	11	8						150	195	40	15	14
16	11	8						250	209	35	14	13
17	14	8						280	226	32	14	12
18	16	8						250	217	31	13	11
19	13	8						220	175	28	12	10
20	11	8						180	156	28	12	10
21	11	8						142	154	34	11	10
22	12	8						142	151	32	11	10
23	13	8						172	149	27	11	10
24	13	8						234	125	26	13	10
25	13	8						328	104	24	20	10
26	12	8						370	97	26	17	9
27	11	8						540	94	30	14	9
28	11	8						540	94	29	15	9
29	11	8						600	113	25	16	9
30	10	8						540	94	23	15	9
31	10	-						560	-	21	19	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	314	16	7	10.1	623
November	250	10	8	8.3	496
December	248	-	-	8.0	492
Calendar year 1937	19,123	600	-	52.4	37,920
January	217	-	-	7.0	430
February	196	-	-	7.0	389
March	248	-	-	8.0	492
April	450	-	-	15.0	893
May	6,043	600	30	195	11,990
June	8,613	600	94	287	17,080
July	1,200	85	21	38.7	2,380
August	493	20	11	15.9	978
September	384	17	9	12.8	762
Water year 1937-38	18,656	600	-	51.1	37,000

Duchesne River near Tabiona, Utah

Location.- Water-stage recorder, lat. 40°18', long. 110°36', in SW¼ sec. 17, T. 2 S., R. 6 W. Uinta meridian, 5½ miles upstream from Rock Creek and 8 miles southeast of Tabiona.

Drainage area.- 352 square miles.

Records available.- January 1919 to September 1938.

Average discharge.- 19 years, 212 second-feet.

Extremes.- Maximum discharge during year, 1,660 second-feet May 29 (gage height, 7.08 feet); minimum observed, 64 second-feet Aug. 23.
1919-38: Maximum discharge, about 2,500 second-feet June 13, 1921, from rating curve extended above 1,100 second-feet; minimum, 27 second-feet Oct. 17, 1934.

Remarks.- Records good except those for periods of ice effect, Dec. 24-26, 29-31, Jan. 1, 5-10, 25-28 (computed on basis of two discharge measurements and weather records), and those for period of missing gage heights, July 6-17 (computed on basis of records for station at Duchesne), which are fair. Small diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	110	114	96	100	96	94	93	563	1,400	324	98	174
2	108	114	104	102	94	93	87	514	1,420	304	93	162
3	104	114	104	102	96	102	100	463	1,450	285	89	128
4	100	112	98	102	96	100	108	407	1,450	275	84	139
5	100	112	100	95	96	94	122	375	1,430	269	77	172
6	96	112	104	95	91	91	110	345	1,380	260	75	146
7	96	114	106	97	98	94	96	328	1,200	245	78	146
8	98	112	100	94	100	91	102	304	1,060	230	89	224
9	98	110	100	91	98	93	108	288	991	215	120	144
10	94	112	110	96	98	96	114	291	926	200	137	131
11	87	112	110	102	96	96	110	291	842	180	124	139
12	89	108	120	98	96	106	122	304	775	170	124	146
13	89	108	116	96	84	110	131	356	715	165	118	172
14	96	110	108	94	100	106	133	514	632	210	110	198
15	116	114	106	96	96	98	131	688	563	210	106	174
16	114	112	110	96	93	104	153	965	528	165	94	157
17	112	118	108	94	91	112	167	1,020	538	140	94	157
18	148	124	110	96	91	91	209	939	528	122	91	146
19	120	124	98	89	102	106	260	805	481	122	82	135
20	114	126	96	94	91	106	291	688	441	120	80	139
21	114	128	91	94	89	102	285	579	415	112	75	135
22	114	122	93	98	93	89	311	504	411	112	75	133
23	116	118	94	94	87	102	356	504	415	102	74	126
24	118	126	88	94	87	98	375	584	407	89	70	137
25	118	122	90	92	82	91	403	710	391	85	75	131
26	116	124	92	91	93	98	375	998	349	91	94	124
27	114	110	94	90	89	98	349	1,310	335	135	94	122
28	112	118	93	92	93	104	364	1,340	331	174	106	118
29	114	118	96	96	-	94	419	1,480	379	131	112	116
30	114	104	97	94	-	84	509	1,320	345	112	108	120
31	114	-	98	93	-	93	-	1,370	-	106	122	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,353	148	87	103	6,650
November	3,472	128	104	116	6,890
December	3,130	120	88	101	6,210
Calendar year 1937	80,145	1,600	51	220	159,000
January	2,957	102	89	95.4	5,870
February	2,616	102	82	93.4	5,190
March	3,036	112	84	97.9	6,020
April	6,493	509	87	216	12,880
May	21,147	1,480	288	682	41,940
June	22,528	1,450	331	751	44,680
July	5,460	324	85	176	10,830
August	2,968	137	70	95.7	5,890
September	4,391	224	116	146	8,710
Water year 1937-38	81,551	1,480	70	223	161,800

Peak discharge.- May 29 (10 a.m.) 1,660 sec.-ft.; June 3 (6 a.m.) 1,600 sec.-ft.; June 4 (7 a.m.) 1,620 sec.-ft.; Sept. 1 (6 p.m.) 775 sec.-ft.; Sept. 8 (3 p.m.) 715 sec.-ft.

Duchesne River at Duchesne, Utah

Location.- Water-stage recorder, lat. 40°09'55", long. 110°23'50", in SW¼NE¼ sec. 1, T. 4 S., R. 5 W. Uinta meridian, in Duchesne, half a mile upstream from Strawberry River.

Drainage area.- 660 square miles.

Records available.- December 1917 to September 1938.

Average discharge.- 21 years, 383 second-feet.

Extremes.- Maximum discharge during year, 3,400 second-feet June 4 (gage height, 5.17 feet); minimum, 84 second-feet Aug. 23.
1917-38: Maximum discharge observed, 4,420 second-feet June 10, 1922 (gage height, 8.65 feet, former site and datum); minimum observed, 15 second-feet July 11, 1931.

Remarks.- Records good except those for periods of ice effect Dec. 3-4, Jan. 5-31, which were computed on basis of one discharge measurement, weather records, and records for station near Tabiona and are fair. Diversions for irrigation above station.

Rating tables, water year 1937-38 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Dec. 15)

Oct. 1 to June 4						June 5 to Sept. 30					
2.0	138	2.6	366	4.0	1,600	1.9	63	2.4	213	3.6	980
2.1	165	2.8	479	4.5	2,290	2.0	89	2.6	290	4.0	1,450
2.2	197	3.0	615	5.0	3,100	2.1	117	2.8	382	4.5	2,180
2.3	233	3.3	855	5.4	3,840	2.2	147	3.0	494	5.0	3,070
2.4	273	3.6	1,140			2.3	179	3.3	705	5.2	3,460

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	171	171	162	204	165	157	152	830	2,780	566	150	189
2	165	171	175	215	165	160	143	770	2,840	520	135	282
3	157	168	175	194	162	184	152	675	2,900	459	123	258
4	157	168	164	191	165	178	154	580	2,900	430	114	220
5	165	165	165	160	165	160	168	511	2,810	408	109	213
6	157	168	178	160	152	152	171	461	2,740	382	103	213
7	154	171	175	150	162	154	154	450	2,160	363	100	206
8	154	171	162	140	168	154	154	426	1,840	339	109	498
9	152	165	168	130	171	154	157	393	1,720	312	160	299
10	154	175	178	140	171	160	157	371	1,640	290	193	239
11	149	171	178	155	168	157	157	356	1,480	270	196	224
12	152	168	201	180	175	165	162	356	1,370	250	217	254
13	152	171	191	165	154	171	168	420	1,200	239	199	228
14	157	171	178	140	154	175	171	630	1,050	325	179	217
15	194	175	171	140	165	160	165	945	900	330	166	203
16	191	175	178	140	165	162	181	1,420	862	254	144	206
17	187	175	175	145	154	168	197	1,530	890	220	129	206
18	233	184	178	140	149	152	237	1,360	910	196	126	196
19	222	187	160	145	165	160	304	1,120	799	186	114	186
20	197	187	165	140	162	162	361	955	731	189	103	186
21	191	187	154	145	152	160	371	838	705	186	95	186
22	181	181	162	140	157	143	393	762	713	193	95	182
23	181	171	184	145	149	154	479	770	675	176	89	179
24	184	178	160	145	154	154	505	900	652	160	89	173
25	178	175	181	145	141	152	551	1,100	595	157	97	179
26	178	175	197	140	154	152	518	1,540	546	160	109	173
27	178	165	215	140	152	152	473	2,130	540	199	120	166
28	178	171	208	135	154	157	473	2,520	533	274	126	163
29	181	175	197	140	-	149	544	2,860	722	224	138	160
30	178	168	204	150	-	138	683	2,650	675	182	141	150
31	178	-	211	160	-	143	-	2,630	-	166	150	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	5,406	233	149	174	10,720
November	5,203	187	165	173	10,320
December	5,550	215	154	179	11,010
Calendar year 1937	131,034	2,730	83	359	259,900
January	4,759	215	130	154	9,440
February	4,470	175	141	160	8,870
March	4,899	184	138	158	9,720
April	8,655	683	143	288	17,170
May	33,259	2,860	356	1,073	65,970
June	40,878	2,900	533	1,363	81,080
July	8,605	566	157	278	17,070
August	4,116	217	89	133	8,170
September	6,434	498	150	214	12,760
Water year 1937-38	132,236	2,900	89	362	262,300

Peak discharge.- June 3 (4 p.m.) 3,320 sec.-ft.; June 4 (4 p.m.) 3,400 sec.-ft.; June 5 (3 p.m) 3,280 sec.-ft.; Aug. 12 (7 p.m.) 546 sec.-ft.; Sept. 8 (7 p.m.) 1,750 sec.-ft.

Duchesne River at Myton, Utah

Location.- Water-stage recorder, lat. 40°12', long. 110°03', in NW¼ sec. 25, T. 3 S., R. 2 W. Uinta meridian, at Myton, 3 miles downstream from Lake Fork.

Drainage area.- 2,750 square miles.

Records available.- October 1899 to November 1910, July 1911 to September 1938.

Average discharge.- 30 years (1899-1902, 1911-38), 653 second-feet.

Extremes.- Maximum discharge during year, 3,540 second-feet May 30 (gage height, 4.95 feet); minimum discharge, 26 second-feet Aug. 21 and 23.
1899-1938: Maximum discharge observed, 12,800 second-feet June 10, 1922 (gage height, 7.94 feet) from rating curve extended above 8,000 second-feet; minimum, less than 1 second-foot July 16, 1931, and on several days in August and September 1934.

Remarks.- Records good except those for period of ice effect, Dec. 26 to Jan. 31 (computed on basis of two discharge measurements, weather records, and records for stations at Duchesne and near Tabiona), and those for periods of shifting stage-discharge relation, June 30 to July 31, Sept. 9-30, which are fair. Large diversions for irrigation above station. Flow affected by storage in reservoir on Strawberry River.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	212	220	269	275	393	329	284	1,440	3,110	992	98	177
2	208	224	290	280	360	319	265	1,400	3,210	845	79	393
3	201	224	312	285	371	398	275	1,270	3,300	735	79	467
4	185	224	312	290	360	421	289	1,040	3,330	665	50	371
5	189	220	290	250	334	366	319	920	3,380	617	40	324
6	193	216	286	240	294	314	360	837	3,330	472	36	284
7	189	232	330	250	284	304	299	777	2,900	393	38	233
8	185	253	317	240	309	284	256	686	2,500	371	59	478
9	174	240	321	230	366	275	251	637	2,230	360	79	1,730
10	174	244	363	240	339	279	237	584	2,090	279	197	490
11	170	244	373	260	350	279	260	571	1,880	270	181	443
12	163	236	459	320	360	334	251	564	1,740	284	160	437
13	167	236	449	285	294	360	260	651	1,540	242	152	432
14	167	240	382	250	275	366	289	875	1,320	314	119	415
15	208	240	344	250	294	294	289	1,260	1,200	437	108	398
16	261	236	335	250	304	275	309	1,720	1,100	294	105	371
17	248	244	321	255	265	289	360	1,920	1,060	211	85	360
18	290	282	340	250	251	265	502	1,850	1,080	177	76	339
19	353	290	290	255	284	246	658	1,590	1,020	185	95	324
20	278	290	290	250	324	265	860	1,340	936	181	48	304
21	257	290	273	255	294	275	920	1,200	936	160	33	294
22	244	286	265	245	294	237	944	1,080	936	156	30	279
23	236	269	278	250	289	279	1,020	1,020	920	134	30	275
24	240	278	295	250	299	314	1,030	1,060	845	98	30	256
25	232	286	278	247	260	304	1,000	1,230	742	82	48	251
26	212	278	295	240	289	294	970	1,600	672	88	68	242
27	212	265	320	240	319	289	920	2,220	658	95	53	237
28	212	269	310	235	334	299	890	2,660	763	168	38	228
29	216	303	278	250	-	294	936	3,080	1,130	208	88	228
30	220	299	275	270	-	256	1,090	3,360	1,320	134	98	224
31	220	-	280	300	-	256	-	2,980	-	102	119	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	6,716	353	163	217	13,320
November	7,658	303	216	255	15,190
December	9,820	459	265	317	19,480
Calendar year 1937	217,038	4,040	28	595	430,400
January	7,987	320	230	258	15,840
February	8,789	393	251	314	17,430
March	9,359	421	237	302	18,560
April	16,593	1,090	237	553	32,910
May	43,422	3,360	564	1,401	86,130
June	51,178	3,380	658	1,706	101,500
July	9,749	992	82	314	19,340
August	2,549	197	30	82.2	5,060
September	11,284	1,730	177	376	22,380
Water year 1937-38	185,104	3,380	30	507	367,100

Peak discharge.- May 30 (3 a.m.) 3,540 sec.-ft.; Sept. 9 (3 a.m.) 2,970 sec.-ft.

Rock Creek near Mountain Home, Utah

Location.- Staff gage, lat. 40°30', long. 110°35', in SW¼ sec. 9, T. 1 N., R. 6 W. Uinta meridian, at Tower Stillwater dam site "B", a third of a mile upstream from Corral Creek, 7 miles downstream from South Fork, and 12 miles northwest of Mountain Home.

Drainage area.- 149 square miles.

Records available.- November 1937 to September 1938.

Extremes.- Maximum discharge observed during period, 1,790 second-feet June 4 (gage height, 11.19 feet); minimum observed, 32 second-feet Jan. 7.

Remarks.- Records fair. Gage read once daily. No diversion above station.

Rating table, water year 1937-38 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Sept. 9-30)

7.3	32	8.8	474
7.4	43	9.0	560
7.6	74	9.3	705
7.8	117	9.6	855
8.0	172	10.0	1,080
8.2	238	10.5	1,380
8.4	312	11.0	1,680
8.6	391	11.2	1,800

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-	57	50	44	*40	46	†250	1,280	343	130	122
2		-	56	51	46	43	53	211	1,560	324	122	127
3		-	56	53	49	42	43	204	1,350	312	115	†90
4		-	59	*50	51	42	41	201	1,790	†300	†110	†100
5		56	57	*45	46	39	53	143	1,360	285	108	†120
6		60	56	*40	49	41	42	160	1,260	270	†105	92
7		71	54	32	*50	50	44	127	1,180	245	110	115
8		51	56	*35	50	46	36	130	976	231	117	135
9		64	54	42	*50	50	44	140	1,040	218	125	96
10		57	53	*45	46	43	43	133	1,010	207	140	88
11		54	57	44	49	42	47	140	840	201	138	92
12		56	60	47	43	43	57	143	790	204	122	94
13		54	57	42	*40	46	56	201	750	194	117	86
14		57	56	*40	44	44	56	289	600	289	110	84
15		60	53	43	42	47	60	466	582	242	108	74
16		50	50	44	*40	54	71	635	605	198	106	72
17		66	51	*45	*40	43	71	630	578	188	101	71
18		64	53	47	*40	38	103	560	620	182	86	71
19		66	54	*45	42	46	117	466	600	†170	†86	69
20		71	57	46	39	46	130	395	564	163	†84	71
21		56	38	39	39	46	115	367	526	175	†82	69
22		49	51	47	42	40	133	324	496	146	82	67
23		57	44	47	41	43	163	343	466	135	84	†65
24		60	53	41	42	42	169	432	453	125	88	67
25		66	54	*40	*40	47	143	538	449	143	92	67
26		62	59	43	*40	42	163	1,100	424	135	99	64
27		59	60	47	42	43	169	1,050	407	172	94	62
28		59	†56	46	41	47	172	1,300	420	175	96	60
29		60	53	44	-	34	214	1,460	569	160	94	60
30		62	56	43	-	54	274	1,160	436	140	92	60
31		-	53	43	-	43	-	1,460	-	125	106	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	-	-	-	-	-
November 5-30	1,547	71	49	59.5	3,070
December	1,683	60	38	54.3	3,340
Calendar year					
January	1,366	53	32	44.1	2,710
February	1,227	51	39	43.8	2,430
March	1,366	54	34	44.1	2,710
April	2,928	274	36	97.6	5,810
May	15,158	1,460	127	489	30,070
June	23,981	1,790	407	799	47,570
July	6,397	343	125	206	12,690
August	3,249	140	82	105	6,440
September	2,510	135	60	83.7	4,980
The period	61,412	1,790	32	186	121,800

*Stage-discharge relation affected by ice; discharge computed on basis of gage heights and weather records.
†Gage height missing; discharge computed on basis of records for Duchesne River near Tabiona.

Strawberry River at Duchesne, Utah

Location.- Staff gage, lat. 40°10', long. 110°25', in SW¼NE¼ sec. 2, T. 4 S., R. 5 W. Uinta meridian, three-quarters of a mile west of Duchesne and 1½ miles upstream from mouth.

Drainage area.- 1,040 square miles.

Records available.- June 1908 to November 1910, March 1914 to September 1938.

Average discharge.- 24 years (1914-38), 172 second-feet.

Extremes.- Maximum discharge observed during year, 2,540 second-feet Sept. 9 (gage height, 8.2 feet) from rating curve extended above 800 second-feet; minimum observed, 53 second-feet Aug. 20 and 21.

1908-10, 1914-38: Maximum discharge observed, 3,230 second-feet May 27, 1922, from rating curve extended above 1,500 second-feet; minimum observed, 1 second-foot on several days in July 1931.

Remarks.- Records fair. Discharge for period of ice effect, Dec. 23 to Feb. 22, computed on basis of two discharge measurements and weather records. Diversions for irrigation above station. Water diverted from Strawberry Valley Reservoir (capacity, 250,000 acre-feet) to Great Salt Lake Basin. Gage read twice daily.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	90	95	99	70	95	100	98	820	455	148	63	98
2	89	93	102	75	95	98	94	729	425	144	60	150
3	89	91	102	75	95	106	99	645	409	139	59	123
4	90	90	102	80	95	102	102	496	377	141	57	108
5	88	89	99	75	95	99	116	473	355	139	55	102
6	89	90	98	70	90	91	120	434	344	132	54	93
7	90	93	96	70	95	91	102	377	324	123	55	100
8	89	90	96	65	100	94	100	344	324	120	54	700
9	89	91	96	60	100	91	103	334	294	112	100	1,000
10	90	93	96	65	100	93	112	324	282	106	102	118
11	89	93	96	75	100	98	118	327	256	104	79	100
12	88	90	108	80	105	125	126	359	242	95	75	99
13	88	91	110	75	100	133	137	464	231	93	77	96
14	88	94	106	65	95	132	144	651	228	130	71	94
15	91	94	103	65	100	102	139	800	220	118	66	90
16	109	94	96	65	105	100	167	993	213	106	64	88
17	99	94	96	70	105	116	228	930	203	102	61	85
18	173	96	96	65	100	100	310	820	198	95	58	84
19	116	98	96	70	105	100	482	705	191	94	55	82
20	103	95	96	65	105	116	651	610	177	94	54	79
21	99	98	96	70	100	133	582	545	169	93	54	77
22	96	98	96	65	105	99	588	515	154	89	59	79
23	94	100	95	70	103	100	687	447	144	80	60	82
24	94	99	95	70	112	98	571	421	143	78	59	84
25	90	99	90	70	112	98	560	425	139	76	95	79
26	90	96	85	65	110	91	510	430	137	80	79	76
27	89	96	78	65	115	93	478	469	139	85	72	77
28	88	96	75	65	120	102	478	478	139	89	78	77
29	90	96	75	70	-	99	525	505	167	75	82	77
30	90	104	70	80	-	91	588	510	169	69	82	76
31	91	-	75	85	-	90	-	478	-	66	103	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,948	173	88	95.1	5,850
November	2,836	104	89	94.5	5,620
December	2,919	110	70	94.2	5,790
Calendar year 1937	79,515	1,500	-	218	157,700
January	2,175	85	60	70.2	4,310
February	2,857	120	90	102	5,670
March	3,181	133	90	103	6,310
April	9,115	687	94	304	18,080
May	16,858	993	324	544	33,440
June	7,248	455	137	242	14,380
July	3,215	148	66	104	6,380
August	2,142	103	54	69.1	4,250
September	4,273	1,000	76	142	8,480
Water year 1937-38	59,767	1,000	54	164	118,600

Currant Creek near Fruitland, Utah

Location.- Water-stage recorder, lat. 40°12', long. 110°54', in SE¼ sec. 21, T. 3 S., R. 9 W. Uinta meridian, 200 feet downstream from Deep Creek, 250 feet downstream from bridge on U. S. Highway 40, and 3½ miles southwest of Fruitland. Prior to Sept. 11, 1938, staff gage at same site and datum.

Drainage area.- 142 square miles.

Records available.- January 1935 to September 1938.

Extremes.- Maximum discharge observed during year, 370 second-feet May 16 (gage height, 3.15 feet); minimum observed, 8 second-feet Feb. 25.
1935-38: Maximum discharge observed, that of May 16, 1938; minimum observed, 5 second-feet Feb. 14, 1935.

Remarks.- Records for period Sept. 12-30 are good; others, because of large diurnal fluctuations, are fair. Gage read once daily prior to Sept. 11. Discharge for periods of ice effect, Dec. 19-20, Feb. 14-23, computed on basis of weather records; that for periods of missing gage heights, Oct. 1-9, 21-29, 31, Sept. 7-8, 10, computed on basis of records for station on Strawberry River at Duchesne. Currant Creek feeder canal, constructed by Bureau of Reclamation in 1936, diverts water from headwaters of Currant Creek to Strawberry Reservoir, from which it is further diverted through Strawberry tunnel to the Great Basin for irrigation in Strawberry Valley Project.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	27	32	22	22	21	24	248	230	50	27	24
2	24	27	30	22	22	24	27	266	214	47	30	26
3	24	27	30	24	21	25	39	205	196	47	24	24
4	24	27	30	25	22	27	35	172	188	49	24	24
5	24	27	29	24	20	27	31	156	172	52	24	21
6	24	27	27	21	18	26	35	145	180	53	24	21
7	25	27	27	21	21	24	35	132	172	52	24	21
8	24	27	25	22	22	22	35	125	162	52	27	24
9	24	27	21	21	22	22	27	128	162	47	24	26
10	25	27	24	21	22	24	35	156	146	47	30	25
11	25	26	27	22	22	30	35	148	137	39	27	24
12	27	27	31	22	22	27	39	151	137	39	24	28
13	25	27	31	24	22	27	43	164	130	35	24	27
14	32	27	27	24	20	27	33	266	128	39	24	25
15	27	27	30	24	20	25	31	312	120	43	24	24
16	26	27	21	24	20	27	35	370	99	46	20	24
17	26	27	27	22	18	27	27	266	97	39	21	24
18	27	27	26	22	18	27	35	248	84	39	21	24
19	27	27	24	21	20	31	35	230	84	43	18	23
20	29	28	22	20	20	30	87	214	77	35	20	22
21	28	29	22	22	20	31	146	180	71	30	21	23
22	27	28	22	21	22	30	156	196	71	27	20	23
23	26	28	22	20	22	30	164	180	70	27	20	23
24	26	29	22	18	24	25	196	177	76	35	21	24
25	25	30	24	18	13	27	230	172	70	39	21	24
26	25	26	27	20	20	27	185	172	63	39	24	24
27	25	21	26	20	24	25	196	185	63	30	24	23
28	24	24	24	21	14	28	205	196	66	34	21	23
29	25	27	24	23	-	31	214	196	76	32	21	24
30	25	35	22	22	-	35	230	222	57	31	24	25
31	26	-	21	21	-	27	-	214	-	30	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	796	32	24	25.7	1,580
November	817	35	21	27.2	1,620
December	797	32	21	25.7	1,580
Calendar year 1937	19,799	337	-	54.2	39,270
January	674	25	18	21.7	1,340
February	573	24	13	20.5	1,140
March	936	35	21	27.0	1,660
April	2,645	230	24	88.2	5,250
May	6,192	370	125	200	12,280
June	3,598	230	57	120	7,140
July	1,247	53	27	40.2	2,480
August	724	30	18	23.4	1,440
September	717	28	21	23.9	1,420
Water year 1937-38	19,616	370	13	53.7	38,930

153585 O—39——8

Uinta River near Neola, Utah

Location.- Water-stage recorder, lat. 40°32', long. 110°04', in SW¼ sec. 25, T. 2 N., R. 2 W. Uinta meridian, 100 feet downstream from bridge, 1 mile upstream from Pole Creek, and 7 miles north of Neola.

Drainage area.- 181 square miles.

Records available.- July 1921 to September 1927 (fragmentary), September 1929 to September 1938.

Average discharge.- 10 years (1926-28, 1929-36), 157 second-feet.

Extremes.- Maximum discharge during year, 2,240 second-feet June 5 (gage height, 3.33 feet), from rating curve extended above 1,500 second-feet; minimum discharge recorded, 48 second-feet Dec. 24, but may have been less during period of ice effect.
1929-38: Maximum discharge, that of June 5, 1938; minimum not determined.
Maximum discharge known occurred June 9, 1922. It exceeded 3,000 second-feet but was not determined more exactly because of unstable channel conditions.

Remarks.- Records fair. Discharge for period of ice effect, Dec. 19 to Feb. 26, computed on basis of three discharge measurements and weather records, that for periods of missing gage heights, Oct. 30 to Nov. 4, Nov. 10, Mar. 18-24, May 30-31, June 2-3, computed on basis of records for Whiterocks River near Whiterocks. Water diverted from Pole Creek and used at Uinta Power & Light Co.'s power plant enters stream 500 feet above gage. Summer flow slightly regulated by storage in several small mountain lakes and reservoirs.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	171	106	71	70	60	71	97	226	1,180	498	260	250
2	159	106	78	70	60	69	53	208	1,200	450	250	270
3	152	108	78	75	60	69	80	183	1,400	399	240	285
4	145	106	74	60	60	71	87	167	1,570	381	226	265
5	141	104	74	50	60	67	104	152	1,940	369	226	240
6	141	104	78	55	55	66	101	138	1,790	351	222	236
7	145	104	80	50	55	66	90	128	1,290	345	231	222
8	141	92	74	50	55	64	90	121	1,130	326	236	265
9	138	98	80	55	60	63	90	118	1,140	328	265	270
10	138	100	83	60	60	61	78	121	1,030	323	275	231
11	138	101	83	70	60	63	76	121	940	312	296	231
12	135	92	80	70	60	63	76	138	910	318	260	265
13	128	87	76	60	55	59	71	179	777	387	265	260
14	128	92	74	60	55	59	69	285	671	477	275	236
15	131	87	74	60	55	55	71	438	620	418	240	226
16	128	95	71	60	50	58	80	637	628	363	222	222
17	131	92	74	60	50	63	83	628	696	351	208	213
18	131	92	71	60	50	65	98	505	696	345	200	204
19	118	90	70	60	55	65	109	412	564	328	187	196
20	121	92	50	60	55	65	109	357	533	328	183	191
21	121	90	50	55	55	65	106	318	612	328	175	191
22	121	85	55	55	60	50	112	285	604	318	171	183
23	121	85	60	55	60	65	135	280	596	306	171	179
24	118	83	50	55	65	65	145	312	533	301	175	179
25	118	78	50	50	65	71	155	375	498	301	175	179
26	112	83	70	50	70	76	141	533	470	312	179	171
27	112	78	70	50	71	87	131	786	450	340	200	163
28	106	87	87	50	71	92	145	990	450	334	222	159
29	104	80	85	55	-	83	179	1,200	696	301	236	155
30	106	76	70	60	-	104	222	1,000	612	285	236	159
31	108	-	70	60	-	101	-	1,100	-	275	250	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,004	171	104	129	7,940
November	2,773	108	76	92.4	5,500
December	2,170	83	50	70.0	4,300
Calendar year 1937	71,281	822	-	195	141,400
January	1,810	75	50	58.4	3,590
February	1,647	71	50	58.8	3,270
March	2,143	104	50	69.1	4,250
April	3,203	222	69	107	6,360
May	12,441	1,200	118	401	24,680
June	26,206	1,940	450	874	51,980
July	10,800	498	275	348	21,420
August	6,957	296	171	224	13,800
September	6,495	285	155	216	12,880
Water year 1937-38	80,649	1,940	50	221	160,000

Peak discharge.- June 4 (3 a.m.) 1,840 sec.-ft.; June 5 (3 a.m.) 2,240 sec.-ft.; June 6 (1 a.m.) 2,200 sec.-ft.

Whiterocks River near Whiterocks, Utah

Location.- Water-stage recorder, lat. 40°34', long. 109°56', in SW¼ sec. 18, T. 2 N., R. 1 E. Uinta meridian, 25 feet downstream from bridge, three-quarters of a mile upstream from head of United States Whiterocks and Farm Creek canals, and 6½ miles north of Whiterocks.

Drainage area.- 115 square miles

Records available.- August 1921 to September 1928 and February 1930 to September 1938. September 1899 to August 1904 and April 1907 to November 1910 at site nearby. November 1917 to June 1921 at site below diversion of United States Whiterocks canal and above that of Farm Creek canal; records equivalent if used in conjunction with those for Whiterocks canal.

Average discharge.- 14 years (1899-1903, 1908-10, 1930-38), 122 second-feet.

Extremes.- Maximum discharge during year, 1,600 second-feet June 2 (gage height, 4.60 feet); minimum recorded, 20 second-feet Apr. 2.
1917-28, 1930-38: Maximum discharge observed, 2,650 second-feet June 21, 1922; minimum, less than 14 second-feet during winter of 1920-21.

Remarks.- Records fair. Discharge for periods of missing gage heights, Nov. 11-27, 30, Dec. 4-6, 8-13, computed on basis of records for Uinta River near Neola; that for period of ice effect, Dec. 20 to Feb. 25, computed on basis of two discharge measurements and weather records. Flow slightly regulated by storage in small mountain lakes.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	79	45	29	30	32	29	27	208	1,150	354	112	134
2	73	45	34	32	32	28	31	181	1,250	310	101	156
3	71	44	31	32	32	29	27	132	1,310	267	95	181
4	69	43	30	30	32	32	29	112	1,200	243	108	154
5	69	43	30	28	30	31	31	99	1,140	240	108	138
6	72	44	32	30	30	31	28	87	984	220	104	127
7	73	41	37	28	30	31	29	82	775	201	125	125
8	73	44	34	28	30	31	31	79	750	186	123	172
9	68	42	34	30	32	29	31	81	725	169	146	164
10	66	40	36	32	32	29	32	75	650	154	167	141
11	65	40	38	34	32	29	34	76	595	146	156	156
12	64	38	36	34	32	29	36	90	595	138	138	186
13	61	36	34	32	30	29	36	141	509	141	144	181
14	64	38	32	30	32	30	32	236	442	246	195	144
15	72	36	31	30	30	30	35	388	396	233	154	134
16	72	38	29	32	32	31	39	566	392	198	141	127
17	72	36	31	30	30	30	41	580	404	178	134	121
18	73	36	30	32	26	31	50	460	413	167	118	112
19	69	36	29	30	26	32	58	361	361	151	95	108
20	63	38	26	32	28	30	55	284	331	151	89	106
21	63	34	26	30	28	28	80	236	388	148	85	104
22	64	34	28	30	28	30	106	223	380	136	82	104
23	64	34	30	30	28	34	116	227	369	127	78	104
24	63	34	28	28	28	30	123	253	354	121	78	104
25	60	34	28	28	28	29	125	320	310	118	84	121
26	58	34	30	28	29	30	116	468	288	154	95	112
27	57	34	30	28	28	32	114	720	295	172	97	106
28	52	35	28	30	28	32	132	1,020	278	183	118	104
29	50	30	28	32	-	28	164	1,160	468	141	116	103
30	50	28	30	32	-	31	198	956	434	121	127	104
31	48	-	30	32	-	34	-	1,050	-	110	129	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,017	79	48	65.1	4,000
November	1,134	45	28	37.8	2,250
December	959	38	26	30.9	1,900
Calendar year 1937	47,987	1,210	-	131	95,180
January	944	34	28	30.4	1,870
February	835	32	26	29.8	1,660
March	939	34	28	30.3	1,860
April	1,986	198	27	66.2	3,940
May	10,951	1,160	75	353	21,720
June	17,936	1,310	278	598	35,580
July	5,624	354	110	181	11,160
August	3,642	195	78	117	7,220
September	3,933	186	103	131	7,800
Water year 1937-38	50,900	1,310	26	139	101,000

White River near Meeker, Colo.

Location.- Water-stage recorder, lat. 40°02', long. 107°52', in sec. 30, T. 1 N., R. 93 W., 1 mile upstream from Curtis Creek and 3½ miles east of Meeker.

Drainage area.- 762 square miles.

Records available.- May 1901 to October 1906, May 1910 to November 1913, and October 1933 to September 1938 in reports of Geological Survey. May 1901 to October 1906 and May 1910 to September 1938 in reports of State engineer. Records prior to October 1913 obtained at site 2½ miles downstream.

Average discharge.- 33 years, 650 second-feet.

Extremes.- Maximum discharge during year, 3,290 second-feet May 30 (gage height, 3.79 feet); minimum daily discharge, 220 second-feet Jan. 8.
1901-6, 1910-38: Maximum daily discharge, 6,070 second-feet June 16, 1921; minimum daily discharge, 112 second-feet July 17, 1934.

Remarks.- Records excellent except those for periods of ice effect, Dec. 20 to Feb. 7, Feb. 18-28, which were computed on basis of one discharge measurement, weather records and records for Roaring Fork at Glenwood Springs and are fair. Diversions for irrigation above station.

Rating tables, water year 1937-38 except periods of ice effect (gage height in feet, and discharge, in second-feet)

Oct. 1 to Dec. 31
(Shifting-control method used Oct. 1-18)

1.2	225	1.5	355
1.3	260	1.6	410
1.4	305	1.7	470

Jan. 1 to Sept. 30
(Shifting-control method used May 1 to July 5)

1.1	205	1.6	440	3.0	1,700
1.2	245	2.0	710	3.5	2,690
1.4	335	2.5	1,120	4.0	3,920

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	296	300	269	270	250	326	308	2,190	2,830	1,490	434	507
2	310	305	282	290	248	330	304	1,510	2,830	1,320	424	535
3	300	310	292	285	248	355	290	1,370	2,880	1,220	412	612
4	269	310	282	275	248	345	304	1,180	3,050	1,120	390	640
5	260	296	282	255	248	335	326	1,080	3,100	1,050	380	476
6	260	292	287	240	240	326	360	966	3,120	974	380	380
7	253	325	282	225	240	317	335	886	2,980	926	360	365
8	246	296	282	220	294	312	340	814	2,830	886	390	355
9	250	296	282	235	290	322	340	766	2,880	790	402	385
10	246	292	278	250	290	317	335	798	3,000	742	396	424
11	242	287	274	245	272	317	322	838	2,980	703	385	488
12	239	278	315	245	272	330	350	966	2,950	689	375	556
13	239	274	315	240	237	360	385	1,180	3,030	682	385	577
14	250	269	282	238	237	375	452	1,660	2,860	682	418	470
15	340	274	278	240	254	340	452	2,210	2,380	693	402	446
16	345	264	287	245	241	330	476	2,670	2,210	663	390	440
17	340	278	282	245	237	360	482	2,640	2,090	612	385	440
18	440	287	282	240	230	350	549	2,640	2,270	593	380	424
19	340	274	278	240	230	340	710	2,360	2,250	570	360	418
20	330	287	245	235	250	350	675	1,920	2,300	549	345	407
21	320	305	240	230	248	370	535	1,670	2,500	549	340	407
22	315	300	240	230	245	340	640	1,760	2,910	528	326	412
23	315	269	255	235	240	345	870	1,620	2,570	507	326	407
24	320	292	270	235	240	345	1,120	1,660	2,300	491	340	407
25	315	287	280	235	235	350	1,340	1,760	2,070	483	340	407
26	300	260	275	240	260	340	1,490	1,900	1,890	488	335	402
27	300	239	280	230	270	330	1,230	2,210	1,790	521	350	390
28	296	282	275	240	300	355	1,280	2,550	1,760	577	355	385
29	300	278	275	250	-	350	1,480	3,070	1,800	500	360	375
30	296	260	280	245	-	335	1,820	3,050	1,630	507	365	370
31	296	-	270	250	-	326	-	2,910	-	458	380	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	9,168	440	239	296	18,180
November	8,566	325	239	286	16,990
December	8,596	315	240	277	17,050
Calendar year 1937	165,852	2,150	208	454	329,000
January	7,578	290	220	244	15,030
February	7,094	300	230	253	14,070
March	10,523	375	312	339	20,870
April	19,900	1,820	290	663	39,470
May	54,804	3,070	766	1,768	108,700
June	76,060	3,120	1,630	2,535	150,900
July	22,584	1,490	458	729	44,790
August	11,630	434	326	375	23,070
September	13,307	640	355	444	26,390
Water year 1937-38	249,810	3,120	220	684	495,500

Peak discharge.- Apr. 26 (4 a.m.) 1,740 sec.-ft.; May 14 (4 a.m.) 2,710 sec.-ft.; May 17 (4 a.m.) 3,000 sec.-ft.; May 30 (3 a.m.) 3,290 sec.-ft.

White River near Watson, Utah

Location.- Water-stage recorder, lat. 39°58', long. 109°10', in sec. 2, T. 10 S., R. 24 E. Salt Lake meridian, just downstream from Evacuation Creek and 10 miles northeast of Watson.

Drainage area.- 4,020 square miles.

Records available.- April to October 1906 (published as White River near Dragon, Utah), and October 1933 to September 1938 in reports of Geological Survey. April 1923 to September 1938 in reports of Colorado State engineer.

Extremes.- Maximum discharge during year, 5,480 second-feet Sept. 2 (gage height, 5.69 feet), from rating curve extended above 3,500 second-feet; minimum daily discharge, 166 second-feet Dec. 24.

1906, 1923-38: Maximum daily discharge, 8,160 second-feet July 15, 1929; minimum discharge, 52 second-feet July 19, 20, 1934.

Remarks.- Records good except those for periods of ice effect, Dec. 21, 22, Dec. 25 to Feb. 9, which were computed on basis of one discharge measurement and weather records and are fair. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	384	366	340	290	300	668	408	2,290	3,160	1,820	501	508
2	335	360	302	310	310	1,210	390	2,720	3,010	1,590	468	2,710
3	325	360	298	330	315	1,710	372	2,050	2,880	1,420	444	3,670
4	310	355	290	300	340	2,110	360	1,780	2,880	1,290	438	1,120
5	302	340	290	270	350	967	350	1,480	3,040	1,180	426	1,000
6	302	325	250	250	280	732	390	1,340	3,200	1,080	420	788
7	298	330	270	245	260	652	420	1,200	3,200	967	420	1,100
8	282	378	270	240	320	578	396	1,070	3,110	908	438	1,120
9	278	366	310	280	310	515	378	967	2,820	860	474	876
10	278	320	310	300	450	456	310	900	2,800	804	860	700
11	278	315	290	305	494	450	286	876	2,950	756	529	716
12	278	315	340	295	636	487	270	908	2,980	700	444	1,240
13	278	306	522	287	606	724	274	1,010	2,820	676	480	1,050
14	278	294	414	280	543	796	320	1,190	2,900	836	550	812
15	868	298	325	310	390	812	402	1,780	2,950	772	543	668
16	1,200	302	302	300	330	620	515	2,460	2,510	836	515	592
17	620	302	298	310	310	564	592	2,960	2,300	780	474	628
18	1,590	298	290	310	294	613	564	3,200	2,130	652	456	571
19	860	315	282	300	298	557	636	3,270	2,200	613	444	550
20	501	320	266	300	340	522	756	2,960	2,190	606	432	522
21	462	310	240	290	298	494	796	2,500	2,260	578	408	515
22	450	315	210	285	360	571	764	2,180	2,390	550	408	515
23	432	335	184	275	366	501	852	2,110	2,740	536	396	515
24	408	320	166	260	408	480	994	1,900	2,610	494	390	508
25	384	302	190	255	366	501	1,310	1,840	2,340	480	480	487
26	390	298	180	255	366	501	1,700	1,940	2,080	462	468	501
27	396	298	185	265	372	480	1,970	2,090	1,900	474	480	480
28	384	315	195	275	432	456	1,620	2,430	1,830	571	480	468
29	372	315	220	280	-	438	1,590	2,710	1,950	592	474	462
30	372	378	230	285	-	450	1,830	3,190	2,080	536	550	450
31	366	-	260	290	-	444	-	3,430	-	508	1,530	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	14,261	1,590	278	460	28,290
November	9,751	378	294	325	19,340
December	8,519	522	166	275	16,900
Calendar year 1937	199,787	3,180	-	547	396,300
January	8,827	330	240	285	17,510
February	10,444	636	260	373	20,720
March	21,059	2,110	438	679	41,770
April	21,815	1,970	270	727	43,270
May	62,731	3,430	876	2,024	124,400
June	78,210	3,200	1,830	2,607	155,100
July	24,927	1,820	462	804	49,440
August	15,820	1,530	390	510	31,380
September	25,842	3,670	450	861	51,260
Water year 1937-38	302,206	3,670	166	828	599,400

Peak discharge.- Oct. 18 (6 p.m.) 3,400 sec.-ft.; Mar. 4 (4 a.m.) 3,360 sec.-ft.; Aug. 31 (1 a.m.) 4,960 sec.-ft.; Sept. 2 (12 m) 5,480 sec.-ft.; Sept. 3 (4 a.m.) 5,000 sec.-ft.; Sept. 12 (8 p.m.) 3,440 sec.-ft.

Price River near Heiner, Utah

Location.- Water-stage recorder, lat. 39°43'05", long. 110°51'55", in SW¼ sec. 1, T. 13 S., R. 9 E., three-quarters of a mile downstream from Willow Creek and two-thirds of a mile north of Heiner.

Records available.- June 1934 to September 1938.

Extremes.- Maximum discharge during year, 1,090 second-feet Aug. 8 (gage height, 3.58 feet); minimum observed, 8 second-feet Sept. 20.
1934-38: Maximum discharge, 4,850 second-feet Aug. 26, 1935 (gage height, 6.16 feet), by slope-area method; minimum, less than 1 second-foot at times during period Sept. 1-10, 1934.

Remarks.- Records good except those for periods when intake was clogged, Aug. 9-11, 31, Sept. 1-7, 10-15 and those for periods of ice effect (computed on basis of weather records and records for Fish Creek near Scofield), which are fair. Station is above irrigation diversions from main stream. Several small irrigation and municipal-supply diversions from tributaries above. Flow affected by storage in Pleasant Valley Reservoir on Fish Creek (capacity, 42,000 acre-feet).

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	233	50	*10	*12	34	30	374	374	128	137	150
2	50	215	50	10	*12	30	26	378	282	124	137	150
3	50	193	46	10	*12	73	42	330	285	122	176	125
4	48	172	41	*10	*12	58	66	288	282	120	165	80
5	50	153	50	*8	*10	30	76	264	276	117	185	100
6	50	139	45	*8	*10	24	47	247	273	117	185	60
7	50	128	37	*8	*12	25	35	233	261	117	190	60
8	49	70	27	*10	*14	24	42	220	273	137	244	126
9	49	58	17	*10	*16	27	53	212	267	153	125	71
10	49	55	15	*11	*18	35	59	207	261	174	100	60
11	71	52	14	11	*18	54	60	207	236	181	90	60
12	188	52	20	12	*16	66	73	255	241	193	82	100
13	193	52	16	*12	*14	56	68	276	241	212	145	20
14	195	49	14	*12	*14	48	67	313	225	236	102	15
15	210	68	11	12	*13	33	78	418	220	236	115	10
16	197	70	12	12	*13	53	97	605	217	236	117	10
17	195	70	11	14	*12	64	124	610	215	207	120	10
18	193	67	10	12	*12	42	168	758	223	195	122	9
19	183	61	*8	12	*14	77	220	740	233	197	120	9
20	181	63	*5	13	*14	76	255	680	230	185	119	9
21	179	61	*8	*13	*16	63	258	685	217	197	120	47
22	176	74	*10	13	*17	33	270	690	195	195	126	64
23	174	73	*10	13	18	33	285	674	217	193	157	66
24	172	78	*8	*13	17	30	294	641	220	190	165	64
25	174	82	*10	*13	29	34	307	580	217	188	165	66
26	174	80	*10	*13	27	40	294	444	215	188	179	58
27	170	68	*10	*13	26	59	288	440	217	185	195	15
28	170	70	*10	*13	27	67	288	436	220	183	179	44
29	244	63	*10	13	-	36	304	427	161	147	172	70
30	250	53	*10	*13	-	26	348	418	141	130	172	76
31	244	-	*10	*13	-	28	-	414	-	128	250	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,427	250	48	143	8,780
November	2,722	233	49	90.7	5,400
December	605	50	5	19.5	1,200
Calendar year 1937	62,399	836	-	171	123,800
January	360	14	8	11.6	714
February	445	29	10	15.9	883
March	1,378	77	24	44.4	2,730
April	4,622	348	26	154	9,170
May	13,464	758	207	434	26,700
June	7,135	374	141	238	14,150
July	5,313	236	117	171	10,540
August	4,676	250	82	151	9,270
September	1,804	150	9	60.1	3,580
Water year 1937-38	46,951	758	5	129	93,120

Peak discharge.- Aug. 8 (4 p.m.) 1,090 sec.-ft.; Aug. 13 (4 p.m.) 998 sec.-ft.
*Stage-discharge relation affected by ice; discharge computed on basis of five discharge measurements, gage heights, and weather records.

Huntington Creek near Huntington, Utah

Location.- Water-stage recorder, lat. 39°22'15", long. 111°03'45", in SE¼ sec. 6, T. 17 S., R. 8 E., 1 mile upstream from Fish Creek and 7 miles northwest of Huntington.

Drainage area.- 188 square miles.

Records available.- May 1909 to September 1917, October 1918 to November 1920 (fragmentary), April 1921 to September 1938.

Average discharge.- 23 years (1910-17, 1921-29, 1930-38), 100 second-feet.

Extremes.- Maximum discharge during year, 1,260 second-feet Aug. 8 (gage height, 4.15 feet) from rating curve extended above 500 second-feet; minimum recorded, 10 second-feet Mar. 22.

1909-38: Maximum discharge, about 2,500 second-feet Aug. 2 or 3, 1930 (gage height, 7.5 feet), from rating curve extended above 600 second-feet; probably no flow Nov. 5, 1926.

Remarks.- Records good except those for periods of ice effect, Dec. 21 to Jan. 14, Jan. 22 to Feb. 22 (computed on basis of four discharge measurements and weather records), and those for periods of missing gage heights, Apr. 19-28, May 5-11, June 23 to July 4, July 10-17 (computed on basis of records for Cottonwood Creek near Orangeville), which are fair. Small irrigation diversions above station. Flow slightly regulated by small storage reservoirs.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	34	28	30	28	31	39	410	435	95	102	76
2	46	28	33	32	28	32	36	288	450	90	100	51
3	45	29	29	35	28	38	38	219	475	85	99	44
4	44	29	27	32	28	31	39	182	522	80	99	40
5	44	27	34	28	25	31	43	160	522	127	95	39
6	44	28	32	26	25	28	39	150	485	170	94	38
7	43	30	33	27	26	28	36	140	430	161	95	36
8	42	26	36	27	28	31	40	130	396	140	123	43
9	41	27	34	28	30	32	43	125	374	118	113	39
10	40	28	32	29	31	31	45	130	348	110	89	35
11	40	25	36	30	32	31	86	150	340	105	80	36
12	38	26	46	32	32	32	94	222	284	105	74	41
13	36	25	41	31	31	32	84	360	231	110	67	37
14	39	26	37	31	30	31	74	490	198	200	64	35
15	73	26	29	32	29	31	76	566	170	150	63	34
16	53	25	35	29	29	31	78	620	203	135	63	34
17	48	28	36	31	28	34	80	516	170	130	62	34
18	63	28	32	31	27	30	83	400	163	129	61	34
19	45	25	26	31	29	32	90	336	150	158	58	33
20	44	31	29	29	31	33	110	284	140	144	56	33
21	43	31	29	24	31	31	100	255	135	142	52	35
22	41	26	28	26	31	23	140	246	129	142	51	34
23	40	28	28	27	31	36	170	231	130	138	52	34
24	36	30	25	29	31	33	200	281	135	133	53	34
25	34	28	28	28	24	32	190	360	120	138	52	34
26	33	28	28	28	32	33	180	455	115	156	61	33
27	33	21	30	31	33	36	170	490	130	140	52	33
28	31	40	30	28	32	38	220	500	125	118	52	34
29	31	36	28	28	-	32	332	522	135	109	55	34
30	31	27	28	28	-	28	505	455	110	107	57	34
31	32	-	30	28	-	30	-	440	-	102	73	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,301	73	31	42.0	2,580
November	846	40	21	28.2	1,680
December	977	46	25	31.5	1,940
Calendar year 1937	36,808	809	-	101	73,010
January	906	35	24	29.2	1,800
February	820	33	24	29.3	1,630
March	982	38	23	31.7	1,950
April	3,460	505	36	115	6,860
May	10,113	620	125	326	20,060
June	7,750	522	110	258	15,370
July	3,967	200	80	128	7,870
August	2,267	123	51	73.1	4,500
September	1,131	76	33	37.7	2,240
Water year 1937-38	34,520	620	21	94.6	68,480

Peak discharge.- Apr. 30 (7 p.m.) 760 sec.-ft.; May 15 (10 p.m.) sec.-ft.; Aug. 8 (3 p.m.) 1,260 sec.-ft.; Sept. 1 (4 p.m.) 590 sec.-ft.

Cottonwood Creek near Orangeville, Utah

Location.- Water-stage recorder, lat. 39°15'55", long. 111°07'40", in SW¼ sec. 10, T. 18 S., R. 7 E., 2 miles upstream from Grimes Wash and 5 miles northwest of Orangeville.

Drainage area.- 200 square miles.

Records available.- May 1909 to September 1927 (fragmentary), May 1932 to September 1938.

Average discharge.- 22 years (1910-20, 1921-27, 1932-38), 108 second-feet.

Extremes.- Maximum discharge during year, 1,640 second-feet July 26 (gage height, 4.03 feet), from rating curve extended above 700 second-feet; minimum discharge recorded, 5 second-feet Jan. 21, that may have been less during period of ice effect.

1909-27, 1932-38: Maximum discharge, about 2,500 second-feet Aug. 22, 1922, Sept. 9, 1927, from rating curve extended above 900 second-feet; minimum discharge observed, 4 second-feet Jan. 24, 1933.

Remarks.- Records good except those for periods of ice effect, Dec. 19, Dec. 21 to Jan. 18, Jan. 21-31, Feb. 2, 5-9, 13, 14, 16-23, 26, which were computed on basis of five discharge measurements and weather records and are fair. Small diversions for irrigation above station. Ephraim tunnel, constructed by Bureau of Reclamation in 1936, diverts water to Great Basin for irrigation in vicinity of Ephraim.

Rating tables, water year 1937-38 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to June 5						June 6 to Sept. 30					
1.3	11	2.2	109	3.3	650	1.7	21	2.4	123	3.3	650
1.4	15	2.4	153	3.6	1,010	1.8	29	2.6	182	3.6	1,010
1.6	29	2.6	209	4.0	1,590	2.0	49	2.8	265	4.0	1,590
1.8	49	2.8	285			2.2	80	3.0	384		
2.0	75	3.0	393								

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	25	19	20	20	20	20	209	808	112	37	72
2	27	23	22	22	20	19	20	182	880	100	36	75
3	26	23	19	25	19	31	26	163	1,010	96	34	56
4	26	22	15	22	19	24	32	153	950	92	33	37
5	27	20	25	19	18	20	33	144	850	90	31	34
6	27	20	22	15	18	20	23	135	694	90	35	35
7	26	23	24	16	18	19	21	126	570	84	34	35
8	26	19	24	16	19	20	23	120	532	80	55	46
9	25	20	26	17	19	21	28	120	479	77	72	34
10	25	19	22	18	20	22	32	122	488	73	44	29
11	25	19	23	19	19	25	34	130	430	72	52	31
12	24	19	29	20	19	28	36	153	345	72	65	42
13	24	20	23	18	20	27	29	223	297	73	40	30
14	28	18	20	18	21	23	29	340	270	105	34	29
15	37	20	18	21	20	24	34	464	247	82	31	28
16	28	18	20	17	19	27	46	705	238	72	30	28
17	27	22	21	18	19	31	61	694	220	60	30	29
18	34	21	20	18	18	21	83	550	212	57	29	27
19	25	19	16	18	20	27	113	443	193	57	27	27
20	25	22	17	18	22	41	130	369	176	59	27	27
21	26	23	19	17	22	34	122	314	160	55	26	27
22	24	17	18	16	22	17	157	281	150	53	27	27
23	24	20	18	20	22	23	176	264	150	49	27	26
24	24	20	14	19	20	29	182	295	156	49	32	26
25	24	19	17	19	18	27	169	436	136	48	37	25
26	23	19	19	19	16	26	151	705	131	112	56	24
27	24	11	20	20	21	32	148	760	150	60	50	24
28	24	27	20	20	20	33	163	844	145	47	50	24
29	23	23	18	20	-	22	185	868	166	45	55	25
30	23	17	18	20	-	18	244	820	123	42	90	25
31	23	-	20	20	-	19	-	808	-	40	118	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	802	37	23	25.9	1,590
November	608	27	11	20.3	1,210
December	626	29	14	20.2	1,240
Calendar year 1937	35,003	898	-	95.9	69,430
January	585	25	15	18.9	1,160
February	548	22	16	19.6	1,090
March	770	41	17	24.8	1,530
April	2,550	244	20	85.0	5,060
May	11,940	868	120	385	23,680
June	11,356	1,010	123	379	22,520
July	2,203	112	40	71.1	4,370
August	1,344	118	26	43.4	2,670
September	1,004	75	24	33.5	1,990
Water year 1937-38	34,336	1,010	11	94.1	68,110

Peak discharge.- May 16 (2 a.m.) 832 sec.-ft.; June 2 (11 p.m.) 1,440 sec.-ft.; July 26 (7 p.m.) 1,640 sec.-ft.; Aug. 9 (3 p.m.) 844 sec.-ft.

Fremont River near Bicknell, Utah

Location.- Staff gage, lat. 38°18', long. 111°31', in NE¼ sec. 7, T. 29 S., R. 4 E., 1,000 feet upstream from highway bridge, 1,000 feet downstream from Torrey canal and Mill ditch, 1 mile below Government Creek, and 3 miles southeast of Bicknell.

Drainage area.- 776 square miles.

Records available.- May 1909 to December 1912 (published as Fremont River near Thurber); October 1937 to September 1938; records equivalent.

Extremes.- Maximum discharge observed during year, 308 second-feet Apr. 20; minimum observed, 47 second-feet Oct. 4.
1909-12, 1937-38: Maximum discharge observed, 420 second-feet Apr. 10, 1912; minimum, 18 second-feet June 2, 4, 13-15, 17, 18, 1912.

Remarks.- Records poor. Records include flow of Torrey canal and Mill ditch and represent flow of Fremont River above these diversions. Discharge computed by combining flow in canals with that in river below canals. Gages read once daily. Several diversions for irrigation above station. Flow affected by storage in Fish Lake, Johnson and Forsythe Reservoirs.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*64	64	72	*84	99	*116	*95	108	60	84	66	151
2	*55	64	76	*87	87	102	*95	105	63	81	66	93
3	49	65	78	89	92	98	*94	82	63	64	55	73
4	47	65	79	*92	118	99	95	81	68	76	57	81
5	57	65	79	97	111	96	94	82	69	74	55	68
6	59	66	80	*105	86	97	95	77	65	73	73	54
7	59	67	80	113	91	97	93	74	65	62	56	63
8	66	67	81	97	81	95	94	72	70	64	58	63
9	65	67	83	*98	91	97	93	72	67	*62	59	67
10	70	66	88	*99	94	98	*86	72	78	60	63	67
11	79	67	95	*99	92	95	80	71	73	58	62	87
12	70	67	88	*100	94	*94	82	69	63	53	79	85
13	69	67	*91	*100	102	94	81	69	64	119	61	70
14	69	67	96	*97	99	*106	83	70	65	127	59	68
15	68	*67	97	*97	102	117	84	69	66	176	54	67
16	69	69	83	99	106	125	84	70	67	80	57	62
17	64	71	91	*105	112	125	82	70	63	64	57	63
18	65	71	88	*111	102	138	82	67	62	54	53	62
19	66	70	92	116	*103	142	85	66	55	69	74	71
20	66	73	91	*112	*99	138	308	66	57	52	60	76
21	66	76	88	107	102	141	275	65	54	54	64	76
22	65	71	81	96	102	134	273	64	57	56	63	76
23	66	67	86	*96	103	123	279	65	57	60	62	71
24	65	77	84	95	100	118	267	64	57	52	62	70
25	65	70	*86	88	95	96	121	64	57	71	68	70
26	66	69	88	87	93	94	101	63	60	76	77	70
27	66	*68	90	*93	104	95	164	61	64	91	69	74
28	67	68	*83	99	132	95	163	62	123	88	121	73
29	69	68	78	95	-	97	119	*61	119	64	81	71
30	67	77	83	112	-	97	113	*62	78	63	73	72
31	65	-	83	83	-	96	-	*60	-	62	77	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,003	79	47	64.6	3,970
November	2,056	77	64	68.5	4,080
December	2,638	97	72	85.1	5,230
Calendar year					
January	3,048	116	83	98.3	6,050
February	2,792	132	81	99.7	5,540
March	3,355	142	94	108	6,650
April	3,860	308	80	129	7,660
May	2,203	108	60	71.1	4,370
June	2,029	123	54	67.6	4,020
July	2,289	176	52	73.8	4,540
August	2,041	121	53	65.8	4,050
September	2,214	151	54	73.8	4,390
Water year 1937-38	30,528	308	47	83.6	60,550

*Gage-height missing; discharge interpolated or estimated.

San Juan River at Pagosa Springs, Colo.

Location.- Water-stage recorder, lat. 37°15'55", long. 107°00'40", in S½ sec. 13, T. 35 N., R. 2 W., under lower highway bridge at town of Pagosa Springs.

Drainage area.- 298 square miles.

Records available.- January 1911 to November 1914, May 1935 to September 1938.

Extremes.- Maximum discharge during year, 3,970 second-feet May 29 (gage height, 6.58 feet); minimum daily discharge, 22 second-feet Dec. 19.

1911-14, 1935-38: Maximum discharge recorded, 4,710 second-feet June 15, 1935; minimum daily discharge, that of Dec. 19, 1938.

Greatest known flood occurred Oct. 5, 1911, discharge about 25,000 second-feet (stage about 17 feet).

Remarks.- Records excellent except those for period of missing gage heights, Dec. 29 to Jan. 20, which were computed on basis of weather records and are fair. Diversions for irrigation above station.

Rating table, Apr. 4 to Sept. 30, 1938 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 4-6)

2.6	80	4.5	766
2.8	114	5.0	1,250
3.0	156	5.5	1,940
3.5	282	6.0	2,800
4.0	480	6.5	3,800

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	141	58	33	50	54	77	156	1,590	2,910	1,460	178	110
2	100	57	35	51	54	87	137	1,210	2,800	1,250	163	178
3	89	56	57	51	53	128	175	1,040	2,750	1,110	156	167
4	82	56	46	50	54	164	249	840	2,990	977	163	196
5	74	51	40	48	51	128	306	696	2,800	864	165	202
6	68	50	46	42	43	94	306	648	2,710	752	149	196
7	60	69	38	43	51	85	252	559	2,440	672	165	191
8	57	68	34	43	53	87	227	504	2,240	583	138	230
9	57	66	32	45	51	83	270	490	2,000	533	136	193
10	56	68	36	47	53	89	390	458	1,910	494	124	174
11	54	66	43	48	54	98	494	538	1,840	454	134	773
12	54	60	51	48	66	114	642	724	1,970	440	235	1,100
13	56	53	53	49	74	122	625	840	2,410	411	276	856
14	54	53	56	50	63	116	533	1,350	2,250	423	324	602
15	89	58	48	52	60	118	432	1,800	2,100	419	227	458
16	130	48	47	56	57	116	428	1,840	2,000	374	180	402
17	96	50	47	58	43	130	538	1,780	1,970	333	158	402
18	91	56	36	57	50	132	840	1,580	1,940	316	147	306
19	74	44	22	55	51	149	1,140	1,460	1,710	320	130	267
20	64	51	40	55	62	188	1,150	1,230	1,680	309	118	230
21	68	54	39	50	57	205	1,370	1,280	1,840	273	112	212
22	69	50	35	58	51	179	1,460	1,350	2,120	255	103	193
23	72	46	44	58	51	198	1,730	1,250	2,120	244	100	178
24	69	51	43	53	53	276	1,850	1,430	1,720	212	101	171
25	64	46	43	50	51	351	1,820	1,540	1,570	203	103	165
26	63	46	47	53	48	374	1,590	1,300	1,520	191	105	152
27	63	38	53	57	62	291	1,380	2,070	1,480	193	93	141
28	63	30	43	58	64	250	1,500	2,530	1,390	327	93	134
29	62	32	46	58	-	200	1,720	3,350	2,100	235	100	124
30	58	33	47	58	-	170	1,750	3,070	1,800	193	114	114
31	60	-	49	54	-	168	-	2,900	-	187	103	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,257	141	54	72.8	4,480
November	1,564	69	30	52.1	3,100
December	1,329	57	22	42.9	2,640
Calendar year 1937	167,522	2,950	22	459	332,200
January	1,605	58	42	51.8	3,180
February	1,534	74	43	54.8	3,040
March	4,967	374	77	160	9,850
April	25,460	1,850	137	849	50,500
May	43,747	3,350	458	1,411	86,770
June	63,080	2,990	1,390	2,103	125,100
July	15,015	1,460	187	484	29,780
August	4,593	324	93	148	9,110
September	8,817	1,100	110	294	17,490
Water year 1937-38	173,968	3,350	22	477	345,000

Peak discharge.- Apr. 23 (9 p.m.) 2,320 sec.-ft.; May 15 (1 a.m.) 2,040 sec.-ft.; May 29 (2 a.m.) 3,970 sec.-ft.; June 23 (5 a.m.) 2,460 sec.-ft.; June 29 (8 p.m.) 2,370 sec.-ft.

San Juan River at Rosa, N. Mex.

Location.- Water-stage recorder, lat. 37°00'20", long. 107°24'10", in sec. 21, T. 32 N., R. 5 W., at Rosa, about 75 feet upstream from highway bridge and about a quarter of a mile downstream from Piedra River. Prior to Sept. 1 at site 400 feet upstream at same datum.

Drainage area.- 1,990 square miles.

Records available.- October 1930 to September 1938 in reports of Geological Survey. September 1920 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 9,480 second-feet May 29 (gage height, 7.50 feet, from recorded range in state); minimum daily discharge, 112 second-feet Dec. 21. 1930-38: Maximum discharge about 10,400 second-feet June 21, 1935 (gage height, 7.60 feet); minimum daily discharge 70 second-feet (estimated), Dec. 1, 2, 1934. Greatest known flood occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records fair exept those for periods of ice effect, Nov. 28 to Dec. 3, Dec. 19 to Jan. 16, Jan. 22 to Feb. 7 (computed on basis of one discharge measurement, gage heights, weather rcords, and records for stations at Pagosa Springs and near Blanco), and those periods of missing or partial gage-height record, Oct. 22 to Nov. 3, Mar. 5-12, Mar. 29 to Apr. 3, May 4, 5, May 27 to June 2 (computed from weather records and records for stations at Pagosa Springs and near Blanco), all of which are poor. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	738	235	175	255	210	1,310	870	6,680	7,180	3,680	560	565
2	384	225	195	280	200	1,140	910	4,420	6,320	2,960	502	925
3	323	215	225	285	200	2,690	1,140	3,770	6,400	2,580	466	1,040
4	291	206	185	260	215	2,300	1,810	3,200	6,800	2,380	470	1,220
5	275	202	161	215	205	1,000	2,180	2,660	6,680	2,070	470	1,540
6	252	199	158	185	195	650	2,180	2,300	6,200	1,790	444	1,260
7	238	220	158	165	196	500	1,760	2,240	5,740	1,610	466	1,110
8	220	295	158	152	220	520	1,500	1,980	5,280	1,440	466	1,220
9	213	244	167	152	224	500	1,450	2,040	4,520	1,330	410	1,130
10	206	227	158	160	202	570	2,040	1,870	4,420	1,210	402	809
11	202	227	158	172	238	780	2,580	1,920	3,860	1,100	386	2,100
12	202	224	161	188	420	1,070	3,600	2,300	4,320	1,060	555	3,060
13	234	213	188	199	542	1,400	3,600	2,660	5,620	1,060	693	2,620
14	213	188	179	205	344	1,220	3,600	3,860	5,500	1,030	780	1,660
15	259	192	179	212	307	652	2,380	5,960	4,840	1,210	655	1,270
16	624	188	170	220	267	840	2,660	6,440	4,620	1,030	502	1,130
17	425	176	164	248	220	1,110	3,200	5,850	4,420	900	434	1,070
18	327	185	152	241	182	968	4,220	4,940	4,620	846	394	882
19	311	188	140	196	182	1,000	5,500	4,520	3,860	828	378	801
20	271	173	126	185	202	1,360	5,500	3,770	3,860	858	340	711
21	263	188	112	179	192	1,650	6,440	3,680	4,040	888	318	647
22	259	188	125	180	176	1,110	6,080	3,860	5,160	768	298	600
23	255	179	140	170	164	1,070	6,680	3,520	5,160	738	284	568
24	251	173	160	145	176	1,600	6,920	3,940	4,040	665	287	530
25	247	179	190	180	167	2,380	6,920	4,320	3,520	610	284	512
26	243	173	195	170	161	2,660	6,560	5,280	3,360	552	280	507
27	239	161	175	180	176	2,040	4,620	5,850	3,360	520	274	462
28	234	151	155	187	551	1,810	4,940	7,680	3,120	828	277	452
29	230	139	140	196	-	1,540	6,080	8,690	4,730	774	312	431
30	235	148	165	170	-	1,270	6,440	8,180	5,280	610	390	410
31	240	-	205	185	-	963	-	7,680	-	542	414	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	8,904	738	202	287	17,660
November	5,901	295	139	197	11,700
December	5,119	225	112	165	10,150
Calendar year 1937	568,497	-	112	1,544	1,128,000
January	6,117	285	145	197	12,130
February	6,734	551	161	240	13,360
March	39,673	2,690	500	1,280	78,690
April	114,360	6,920	870	3,812	226,800
May	136,060	8,690	1,870	4,389	269,900
June	146,870	7,180	3,120	4,896	291,300
July	38,487	3,680	520	1,242	76,340
August	13,191	780	274	426	26,160
September	31,242	3,060	410	1,041	61,970
Water year 1937-38	552,658	8,690	112	1,514	1,096,000

Peak discharge.- Apr. 24 (4 a.m.) 8,430 sec.-ft.; Apr. 25 (4 a.m.) 8,180 sec.-ft.; May 29 (6 a.m.) 9,480 sec.-ft.

San Juan River near Blanco, N. Mex.

Location.- Water-stage recorder, lat. 36°44', long. 107°49', in sec. 18, T. 29 N., R. 9 W., half a mile above highway bridge, 1 mile above mouth of Canyon Largo, and 1½ miles east of Blanco.

Drainage area.- 3,320 square miles.

Records available.- December 1908 to October 1910 and October 1930 to September 1938 in reports of Geological Survey. December 1908 to October 1910 and June 1927 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 13,500 second-feet May 29 (gage hieht, 6.88 feet); minimum daily discharge, 128 second-feet Dec. 21.

1930-38: Maximum discharge, about 18,000 second-feet, Apr. 16, 1937, from rating curve extended above 11,000 second-feet logarithmically and on basis of area-velocity studies; maximum gage height, 7.65 feet Aug. 21, 1932; minimum daily discharge, 23 second-feet July 7, 1934.

Greatest known flood occurred Oct. 6, 1911 (discharge not determined).

Remarks.- Records good except those for period of ice effect, Nov. 29 to Dec. 3, which were computed on basis of weather records, gage heights, and records for station at Pagosa Springs and are fair. Diversion for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,190	325	152	228	249	2,160	1,110	9,100	9,790	8,120	526	545
2	693	314	171	243	254	2,180	1,020	6,660	8,870	4,800	519	1,070
3	446	308	195	285	124	1,940	1,080	5,110	9,100	4,030	440	1,960
4	380	302	219	302	254	4,800	2,010	4,490	9,790	3,640	419	1,920
5	331	296	243	302	204	1,770	2,700	3,780	9,790	3,270	419	1,640
6	285	291	219	285	199	858	2,660	3,290	8,870	2,830	405	1,580
7	249	302	204	214	199	598	2,270	3,100	8,440	2,510	412	1,590
8	228	367	209	176	249	557	2,050	2,880	7,410	2,160	426	1,300
9	214	433	172	172	243	598	1,720	2,680	6,470	1,830	361	1,350
10	195	342	185	190	259	590	2,140	2,530	6,120	1,670	336	1,080
11	195	314	199	243	336	667	2,920	2,450	5,440	1,520	361	1,850
12	190	314	223	233	504	768	3,780	2,740	5,770	1,340	426	4,490
13	190	302	233	238	1,020	1,870	4,200	3,340	6,470	1,370	615	4,340
14	228	264	269	254	598	1,840	4,200	4,490	8,010	1,310	768	2,830
15	269	214	238	254	467	1,040	3,150	6,840	6,470	1,990	837	2,200
16	693	214	238	285	386	858	3,130	8,010	6,120	1,400	615	1,940
17	778	209	228	280	319	1,110	3,590	7,610	5,940	1,150	460	1,690
18	519	219	214	254	259	1,230	4,490	6,300	6,120	1,010	386	1,520
19	426	223	209	308	204	1,160	6,120	5,600	5,440	954	331	1,270
20	405	223	176	296	223	1,340	6,470	4,960	5,280	930	291	1,160
21	342	209	128	285	264	1,970	7,210	4,490	5,770	899	249	1,040
22	331	228	144	254	249	1,610	7,610	4,640	6,840	899	223	910
23	325	223	180	243	214	1,280	8,220	4,640	8,010	737	199	806
24	319	214	204	204	204	1,620	9,100	4,800	6,470	778	214	749
25	319	204	199	154	209	2,530	9,100	5,440	5,440	649	195	676
26	314	219	223	254	209	3,200	8,870	6,470	5,110	590	199	649
27	319	219	285	214	204	2,640	6,840	7,610	4,960	534	195	615
28	302	185	285	228	319	2,390	6,300	8,870	4,800	542	185	534
29	314	162	214	249	-	2,140	7,210	10,800	5,600	932	190	504
30	325	140	158	259	-	1,730	8,010	10,500	9,790	749	185	489
31	325	-	190	162	-	1,320	-	9,790	-	606	233	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	11,639	1,190	190	375	23,090
November	7,779	433	140	259	15,430
December	6,406	285	128	207	12,710
Calendar year 1937	694,958	13,300	87	1,904	1,378,000
January	7,548	308	154	243	14,970
February	8,512	1,020	199	304	16,880
March	50,364	4,800	557	1,625	99,900
April	139,280	9,100	1,020	4,643	276,300
May	174,010	10,800	2,450	5,613	345,100
June	208,500	9,790	4,800	6,950	413,600
July	53,759	6,120	534	1,734	106,600
August	11,620	837	185	375	23,050
September	44,297	4,490	489	1,477	87,860
Water year 1937-38	723,714	10,800	128	1,983	1,435,000

Peak discharge.- May 29 (3 p.m.) 13,500 sec.-ft.; June 1 (3 p.m.) 11,300 sec.-ft.; June 4 (2 p.m.) 11,600 sec.-ft.

San Juan River at Farmington, N. Mex.

Location.- Water-stage recorder, lat. 36°43', long. 108°13', in NE¼NE¼, sec. 20, T. 29 N., R. 13 W., 1,900 feet below mouth of Animas River and 1 mile southwest of Farmington.

Drainage area.- 6,580 square miles.

Records available.- June 1904 to September 1906, September 1912 to December 1914 and October 1930 to September 1938 in reports of Geological Survey. September 1912 to July 1918 and November 1921 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 21,000 second-feet May 29; maximum gage height, 5.95 feet June 30; minimum daily discharge, 196 second-feet Dec. 22.
1930-38: Maximum discharge, about 32,800 second-feet Sept. 28, 1935 (gage height, 8.0 feet, estimated); minimum daily discharge, 30 second-feet (estimated), Sept. 1, 1931, July 6, 7, 1934.

Remarks.- Records fair. Discharge for day of missing gage height, Aug. 23, interpolated. Diversion for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,360	566	280	414	481	4,040	1,690	13,600	17,600	14,200	1,060	904
2	1,300	547	371	464	575	3,760	1,820	11,100	16,300	10,600	890	2,790
3	745	556	392	448	518	2,260	1,750	8,300	15,100	8,550	820	3,590
4	566	547	406	607	489	6,000	2,390	6,880	16,300	7,100	720	3,970
5	499	547	439	596	448	2,240	3,170	5,800	17,600	6,420	684	2,760
6	472	527	439	518	431	1,320	3,390	4,840	16,300	5,400	684	2,590
7	414	537	423	439	371	975	3,390	4,450	14,800	4,640	596	3,590
8	385	556	439	324	448	1,000	2,870	3,970	12,200	3,970	651	4,190
9	371	684	399	336	456	1,060	2,520	3,520	10,000	3,550	795	2,540
10	364	629	371	330	585	1,060	3,020	3,300	9,300	3,360	566	2,110
11	371	575	364	378	745	1,080	4,300	3,020	9,300	3,260	651	2,620
12	371	575	371	385	1,110	1,280	6,000	3,330	8,550	3,050	959	4,760
13	385	566	414	392	1,630	2,210	6,880	4,330	10,000	2,870	1,130	6,000
14	431	547	464	414	1,570	2,310	6,200	5,800	13,000	2,900	1,840	4,370
15	517	481	472	473	1,210	1,860	5,400	10,000	11,100	3,490	1,880	3,330
16	960	464	456	481	1,140	1,320	4,300	13,000	10,600	3,200	1,450	4,760
17	1,280	464	385	385	1,050	1,570	4,640	12,800	10,300	2,900	990	3,260
18	918	439	378	406	876	1,840	6,000	10,800	10,600	2,570	745	2,650
19	651	464	343	456	782	1,670	9,300	8,800	10,300	2,260	629	2,090
20	662	472	364	456	890	2,000	11,400	7,320	9,300	2,140	518	2,060
21	618	472	248	448	990	2,390	11,600	6,200	9,550	2,040	456	2,040
22	566	439	196	423	946	2,310	12,800	6,420	13,000	1,950	385	1,690
23	575	448	231	456	862	1,930	13,000	6,650	15,100	1,750	342	1,650
24	575	423	317	357	876	2,000	13,600	6,650	13,600	1,550	299	1,430
25	575	414	293	371	932	2,900	14,500	8,050	11,100	1,360	299	1,390
26	596	423	378	423	960	3,460	14,800	9,800	10,000	1,160	336	1,320
27	596	406	481	489	990	3,260	11,900	12,200	9,550	1,080	299	1,200
28	596	357	464	566	1,210	3,360	9,550	14,200	9,300	975	269	1,040
29	596	343	489	537	-	3,140	10,800	17,000	9,300	1,360	263	946
30	607	280	423	527	-	2,820	11,900	19,600	17,000	1,530	252	946
31	585	-	406	448	-	2,310	-	18,200	-	1,320	274	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	20,507	2,360	364	662	40,680
November	14,748	684	280	492	29,250
December	11,890	489	196	384	23,580
Calendar year 1937	1,036,613	16,300	106	2,840	2,056,000
January	13,747	607	324	443	27,270
February	23,571	1,630	371	842	46,750
March	70,735	6,000	975	2,282	140,300
April	214,880	14,800	1,690	7,163	426,200
May	269,930	19,600	3,020	8,707	535,400
June	366,050	17,600	8,550	12,200	726,000
July	112,505	14,200	975	3,629	223,200
August	21,732	1,880	252	701	43,100
September	78,586	6,000	904	2,620	155,900
Water year 1937-38	1,218,881	19,600	196	3,339	2,418,000

Peak discharge.- May 29 (11 p.m.) 21,000 sec.-ft.; June 4 (11 p.m.) 18,900 sec.-ft.; June 30 (3 p.m.) 20,300 sec.-ft.

San Juan River at Ship Rock, N. Mex.

Location.- Water-stage recorder, lat. 36°47'35", long. 108°43'55", in SW¼ sec. 22, T. 30 N., R. 18 W., 3 miles northwest of Ship Rock and about 6 miles downstream from Chaco River.

Records available.- January to October 1911, October 1930 to September 1931 and October 1932 to September 1938 in reports of Geological Survey. January to October 1911 and November 1915 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 20,900 second-feet May 30 (gage height, 8.27 feet); minimum daily discharge, 239 second-feet Aug. 30.

1930-31, 1932-38: Maximum discharge, about 44,200 second-feet Sept. 28, 1935 (gage height, 9.44 feet, present site and datum, from high-water marks), from rating curve extended logarithmically above 20,000 second-feet; minimum daily discharge 10 second-feet (estimated), July 2-7, 1934.

A stage of about 6.5 feet, former site and datum, occurred Aug. 11, 1929 (discharge, about 80,000 second-feet). A greater discharge probably occurred Oct. 6, 1911, when stage of 22.0 feet on old gage (relation to present datum unknown) was recorded.

Remarks.- Records fair. Discharge for periods of partial or uncertain gage-height record, Oct. 26-30, Sept. 5, 6, 8, 9, computed on basis of partial record and records for station at Farmington. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,650	591	546	502	620	3,680	1,680	13,900	16,000	13,930	1,090	1,320
2	2,460	573	546	546	660	4,520	1,560	12,700	15,500	10,230	946	7,470
3	1,270	564	610	546	760	2,730	1,360	8,880	14,700	8,570	844	7,950
4	934	546	620	660	710	7,650	1,980	7,150	15,100	7,420	740	9,160
5	770	555	620	710	680	4,750	3,210	5,850	15,500	6,730	720	4,840
6	650	600	630	670	630	2,280	3,840	4,520	15,100	5,720	750	3,520
7	546	640	546	582	546	1,600	3,620	4,060	14,300	4,750	780	3,870
8	502	650	528	425	519	1,490	3,020	3,840	12,300	4,030	800	5,530
9	459	660	528	331	573	1,490	2,550	3,520	10,500	3,630	1,170	2,550
10	409	740	519	317	630	1,280	2,550	3,310	9,200	3,310	1,070	2,120
11	345	690	546	331	770	1,270	3,620	2,920	9,520	2,930	670	2,460
12	377	680	573	393	1,150	1,280	4,990	2,920	8,570	2,640	680	5,860
13	393	720	620	385	1,640	2,200	6,360	3,730	9,520	2,370	1,710	7,150
14	377	710	640	409	1,550	2,730	6,880	4,750	12,300	2,370	1,380	5,720
15	468	690	700	484	855	2,370	6,360	8,570	10,900	2,830	3,310	3,950
16	1,020	680	710	573	910	1,250	4,750	13,500	9,850	3,110	1,900	4,250
17	1,250	640	670	591	855	1,410	4,870	13,900	9,850	2,820	1,070	3,110
18	958	640	600	582	740	1,900	5,980	11,600	9,850	2,370	720	2,820
19	680	591	546	546	670	1,650	8,570	9,200	10,500	2,230	610	2,370
20	573	591	537	582	730	1,710	11,200	7,420	9,200	2,030	528	2,120
21	555	640	493	591	811	2,120	11,600	5,720	9,520	1,930	510	1,840
22	600	650	361	564	866	2,460	12,700	5,600	13,100	1,830	425	1,680
23	573	640	353	528	833	1,820	12,700	6,360	16,000	1,730	353	1,340
24	582	630	459	493	844	1,480	13,500	5,980	14,700	1,550	289	1,230
25	582	620	528	338	899	2,460	14,300	7,420	12,000	1,410	275	1,150
26	590	630	519	289	946	3,620	14,300	9,200	10,900	1,210	245	1,050
27	600	640	528	502	982	4,060	12,300	12,000	10,500	1,100	245	1,030
28	600	610	620	630	1,020	3,620	9,200	13,900	11,600	1,100	245	899
29	600	591	630	710	-	3,310	10,200	16,400	9,520	1,130	245	780
30	610	564	546	740	-	3,110	12,300	18,100	14,700	1,530	239	720
31	600	-	493	730	-	2,460	-	16,800	-	1,270	685	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	26,583	5,650	345	858	52,730
November	18,966	740	546	632	37,620
December	17,365	710	353	560	34,440
Calendar year 1937	1,113,854	15,600	84	3,052	2,209,000
January	16,280	740	289	525	32,290
February	23,399	1,640	519	836	46,410
March	79,760	7,650	1,250	2,573	158,200
April	212,050	14,300	1,360	7,068	420,600
May	263,720	18,100	2,920	8,507	523,100
June	360,800	16,000	8,570	12,030	715,600
July	109,830	13,900	1,100	3,543	217,800
August	25,244	3,310	239	814	50,070
September	99,859	9,160	720	3,329	198,100
Water year 1937-38	1,253,856	18,100	239	3,435	2,487,000

San Juan River near Bluff, Utah

Location.- Water-stage recorder, lat. 37°09', long. 109°52', in SE¼ sec. 7, T. 42 S., R. 19 E., 1,600 feet downstream from Gypsum Wash, 1,800 feet upstream from bridge, and 20 miles southwest of Bluff. Altitude, about 4,050 feet.

Drainage area.- 23,900 square miles (revised).

Records available.- October 1914 to September 1917 and March 1927 to September 1938.

Average discharge.- 13 years (1915-17, 1927-38), 2,920 second-feet.

Extremes.- Maximum discharge during year, 25,000 second-feet Oct. 1 (gage height, 17.8 feet), from rating curve extended above 17,000 second-feet; minimum, 189 second-feet Aug. 31.

1915-17, 1927-38: Maximum discharge, about 70,000 second-feet Sept. 10, 1927 (gage height, 32.0 feet), from rating curve extended above 15,000 second-feet; no flow July 3-13, 1934.

Flood of Oct. 6, 1911, which was greatest known at Ship Rock, N. Mex., probably exceeded that of Sept. 10, 1927, at this station, but its stage was not accurately determined.

Remarks.- Records excellent except those for period Dec. 15 to Feb. 8, which are good.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14,000	700	460	571	643	3,250	2,810	11,600	15,800	16,500	1,180	1,250
2	4,560	707	450	530	835	5,340	2,200	12,900	15,400	12,500	1,020	3,080
3	2,260	674	465	595	720	6,010	1,990	10,300	15,100	9,020	895	7,480
4	1,350	655	508	783	681	9,020	1,790	7,480	14,000	7,670	820	8,820
5	1,040	649	565	700	681	8,620	2,040	6,370	15,400	6,910	734	7,650
6	910	649	625	700	700	4,270	3,250	5,330	15,800	6,010	734	3,870
7	850	637	577	688	625	2,480	3,490	4,710	14,700	5,170	681	3,490
8	805	649	637	625	565	1,740	3,310	4,410	13,300	4,560	981	3,870
9	734	649	607	583	502	2,200	2,860	4,060	11,100	4,000	1,190	4,630
10	727	655	619	460	530	1,640	2,540	3,680	9,630	3,490	755	2,480
11	674	776	619	440	787	1,500	2,540	3,550	9,020	3,140	1,360	3,280
12	637	700	637	450	1,500	1,460	3,550	3,250	9,020	2,860	700	4,270
13	589	649	681	475	1,890	1,640	4,710	3,250	8,620	2,700	895	6,370
14	595	668	707	513	1,740	2,370	5,840	3,680	9,840	2,420	1,740	6,010
15	631	649	769	530	1,790	3,080	6,190	4,860	12,900	2,320	1,490	4,860
16	929	619	720	559	1,170	2,540	5,570	8,620	10,000	2,540	2,590	3,870
17	1,500	589	714	613	948	1,640	4,270	11,800	9,220	2,760	1,420	4,630
18	1,390	601	694	688	835	1,550	4,410	11,600	9,220	2,260	948	3,080
19	1,350	571	643	835	755	1,740	5,840	9,840	9,420	2,100	700	2,700
20	1,030	565	613	850	688	1,690	8,820	8,240	9,420	1,990	613	2,320
21	880	589	565	762	631	1,600	10,500	7,290	8,430	1,990	496	2,040
22	850	559	595	714	637	1,890	10,500	6,190	9,630	2,200	445	1,840
23	798	559	513	649	681	2,540	11,800	6,010	13,300	1,690	416	1,600
24	776	530	465	553	681	1,990	12,200	6,370	14,900	1,640	389	1,420
25	762	530	475	518	631	1,740	12,900	6,190	12,200	1,460	346	1,260
26	741	547	553	425	607	2,590	13,100	7,480	9,840	1,360	288	1,160
27	755	518	583	323	607	3,610	13,300	9,020	9,220	1,200	232	1,110
28	762	530	589	384	727	3,740	10,700	11,100	10,000	1,140	220	1,040
29	762	524	607	583	-	3,740	8,820	13,100	10,500	1,120	204	964
30	714	502	649	607	-	3,870	10,500	15,600	9,420	980	210	872
31	694	-	607	649	-	3,370	-	17,000	-	1,240	198	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	45,055	14,000	589	1,453	89,370
November	18,399	776	502	613	36,490
December	18,511	769	450	597	36,720
Calendar year 1937	1,165,856	16,500	130	3,194	2,313,000
January	18,355	850	323	592	36,410
February	23,787	1,890	502	850	47,180
March	94,460	9,020	1,460	3,047	187,400
April	192,440	13,300	1,790	6,415	381,700
May	244,880	17,000	3,250	7,899	485,700
June	344,350	15,800	8,430	11,480	683,000
July	116,940	16,500	980	3,772	231,900
August	24,890	2,590	198	803	49,370
September	101,316	8,820	872	3,377	201,000
Water year 1937-38	1,243,383	17,000	198	3,407	2,466,000

DIVERSIONS FROM SAN JUAN RIVER

Archuleta ditch near Turley, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°47'20", long. 107°42'05", in SW¼NE¼ sec. 19, T. 30 N., R. 8 W., 1.4 miles downstream from head and 5.2 miles northeast of Turley.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 3.1 second-feet May 15 (gage height, 0.54 feet); no flow on many days or parts of days.

Remarks.- Records excellent except those for period of missing gage heights, Apr. 19-24, which were estimated and are fair. Ditch diverts water from left bank of San Juan River 6.6 miles above Turley for irrigation of lands above Turley.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	0.9	1.3	0.8	1.1	0
2							-	.7	1.2	.9	1.2	0
3							-	.4	1.3	.8	.9	0
4							-	.5	1.4	.3	.7	0
5							-	.2	.5	.1	1.0	0
6							-	0	1.3	0	1.5	0
7							-	0	1.0	0	1.3	0
8							-	0	1.4	.3	1.4	0
9							-	0	1.7	1.0	1.0	0
10							-	0	1.7	1.1	1.0	0
11							-	0	1.4	.8	.7	0
12							-	0	1.7	.6	1.3	0
13							-	0	1.7	.8	2.1	0
14							-	1.3	2.0	.7	.7	0
15							-	3.1	2.0	2.1	1.4	0
16							-	3.0	2.5	1.0	1.9	0
17							-	2.8	.9	1.3	1.7	0
18							0	2.6	.8	1.0	1.6	0
19							0	2.8	.7	.7	1.3	0
20							0	2.1	1.0	.6	1.4	0
21							1.0	1.7	1.2	1.0	1.0	0
22							1.5	1.7	1.3	.9	.9	0
23							1.5	1.6	2.0	.6	.7	0
24							1.5	1.7	1.5	.5	.8	0
25							1.7	1.0	1.5	.2	.7	0
26							2.3	1.0	2.0	0	.6	0
27							2.1	1.5	1.9	.3	.6	0
28							1.3	1.7	.7	.6	.9	0
29							1.0	1.3	.6	2.0	1.8	.1
30							1.7	1.3	.6	1.7	1.7	.1
31							-	1.3	-	1.3	1.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 18-30	15.6	2.3	0	1.20	31
May	36.2	3.1	0	1.17	72
June	40.8	2.5	.5	1.36	81
July	23.9	2.1	0	.77	47
August	35.9	2.1	.6	1.16	71
September	.2	.1	0	.01	.4
The period					302

Bloomfield-Porter ditch at Bloomfield, N. Mex.

Location.- Water-stage recorder, lat. 36°42'30", long. 107°58'20", in SE¼SE¼ sec. 22, T. 29 N., R. 11 W., 1.3 miles downstream from head and 0.6 mile southeast of Bloomfield.

Records available.- June to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 11 second-feet June 14, 22, 30; maximum daily gage height, 1.40 feet Aug. 11, Sept. 21; no flow Sept. 9-18.

Remarks.- Records poor. Discharge for periods of missing gage heights, June 11, 12, July 3-7, Sept. 8 estimated or interpolated. Ditch diverts water from right bank of San Juan River for irrigation of lands near Bloomfield. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									-	4.6	0.2	10
2									-	2.6	.1	7.2
3									5.0	2.2	1.6	3.5
4									4.0	2.0	5.2	3.3
5									4.0	1.8	7.9	3.0
6									5.6	1.7	8.6	2.8
7									7.0	1.6	9.2	3.4
8									5.6	1.5	9.9	.2
9									7.9	1.2	9.7	0
10									7.1	1.8	9.3	0
11									8.0	1.4	9.6	0
12									9.0	.8	8.3	0
13									10	1.0	7.5	0
14									11	.8	7.7	0
15									9.0	1.2	7.5	0
16									8.2	1.0	7.5	0
17									6.8	2.6	6.3	0
18									5.8	1.6	6.4	0
19									7.5	1.1	7.7	1.2
20									9.8	1.4	7.1	7.5
21									9.7	2.2	7.3	8.0
22									11	2.8	7.0	7.4
23									9.0	2.5	7.1	6.7
24									6.7	2.6	7.7	5.0
25									6.1	2.3	8.0	4.4
26									8.3	3.3	7.5	2.8
27									8.4	1.2	4.6	1.7
28									7.3	1.7	3.9	1.9
29									5.9	1.2	4.1	2.3
30									11	1.9	4.3	1.8
31									-	1.6	7.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May					
June 3-30	214.7	11	4.0	7.67	426
July	57.2	4.6	.8	1.85	113
August	206.0	9.9	.1	6.65	409
September	84.1	10	0	2.80	167
The period					1,120

153585 O—39——9

Bloomfield-Porter ditch wasteway near Bloomfield, N. Mex.

Location.- Water-stage recorder, lat. 36°42'10", long. 108°02'00", in SE¼NW¼ sec. 30, T. 29 N., R. 11 W., about 400 feet downstream from waste gates on Bloomfield-Porter ditch and 3.1 miles southwest of Bloomfield.

Records available.- May to September 1938 (discontinued).

Extremes.- Maximum discharge during period, about 510 second-feet from small arroyo Sept. 3 (gage height, 1.55 feet), from rating curve extended above 5 second-feet logarithmically and on basis of velocity-area studies; no flow on many days or parts of days.

Remarks.- Records fair except those for periods of missing gage heights, Sept. 4, 5, 11, 12 (computed on basis of recorded range in stage), and those above 5 second-feet, all of which are poor. Wasteway diverts from left bank of Bloomfield-Porter ditch and water wastes into San Juan River. Records include occasional run-off from small arroyo.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	1.2	4.7	0	1.6
2								-	.9	4.2	0	.6
3								1.9	1.1	3.3	0	8.8
4								1.7	.7	2.4	0	.6
5								1.1	1.1	1.4	0	.4
6								.7	1.2	.5	0	.4
7								.5	1.3	.5	0	.5
8								.5	1.2	.2	0	.8
9								.9	1.6	0	0	1.9
10								1.1	2.6	0	.5	1.7
11								1.4	1.9	0	1.9	1.5
12								2.3	2.7	0	2.1	.9
13								2.1	3.9	0	3.0	.3
14								4.2	3.0	0	4.4	.3
15								5.6	2.3	0	2.6	.7
16								4.4	1.9	.1	3.3	1.1
17								5.3	1.7	.3	2.1	1.4
18								2.4	2.4	.5	1.3	1.4
19								2.1	2.4	.2	1.0	1.4
20								2.4	2.0	.1	2.4	3.3
21								2.6	1.9	.1	2.3	3.3
22								2.7	2.0	0	1.3	3.0
23								2.6	1.7	0	1.1	3.0
24								2.4	2.3	.1	.6	2.1
25								2.0	1.9	.1	1.6	.9
26								1.6	2.0	0	2.3	.1
27								1.9	1.3	0	2.4	.5
28								2.1	1.1	0	3.0	.7
29								1.3	5.3	0	2.3	1.3
30								.9	6.0	0	1.4	1.9
31								2.4	-	0	1.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May 3-31	63.1	5.6	.5	2.18	125
June	62.6	6.0	.7	2.09	124
July	18.7	4.7	0	.60	37
August	44.8	4.4	0	1.45	89
September	46.4	8.8	.1	1.55	92
The period					467

Citizens ditch near Turley, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°46'35", long. 107°44'05", in NE¼NE¼ sec. 35, T. 30 N., R. 9 W., 2.3 miles downstream from head and 3.0 miles northeast of Turley.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 137 second-feet Sept. 1 (gage height, 2.48 feet); no flow Apr. 15-18.

Remarks.- Records excellent. Ditch diverts water from right bank of San Juan River for irrigation. Diversions above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	116	129	118	129	137
2							-	114	126	110	130	96
3							-	113	129	119	129	136
4							-	109	127	120	128	125
5							-	101	125	124	130	123
6							-	107	124	125	132	118
7							-	107	123	124	132	123
8							-	110	126	124	132	109
9							-	110	125	126	130	117
10							-	109	128	126	130	64
11							-	110	128	126	129	118
12							-	115	130	117	132	135
13							-	119	128	126	135	132
14							-	120	129	121	136	125
15							0	125	122	131	136	104
16							0	119	121	132	134	89
17							0	122	111	127	132	77
18							0	122	125	134	131	64
19							26	118	122	132	123	47
20							82	118	122	132	133	40
21							90	118	128	132	131	26
22							97	120	130	114	130	42
23							112	120	127	131	128	73
24							115	120	123	134	133	96
25							117	123	118	134	133	120
26							115	122	116	131	132	119
27							101	126	122	131	132	114
28							101	126	123	132	131	99
29							111	126	127	134	131	89
30							116	122	133	132	131	89
31							-	128	-	131	135	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 15-30	1,183	117	0	73.9	2,350
May	3,635	128	101	117	7,210
June	3,747	133	111	125	7,430
July	3,930	134	110	127	7,800
August	4,070	136	123	131	8,070
September	2,948	137	26	98.3	5,850
The period					38,700

Citizens ditch wasteway 1 near Bloomfield, N. Mex.

Location.- Water-stage recorder and wooden control, lat. 36°43'10", long. 107°55'10", in NE¼NE¼ sec. 19, T. 29 N., R. 10 W., 250 feet downstream from waste gate in Citizens ditch and 3.4 miles east of Bloomfield.
Records available.- April to September 1938 (discontinued).
Extremes.- Maximum discharge during period not determined; maximum gage height, 1.28 feet Apr. 22; no flow on many days or parts of days.
Remarks.- Records fair except those for periods of missing gage heights, which were estimated and are poor. Wasteway diverts from Citizens ditch, and water wastes into San Juan River.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	0	0	24	0	37
2							-	0	0	24	0	60
3							-	0	0	24	0	57
4							-	2.6	0	23	0	31
5							-	.2	0	20	0	†20
6							-	3.4	0	10	0	†15
7							-	3.4	0	3.2	0	†14
8							-	3.2	0	.1	0	†16
9							-	3.2	0	.1	0	15
10							-	2.2	0	0	0	6.3
11							-	1.6	0	0	0	20
12							-	.1	0	2.6	0	28
13							-	0	0	4.4	0	26
14							-	.3	0	5.3	0	26
15							0	.9	0	5.3	.1	†26
16							0	5.0	0	9.9	.1	*16
17							0	†5.3	0	6.1	.1	†15
18							0	†5.5	0	3.9	.1	†14
19							0	5.5	0	2.4	0	*14
20							0	6.6	0	2.4	.1	*3.3
21							0	5.8	2.8	2.2	.1	†4.0
22							12	4.8	5.7	.1	.1	†5.0
23							14	6.1	11	0	.1	*5.8
24							8.6	4.9	11	0	.1	†5.6
25							13	0	8.6	.1	0	†5.4
26							2.2	0	6.1	.1	0	†5.2
27							5.0	0	4.2	0	0	*5.0
28							.8	0	8.1	0	0	†5.0
29							.2	0	12	0	0	†4.6
30							.1	0	15	0	0	†4.4
31							-	0	-	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
April 15-30	55.9	14	0	3.49	111
May	70.6	6.6	0	2.28	140
June	84.5	15	0	2.82	168
July	173.2	24	0	5.59	344
August	.9	.1	0	.03	1.8
September	509.6	60	3.3	17.0	1,010
The period					1,770

*Discharge measurement.
†Gage height missing; discharge estimated.

Jewett ditch at end, near Waterflow, N. Mex.

Location.- Staff gage, lat. 36°45'05", long. 108°32'00", in SW¼ sec. 4, T. 29 N., R. 16 W., about 300 feet upstream from point where ditch wastes into San Juan River and 4.4 miles west of Waterflow.
Records available.- April to September 1938 (discontinued) discharge measurements only.
Remarks.- Discharge represents unused irrigation water in ditch returned to San Juan River.

Discharge measurements, in second-feet, April to September 1938

Apr.	22	0.77	May	23	0.08	July	13	0	Aug.	23	0.26
	25	.13	June	1	.29		15	0		24	0
	27	.40		3	.92		20	.03		31	3.47
May	2	2.70		8	4.25		22	.06	Sept.	7	0
	6	0		11	0		27	.51		14	0
	9	0		15	.15	Aug.	3	.52		16	.05
	13	0		17	.69		4	.10		18	0
	16	.17		22	1.30		10	.17		21	0
	20	0		29	0		11	.29		23	.20
	21	.10		30	0		14	6.35		30	.05
	21	0	July	8	.22		17	.80			

Jewett ditch at head, at Waterflow, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°44'50", long. 108°27'05", in NE¼ sec. 7, T. 29 N., R. 15 W., 2.0 miles downstream from head gates and 0.5 mile southeast of Waterflow.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 36 second-feet Sept. 13; maximum daily gage height, 2.37 feet May 16; no flow May 9-11, Sept. 7, 8.

Remarks.- Records fair. Ditch diverts water from right bank of San Juan River 2½ miles above Waterflow for irrigation of lands near Waterflow.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	26	29	13	18	15
2							-	19	29	2.1	16	.2
3							-	16	25	2.4	20	.6
4							-	17	27	.7	22	.2
5							-	15	29	6.7	25	.2
6							-	12	13	19	24	.1
7							-	27	19	18	21	0
8							-	3.6	21	18	24	0
9							25	0	9.4	16	30	9.8
10							16	0	3.9	16	28	19
11							.1	0	13	14	27	22
12							6.3	.2	18	12	28	34
13							3.8	17	26	13	27	36
14							.1	31	32	13	29	30
15							7.9	32	31	19	29	25
16							22	32	30	20	28	24
17							23	31	30	17	26	21
18							24	26	30	14	25	20
19							26	17	30	12	26	11
20							30	24	26	11	26	4.6
21							28	30	24	15	21	5.4
22							26	30	31	24	20	9.1
23							26	29	31	28	24	8.7
24							19	30	28	30	28	11
25							14	31	25	28	31	14
26							27	31	24	22	32	14
27							23	31	22	18	35	14
28							15	30	22	15	32	13
29							27	28	17	21	29	6.3
30							28	28	27	29	31	7.6
31							-	28	-	24	29	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April, 9-30	417.2	30	.1	19.0	828
May	671.8	32	0	21.7	1,330
June	722.3	30	3.9	24.1	1,430
July	510.9	30	.7	16.5	1,010
August	811	35	16	26.2	1,610
September	375.8	36	0	12.5	745
The period					6,950

Jewett ditch wasteway near Waterflow, N. Mex.

Location.- Water-stage recorder and wooden control, lat. 36°45'30", long. 108°31'20", in NE¼ sec. 4, T. 29 N., R. 16 W., about 50 feet downstream from waste gates in Jewett ditch and 3¾ miles northwest of Waterflow.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum discharge during period, 14 second-feet July 22 (gage height, 1.11 feet), from rating curve extended above 5.5 second-feet on basis of velocity-area studies; no flow on many days or parts of days.

Remarks.- Records poor. Discharge for periods of missing or uncertain gage-height record, July 6, Aug. 11-13, computed on basis of one discharge measurement and knowledge of local conditions. Wasteway diverts from left bank of Jewett ditch about 50 feet above station and water wastes into San Juan River.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	0	0	0	0	0
2							-	0	0	0	0	0
3							-	0	0	0	0	0
4							-	0	.1	0	0	0
5							-	0	0	0	0	0
6							-	0	.1	.1	0	0
7							7.4	0	.3	0	0	0
8							6.6	0	.8	0	0	0
9							4.9	0	0	0	0	0
10							3.9	0	0	0	0	0
11							0	0	0	0	.1	0
12							1.8	0	0	0	.1	0
13							.1	0	0	0	.1	0
14							.1	0	0	0	.1	0
15							0	0	0	0	0	0
16							.2	0	0	0	0	0
17							4.7	0	.1	0	0	0
18							2.6	0	.6	0	.1	0
19							.5	0	.5	0	.1	0
20							1.1	0	0	0	0	0
21							.6	0	1.4	0	0	0
22							.1	0	1.1	.1	0	0
23							0	0	2.6	.1	0	0
24							0	0	2.1	.2	0	0
25							0	0	1.9	0	.2	0
26							0	0	2.4	0	.1	0
27							0	0	2.1	0	.8	.3
28							0	.1	2.0	0	0	1.3
29							0	0	0	0	.1	0
30							0	0	0	0	1.0	0
31							-	0	-	0	.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
April 7-30	34.6	7.4	0	1.44	69
May	.1	.1	0	.00	.20
June	18.1	2.6	0	.60	36
July	.5	.2	0	.02	1.0
August	3.7	1.0	0	.12	7.3
September	1.6	1.3	0	.05	3.2
The period					117

La Pumpa wasteway near Turley, N. Mex.

Location.- Water-stage recorder, lat. 36°46'00", long. 107°44'10", in SE¼SE¼ sec. 35, T. 30 N., R. 9 W., 800 feet downstream from waste gates on Citizens ditch and 2.4 miles northeast of Turley.

Records available.- July to September 1938 (discontinued).

Extremes.- Maximum discharge during period, 52 second-feet Sept. 12 (gage height, 2.77 feet); minimum daily discharge, 0.5 second-foot Sept. 23.

Remarks.- Records good. Wasteway diverts from left bank of Citizens ditch, and water wastes directly into San Juan River.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1										-	6.4	9.5
2										-	4.8	4.2
3										-	6.9	29
4										-	7.7	32
5										-	4.2	31
6										-	5.8	28
7										-	7.2	25
8										-	7.9	13
9										3.5	7.7	18
10										3.4	6.4	3.1
11										3.4	4.7	24
12										3.0	4.5	50
13										2.9	6.6	46
14										3.1	12	43
15										13	8.8	31
16										9.9	6.9	11
17										8.0	5.8	2.6
18										3.7	4.8	1.1
19										2.9	4.7	.7
20										3.0	6.4	.7
21										2.7	6.1	.6
22										2.2	6.4	.6
23										2.1	6.1	.5
24										3.2	6.9	5.7
25										4.6	5.7	13
26										6.1	5.5	15
27										6.9	5.0	15
28										7.5	5.1	8.6
29										9.1	5.5	10
30										7.9	5.8	5.4
31										7.5	6.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 9-31	119.6	13	2.1	5.20	237
August	194.9	12	4.2	6.29	387
September	477.3	50	.5	15.9	947
The period					1,570

Lower Martinez ditch near Turley, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°49'05", long. 107°37'50", in SW¼SW¼ sec. 11, T. 30 N., R. 8 W., 1.2 miles downstream from head and 9.3 miles northeast of Turley.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 3.6 second-feet May 26; maximum daily gage height, 0.86 foot Aug. 31; no flow on many days or parts of days.

Remarks.- Records fair except those for period of moss growth in ditch, June 28 to Aug. 14, which were computed by shifting-control method and are poor. Ditch diverts water from left bank of San Juan River for irrigation of lands above Turley.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	0	1.0	0.1	0.3	1.7
2							-	0	1.6	1.1	.3	0
3							-	0	2.3	2.1	.2	0
4							-	0	2.5	2.0	.1	0
5							-	0	1.8	2.0	.2	0
6							-	0	1.4	1.6	0	0
7							-	0	1.0	.8	0	0
8							-	0	1.5	.8	.1	0
9							-	0	1.5	.9	.3	0
10							-	0	2.1	.4	.6	0
11							-	.5	.9	.7	1.0	0
12							-	1.1	0	1.2	.8	0
13							-	1.4	0	1.5	1.9	0
14							-	1.7	0	1.0	1.6	0
15							-	2.8	.6	.6	2.0	0
16							-	3.5	1.5	.2	1.1	0
17							-	2.5	1.5	.6	.8	0
18							0	1.4	2.0	.6	.9	0
19							0	2.3	1.2	.9	.6	0
20							0	3.1	1.1	1.4	1.0	.4
21							0	3.0	1.4	1.9	1.2	1.2
22							0	3.0	2.2	1.5	1.3	.8
23							0	2.9	2.9	1.1	1.8	.5
24							0	2.9	.6	.8	2.1	.2
25							0	2.9	.7	.4	2.2	.1
26							0	3.6	.6	.3	2.1	.1
27							0	1.7	.6	.2	2.0	.1
28							0	.2	1.4	.5	1.9	0
29							0	1.2	1.0	2.2	1.9	0
30							0	.7	.5	1.4	1.8	0
31							-	.3	-	.5	2.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 18-30	0	0	0	0	0
May	42.7	3.6	0	1.38	85
June	37.4	2.9	0	1.25	74
July	31.3	2.2	.1	1.01	62
August	34.3	2.2	0	1.11	68
September	5.1	1.7	0	.17	10
The period					299

Miller lateral from Heath-Horner ditch near Rosa, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 37°00'00", long. 107°25'45", in E½ sec. 10, T. 32 N., R. 6 W., 1.8 miles northwest of Rosa.

Records available.- May to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 8.4 second-feet June 23; maximum daily gage height, 0.98 foot June 14, 15, 22, 23; no flow Sept. 4-8.

Remarks.- Records good. Lateral diverts water from left bank of Heath-Horner ditch for irrigation. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	3.5	6.4	4.3	4.3
2								-	.5	7.5	3.9	5.4
3								-	.4	7.4	3.3	3.1
4								-	.4	7.3	2.0	0
5								-	2.1	7.1	2.3	0
6								4.8	4.3	6.8	2.1	0
7								5.0	6.1	6.3	.9	0
8								4.9	6.2	6.7	3.0	0
9								5.0	6.4	6.5	4.3	.9
10								4.9	6.7	6.5	4.1	1.1
11								4.8	6.2	6.1	3.7	1.1
12								5.0	4.8	5.6	3.4	1.1
13								5.3	6.5	5.9	4.0	1.0
14								5.4	7.5	5.7	4.4	.9
15								6.9	7.6	5.4	3.9	.9
16								6.5	7.0	5.2	3.6	.9
17								6.5	6.9	5.4	3.3	.9
18								6.7	6.8	5.9	3.1	.9
19								7.0	6.9	5.7	2.8	.9
20								6.4	6.2	5.6	2.2	.9
21								7.3	7.5	5.5	1.8	.9
22								7.5	8.2	5.2	1.4	.9
23								7.6	8.4	5.3	1.9	.9
24								7.3	8.0	5.3	2.0	.9
25								7.3	8.0	5.0	2.0	.9
26								7.0	6.9	4.4	2.0	.9
27								7.0	6.4	4.3	2.3	.9
28								7.4	7.6	4.9	2.4	2.4
29								7.5	7.6	6.7	2.0	4.6
30								6.3	6.1	5.7	2.2	4.9
31								7.5	-	4.7	2.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					-
Calendar year					
January					
February					
March					
April					
May 6-31	164.8	7.6	4.8	6.34	327
June	177.7	8.4	.4	5.92	352
July	182.0	7.5	4.3	5.87	361
August	86.9	4.4	.9	2.80	172
September	42.5	5.4	0	1.42	84
The period					1,200

Old Martinez ditch near Turley, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°48'30", long. 107°36'55", in NW¼SE¼ sec. 13, T. 30 N., R. 8 W., 1.1 miles downstream from head and 9.8 miles northeast of Turley.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 8.3 second-feet June 10 (gage height 1.03 feet); no flow on many days or parts of days.

Remarks.- Records excellent. Ditch diverts from left bank of San Juan River and water is used for irrigation above Turley.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	4.7	4.1	4.7	3.1	2.1
2							-	2.1	2.3	4.7	5.2	0
3							-	3.4	4.5	5.3	4.3	0
4							-	5.3	5.9	5.5	4.3	0
5							-	5.1	5.4	5.9	3.1	0
6							-	5.1	4.0	5.9	4.0	0
7							-	4.6	3.1	5.5	5.6	.1
8							-	4.1	2.0	4.6	5.7	0
9							-	4.4	4.4	3.6	4.7	0
10							-	4.2	8.3	2.9	4.8	0
11							-	4.2	7.6	3.0	5.2	0
12							-	5.6	6.3	3.4	6.6	.1
13							-	6.7	6.8	3.6	7.9	0
14							-	7.0	7.4	3.5	7.0	0
15							-	7.0	6.1	3.4	4.1	0
16							-	6.5	6.6	4.8	3.8	0
17							-	5.1	6.3	4.6	7.2	1.8
18							-	4.5	6.6	4.3	6.5	2.6
19							-	6.3	6.1	4.2	5.7	1.9
20							-	6.0	5.9	4.3	5.2	1.6
21							-	5.7	6.3	5.0	4.3	1.5
22							-	6.1	7.5	4.8	3.6	1.6
23							-	6.3	8.0	4.3	3.2	1.8
24							-	6.0	7.1	4.1	3.6	1.6
25							0	6.7	6.0	3.0	3.3	1.5
26							0	6.5	4.0	2.3	3.0	1.5
27							0	5.5	4.4	1.9	3.0	1.4
28							0	5.1	5.3	2.8	2.9	1.2
29							0	4.0	4.8	5.3	2.7	1.2
30							3.0	3.4	4.6	3.4	2.5	1.2
31							-	3.8	-	2.2	4.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
April 25-30	3.0	3.0	0	0.50	6.0
May	161.0	7.0	2.1	5.19	319
June	167.7	8.3	2.0	5.59	333
July	126.8	5.9	1.9	4.09	252
August	140.1	7.9	2.5	4.52	276
September	24.7	2.6	0	.82	49
The period					1,240

Rosa Community ditch at Rosa, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°59'55", long. 107°24'30", in E½ sec. 11, T. 32 N., R. 6 W., 0.6 mile downstream from head and 0.7 mile northwest of Rosa.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 11 second-feet May 28 (gage height, 0.92 foot); minimum daily, 0.3 second-foot Sept. 28.

Remarks.- Records excellent. Ditch diverts from left bank of San Juan River, and water is used for irrigation near Rosa.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	6.0	6.1	1.7	4.3	5.2
2							-	4.0	5.0	2.0	3.7	6.1
3							-	3.4	5.2	3.7	3.0	4.6
4							-	3.0	5.2	3.6	3.1	.6
5							-	2.6	4.7	3.4	3.0	.7
6							-	2.3	5.5	3.2	2.5	.4
7							-	2.1	5.8	3.0	3.0	.4
8							-	2.0	5.2	3.2	2.9	1.4
9							-	2.0	4.2	4.9	2.0	2.2
10							-	2.0	4.0	4.7	2.5	1.8
11							-	1.4	3.5	4.7	2.8	3.1
12							-	2.0	4.0	4.7	4.4	4.4
13							-	2.0	5.5	5.0	5.6	3.4
14							-	2.9	4.7	4.9	6.0	2.5
15							-	4.6	3.5	5.6	5.5	2.2
16							-	4.7	3.2	5.8	4.4	2.0
17							-	4.4	2.8	6.1	3.7	2.0
18							-	4.4	4.3	6.1	3.2	1.6
19							-	4.6	5.3	6.4	2.9	1.4
20							-	4.9	5.5	6.4	2.4	1.2
21							-	5.2	5.6	6.4	2.0	1.0
22							-	5.8	7.1	6.3	1.7	.9
23							-	5.3	7.1	6.3	1.4	.7
24							-	6.1	6.0	5.6	1.5	.6
25							-	6.8	5.2	5.3	1.5	.6
26							-	8.1	5.0	4.6	1.4	.6
27							-	9.6	5.2	4.2	1.3	.4
28							-	11	4.7	6.0	1.4	.3
29							5.0	9.6	5.5	6.0	2.2	1.0
30							6.0	6.0	5.8	5.2	4.3	3.4
31							-	6.0	-	4.4	4.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
April 29,30	11.0	-	-	-	22
May	144.8	11	1.4	4.67	287
June	150.6	7.1	2.8	5.02	299
July	149.4	6.4	1.7	4.82	296
August	94.0	6.0	1.3	3.03	166
September	56.7	6.1	.3	1.89	112
The period					1,200

San Juan lateral wasteway 1 near Farmington, N. Mex.

Location.- Water-stage recorder, lat. 36°43'35", long. 108°09'55", in W½SW¼ sec. 13, T. 29 N., R. 13 W., about 35 feet downstream from waste gates on San Juan lateral and 2.5 miles east of Farmington.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum discharge during period not determined; maximum gage height, 2.29 feet Sept. 3; no flow July 4-13.

Remarks.- Records fair except those above 5 second-feet, which are poor. Discharge for period of missing or partial gage-height record, June 2-6, Sept. 7-12, computed on basis of engineers' notes, partial gage-height record, and recorded range in stage. Wasteway diverts from right bank of San Juan lateral, and water wastes into San Juan River.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	1.0	0.6	0.1	0.1	0.6
2							-	1.1	.6	.1	.1	.6
3							-	1.1	.6	.1	.1	4.0
4							-	1.0	.6	0	.1	3.6
5							-	1.0	.6	0	.1	5.1
6							-	.9	.6	0	.1	2.1
7							-	.9	.7	0	.1	3.7
8							-	1.0	.7	0	.1	1.1
9							-	.9	.7	0	.2	.7
10							-	.9	.7	0	.2	.7
11							-	.8	.7	0	.2	.7
12							-	.9	.8	0	.2	.7
13							-	.8	.7	0	.2	.7
14							-	.8	.7	.1	.2	.8
15							11	.7	.7	.1	.2	.6
16							6.0	.7	.7	.1	.2	.4
17							3.9	.7	.7	.1	.2	.3
18							3.2	.7	.8	.1	.2	.2
19							2.9	.7	.8	.1	.2	.2
20							2.6	.7	.7	.1	.1	.2
21							2.6	.7	.7	.1	.1	.2
22							2.5	.7	4.1	.1	.1	.2
23							2.8	.7	3.1	.1	.2	.2
24							2.3	.7	.3	.1	.3	.2
25							2.0	.7	.2	.1	.2	.2
26							1.5	.6	.2	.1	.2	.2
27							1.4	.6	.2	.1	.3	.2
28							1.5	.6	.2	.1	.3	.2
29							1.4	.6	.2	.1	.2	.2
30							1.3	.6	.1	.1	.2	.2
31							-	.6	-	.1	.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
April 15-30	49.3	11	1.3	3.08	98
May	24.4	1.1	.6	.79	48
June	23.0	4.1	.1	.77	46
July	2.1	.1	0	.07	4.2
August	5.4	.3	.1	.17	11
September	29.0	5.1	.2	.97	58
The period					265

San Juan lateral wasteway 2 near Farmington, N. Mex.

Location.- Water-stage recorder, lat. 36°42'35", long. 108°08'20", in SE¼SW¼ sec. 19, T. 29 N., R. 12 W., about 1,200 feet downstream from waste gates on San Juan lateral and 4.1 miles southeast of Farmington.

Records available.- July to September 1938 (discontinued).

Extremes.- Maximum discharge during period, 20 second-feet Sept. 8 (gage height, 0.86 foot), from rating curve extended above 4 second-feet logarithmically and on basis of velocity-area studies; no flow on many days or parts of days.

Remarks.- Records fair except those above 4 second-feet, which are poor. Flow represents waste water from San Juan lateral. Occasional run-off from arroyo included in records.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1										-	0	0.3
2										-	0	.5
3										-	0	.4
4										-	0	0
5										-	0	.1
6										-	0	.9
7										-	0	.3
8										-	0	6.8
9										-	0	.4
10										-	0	.2
11										-	0	.5
12										-	0	2.2
13										-	0	.1
14										-	.1	.8
15										0.1	.1	.4
16										.1	0	1.0
17										.2	0	.8
18										.2	.1	.8
19										.2	0	.7
20										.3	0	.8
21										.2	.1	1.0
22										0	.1	2.6
23										.1	0	3.2
24										0	0	3.5
25										0	0	1.4
26										0	.1	1.1
27										0	.1	.7
28										0	.1	.4
29										0	0	.3
30										0	.1	.4
31										0	.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 15-31	1.4	0.3	0	0.08	2.8
August	1.1	.2	0	.04	2.2
September	32.6	6.8	0	1.09	65
The period					70

Turley ditch near Turley, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°45'30", long. 107°44'35", in SW¼NW¼ sec. 2, T. 29 N., R. 9 W., 1,900 feet downstream from head and 1.9 miles northeast of Turley.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 32 second-feet May 29 (gage height, 1.90 feet); no flow Apr. 18, 20-25.

Remarks.- Records good. Ditch diverts from left bank of San Juan River, and water is used for irrigation near Turley.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	24	27	19	2.3	11
2							-	8.6	24	15	13	22
3							-	2.3	26	9.8	22	23
4							-	3.1	28	10	19	22
5							-	6.8	27	8.4	12	21
6							-	6.9	25	8.6	11	20
7							-	7.7	23	7.9	11	20
8							-	7.9	20	4.9	12	19
9							-	8.3	18	5.4	9.5	19
10							-	9.2	17	5.1	15	18
11							-	9.0	16	4.1	.3	18
12							-	10	17	6.0	7.6	20
13							-	13	19	6.5	9.3	19
14							-	17	23	5.7	7.5	16
15							-	21	20	17	14	16
16							-	16	21	14	9.5	16
17							-	18	22	9.7	20	14
18							0	15	20	6.2	23	14
19							2.1	15	14	4.4	21	14
20							0	16	16	3.6	20	14
21							0	17	17	3.6	17	14
22							0	11	21	4.9	9.4	14
23							0	10	23	11	7.2	14
24							0	11	20	8.3	6.9	13
25							0	13	16	5.0	6.2	13
26							16	17	8.4	3.6	9.5	13
27							9.2	20	12	2.8	8.8	13
28							6.8	25	13	3.2	7.1	12
29							12	32	17	13	7.3	12
30							17	30	29	8.1	6.0	12
31							-	27	-	4.2	7.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
April 18-30	63.1	17	0	4.85	125
May	447.8	32	2.3	14.4	888
June	599.4	29	8.4	20.0	1,190
July	239.0	19	2.8	7.71	474
August	351.9	23	.3	11.4	698
September	486	23	11	16.2	964
The period					4,340

West Fork of San Juan River above Borns Lake, near Pagosa Springs, Colo.

Location.- Water-stage recorder, lat. 37°29'00", long. 106°55'45", in sec. 36, T. 38 N., R. 1 W., half a mile downstream from Beaver Creek, 1½ miles upstream from Borns Lake, and 16 miles northeast of Pagosa Springs.

Drainage area.- 41.2 square miles.

Records available.- April 1937 to September 1938.

Extremes.- Maximum discharge during year, 1,100 second-feet June 3 (gage height, 4.43 feet), from rating curve extended above 600 second-feet; minimum not determined.
1937-38: Maximum discharge, that of June 3, 1938; minimum not determined.
Greatest known flood occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records good except those for period of ice effect, Nov. 29 to Apr. 7 (computed on basis of three discharge measurements and weather records), and those for period of missing gage heights, June 8-17, (computed on basis of records for station near Pagosa Springs), which are fair. No diversion or regulation.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	19					19	235	806	405	52	38
2	37	17					19	152	828	335	49	51
3	34	16					17	110	867	279	49	42
4	32	18					19	86	856	239	50	55
5	29	16					20	81	752	205	48	46
6	27	15					20	71	730	178	47	45
7	25	16					18	63	630	158	47	43
8	25	17					17	59	590	149	43	55
9	23	17					22	58	520	137	42	46
10	22	17					34	55	520	128	36	55
11	20	18					44	66	540	121	67	311
12	21	17					52	83	590	113	59	350
13	22	15					52	118	750	112	79	223
14	23	16					47	217	670	119	74	158
15	37	16					36	280	590	105	59	142
16	31	14					31	294	550	95	61	121
17	25	14					38	263	540	83	55	100
18	28	15					71	200	525	83	51	94
19	21	16					96	184	500	80	46	76
20	22	14					95	163	475	82	41	65
21	25	13					118	172	530	79	39	62
22	25	14					165	184	608	77	38	58
23	23	12					200	212	598	72	38	54
24	23	12					232	257	475	61	40	49
25	22	12					247	294	430	56	41	46
26	20	13					200	396	395	52	39	43
27	20	9			*9.8		187	530	365	75	36	40
28	21	13					253	912	345	91	34	39
29	22	10					297	889	592	69	36	38
30	20	9					301	884	465	59	35	38
31	20	-					-	862	-	54	33	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	777	37	20	25.1	1,540
November	440	19	9	14.7	873
December	248	-	-	8.0	492
Calendar year	-	-	-	-	-
January	279	-	-	9.0	553
February	274	-	-	9.8	543
March	341	-	-	11.0	676
April	2,967	301	17	98.9	5,880
May	8,430	912	55	272	16,720
June	17,632	867	345	588	34,970
July	3,951	405	52	127	7,840
August	1,464	79	33	47.2	2,900
September	2,583	350	38	86.1	5,120
Water year 1937-38	39,386	912	-	108	78,110

Peak discharge.- May 14 (9 p.m.) 3,675 sec.-ft.; May 28 (10 p.m.) 1,090 sec.-ft.; June 3 (6 p.m.) 1,100 sec.-ft.
*Discharge measurement.

Turkey Creek near Pagosa Springs, Colo.

Location.- Water-stage recorder, lat. 37°22'15", long. 106°56'45", at west side of sec. 10, T. 36 N., R. 1 W., 2½ miles upstream from mouth and 8 miles northeast of Pagosa Springs.

Drainage area.- 23.0 square miles.

Records available.- May 1937 to September 1938.

Extremes.- Maximum discharge during year, 602 second-feet May 28 (gage height, 3.20 feet), from rating curve extended above 300 second-feet; minimum daily discharge, 1.0 second-foot Oct. 7.

1937-38: Maximum discharge, that of May 28, 1938; minimum daily discharge, 0.4 second-foot Sept. 28, 1937.

Greatest known flood occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records fair. Discharge for period of ice effect, Nov. 26 to Apr. 3, computed on basis of five discharge measurements and weather records; that for period of missing gage heights, May 3-8, June 29, 30, Sept. 10-15, computed on basis of records for West Fork of San Juan River above Borns Lake, near Pagosa Springs. A large part of flow diverted from drainage basin above station during irrigation season.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.1	1.7				-	16	212	324	106	13	9.0
2	3.0	1.7				*5.2	15	131	297	89	11	14
3	2.4	1.9				-	17	100	302	75	12	13
4	1.8	2.4				-	18	82	311	62	16	22
5	1.6	2.4				-	21	75	288	53	16	19
6	1.2	2.2				-	19	60	271	42	17	16
7	1.0	3.0				-	16	56	224	39	13	14
8	1.1	2.5				-	16	54	209	35	13	27
9	2.6	3.0				-	20	56	182	35	11	22
10	3.4	3.1				-	26	59	169	34	11	27
11	3.6	3.1				-	44	75	156	30	20	90
12	1.7	2.8				-	57	96	179	35	16	98
13	1.8	2.5				-	59	125	241	38	27	60
14	1.5	2.4				-	49	205	220	38	22	48
15	7.1	1.9	*5.1			-	37	254	216	34	18	42
16	8.0	2.0				-	34	228	237	30	14	39
17	5.6	1.9				-	45	197	241	25	12	34
18	4.6	1.9				-	93	156	166	29	11	29
19	3.4	2.4				-	111	143	143	22	10	24
20	3.2	2.8			*6.1	-	179	131	134	20	9.8	20
21	3.6	2.5				-	212	137	172	20	8.7	18
22	3.1	2.2				-	224	137	228	18	8.0	18
23	3.0	2.5				-	262	143	197	17	7.7	17
24	3.0	2.8				-	280	162	140	16	8.4	16
25	2.8	2.5				-	293	193	131	14	9.0	14
26	2.5	2.8				-	246	245	122	12	7.7	14
27	2.4	2.0				-	205	284	116	15	8.0	11
28	2.2	3.0				-	224	362	116	17	8.0	9.4
29	2.0	2.8				*19	254	448	180	16	8.4	8.7
30	1.9	2.7		*3.0		-	254	362	125	14	7.7	8.4
31	1.8	-				-	-	357	-	14	5.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	93.0	8.0	1.0	3.00	184
November	73.4	3.1	1.7	2.45	146
December	130.2	-	-	4.2	258
Calendar year					
January	108.5	-	-	3.5	215
February	126.0	-	-	4.5	250
March	279.0	-	-	9.0	553
April	3,345	293	15	112	6,630
May	5,325	448	54	172	10,560
June	6,037	324	116	201	11,970
July	1,044	106	12	33.7	2,070
August	380.2	27	5.8	12.3	754
September	801.5	98	8.4	26.7	1,590
Water year 1937-38	17,742.8	448	-	48.6	35,180

Peak discharge.- Apr. 24 (11 p.m.) 362 sec.-ft.; May 14 (10 p.m.) 324 sec.-ft.; May 28 (10 p.m.) 602 sec.-ft.

*Discharge measurement.

Rio Blanco near Pagosa Springs, Colo.

Location.- Water-stage recorder, lat. 37°12'45", long. 106°47'40", in center of sec. 1, T. 34 N., R. 1 E., at highway bridge, 0.4 mile upstream from White Creek and 12.5 miles southeast of town of Pagosa Springs.

Drainage area.- 58 square miles.

Records available.- May 1935 to September 1938.

Extremes.- Maximum discharge during year, 1,040 second-feet June 29 (gage height, 3.48 feet); minimum daily discharge, 6.6 second-feet Feb. 24, 27, 28.
1935-38: Maximum discharge, 1,340 second-feet May 17, 1937 (gage height, 4.06 feet); minimum, that of Feb. 24, 27, 28, 1938.
Greatest known flood occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records fair. Discharge for period of ice effect, Dec. 18 to Feb. 21, computed on basis of one discharge measurement and records for San Juan River at Pagosa Springs; that for period of missing gage heights, Apr. 4-7, computed on basis of records for Navajo River at Edith. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	21	12	10	10	8.2	43	350	662	290	66	44
2	26	18	12	11	10	9.3	40	216	636	268	57	71
3	22	18	14	11	10	17	43	190	546	247	52	58
4	23	17	14	11	10	21	60	144	630	216	53	70
5	21	17	13	11	10	19	85	118	576	190	51	69
6	18	16	12	9	9	22	78	109	570	168	59	58
7	16	24	13	9	10	21	65	96	534	148	54	61
8	16	24	13	9	10	18	51	89	472	137	47	80
9	16	25	12	9	10	18	51	86	460	112	53	50
10	15	27	13	10	10	17	63	86	455	122	40	64
11	15	24	14	10	11	16	94	112	482	92	40	230
12	16	21	14	10	12	18	135	146	522	107	45	219
13	16	19	13	10	13	18	131	185	558	100	56	107
14	15	19	13	10	12	18	103	336	486	89	86	74
15	57	18	13	10	10	18	80	477	482	107	36	63
16	84	16	12	11	10	18	79	534	450	102	26	61
17	49	16	12	11	9	22	103	472	466	89	24	51
18	49	18	10	11	9	21	198	395	428	78	25	45
19	36	16	9	11	10	26	268	305	400	83	21	45
20	34	18	10	10	11	42	256	290	411	100	18	39
21	37	17	11	10	10	51	355	355	552	83	15	34
22	38	15	12	11	9.3	39	433	350	606	75	15	31
23	38	15	10	11	8.2	44	482	355	504	70	16	29
24	32	15	10	10	6.6	55	510	433	395	67	17	28
25	29	14	10	10	7.6	79	499	460	411	62	17	28
26	27	14	11	11	10	95	422	422	411	59	18	25
27	25	13	12	12	6.6	73	328	428	390	64	16	22
28	23	13	10	12	6.6	63	380	643	346	67	16	23
29	22	14	10	12	-	53	444	688	758	59	21	25
30	22	13	10	11	-	50	482	510	428	54	24	22
31	21	-	10	10	-	47	-	540	-	75	25	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	897	84	15	28.9	1,780
November	535	27	13	17.8	1,060
December	364	14	9	11.7	722
Calendar year 1937	45,981.3	1,150	8.2	126	91,210
January	324	12	9	10.5	643
February	270.9	13	6.6	9.68	537
March	1,036.5	95	8.2	33.4	2,060
April	6,361	510	40	212	12,620
May	9,920	688	86	320	19,680
June	15,029	758	346	501	29,810
July	3,580	290	54	115	7,100
August	1,109	86	15	35.8	2,200
September	1,826	230	22	60.9	3,620
Water year 1937-38	41,252.4	758	6.6	113	81,830

Peak discharge.- Apr. 23 (8 p.m.) 758 sec.-ft.; May 29 (8 p.m.) 880 sec.-ft.; June 29 (5 p.m.) 1,040 sec.-ft.; Sept. 12 (1 a.m.) 772 sec.-ft.

153585 O—39——10

Rito Blanco near Pagosa Springs, Colo.

Location.- Water-stage recorder, lat. 37°11'40", long. 106°54'20", in SW¼ sec. 12 T. 34 N., R. 1 W., at road crossing, 0.1 mile upstream from Sheep Cabin Creek and 7¾ miles southeast of town of Pagosa Springs.

Drainage area.- 23.3 square miles.

Records available.- May 1935 to September 1938.

Extremes.- Maximum discharge during year, 243 second-feet Apr. 23 (gage height, 2.73 feet); minimum daily discharge, 0.4 second-foot Oct. 7-14, Nov. 13.
1935-38: Maximum discharge, 310 second-feet June 9, 1935 (gage height, 2.87 feet); minimum daily discharge, 0.2 second-feet Sept. 21, 22, 1937.
Greatest known flood occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records good except those for periods of ice effect, Nov. 25 to Dec. 2, Dec. 20 to Mar. 9 (computed on basis of two discharge measurements and weather records) and those for Apr. 1-3 (estimated), which are fair. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.8	0.9	0.8	1.4	1.9	1.7	15	144	141	40	1.5	4.5
2	2.4	.8	.9	1.6	2.1	1.9	12	101	125	36	1.2	14
3	.9	.8	1.0	1.8	1.9	2.1	17	79	122	32	1.2	10
4	.6	.9	1.9	1.7	1.7	2.5	22	69	113	29	1.8	7.4
5	.6	.9	2.1	1.3	1.2	2.4	23	58	113	27	2.8	9.0
6	.5	.8	1.0	1.2	.8	2.0	22	54	110	24	1.5	10
7	.4	1.7	1.0	1.1	1.1	2.2	18	50	110	22	1.2	10
8	.4	1.8	.9	1.1	1.6	2.7	15	44	101	19	.9	14
9	.4	1.0	1.0	1.1	2.0	3.0	18	43	88	18	.8	9.0
10	.4	1.9	1.1	1.0	2.2	3.4	23	38	79	18	.7	7.0
11	.4	2.2	1.5	1.1	2.6	5.1	29	44	74	15	2.2	18
12	.4	1.5	1.7	1.2	2.8	4.8	42	53	74	16	3.1	19
13	.4	.4	2.2	1.2	2.7	5.4	47	61	84	16	7.0	15
14	.4	1.1	2.2	1.4	2.5	6.2	45	107	74	15	4.0	13
15	1.1	1.5	1.2	1.8	2.2	7.8	34	154	68	16	2.8	11
16	5.4	.8	1.2	2.3	1.7	7.0	35	150	64	13	1.9	13
17	2.5	1.0	1.7	2.4	1.1	9.4	44	141	58	11	1.8	11
18	1.9	1.8	1.8	2.4	.9	8.2	71	122	54	11	2.2	7.4
19	1.9	.8	1.7	2.2	1.2	10	101	122	45	9.8	1.8	6.6
20	1.7	1.0	1.4	1.9	1.8	12	96	113	43	14	1.4	5.8
21	2.1	1.1	1.3	1.7	1.7	12	147	104	47	14	1.0	6.2
22	2.2	.9	1.3	1.9	1.3	12	167	101	56	11	1.0	5.8
23	2.4	.8	1.3	1.7	1.2	19	196	93	61	9.0	1.0	4.8
24	1.8	.9	1.5	1.3	1.7	19	200	93	50	8.2	1.4	5.1
25	1.4	1.0	2.1	1.2	2.1	24	185	104	41	8.2	1.9	3.7
26	1.1	.9	1.5	1.5	1.8	27	157	119	37	4.0	1.7	3.7
27	1.1	.8	1.8	1.6	1.4	25	122	134	35	4.5	1.9	2.8
28	1.0	.8	2.2	2.1	1.5	22	125	164	32	6.6	1.2	2.5
29	1.1	.8	2.4	1.8	-	18	154	185	56	6.2	1.7	2.8
30	1.0	.8	2.0	1.7	-	15	154	157	48	2.8	3.4	2.5
31	.9	-	1.4	1.6	-	14	-	144	-	2.1	3.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	43.6	5.4	0.4	1.41	86
November	32.4	2.2	.4	1.08	64
December	47.1	2.4	.8	1.52	93
Calendar year 1937	10,597.4	210	.2	29.0	21,020
January	49.3	2.4	1.0	1.59	98
February	48.7	2.8	.8	1.74	97
March	306.8	27	1.7	9.90	609
April	2,337	200	12	77.9	4,640
May	3,145	185	38	101	6,240
June	2,203	141	32	73.4	4,370
July	478.4	40	2.1	15.4	949
August	61.4	7.0	.7	1.98	122
September	254.6	19	2.5	8.49	505
Water year 1937-38	9,007.3	200	4	24.7	17,870

Peak discharge.- Apr. 23 (11 p.m.) 243 sec.-ft.; May 14 (10 p.m.) 196 sec.-ft.; May 28 (11 p.m.) 203 sec.-ft.

Navajo River at Banded Peak ranch, near Chromo, Colo.

Location.- Water-stage recorder, lat. 37°05'00", long. 106°41'30", in NW¼ sec. 24, T. 33 N., R. 2 E., on Banded Peak ranch, half a mile downstream from Aspen Creek, and 9 miles northeast of Chromo.

Drainage area.- 69.8 square miles.

Records available.- April 1937 to September 1938.

Extremes.- Maximum discharge during year, 876 second-feet May 28 (gage height, 3.42 feet); minimum daily discharge, 20 second-feet Dec. 19, 20.
1937-38: Maximum discharge, that of May 28, 1938; minimum daily discharge, that of Dec. 19, 20, 1937.
Greatest known flood occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records excellent except those for period of ice effect, Nov. 26 to Mar. 25 (computed on basis of one discharge measurement and records for San Juan at Pagosa Springs), and those for June 6-20, Sept. 10-30, which are fair. No diversion or regulation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	34	22	31	29	34	28	426	728	361	85	66
2	40	31	24	30	28	34	29	325	711	312	74	78
3	35	29	26	29	28	35	34	296	665	274	78	74
4	36	29	26	28	27	32	53	242	660	239	76	80
5	35	29	26	26	27	31	60	204	665	211	72	82
6	34	29	26	25	27	31	58	185	706	191	70	78
7	34	39	26	26	28	32	54	162	695	173	66	87
8	34	36	27	26	29	34	53	149	620	167	68	99
9	33	33	26	27	29	35	58	142	615	159	78	87
10	32	32	30	28	30	35	70	142	615	147	62	96
11	30	31	28	29	31	26	95	188	605	140	64	152
12	35	32	27	29	32	37	112	228	610	138	68	191
13	34	31	28	30	32	38	120	265	594	127	76	115
14	34	20	27	30	31	39	110	416	539	140	82	115
15	58	28	26	30	30	38	93	520	549	147	66	112
16	57	27	26	30	28	39	90	540	519	130	61	99
17	49	27	27	29	28	41	114	485	529	119	56	88
18	48	29	23	28	28	39	191	455	504	119	60	80
19	42	31	20	28	30	40	257	431	465	115	53	74
20	40	29	20	27	30	42	288	407	460	110	50	74
21	40	29	21	28	30	48	374	436	514	101	49	76
22	41	29	25	29	30	42	397	421	569	93	49	73
23	40	30	27	30	30	44	440	412	470	88	50	70
24	39	28	27	29	30	48	460	470	417	85	50	70
25	38	28	27	28	31	58	490	510	398	84	50	66
26	39	26	28	29	30	67	450	550	403	80	49	60
27	39	24	29	30	30	61	384	610	398	82	48	58
28	39	23	28	30	32	54	402	700	384	80	50	56
29	38	24	29	30	-	36	440	744	509	74	50	54
30	36	23	30	30	-	31	480	711	427	73	51	54
31	35	-	31	30	-	28	-	711	-	76	51	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,206	58	30	38.9	2,390
November	880	39	23	29.3	1,750
December	813	31	20	26.2	
Calendar year					
January	889	31	25	28.7	1,760
February	825	32	27	29.5	1,640
March	1,239	67	28	40.0	2,460
April	6,284	490	28	209	12,460
May	12,483	744	142	403	24,760
June	16,543	728	384	551	32,810
July	4,435	361	73	143	8,800
August	1,912	85	48	61.7	3,790
September	2,564	191	54	85.5	5,090
Water year 1937-38	50,073	744	20	137	99,320

Peak discharge.- May 15 (8 p.m.) 615 sec.-ft.; May 28 (8 p.m.) 876 sec.-ft.; June 12 (9 p.m.) 744 sec.-ft.; June 21 (9 p.m.) 624 sec.-ft.

Navajo River near Chromo, Colo.

Location.- Water-stage recorder, lat. 37°02'00", long. 106°46'50", in SW¼ sec. 6, T. 32 N., R. 2 E., 3.5 miles east of Chromo.

Drainage area.- 118 square miles.

Records available.- May 1935 to November 1938 (discontinued).

Extremes.- Maximum discharge during period, 1,240 second-feet May 28 (gage height, 3.85 feet); minimum daily discharge, 21 second-feet Dec. 19, 20.
1935-38: Maximum discharge, about 1,220 second-feet June 16, 1935 (gage height, 4.46 feet); minimum daily discharge, 20 second-feet Dec. 15, 1935, Mar. 20, 1937.
Greatest flood known occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records excellent except those for periods of ice effect, Nov. 29 to Dec. 7, Dec. 19 to Feb. 25, Feb. 25 (computed on basis of two discharge measurements and records for San Juan River at Pagosa Springs), and those for Mar. 29, 30 (computed on basis of records for station at Edith), which are fair, and those for period May 20 to June 20, which are good. Diversions for irrigation above station.

Discharge, in second-feet, Oct. 1. 1937, to Nov. 13, 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
1	66	35	23	32	32	38	51	595	771	395	83	57	53	50
2	52	33	25	32	31	37	51	434	763	357	66	86	48	50
3	48	32	28	32	31	50	78	388	795	309	64	83	50	45
4	47	32	27	31	31	45	97	326	763	276	69	88	53	46
5	43	30	27	28	30	35	121	268	771	241	63	86	53	51
6	42	30	28	27	29	33	107	246	732	214	71	83	57	47
7	41	40	27	28	30	35	95	227	680	190	64	86	85	46
8	40	38	31	29	31	38	90	211	606	175	61	118	137	45
9	41	33	27	29	32	38	110	202	582	168	79	83	101	41
10	41	34	35	30	32	38	162	198	575	155	66	85	90	40
11	40	34	32	31	33	38	215	232	568	140	63	210	85	41
12	46	34	29	31	34	43	262	285	605	140	69	256	81	41
13	45	34	31	32	36	45	285	326	620	128	75	168	79	40
14	41	34	30	33	36	43	236	546	530	142	92	123	77	-
15	67	34	27	33	35	41	194	679	552	158	66	108	81	-
16	75	31	28	33	32	45	211	718	560	137	58	101	86	-
17	60	31	28	32	30	48	274	612	560	120	54	92	83	-
18	58	34	23	31	30	46	414	560	575	118	58	81	74	-
19	48	30	21	31	32	50	539	500	523	120	53	75	69	-
20	45	33	21	30	33	64	581	442	545	118	48	69	67	-
21	46	34	24	31	33	70	700	560	658	103	45	66	64	-
22	45	32	27	32	33	55	672	523	680	94	39	63	63	-
23	46	30	28	33	33	58	716	478	620	92	40	61	60	-
24	45	31	28	31	34	93	665	552	500	86	41	60	57	-
25	43	30	29	30	33	129	748	612	500	81	41	61	54	-
26	43	28	29	31	32	144	665	680	478	77	40	57	53	-
27	42	27	31	32	33	129	525	748	471	79	40	54	50	-
28	42	24	29	33	37	110	567	844	415	77	39	54	50	-
29	40	26	30	32	-	88	644	920	620	71	43	55	50	-
30	36	24	31	32	-	72	693	860	493	71	42	58	50	-
31	36	-	32	32	-	62	-	787	-	69	43	-	48	-

Month	Second-foot-days	Maximum	Minimum	Mean	Acre-feet
October 1937	1,450	75	36	46.8	2,880
November	952	40	24	31.7	1,890
December	866	35	21	27.9	1,720
Calendar year 1937	58,709	1,060	20	161	116,500
January 1938	964	33	27	31.1	1,910
February	908	37	29	32.4	1,800
March	1,860	144	33	60.0	3,690
April	10,768	748	51	359	21,360
May	15,559	920	198	502	30,860
June	18,110	795	415	604	35,920
July	4,701	395	69	152	9,320
August	1,775	92	39	57.3	3,520
September	2,727	256	54	90.9	5,410
Water year 1937-38	60,640	920	21	166	120,300
October 1938	2,108	137	48	68.0	4,180
November 1-13	583	51	40	44.8	1,160
The period					5,340

Peak discharge.- Apr. 25 (9 p.m.) 995 sec.-ft.; May 16 (1 a.m.) 894 sec.-ft.; May 28 (11 p.m.) 1,240 sec.-ft.

Navajo River at Edith, Colo.

Location.- Water-stage recorder, lat. 37°00'10", long. 106°04'20", in NW¼ sec. 24, T. 32 N., R. 1 W., at highway bridge, a quarter of a mile east of Edith and 1 mile upstream from Coyote Creek.

Drainage area.- 165 square miles.

Records available.- September 1912 to December 1914 and June 1935 to September 1938 in reports of Geological Survey. September 1912 to December 1928 in reports of State engineers of Colorado and New Mexico.

Average discharge.- 19 years, 189 second-feet.

Extremes.- Maximum discharge during year, 1,410 second-feet Apr. 21 (gage height, 4.57 feet), from rating curve extended above 1,200 second-feet; minimum daily discharge, 23 second-feet Dec. 19, 20.

1935-38: Maximum discharge, 2,370 second-feet Apr. 15, 1937 (gage height, 5.77 feet) from rating curve extended above 1,200 second-feet; minimum daily discharge observed, 21 second-feet Jan. 23, 1936 (discharge measurement).

Greatest known flood occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records good except those for period of ice effect, Dec. 21 to Mar. 11, which were computed on basis of three discharge measurements and records for San Juan River at Pagosa Springs and are fair. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	76	43	25	36	35	77	71	874	886	449	88	55
2	59	42	28	36	35	82	67	544	868	374	73	102
3	54	41	35	36	25	100	108	521	862	334	72	102
4	50	41	29	35	35	105	189	421	838	300	79	96
5	47	40	28	31	34	90	228	364	880	264	72	97
6	47	40	31	29	32	82	206	340	856	238	75	96
7	45	49	28	30	33	70	167	311	820	210	72	86
8	44	50	30	31	35	68	143	280	696	189	67	141
9	44	43	28	32	35	67	178	280	672	174	82	99
10	43	44	30	33	35	64	251	264	653	167	70	83
11	43	44	32	33	37	66	343	294	631	150	67	230
12	45	40	33	34	42	70	390	349	676	147	71	272
13	51	37	33	35	46	86	393	387	715	143	83	223
14	45	36	32	35	45	80	303	576	622	159	99	147
15	61	36	31	36	43	70	292	778	622	210	73	126
16	94	33	30	37	38	78	358	820	610	159	62	123
17	74	34	29	36	32	91	374	700	605	138	58	115
18	73	36	25	35	34	83	564	631	610	128	62	94
19	64	32	23	34	37	96	662	564	556	128	56	88
20	60	36	23	33	42	129	691	502	544	134	52	79
21	60	34	29	32	37	134	1,040	556	614	131	49	75
22	59	33	31	34	36	96	880	552	662	113	47	71
23	57	33	32	37	36	118	968	509	618	110	44	67
24	56	34	32	35	37	208	1,050	576	483	99	46	64
25	56	34	32	34	38	292	1,020	662	464	94	44	67
26	55	32	33	35	40	256	868	715	471	88	42	60
27	53	28	35	37	48	225	636	790	498	89	41	56
28	51	26	33	37	56	172	667	928	468	91	42	55
29	50	28	34	37	-	113	755	1,030	667	85	46	57
30	48	27	35	36	-	89	814	904	556	78	44	53
31	44	-	35	35	-	73	-	832	-	76	47	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,708	94	43	55.1	3,390
November	1,106	50	26	36.9	2,190
December	944	35	23	30.5	1,870
Calendar year 1937	82,880	1,580	23	227	164,400
January	1,066	37	29	34.4	2,110
February	1,068	56	32	38.1	2,120
March	3,430	292	64	111	6,800
April	14,676	1,050	67	489	29,110
May	17,854	1,030	264	576	35,410
June	19,723	886	464	657	39,120
July	5,249	449	76	169	10,410
August	1,925	99	41	62.1	3,820
September	3,079	272	53	103	6,110
Water year 1937-38	71,828	1,050	23	197	142,500

Peak discharge.- Apr. 21 (1 a.m.) 1,410 sec.-ft.; Apr. 25 (9 p.m.) 1,360 sec.-ft.; May 15 (10 p.m.) 1,120 sec.-ft.; May 28 (11 p.m.) 1,310 sec.-ft.

DIVERSIONS FROM NAVAJO RIVER

Garcia ditch 1 near Lumberton, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°59'25", long. 106°55'25", in NW¼NE¼ sec. 15, T. 32 N., R. 1 W., 300 feet downstream from head and 3.8 miles north of Lumberton.

Records available.- May to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 4.6 second-feet Sept. 8; no flow on many days or parts of days.

Remarks.- Records good except those for period of missing gage heights, June 24-29, which were estimated and are poor. Ditch diverts from left bank of Navajo River, and water is used for irrigation.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	3.0	1.3	1.4	1.6
2								-	2.8	.6	1.0	3.7
3								-	2.0	.3	1.1	3.5
4								0.1	2.0	.1	1.4	3.3
5								0	2.2	0	1.2	3.5
6								0	2.0	1.1	1.5	3.4
7								0	1.5	2.2	1.4	3.0
8								0	.9	1.8	1.4	4.6
9								0	.8	1.6	2.1	3.7
10								0	1.6	1.5	1.6	3.3
11								0	2.4	1.2	1.2	3.3
12								0	3.0	1.8	.4	3.3
13								.1	3.4	1.9	.7	2.0
14								1.2	2.4	1.6	.9	.7
15								1.8	2.6	.1	.6	.4
16								2.2	2.5	0	.3	.4
17								1.6	2.4	0	.3	.2
18								1.4	2.6	1.0	.4	0
19								1.0	2.0	2.2	.4	0
20								.6	2.1	2.4	.3	0
21								1.0	2.8	2.3	.4	0
22								1.1	3.5	1.9	1.3	0
23								.7	3.4	1.8	1.3	0
24								1.4	3.6	1.6	1.5	0
25								1.6	3.4	1.4	1.4	0
26								1.8	3.0	1.3	1.5	0
27								2.9	2.7	1.4	1.4	0
28								4.3	2.4	1.4	1.6	0
29								4.1	2.2	1.2	1.8	0
30								3.2	2.0	1.1	1.3	0
31								2.7	-	1.3	1.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May 4-31	34.8	4.3	0	1.24	69
June	73.2	3.6	.8	2.44	145
July	39.4	2.4	0	1.27	78
August	34.6	2.1	.3	1.12	69
September	43.9	4.6	0	1.46	87
The period					448

Garcia ditch 2 near Lumberton, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°59'20", long. 106°55'40", in SE¼NW¼ sec. 15, T. 32 N., R. 1 W., 230 feet downstream from head and 3.6 miles north of Lumberton.

Records available.- May to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 4.9 second-feet Sept. 11, 12 (gage height, 1.11 feet); no flow on many days or parts of days.

Remarks.- Records fair except those for periods of missing or partial gage-height record, June 22, 24-29, July 19, 20, which were estimated and are poor. Ditch diverts from right bank of Navajo River, and water is used for irrigation. No diversion above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	3.6	0.7	0	0.8
2								-	3.2	.5	0	3.5
3								-	3.1	.1	0	3.4
4								-	3.3	0	0	3.2
5								-	3.5	.2	0	3.3
6								-	3.2	.8	0	3.1
7								-	2.9	.4	0	2.9
8								-	2.0	0	0	4.1
9								-	2.0	.1	0	3.8
10								-	2.1	.3	0	3.6
11								-	2.0	.1	.1	4.9
12								-	2.6	.1	0	4.9
13								-	3.2	.1	0	3.9
14								-	2.1	.4	.1	1.8
15								-	2.1	.2	0	1.4
16								2.5	2.0	0	0	1.5
17								2.3	2.2	0	0	1.6
18								2.0	2.0	0	0	1.4
19								1.7	1.4	.1	0	1.2
20								1.3	1.7	.4	0	1.1
21								1.7	2.8	.3	0	1.0
22								1.7	2.4	.3	0	1.0
23								1.5	2.0	.2	0	.9
24								2.2	2.2	.1	0	.8
25								2.0	2.0	0	0	.8
26								2.9	1.8	0	0	.8
27								2.7	1.6	0	0	.6
28								1.1	1.5	0	0	.6
29								1.3	1.4	0	0	.6
30								1.5	1.2	.0	0	.4
31								3.3	-	0	.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May 16-31	31.7	3.3	1.1	1.98	63
June	69.1	3.6	1.2	2.30	137
July	5.4	.8	0	.17	11
August	.4	.2	0	.01	.8
September	62.9	4.9	.4	2.10	125
The period					337

Gomez ditch near Lumberton, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°58'15", long. 106°57'00", in NW¼SW¼ sec. 21, T. 32 N., R. 1 W., 700 feet downstream from head and 2.5 miles northwest of Lumberton.

Records available.- May to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 2.3 second-feet May 15 (gage height, 0.70 foot); no flow on many days or parts of days.

Remarks.- Records fair except those for periods of missing gage heights, May 18, June 11-14, 18-21 (computed on basis of recorded range in stage), and those for June 24-29 (estimated), which are poor. Ditch diverts from right bank of Navajo River, and water is used for irrigation.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	1.4	0.1	0.2	1.2
2								-	1.4	0	.1	1.3
3								-	1.3	0	.1	1.3
4								-	1.2	0	.1	1.3
5								-	1.3	0	.1	1.2
6								0	1.5	0	.1	1.2
7								0	1.2	0	0	1.2
8								0	.5	0	0	1.0
9								0	.4	0	0	.3
10								0	.7	0	0	.2
11								0	1.2	0	.2	1.3
12								0	1.8	0	0	1.3
13								0	1.5	.1	.4	1.0
14								.8	1.1	.3	.8	.7
15								2.3	.7	.3	.4	.5
16								.4	.6	.4	.2	.4
17								1.0	.8	.4	.1	.3
18								.6	1.1	.3	.2	.1
19								.3	1.4	.3	.1	.1
20								.3	1.8	.3	0	0
21								.9	1.6	.3	0	0
22								1.0	1.6	.2	0	0
23								.6	2.0	.1	0	0
24								1.0	2.2	.1	0	0
25								1.4	1.8	0	.2	0
26								1.6	1.6	.1	.6	0
27								2.2	1.1	.1	.7	0
28								1.8	.8	.2	.8	0
29								1.4	.5	.1	1.0	0
30								.3	.2	.1	.9	0
31								.7	-	.1	1.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May 6-31	18.6	2.3	0	0.72	37
June	36.3	2.2	.2	1.21	72
July	3.9	.4	0	.13	7.7
August	8.3	1.0	0	.27	16
September	15.9	1.3	0	.53	32
The period					165

Little Navajo River at Chromo, Colo.

Location.- Water-stage recorder, lat. 37°02'05", long. 106°50'35", in SW¼ sec. 4, T. 32 N., R. 1 E., at highway bridge at Chromo a quarter of a mile upstream from mouth.

Drainage area.- 21.9 square miles.

Records available.- May 1935 to September 1938.

Extremes.- Maximum discharge during year, 202 second-feet Apr. 25 (gage height, 4.41 feet); no flow Aug. 31.
1935-38: Maximum daily discharge, 240 second-feet Apr. 15, 1937 (estimated); no flow Aug. 31, 1938.
Greatest flood known occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records fair. Discharge for period of ice effect, Dec. 1 to Mar. 25, computed on basis of four discharge measurements and weather records; that for periods of missing gage heights, Aug. 1-5, 13-23, Sept. 13-18, computed on basis of recorded range in stage and records for Rito Blanco near Pagosa Springs. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.3	1.8	1.6	1.9	2.2	4.1	23	91	63	17	2.0	0.1
2	.9	2.0	1.7	2.1	2.5	4.6	17	79	56	12	1.5	1.7
3	.9	2.0	1.8	2.2	2.0	5.0	25	75	50	9.7	1.5	4.9
4	.9	1.8	1.8	2.3	2.4	5.4	38	65	45	9.0	2.4	6.1
5	.8	1.7	1.8	2.0	2.0	4.8	39	58	41	9.0	3.0	4.9
6	.8	1.6	2.0	1.8	1.2	4.3	35	54	37	8.4	3.2	6.1
7	.8	2.6	1.5	1.7	1.8	5.0	29	51	37	7.8	2.6	6.7
8	.8	2.6	1.3	1.6	2.0	5.8	24	51	34	2.9	2.3	12
9	.9	2.3	1.3	1.5	2.4	6.7	29	53	32	1.4	2.0	9.7
10	1.0	2.3	1.5	1.5	2.7	8.0	36	50	31	.8	1.1	9.0
11	.9	2.4	1.7	1.6	2.9	8.8	44	51	30	.8	.1	16
12	.7	2.1	1.7	1.6	2.8	8.2	51	53	30	.5	.8	13
13	.7	1.6	1.7	1.7	2.7	10	52	69	31	.2	2.6	9.0
14	.6	1.7	1.6	1.8	2.6	12	43	90	29	12	2.8	7.5
15	1.4	1.8	1.7	2.2	2.5	14	39	104	26	18	2.3	5.2
16	2.9	1.6	1.5	2.6	2.0	13	42	100	22	7.3	1.6	5.0
17	2.4	1.8	1.6	2.5	1.8	15	53	95	20	5.5	1.4	4.4
18	3.6	2.1	1.8	2.6	1.3	18	76	87	16	3.2	1.5	3.6
19	3.3	1.6	1.8	2.3	1.7	21	87	80	13	2.3	1.0	3.8
20	3.1	2.1	1.7	2.1	2.2	22	87	80	12	9.0	.4	3.2
21	2.9	2.3	1.6	1.8	2.5	23	131	83	10	15	.2	3.8
22	2.9	1.7	1.5	2.0	2.2	27	114	84	11	7.8	.2	3.8
23	2.4	1.8	1.6	1.8	2.0	35	137	76	19	7.3	.2	3.8
24	2.4	2.6	2.0	1.7	2.7	36	138	74	15	6.7	.2	3.8
25	2.3	2.1	1.7	1.5	3.3	45	146	78	9.0	5.5	.2	3.2
26	2.1	2.0	1.7	1.7	3.3	40	122	75	7.3	5.5	.1	2.9
27	2.1	2.0	2.0	1.9	3.8	32	114	76	10	4.9	.1	1.7
28	2.0	1.8	2.1	2.3	4.2	24	118	82	21	4.4	.5	1.4
29	1.7	1.8	2.2	2.2	-	16	113	89	37	3.8	.5	1.7
30	2.0	1.8	2.0	2.0	-	14	107	76	25	3.8	.2	1.1
31	2.0	-	1.9	1.9	-	21	-	67	-	2.9	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	53.5	3.6	0.6	1.73	106
November	59.4	2.6	1.6	1.98	118
December	53.4	2.2	1.3	1.72	106
Calendar year 1937	7,406.0	240	.3	20.3	14,690
January	60.4	2.6	1.5	1.95	120
February	67.7	4.2	1.2	2.42	134
March	508.7	45	4.1	16.4	1,010
April	2,109	146	17	70.3	4,180
May	2,296	104	50	74.1	4,550
June	819.3	63	7.3	27.3	1,630
July	204.4	18	.2	6.59	405
August	38.5	3.2	0	1.24	76
September	159.1	16	.1	5.30	316
Water year 1937-38	6,429.4	146	0	17.6	12,750

Peak discharge.- Mar. 25 (3 p.m.) 116 sec.-ft.; Apr. 25 (8 p.m.) 202 sec.-ft.; July 14 (6 p.m.) 196 sec.-ft.

Piedra River at Bridge ranger station, near Pagosa Springs, Colo.

Location.- Water-stage recorder, lat. 37°25'30", long. 107°11'30", in sec. 22, T. 37 N., R. 3 W., a quarter of a mile downstream from Bridge ranger station, 1 mile downstream from Middle Fork, and 15 miles northwest of town of Pagosa Springs.

Drainage area.- 82.3 square miles.

Records available.- April 1937 to September 1938.

Extremes.- Maximum discharge during year, 1,060 second-feet May 28 (gage height, 3.90 feet); minimum daily discharge not determined.
1937-38: Maximum discharge, that of May 28, 1938; minimum not determined.
Greatest known flood occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records good except those for period of ice effect, Nov. 26 to Mar. 26 (computed on basis of one discharge measurement at station, four discharge measurements 14 miles below station, and weather records) and those for periods of missing gage heights, Mar. 31 to Apr. 2, Apr. 9, June 30 to July 5 (computed on basis of records for West Fork of San Juan River near Pagosa Springs), which are fair. A few small diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	25				24	28	345	730	540	64	62
2	26	25				22	26	262	708	420	63	98
3	27	25				27	32	216	754	340	57	91
4	28	22				24	35	168	790	290	56	98
5	25	20				21	45	146	730	245	50	94
6	26	20				19	49	131	686	213	43	84
7	23	29				18	54	117	610	175	45	86
8	23	23				19	53	112	566	151	42	91
9	24	23				16	70	94	507	138	42	71
10	23	23				14	159	87	498	124	38	87
11	23	20				14	209	98	480	116	50	415
12	23	21				14	223	131	561	109	57	468
13	24	20				14	194	180	844	105	78	311
14	23	22				15	127	307	692	124	66	232
15	43	22				16	110	439	620	112	60	177
16	45	20				17	110	414	620	98	51	149
17	35	22				17	190	354	620	98	46	136
18	35	20		*18		18	274	290	561	86	50	112
19	28	17				21	280	272	480	81	47	101
20	29	21				23	262	240	476	84	40	86
21	29	18				28	293	250	590	83	37	74
22	28	17				26	333	269	784	86	35	65
23	28	16				24	358	290	692	87	35	68
24	28	19				30	397	348	530	70	38	66
25	26	18				36	374	404	480	65	37	66
26	23	16				50	321	526	433	58	35	62
27	23	16				53	272	620	401	84	37	57
28	23	15				47	333	770	377	142	33	52
29	24	15				39	374	814	814	89	34	52
30	24	14				34	404	754	660	76	34	47
31	26	-				32	-	760	-	68	42	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	841	45	23	27.1	1,670
November	604	29	14	20.1	1,200
December	775	-	-	25	1,540
Calendar year					
January	527	-	-	17	1,050
February	448	-	-	16	889
March	772	53	14	24.9	1,530
April	5,989	404	26	200	11,880
May	10,208	814	87	329	20,250
June	18,294	844	377	610	36,290
July	4,557	540	58	147	9,040
August	1,442	78	33	46.5	2,860
September	3,658	468	47	122	7,260
Water year 1937-38	48,115	844	-	132	95,460

Peak discharge.- May 28 (9 p.m.) 1,060 sec.-ft.; June 3 (9 p.m.) 1,010 sec.-ft.; June 13 (1 p.m.) 1,000 sec.-ft.; June 22 (6 a.m.) 946 sec.-ft.; June 29 (1 p.m.) 998 sec.-ft.
*Discharge measurement.

Williams Creek near Bridge ranger station, near Pagosa Springs, Colo.

Location.- Water-stage recorder, lat. 37°27'45", long. 107°11'45", in sec. 10, T. 37 N., R. 3 W., 2½ miles north of Bridge ranger station, 3½ miles upstream from mouth, and 17 miles northwest of town of Pagosa Springs.

Drainage area.- 43.7 square miles.

Records available.- May 1937 to September 1938.

Extremes.- Maximum discharge during year, 687 second-feet June 29 (gage height, 3.24 feet); minimum daily discharge not determined.
1937-38: Maximum discharge, that of June 29, 1938; minimum not determined.
Greatest known flood occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records excellent except those for periods of missing gage heights, Oct. 6, Oct. 29 to Nov. 17, Apr. 1-23, 26-30, May 6, 7, 9-14, July 26, Sept. 8-10 (computed on basis of records for Piedra River at Bridge ranger station) and those for period of ice effect, Nov. 22 to Mar. 31 (computed on basis of one discharge measurement at station, four discharge measurements on Piedra River below junction, and weather records), all of which are fair. No diversions above station.

Rating table, water year 1937-38 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.0	0	1.6	46	2.5	304
1.1	5.6	1.8	74	3.0	555
1.2	12	2.0	120		
1.4	27	2.2	184		

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	11					16	213	393	244	31	19
2	16	11					15	164	384	191	27	34
3	16	10					18	129	418	160	25	33
4	15	10					22	110	443	135	25	37
5	15	10					28	107	423	120	23	35
6	13	9.5					28	90	374	102	22	31
7	12	12					25	82	336	92	22	31
8	11	12					23	88	309	82	21	31
9	11	11					24	82	278	76	21	31
10	13	11					30	76	278	71	19	75
11	12	11					45	84	269	69	20	198
12	12	10					75	110	309	61	21	295
13	11	9.5					80	140	453	57	28	144
14	11	9.2					70	220	336	60	31	92
15	18	9.0					52	341	309	54	28	74
16	21	8.2					65	240	295	53	21	61
17	16	9.0					95	188	295	51	19	56
18	14	10		*7.8			160	181	278	45	20	47
19	14	11					210	177	260	44	18	42
20	14	11					220	150	273	46	15	37
21	14	8.2					230	147	327	44	14	35
22	14	7.8					280	157	350	40	12	34
23	15	7.5					320	170	304	38	12	32
24	15	8.0					345	220	248	33	13	30
25	15	8.0					260	260	236	31	13	28
26	14	8.0					210	322	232	28	13	27
27	13	8.0					160	369	209	58	13	25
28	13	7.8					180	433	181	74	13	25
29	12	7.6					220	453	433	46	12	25
30	11	7.0					280	428	318	41	12	25
31	11	-					-	408	-	35	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	430	21	11	13.9	853
November	283.3	12	7.0	9.44	562
December	263.5	-	-	8.5	523
Calendar year					
January	217	-	-	7.0	430
February	182	-	-	6.5	361
March	496	-	-	16	984
April	3,786	345	15	126	7,510
May	6,339	453	76	204	12,570
June	9,551	453	181	318	18,940
July	2,281	244	28	73.6	4,520
August	599	31	12	19.3	1,190
September	1,689	295	19	56.3	3,350
Water year 1937-38	26,116.8	453	-	71.6	51,790

Peak discharge.- May 28 (11 p.m.) 594 sec.-ft.; June 4 (8 p.m.) 599 sec.-ft.; June 13 (2 p.m.) 594 sec.-ft.; June 29 (3 p.m.) 687 sec.-ft.; Sept. 11 (6 p.m.) 528 sec.-ft.
*Discharge measurement.

Weminuche Creek near Bridge ranger station, near Pagosa Springs, Colo.

Location.- Water-stage recorder, lat. 37°28'15", long. 107°14'00", in sec. 5, T. 37 N., R. 3 W., 3¾ miles northwest of Bridge ranger station, 5 miles upstream from mouth, and 19 miles northwest of twon of Pagosa Springs.

Drainage area.- 53.4 square miles.

Records available.- April 1937 to September 1938.

Extremes.- Maximum discharge during year, 651 second-feet June 29 (gage height, 4.73 feet); minimum not determined.
1937-38: Maximum discharge, that of June 29, 1938; minimum not determined.
Greatest known flood occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records fair. Discharge for period of ice effect, Nov. 25 to Apr. 8, computed on basis of four discharge measurements on Piedra River downstream from mouth of this creek, and weather records; that for period of missing gage heights, May 2-4, computed on basis of records for Williams Creek near Bridge ranger station. A few diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	12					17	251	467	280	35	62
2	27	11					16	205	435	223	31	111
3	24	11					20	160	473	188	30	81
4	21	11					25	135	487	163	30	86
5	19	10					30	116	435	139	26	76
6	18	9.6					30	98	401	118	23	60
7	17	14					27	84	355	100	20	58
8	16	14					25	85	326	87	20	68
9	16	11					26	77	275	77	23	52
10	15	12					33	70	282	63	22	56
11	14	12					48	81	254	62	32	321
12	14	10					81	116	275	60	37	345
13	16	9.1					84	150	453	60	48	246
14	14	8.9					73	249	362	60	29	165
15	21	8.6					55	357	290	60	23	134
16	23	7.4					67	365	270	58	20	116
17	18	8.2					98	309	258	46	18	99
18	19	10					172	249	244	42	17	81
19	16	8.9					225	225	194	39	16	70
20	16	11					234	192	196	39	14	57
21	16	9.6					239	186	230	40	13	51
22	16	9.4					292	204	275	40	13	48
23	17	7.7					335	208	258	41	20	44
24	16	9.1					345	251	214	30	15	39
25	16	8.5					330	297	180	28	14	35
26	14	8.2					290	386	166	26	14	31
27	15	8.2					230	462	170	47	13	27
28	15	8.0					270	504	159	110	13	30
29	13	8.0					311	529	438	63	13	27
30	12	7.0					370	506	381	47	12	23
31	12	-					-	484	-	40	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	536	30	12	17.3	1,060
November	293.4	14	7.0	9.78	582
December	201.5	-	-	6.5	400
Calendar year					
January	186.0	-	-	6.0	369
February	162.4	-	-	5.8	322
March	527	-	-	17	1,050
April	4,398	370	16	147	8,720
May	7,591	529	70	245	15,060
June	9,203	487	159	307	18,250
July	2,478	280	26	79.9	4,920
August	670	48	12	21.6	1,330
September	2,699	345	23	90.0	5,350
Water year 1937-38	28,945.3	529	-	79.3	57,410

Peak discharge.- Apr. 23 (10 p.m.) 430 sec.-ft.; May 29 (2 a.m.) 639 sec.-ft.; June 13 (5 p.m.) 549 sec.-ft.; June 29 (9 p.m.) 651 sec.-ft.; Sept. 11 (6 p.m.) 506 sec.-ft.

Los Pinos River below Snowslide Canyon, near Weminuche Pass, Colo.

(Locally known as Pine River)

Location.- Water-stage recorder, lat. 37°38'15", long. 107°20'00", in sec. 5, T. 39 N., R. 4 W., 100 feet downstream from Snowslide Canyon, 3¼ miles south of Weminuche Pass, and 7 miles southwest of Rio Grande Reservoir dam.

Drainage area.- 23.8 square miles.

Records available.- October 1937 to September 1938.

Extremes.- Maximum discharge during year, 650 second-feet May 29 (gage height, 3.26 feet), from rating curve extended above 300 second-feet; minimum occurred during period of no record.

Remarks.- Records excellent except those for period of missing gage heights, Oct. 1-11 (computed on basis of records obtained two miles above station), and those for Oct. 31, May 23-28, May 31 to June 9 (computed on basis of one discharge measurement and records for Weminuche Creek near Bridge ranger station), which are fair. No records for period Nov. 1 to May 22. Two small diversions above station from Los Pinos River Basin to Rio Grande Basin.

Rating table, water year 1937-38 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 12-31, Sept. 13-30)

0.8	10	1.3	51	1.9	182
1.0	24	1.4	65	2.2	272
1.2	41	1.6	108	2.8	484

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15							-	340	142	23	33
2	16							-	310	120	23	41
3	15							-	360	106	23	40
4	14							-	430	87	26	39
5	11							-	390	75	27	36
6	11							-	340	67	26	35
7	11							-	280	55	25	33
8	10							-	260	54	25	34
9	11							-	250	47	25	31
10	10							-	240	44	26	30
11	10							-	246	43	27	69
12	10							-	293	43	23	132
13	10							-	419	44	24	96
14	8.5							-	253	42	26	77
15	11							-	246	39	29	45
16	11							-	269	35	26	43
17	11							-	296	31	21	41
18	11							-	250	30	20	47
19	15							-	237	30	19	44
20	13							-	282	30	18	38
21	9.5							-	366	30	18	37
22	9.0							-	434	32	18	33
23	9.5							115	349	30	18	30
24	9.0							130	276	26	18	28
25	9.5							160	246	24	18	26
26	8.0							250	231	24	19	25
27	8.5							330	199	36	18	26
28	8.5							400	193	36	16	26
29	8.5							470	370	29	19	25
30	8.0							377	177	25	22	25
31	8.0							360	-	24	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	329.5	16	8.0	10.6	654
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year					
January					
February					
March					
April					
May 23-31	2,592	470	115	288	5,140
June	8,832	434	177	294	17,520
July	1,480	142	24	47.7	2,940
August	686	29	16	22.1	1,360
September	1,265	132	25	42.2	2,510
Water year					

Peak discharge.- May 29 (5 p.m.) 650 sec.-ft.; June 13 (11 a.m.) 484 sec.-ft.; June 22 (8 p.m.) 531 sec.-ft.

Los Pinos River near Bayfield, Colo.

(Locally known as Pine River)

Location.- Water-stage recorder, lat. 37°21', long. 107°36', in sec. 26, T. 36 N., R. 7 W., a quarter of a mile downstream from Red Creek and 9 miles north of Bayfield.

Drainage area.- 284 square miles.

Records available.- October 1933 to September 1938 in reports of Geological Survey. October 1927 to September 1938 (at present site) and May to September 1926 (at site 2 miles upstream) in reports of State engineer. Records practically equivalent.

Average discharge.- 11 years, 363 second-feet.

Extremes.- Maximum discharge during year, 3,960 second-feet June 29 (gage height, 6.30 feet); minimum daily discharge, 38 second-feet Dec. 21, 22.
1926-38: Maximum daily discharge, 5,070 second-feet May 26, 1926; minimum daily, 38 second-feet Dec. 19, 1937.
Greatest known flood occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records excellent except those for periods of ice effect, Dec. 9-19, Jan. 25 (computed on basis of weather records), those for periods of missing gage heights Nov. 14, Sept. 6-15 (computed on basis of records for Florida River near Durango), and those for period May 20 to July 5, all of which are fair. Natural regulation by many lakes. Diversions for irrigation below station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	187	107	53	48	56	69	127	1,530	2,400	2,220	324	415
2	174	104	58	47	58	72	123	1,110	2,210	1,490	305	741
3	177	102	64	50	56	93	134	894	2,480	1,320	302	714
4	177	100	58	49	58	125	150	727	2,570	1,190	284	649
5	164	97	52	47	58	92	167	649	2,410	1,080	277	554
6	150	95	58	47	59	75	172	606	2,320	944	257	500
7	141	105	52	52	53	82	172	542	1,860	852	257	520
8	134	102	54	50	56	84	179	494	1,700	789	260	510
9	127	95	52	48	58	82	200	463	1,560	741	260	460
10	123	98	50	48	56	87	231	449	1,630	674	247	490
11	119	98	52	49	58	84	270	468	1,540	624	254	1,480
12	117	93	53	49	64	90	340	576	1,700	600	291	1,100
13	115	87	54	52	70	88	345	761	2,230	576	420	820
14	109	86	53	52	60	87	332	1,270	1,760	594	392	630
15	129	84	52	53	60	76	284	1,790	1,700	594	321	560
16	143	80	52	55	60	86	277	1,780	1,760	554	277	504
17	127	81	52	52	58	92	328	1,490	1,850	520	257	468
18	134	82	51	53	52	87	449	1,200	1,860	504	238	420
19	132	76	46	54	50	87	636	1,090	1,630	484	222	415
20	127	81	43	54	63	98	754	951	1,600	478	206	383
21	127	80	38	52	60	113	817	922	2,290	444	197	361
22	123	76	38	50	58	109	973	1,050	2,580	434	187	345
23	125	72	41	53	52	113	1,210	1,110	2,360	430	187	321
24	125	78	43	55	56	134	1,400	1,360	2,000	383	184	302
25	123	70	42	54	63	155	1,480	1,670	1,830	353	179	287
26	119	69	45	56	60	177	1,270	2,080	1,780	345	179	274
27	117	58	50	55	64	167	1,030	2,260	1,710	420	184	257
28	117	54	44	55	64	155	1,250	2,520	1,540	504	184	250
29	113	56	46	56	-	148	1,570	2,670	2,970	415	187	241
30	109	54	47	55	-	143	1,790	2,550	2,420	366	250	228
31	107	-	49	53	-	123	-	2,480	-	336	257	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,111	187	107	133	8,150
November	2,520	107	54	84.0	5,000
December	1,542	64	38	49.7	3,060
Calendar year 1937	139,859	2,450	38	383	277,400
January	1,603	56	47	51.7	3,180
February	1,640	70	50	58.6	3,250
March	3,273	177	69	106	6,490
April	18,460	1,790	123	615	36,610
May	39,512	2,670	449	1,275	78,370
June	60,250	2,970	1,540	2,008	119,500
July	21,258	2,220	336	686	42,160
August	7,826	420	179	252	15,520
September	15,199	1,480	228	507	30,150
Water year 1937-38	177,194	2,970	38	485	351,400

Peak discharge.- May 29 (1 a.m.) 3,360 sec.-ft.; June 3 (12 p.m.) 3,160 sec.-ft.; June 29 (4 p.m.) 3,960 sec.-ft.

Los Pinos River at Ignacio, Colo.

Location.- Water-stage recorder, lat. 37°07'45", long. 107°37'50", in sec. 5, T. 33 N., R. 7 W., three-quarters of a mile above Ignacio and about 2 miles upstream from Rock Creek.

Drainage area.- 448 square miles.

Records available.- April 1899 to October 1903, September 1910 to December 1914, and October 1930 to September 1938 in reports of Geological Survey. April 1899 to October 1903, September 1910 to November 1912, and March 1913 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge year, 3,940 second-feet June 29 (gage height, 5.39 feet), from rating curve extended logarithmically above 2,800 second-feet; minimum daily discharge, 4.0 second-feet Aug. 28-30.

1910-14, 1930-38: Maximum discharge recorded, 5,570 second-feet Aug. 27, 1932 (gage height, 6.19 feet), from rating curve extended logarithmically above 2,600 second-feet; minimum discharge observed, 0.1 second-foot Aug. 11, 1913.

Greatest known flood occurred Oct. 5, 1911 (discharge not determined), when gage was destroyed.

Remarks.- Records good except those for periods of ice effect, Nov. 29, 30, Dec. 1, Dec. 19 to Feb. 10, Feb. 18, 19 (computed on basis of gage heights, three discharge measurements, weather records, and records for stations on San Juan River at Pagosa Springs and Animas River near Cedar Hill), and those for periods of missing gage heights, Sept. 5-7, 11-14, 16-18 (computed on basis of weather records, recorded range in stage, and records for station on San Juan River at Pagosa Springs and Animas River near Cedar Hill), which are poor. Diversions for irrigation above station.

Rating tables, water year 1937-38 except periods of ice effect (gage height, in feet, and discharge in second-feet)

(Shifting-control method used Mar. 25 to Apr. 15, May 15-25)

Oct. 1 to May 28						May 29 to Sept. 30					
1.0	13	2.1	213	4.5	2,305	0.8	3.2	1.8	111	3.5	1,030
1.2	27	2.5	377	5.4	3,945	1.0	9.9	2.1	189	4.5	2,200
1.5	66	3.0	675			1.2	24	2.5	339	5.4	3,945
1.8	126	3.5	1,115			1.5	57	3.0	620		

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	71	35	66	51	197	187	1,760	2,440	1,390	12	37
2	15	71	20	68	50	169	164	1,220	2,060	1,080	11	382
3	15	69	20	70	50	303	200	943	2,280	931	11	423
4	18	69	19	67	50	418	220	779	2,520	818	9.9	256
5	18	68	18	60	51	224	339	707	2,280	722	11	244
6	17	64	21	54	53	158	335	668	2,060	634	11	232
7	17	73	58	48	56	136	287	612	1,600	537	9.5	220
8	17	74	58	43	59	131	260	535	1,380	450	9.1	207
9	14	34	62	41	63	126	283	482	1,080	373	8.3	168
10	14	31	62	42	69	124	339	439	1,230	335	7.6	201
11	14	30	62	45	74	126	402	413	1,080	252	7.2	1,000
12	15	25	57	48	114	161	517	466	1,150	217	6.8	1,300
13	16	24	63	52	119	200	560	625	1,660	201	56	900
14	17	23	64	57	95	194	567	997	1,420	182	86	600
15	26	23	71	60	91	144	477	1,560	1,180	166	35	495
16	74	23	66	61	85	166	460	1,600	1,230	139	15	442
17	91	56	64	60	80	203	512	1,300	1,260	103	11	389
18	87	62	62	59	77	181	668	997	1,440	69	9.5	336
19	87	63	55	58	75	194	970	862	1,150	58	8.0	283
20	78	62	50	56	74	227	1,160	707	1,130	45	6.8	256
21	80	63	53	54	73	279	1,250	654	1,720	40	6.4	227
22	80	62	56	53	68	220	1,330	715	2,200	33	5.4	207
23	78	62	59	54	68	207	1,500	699	2,130	27	4.9	180
24	78	62	60	55	68	248	1,640	889	1,660	18	4.6	163
25	76	63	61	56	71	304	1,760	1,040	1,380	14	4.3	139
26	81	62	60	58	69	354	1,620	1,570	1,290	12	4.3	129
27	80	62	59	59	74	317	1,160	1,880	1,200	11	4.3	96
28	78	57	55	57	121	287	1,240	2,090	1,060	29	4.0	74
29	74	52	57	55	-	260	1,570	2,610	2,120	23	4.0	69
30	73	46	61	53	-	234	1,820	2,440	2,420	14	4.0	58
31	73	-	64	52	-	191	-	2,360	-	12	4.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,522	91	14	49.1	3,020
November	1,606	74	23	53.5	3,190
December	1,632	71	18	52.6	3,240
Calendar year 1937	117,022.2	2,620	8.0	321	232,100
January	1,721	70	41	55.5	3,410
February	2,048	121	50	73.1	4,060
March	6,663	418	124	216	13,260
April	23,797	1,820	164	793	47,200
May	34,620	2,610	413	1,117	68,670
June	48,810	2,520	1,060	1,627	96,810
July	8,935	1,390	11	288	17,720
August	392.5	86	4.0	12.7	779
September	9,713	1,300	37	324	19,270
Water year 1937-38	141,479.5	2,610	4.0	388	280,600

Peak discharge.- May 29 (6 a.m.) 3,390 sec.-ft.; June 4 (5 a.m.) 3,180 sec.-ft.; June 29 (11 p.m.) 3,940 sec.-ft.

SAN JUAN RIVER BASIN

DIVERSIONS FROM LOS PINOS RIVER

Hirsh lateral from U. S. Indian canal, near La Boca, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 37°00'00", long. 107°38'20", in W½ sec. 7, T. 32 N., R. 7 W., about 350 feet downstream from Colorado-New Mexico State line and 1 mile south of La Boca.

Records available.- May to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 4.7 second-feet July 4; no flow on many days or parts of days.

Remarks.- Records fair except those for periods of missing or partial gage-height record, July 25-28, Aug. 21 to Sept. 5, which were estimated and are poor. Lateral diverts from right bank of U. S. Indian canal, and water is used for irrigation. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	1.2	3.5	0.2	0.8
2								-	1.4	1.7	.6	1.2
3								-	1.8	1.9	.6	1.3
4								-	2.6	4.7	.6	1.3
5								-	2.8	3.8	.8	1.3
6								0	1.5	2.0	.8	1.1
7								0	1.9	.9	.5	1.3
8								0	2.3	3.8	.1	1.0
9								0	1.3	1.8	0	.9
10								0	1.9	.9	.6	1.0
11								0	1.4	1.6	.4	1.0
12								0	0	.6	0	1.0
13								0	2.5	2.0	0	.2
14								0	3.2	3.4	0	.1
15								0	3.1	1.8	0	.1
16								0	3.9	0	1.0	.1
17								0	3.9	0	0	0
18								0	2.3	0	0	0
19								0	1.1	.1	0	0
20								0	1.2	.1	0	0
21								.1	2.6	0	0	0
22								.5	2.3	0	0	0
23								.8	.1	0	0	0
24								1.4	0	0	0	.1
25								3.0	.2	0	0	.2
26								2.3	0	0	0	.2
27								1.9	1.4	.1	0	.1
28								1.8	3.1	.3	0	.1
29								1.5	4.5	1.1	0	0
30								1.2	3.6	1.2	.2	.1
31								2.0	-	.9	.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May 6-31	16.5	3.0	0	0.63	33
June	59.1	4.5	0	1.97	117
July	38.2	4.7	0	1.23	76
August	7.0	1.0	0	.23	14
September	14.5	1.3	0	.48	29
The period					269

South lateral from Pine River canal, near Allison, Colo.

Location.- Water-stage recorder and Parshall flume, lat. 37°00'00", long. 107°31'10", in E½ sec. 11, T. 32 N., R. 7 W., 10 feet downstream from Colorado-New Mexico State line and 2½ miles southwest of Allison.

Records available.- May to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 5.4 second-feet June 13, 14 (gage height, 0.75 foot); no flow June 2-4.

Remarks.- Records good. Discharge for days of missing gage heights, July 5, 6, interpolated. Lateral diverts from left bank of Pine River canal, and water is used for irrigation. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	0.5	4.4	1.6	1.6
2								-	0	4.7	1.2	3.8
3								-	0	4.7	.8	4.9
4								-	0	4.7	.5	4.9
5								-	1.2	4.3	1.0	4.9
6								1.8	2.6	4.0	1.2	4.6
7								1.7	2.5	3.7	.8	4.9
8								1.8	3.0	4.4	1.0	4.7
9								1.7	4.0	4.3	1.2	5.2
10								1.9	4.6	3.6	1.1	3.3
11								2.3	4.4	3.4	1.5	2.9
12								2.9	3.6	4.3	2.0	3.2
13								2.6	5.4	4.5	3.0	2.8
14								2.4	5.4	4.8	4.0	2.2
15								2.1	5.0	3.4	4.1	2.4
16								2.4	4.9	3.1	3.8	2.1
17								3.0	5.3	3.2	2.8	2.0
18								3.2	3.6	3.8	2.0	1.9
19								3.9	5.0	3.8	1.5	1.8
20								4.5	3.2	3.7	1.0	1.8
21								4.2	3.9	3.7	.7	1.8
22								4.3	4.4	3.6	.7	2.0
23								4.3	4.0	3.5	.8	1.9
24								3.8	4.0	3.1	.8	2.0
25								3.8	3.9	2.5	.7	2.3
26								3.5	3.7	2.1	.6	2.1
27								3.5	3.8	1.9	.5	2.1
28								3.2	4.1	3.0	.6	2.1
29								1.8	4.1	3.6	.5	2.4
30								3.0	1.8	2.4	.5	2.3
31								4.2	-	1.8	1.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May 6-31	77.8	4.5	1.7	2.99	154
June	101.9	5.4	0	3.40	202
July	112.0	4.8	1.8	3.61	222
August	43.5	4.1	.5	1.40	86
September	86.9	5.2	1.6	2.90	172
The period					836

153585 O—39——11

Animas River at Howardsville, Colo.

Location.- Water-stage recorder, lat. 37°50', long. 107°36', in sec. 12, T. 41 N., R. 7 W., 0.4 mile southwest of Howardsville and half a mile downstream from Cunningham Creek. Zero of gage is 9,617.98 feet above mean sea level (unadjusted).

Drainage area.- 55.9 square miles.

Records available.- May 1936 to September 1938.

Extremes.- Maximum discharge during year, 1,700 second-feet June 21 (gage height, 3.50 feet), from rating curve extended above 500 second-feet; minimum occurred during period of no record.

1936-38: Maximum discharge, that of June 21, 1938; minimum occurred during period of no record.

Greatest known flood occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records good except those for periods of ice effect, Nov. 23, 25-28, and those for periods of missing gage heights, Oct. 27 to Nov. 12, Apr. 1-3, Apr. 13 to May 1, May 10-13, which were computed on basis of records for stations on nearby streams and are fair. No records for period Dec. 7 to Mar. 31. No diversions above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	31	24				17	130	647	649	137	89
2	37	32	24				17	119	616	637	132	93
3	37	33	23				17	102	736	600	125	104
4	36	34	24				17	90	790	577	112	98
5	35	35	24				17	80	797	524	108	89
6	33	34	23				17	72	671	469	106	84
7	32	31	-				17	62	520	431	106	80
8	32	29	-				17	55	428	421	108	77
9	31	27	-				17	53	423	411	110	72
10	31	25	-				19	52	469	386	106	80
11	30	25	-				19	70	418	354	96	134
12	31	27	-				22	110	520	324	95	147
13	30	29	-				26	160	665	321	114	147
14	29	27	-				30	254	469	324	108	130
15	32	27	-				30	258	452	332	95	116
16	32	26	-				35	258	532	317	86	108
17	30	26	-				50	231	697	305	77	100
18	31	26	-				70	186	743	287	72	89
19	27	27	-				90	173	716	265	66	80
20	28	25	-				95	156	776	241	65	76
21	29	25	-				100	167	1,360	218	62	77
22	30	24	-				115	176	1,020	199	60	71
23	30	24	-				125	162	844	183	57	65
24	30	24	-				130	213	759	180	54	62
25	31	23	-				135	295	792	178	52	60
26	31	23	-				120	387	792	178	51	53
27	31	23	-				110	502	752	180	48	50
28	32	23	-				115	622	707	178	46	48
29	31	24	-				125	697	850	165	46	46
30	31	25	-				140	653	740	154	51	45
31	30	-	-				-	671	-	144	72	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	978	38	27	31.5	1,940
November	814	35	23	27.1	1,610
December 1-6	142	24	23	23.7	282
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	1,854	140	17	61.8	3,680
May	7,216	697	52	233	14,310
June	20,701	1,360	418	690	41,060
July	10,132	649	144	327	20,100
August	2,623	137	46	84.6	5,200
September	2,570	147	45	85.7	5,100
Water year					

Peak discharge.- June 3 (9 p.m.) 1,030 sec.-ft.; June 17 (8 p.m.) 968 sec.-ft.; June 21 (6 p.m.) 1,700 sec.-ft.

Animas River at Durango, Colo.

Location.- Water-stage recorder, lat. 37°17', long. 107°52', in sec. 20, T. 35 N., R. 9 W., at Western Colorado Power Co.'s plant at Durango, half a mile upstream from Lightner Creek. Zero of gage is 6,503.28 feet above mean sea level.

Drainage area.- 692 square miles.

Records available.- June 1895 to December 1905, January 1910 to December 1914, and October 1933 to September 1938 in reports of Geological Survey. June 1895 to December 1905 and December 1910 to September 1938 in reports of State engineer.

Average discharge.- 37 years (1895-1900, 1901-5, 1910-38), 919 second-feet.

Extremes.- Maximum discharge during year, 7,180 second-feet June 30 (gage height, 6.15 feet); minimum daily discharge, 116 second-feet Dec. 26.

1895-1900, 1901-5, 1909-38: Maximum discharge, about 25,000 second-feet Oct. 5, 1911 (gage height, 13.6 feet), from rating curve extended above 7,000 second-feet; discharge for flood of June 29, 1927, about 14,000 second-feet (gage height, about 9.6 feet); minimum daily discharge, 50 second-feet Dec. 22, 1917.

Remarks.- Records excellent except those for period Apr. 12-20, which are good. Diversions for irrigation above station. Artificial regulation for power and natural regulation by numerous lakes.

Rating table, water year 1937-38 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Dec. 21 to Apr. 29)

0.8	85	1.4	290	2.4	860	3.5	2,020	5.0	4,330
1.0	143	1.6	378	2.8	1,230	4.0	2,640	6.0	6,750
1.2	212	2.0	588	3.0	1,440	4.5	3,400		

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	378	239	169	163	180	205	332	2,850	5,090	3,880	656	457
2	346	242	166	160	194	220	315	2,090	4,410	3,180	619	736
3	328	239	190	173	180	307	319	1,700	4,670	2,860	600	838
4	319	235	187	180	173	378	328	1,440	5,620	2,750	560	808
5	315	231	180	160	180	274	383	1,290	5,400	2,520	538	743
6	294	227	176	134	153	235	422	1,210	5,110	2,250	510	638
7	282	231	183	128	146	223	402	1,090	4,310	1,980	510	619
8	270	235	187	150	166	242	417	977	3,370	1,800	499	619
9	258	227	187	150	176	239	494	932	2,850	1,730	521	566
10	250	223	176	160	180	227	638	905	3,100	1,640	516	549
11	246	227	180	150	180	239	779	941	2,750	1,550	494	1,000
12	242	220	187	160	205	258	1,140	1,120	2,910	1,400	494	1,240
13	239	220	201	169	169	282	1,140	1,350	3,920	1,400	613	1,160
14	235	216	194	169	163	282	1,120	2,120	3,860	1,480	688	923
15	254	212	190	180	194	246	905	3,150	3,130	1,480	600	786
16	303	216	180	183	190	246	845	3,380	3,230	1,420	532	701
17	274	205	183	166	187	258	941	2,960	3,420	1,330	488	644
18	258	220	183	173	166	258	1,380	2,380	3,880	1,260	457	582
19	266	216	169	183	153	258	2,010	2,120	3,500	1,190	427	543
20	254	212	153	187	187	270	2,150	1,850	3,200	1,110	393	510
21	254	205	143	180	176	311	2,120	1,730	4,310	1,030	364	504
22	250	201	143	166	163	337	2,470	1,980	6,100	968	346	457
23	242	208	131	180	163	319	2,710	1,910	5,090	878	337	427
24	254	205	143	143	166	364	2,960	2,210	4,130	816	337	417
25	254	205	128	137	169	427	3,120	2,600	3,790	764	332	402
26	254	194	116	183	166	521	2,940	3,250	3,880	743	319	388
27	254	194	150	190	176	504	2,070	3,830	3,620	764	315	373
28	254	183	156	190	187	452	2,140	4,290	3,280	869	307	360
29	258	183	153	173	-	427	2,710	5,450	3,860	801	311	346
30	250	183	153	169	-	398	2,890	5,370	5,940	736	346	332
31	250	-	160	160	-	346	-	4,990	-	695	383	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	8,385	378	235	270	16,630
November	6,454	242	183	215	12,800
December	5,197	201	116	168	10,310
Calendar year 1937	269,775	4,670	116	739	535,100
January	5,149	190	128	166	10,210
February	4,888	205	146	175	9,700
March	9,553	521	205	308	18,950
April	42,590	3,120	315	1,420	84,480
May	73,465	5,450	905	2,370	145,700
June	121,730	6,100	2,750	4,058	241,400
July	47,274	3,880	695	1,525	93,770
August	14,412	688	307	465	28,590
September	18,668	1,240	332	622	37,030
Water year 1937-38	357,765	6,100	116	980	709,600

Peak discharge.- June 4 (10 a.m.) 6,480 sec.-ft.; June 22 (8 a.m.) 7,090 sec.-ft.; June 30 (4 a.m.) 7,180 sec.-ft.

Animas River near Cedar Hill, N. Mex.

Location.- Water-stage recorder, lat. 37°02'15", long. 107°52'25", in sec. 7, T. 32 N., R. 9 W., 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 village of Cedar Hill.

Records available.- November 1933 to September 1938.

Extremes.- Maximum discharge during year, 8,700 second-feet June 30 (gage height, 7.63 feet); minimum daily discharge, about 145 second-feet Jan. 9.

1933-38: Maximum discharge, 9,540 second-feet June 16, 1935; maximum gage height, that of June 30, 1938; minimum daily discharge, 90 second-feet (estimated) Jan. 21, 1935.

Greatest known flood occurred Oct. 5 or 6, 1911 (discharge not determined).

Remarks.- Records good except those for periods of ice effect, Dec. 22, Jan. 8-14, 23, 24, 28-31, which were computed on basis of weather records, two discharge measurements, gage heights, and records for Animas River at Farmington and San Juan River at Pagosa Springs and are fair. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	412	276	208	216	216	605	530	2,690	6,410	5,150	754	575
2	356	282	200	216	234	452	501	2,600	5,600	3,990	697	911
3	350	276	224	234	216	1,190	575	2,040	5,600	3,590	665	1,210
4	338	276	234	238	205	1,100	705	1,640	6,650	3,400	612	1,120
5	344	270	224	216	208	452	788	1,400	6,410	3,030	590	1,090
6	332	265	212	180	200	320	813	1,330	6,170	2,680	560	960
7	309	276	216	170	192	282	745	1,200	5,370	2,300	560	960
8	309	276	224	148	184	320	713	1,030	4,190	2,060	552	884
9	298	256	229	145	192	350	804	980	3,400	1,940	560	813
10	298	242	212	160	204	332	970	911	3,590	1,810	575	830
11	292	247	208	180	242	344	1,140	902	3,210	1,710	568	1,430
12	298	242	234	200	426	522	1,420	1,030	3,400	1,540	545	1,860
13	298	242	252	220	326	628	1,510	1,270	4,400	1,530	642	1,610
14	287	238	256	247	220	560	1,530	1,980	4,820	1,600	796	1,270
15	344	238	247	234	229	393	1,300	3,400	3,790	1,620	729	1,090
16	426	242	234	229	229	412	1,110	4,090	3,890	1,580	642	1,000
17	362	234	234	212	208	432	1,280	3,590	4,090	1,480	590	911
18	326	242	234	208	196	374	1,820	2,760	4,610	1,430	538	813
19	332	252	220	220	180	400	2,510	2,320	4,190	1,340	508	737
20	314	242	184	220	196	459	2,940	2,010	3,790	1,250	459	697
21	309	238	212	212	196	487	2,760	1,830	4,720	1,200	426	665
22	309	238	220	208	180	466	3,030	2,130	7,140	1,130	400	620
23	304	234	224	200	176	466	3,500	2,180	6,290	1,060	380	560
24	309	234	212	190	173	560	3,890	2,510	5,150	970	380	522
25	304	238	196	186	180	658	4,190	3,030	4,720	920	374	501
26	309	220	204	200	184	754	3,990	4,090	4,720	884	362	473
27	309	212	200	215	188	788	2,760	4,930	4,500	884	350	445
28	304	212	204	240	480	762	2,600	5,480	4,090	1,000	350	419
29	304	208	204	240	-	788	3,300	6,890	4,610	940	350	412
30	298	208	216	240	-	713	3,590	7,140	7,640	848	368	380
31	298	-	212	220	-	590	-	6,650	-	804	432	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	9,982	426	287	322	19,800
November	7,356	282	208	245	14,590
December	6,790	256	184	219	13,470
Calendar year 1937	345,699	6,060	184	947	685,700
January	6,444	247	145	208	12,780
February	6,263	480	173	224	12,420
March	16,959	1,190	282	547	33,640
April	57,314	4,190	501	1,910	113,700
May	87,033	7,140	902	2,808	172,600
June	147,160	7,640	3,210	4,905	291,900
July	55,670	5,150	804	1,796	110,400
August	16,314	796	350	526	32,360
September	25,768	1,860	380	859	51,110
Water year 1937-38	443,053	7,640	145	1,214	878,800

Peak discharge.- May 29 (2 p.m.) 7,900 sec.-ft.; June 22 (12 m.) 8,160 sec.-ft.; June 30 (8 a.m.) 8,700 sec.-ft.

Animas River at Farmington, N. Mex.

Location.- Water-stage recorder, lat. 36°43', long. 108°12', in sec. 21, T. 29 N., R. 13 W., a quarter of a mile upstream from mouth and three-quarters of a mile south of Farmington.

Drainage area.- 1,360 square miles.

Records available.- June 1904 to October 1905 (at site half a mile upstream), September 1912 to December 1914, and October 1930 to September 1938 in reports of Geological Survey. June 1904 to October 1905 (at site half a mile upstream) and September 1912 to December 1914 in reports of State engineer. (Records at former site were published as Animas River near Farmington.)

Extremes.- Maximum discharge during year, 8,200 second-feet June 30 (gage height, 7.25 feet); minimum daily discharge, 76 second-feet Aug. 30.

1930-38: Maximum discharge, 9,350 second-feet June 16, 1935 (gage height, 6.91 feet), from rating curve extended above 6,400 second-feet on basis of logarithmic plotting; maximum gage height, that of June 30, 1932; minimum daily discharge, 10 second-feet Aug. 28-31, 1931.

Greatest known flood occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records fair except those for periods of ice effect, Jan. 9-12, 24-31 (computed on basis of gage heights, weather records, two discharge measurements, and records for Animas River near Cedar Hill and San Juan River at Pagosa Springs), those for days of missing or partial gage-height record, Dec. 10, 11 (computed on basis of weather records, one discharge measurement, and records for station near Cedar Hill), and those for July 5 (interpolated), all of which are poor. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	544	293	188	251	251	665	498	3,690	6,320	5,290	635	416
2	420	288	231	259	271	557	455	3,010	5,510	4,150	550	710
3	365	293	231	280	271	665	461	2,230	5,290	3,510	479	1,200
4	355	288	243	306	267	1,280	544	1,810	6,320	3,340	443	1,140
5	340	288	239	288	263	557	650	1,550	6,440	2,980	392	1,050
6	320	284	228	267	251	330	725	1,440	6,200	2,610	335	976
7	302	263	231	235	224	288	665	1,340	5,620	2,300	293	940
8	298	271	235	191	231	288	613	1,150	4,550	2,230	298	826
9	275	271	239	194	235	325	672	925	3,600	2,020	479	770
10	267	267	230	200	251	340	794	877	3,510	1,680	381	718
11	259	267	215	210	259	350	1,040	794	3,340	1,490	320	922
12	259	267	209	230	302	403	1,280	859	3,170	1,350	302	1,850
13	255	255	235	259	443	642	1,480	1,140	3,690	1,250	320	1,570
14	251	259	243	288	335	642	1,480	1,580	4,960	1,280	718	1,340
15	284	267	231	280	280	492	1,320	2,930	3,780	1,360	718	1,060
16	350	271	235	288	280	461	1,100	4,060	3,600	1,360	571	931
17	376	267	220	275	275	498	1,210	3,690	3,780	1,240	398	850
18	330	251	216	251	247	473	1,670	3,170	4,150	1,150	350	755
19	306	247	216	247	228	467	2,380	2,460	4,250	1,070	267	672
20	311	235	228	251	231	498	2,930	2,160	3,780	994	235	592
21	302	224	198	239	231	578	2,930	1,800	4,150	913	216	524
22	298	224	209	224	228	557	3,090	1,840	6,680	886	198	492
23	288	224	243	216	216	518	3,420	2,020	6,320	818	168	414
24	284	220	231	210	213	544	3,700	2,090	5,620	702	162	425
25	288	224	213	205	213	650	3,960	2,460	4,350	635	136	408
26	293	209	209	210	209	740	3,960	3,170	4,350	557	118	381
27	298	195	228	230	213	818	3,090	4,250	4,250	550	97	360
28	288	185	239	250	251	755	2,530	5,400	3,960	658	88	335
29	288	188	228	250	-	755	3,090	6,440	3,870	826	97	325
30	288	185	220	240	-	786	3,510	6,920	6,920	810	76	306
31	293	-	259	240	-	620	-	6,560	-	710	102	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	9,675	544	251	312	19,190
November	7,470	293	185	249	14,820
December	7,020	259	188	226	13,920
Calendar year 1937	301,917	6,000	23	827	598,800
January	7,564	306	191	244	15,000
February	7,169	443	209	256	14,220
March	17,542	1,280	288	566	34,790
April	55,247	3,960	455	1,842	109,600
May	83,875	6,920	794	2,706	166,400
June	142,330	6,920	3,170	4,744	282,300
July	50,719	5,290	550	1,636	100,600
August	9,942	718	76	321	19,720
September	23,258	1,850	306	775	46,130
Water year 1937-38	421,811	6,920	76	1,156	836,700

Peak discharge.- May 29 (10 p.m.) 7,680 sec.-ft.; June 22 (7 p.m.) 7,680 sec.-ft.; June 30 (3 p.m.) 8,200 sec.-ft.

SAN JUAN RIVER BASIN

DIVERSIONS FROM ANIMAS RIVER

Allen ditch near Farmington, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°44'50", long. 108°09'20", in NE¼ sec. 12, T. 29 N., R. 13 W., about 3,100 feet downstream from head and 3.3 miles northeast of Farmington.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 26 second-feet May 30, June 14; maximum daily gage height, 1.60 feet June 14; no flow Apr. 19-24.

Remarks.- Records excellent except those for period of missing gage heights, May 8, 9, which were computed on basis of recorded range in stage and are good. Ditch diverts from left bank of Animas River about 4 miles above Farmington and water is used for irrigation near Farmington.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	10	23	7.8	15	18
2							-	9.2	21	5.6	18	7.0
3							-	8.3	20	4.8	18	5.3
4							-	9.7	21	4.1	18	9.2
5							-	11	22	5.1	18	8.1
6							-	9.9	21	9.7	18	7.3
7							-	9.7	20	19	17	7.0
8							0.1	9.1	17	20	17	6.1
9							.1	8.3	14	20	20	5.2
10							.1	7.8	13	20	19	5.2
11							.1	12	20	18	18	4.8
12							.1	16	23	17	18	4.5
13							.1	17	24	16	19	3.9
14							.1	18	26	19	22	3.7
15							.1	19	24	20	23	3.4
16							.1	20	23	21	21	2.3
17							.2	20	23	20	20	1.8
18							.1	19	23	20	19	1.7
19							0	17	23	19	18	1.5
20							0	16	22	18	17	6.5
21							0	15	23	18	15	9.7
22							0	15	25	17	15	9.4
23							0	15	20	17	14	9.2
24							0	17	17	16	13	9.0
25							5.7	22	15	16	12	9.0
26							9.4	22	13	15	10	12
27							11	22	12	14	9.0	14
28							11	22	11	15	8.8	14
29							11	22	10	16	8.8	13
30							10	26	12	15	8.7	13
31							-	24	-	14	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 8-30	59.3	11	0	2.58	118
May	489.0	26	7.8	15.8	970
June	581	26	10	19.4	1,150
July	477.1	21	4.1	15.4	946
August	499.3	23	8.7	16.1	990
September	224.8	18	1.5	7.49	446
The period					4,620

Aztec ditch near Cedar Hill, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°54'35", long. 107°54'40", in NW¼SW¼ sec. 8, T. 31 N., R. 10 W., 0.8 mile downstream from head and 2.3 miles southwest of village of Cedar Hill.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 63 second-feet Aug. 31 (gage height, 1.62 feet); no flow Apr. 22, 23.

Remarks.- Records excellent. Ditch diverts from left bank of Animas River 1.6 miles below Cedar Hill and water is used for irrigation near Aztec.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	14	62	62	50	62
2							7.7	10	58	51	45	56
3							9.1	21	55	50	43	30
4							12	35	55	51	40	28
5							13	34	55	51	36	35
6							12	37	53	48	38	42
7							10	37	50	43	48	43
8							11	35	52	46	42	44
9							12	39	57	50	46	50
10							16	41	59	50	57	49
11							17	41	59	52	55	46
12							22	38	59	57	55	48
13							24	52	60	57	54	47
14							24	56	58	44	45	46
16							23	60	54	18	49	45
16							21	55	54	41	42	42
17							22	55	55	49	49	41
18							27	52	57	51	56	40
19							31	50	56	50	57	39
20							32	49	54	46	53	39
21							13	47	55	41	47	41
22							0	48	56	38	42	49
23							0	49	57	30	38	45
24							6.4	49	55	24	38	44
25							15	52	52	24	39	41
26							15	54	52	36	38	38
27							11	55	55	53	36	37
28							9.7	57	57	56	34	35
29							12	20	59	57	49	34
30							13	29	62	54	62	32
31							-	55	-	52	63	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 2-30	440.9	32	0	15.2	875
May	1,326	60	10	42.8	2,630
June	1,682	62	50	56.1	3,340
July	1,432	62	18	46.2	2,840
August	1,446	63	34	46.6	2,870
September	1,268	62	28	42.3	2,520
The period					15,080

Aztec and Lower Animas ditch wasteway near Aztec, N. Mex.

Location.- Water-stage recorder and wooden control, lat. 36°51'15", long. 107°58'05", in NE¼SE¼ sec. 34, T. 31 N., R. 11 W., 150 feet downstream from waste gates on Lower Animas ditch and 2.5 miles northeast of Aztec.

Records available.- May to September 1938 (discontinued).

Extremes.- Maximum discharge during period, 34 second-feet June 30 (gage height, 1.43 feet), from rating curve extended above 20 second-feet on basis of velocity-area studies; minimum daily discharge, 0.1 second-foot Sept. 8.

Remarks.- Records good. Wasteway diverts from Aztec and Lower Animas ditches 2.5 miles north of Aztec. Water wastes into Animas River.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	14	10	10	12
2								-	5.6	9.7	12	5.2
3								-	4.9	8.4	9.4	2.3
4								-	11	7.4	7.2	4.7
5								-	12	7.2	6.4	6.6
6								-	10	8.7	5.6	.7
7								-	8.6	4.4	4.7	.7
8								-	4.7	1.0	7.0	.1
9								-	6.2	2.1	11	.2
10								-	5.3	2.8	4.4	2.6
11								-	8.7	2.8	7.5	.7
12								-	8.2	2.6	9.2	6.4
13								-	9.0	2.4	2.0	6.6
14								4.2	9.2	3.2	6.3	6.6
15								11	5.4	3.2	9.5	6.9
16								11	4.9	6.9	4.9	6.6
17								4.4	7.7	7.2	2.4	6.4
18								4.2	9.0	4.9	3.9	5.9
19								2.6	8.4	3.5	.7	3.6
20								3.2	7.9	2.8	.4	1.0
21								3.5	11	2.1	.4	1.2
22								2.4	18	1.4	.6	1.8
23								4.7	12	.7	.4	1.3
24								6.6	7.7	.3	1.0	.8
25								6.4	9.7	.2	4.4	2.3
26								7.2	12	.3	6.2	6.9
27								6.2	17	2.3	6.2	10
28								1.8	14	6.9	6.2	9.0
29								4.0	15	19	6.2	9.5
30								5.1	16	18	5.6	9.2
31								10	-	13	9.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May 14-31	98.5	11	1.8	5.47	195
June	293.1	18	4.7	9.77	581
July	165.4	19	.2	5.34	328
August	171.6	12	.4	5.54	340
September	137.8	12	.1	4.59	273
The period					1,720

Barrett lateral near Farmington, N. Mex.

Location.- Water-stage recorder, lat. 36°43'40", long. 108°10'55", in NW¼SW¼ sec. 14, T. 29 N., R. 13 W., about 300 feet downstream from waste gates on Craig lateral and 1.6 miles east of Farmington.

Records available.- June to September 1938 (discontinued).

Extremes.- Maximum discharge during during period, 5.9 second-feet Sept. 23 (gage height, 1.33 feet), from rating curve extended above 3 second-feet on basis of velocity-area studies; no flow July 9, 12, Aug. 4.

Remarks.- Records fair. Lateral diverts from right bank of Craig lateral about 300 feet above station. Small portion of water is used for irrigation above Farmington, remainder wastes into Animas River.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									-	1.3	4.2	3.0
2									-	1.1	1.5	1.6
3									-	1.4	.2	.5
4									-	1.0	0	.6
5									-	.2	.2	.7
6									-	1.3	.3	.6
7									-	1.8	.4	.6
8									-	1.5	.6	.7
9									-	0	.1	.4
10									-	.3	.1	.4
11									-	1.0	1.1	.4
12									-	0	1.1	.5
13									*1.9	1.2	.3	.2
14									-	.9	.3	.3
15									-	1.1	1.3	.2
16									-	2.7	2.8	.4
17									-	3.6	2.3	.4
18									*4.3	3.3	2.6	.5
19									-	3.3	1.7	.5
20									-	3.2	.4	1.7
21									-	3.0	1.1	2.9
22									-	2.6	1.3	4.5
23									-	2.1	1.7	1.7
24									-	1.8	2.1	2.0
25									-	1.3	2.6	3.6
26									-	1.0	1.3	2.4
27									-	1.2	.2	1.7
28									*.1	2.3	.1	3.0
29									2.8	4.0	.1	2.0
30									3.1	2.8	1.4	.7
31									-	1.7	2.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May					
June					
July	54.0	4.0	0	1.74	107
August	35.4	4.2	0	1.14	70
September	38.7	4.5	.2	1.29	77
The period					254

*Discharge measurement.

Cedar Hill ditch near Cedar Hill, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°57'45", long. 107°53'05", in NW¼NE¼ sec. 28, T. 32 N., R. 10 W., 0.8 mile downstream from head ard 1.9 miles north of village of Cedar Hill.
Records available.- April to September 1938 (discontinued).
Extremes.- Maximum daily discharge during period, 28 second-feet June 18 (gage height, 1.83 feet); no flow Apr. 1-10, 13, 14, June 9-12.
Remarks.- Records good. Discharge for Apr. 1 determined on basis of engineers' notes. Ditch diverts from right bank of Animas River 2.4 miles above Cedar Hill and water is used for irrigation near Cedar Hill.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	16	24	15	11	26
2							0	12	24	13	10	27
3							0	15	24	11	11	27
4							0	15	24	17	14	14
5							0	14	23	14	13	14
6							0	16	22	12	11	27
7							0	15	19	13	11	27
8							0	14	6.1	7.9	12	20
9							0	16	0	7.6	20	17
10							0	16	0	20	26	17
11							10	19	0	19	26	20
12							11	23	0	17	26	21
13							0	22	8.8	17	23	20
14							0	24	22	18	26	19
15							8.4	18	19	18	26	19
16							16	25	23	18	26	18
17							17	19	25	16	25	18
18							21	15	28	16	25	17
19							21	17	26	15	24	16
20							22	20	21	14	23	15
21							22	20	24	13	22	14
22							24	22	23	11	21	13
23							24	22	22	8.5	19	11
24							16	22	22	8.7	19	9.7
25							20	22	22	12	18	8.5
26							18	22	23	14	18	6.7
27							16	21	22	14	17	5.8
28							15	21	17	15	15	4.6
29							20	23	18	16	16	15
30							24	24	21	14	16	21
31							-	24	-	8.8	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
April	325.4	24	0	10.8	645
May	594	25	12	19.2	1,180
June	552.9	28	0	18.4	1,100
July	433.5	20	7.6	14.0	860
August	592	26	10	19.1	1,170
September	508.3	27	4.6	16.9	1,010
The period					5,960

Dickey lateral near Farmington, N. Mex.

Location.- Staff gage, lat. 36°44'00", long. 108°10'45", in NW¼ sec. 14, T. 29 N., R. 13 W., 30 feet downstream from lateral gate on New Mexico Public Service Company ditch and 1.8 miles northeast of Farmington.

Records available.- June to September 1938 (discontinued) discharge measurements only.

Remarks.- Lateral diverts from right bank of New Mexico Public Service Company ditch about 1.8 miles northeast of Farmington and water is used for irrigation near Farmington.

Discharge measurements, in second-feet, June to September 1938

June 10	0.68	July 28	1.07	Aug. 31	.45
28	.41	Aug. 3	.85	Sept. 7	.33
July 7	.93	10	.87	14	.42
14	1.44	17	.85	21	.90
21	1.06	24	1.25	28	1.11

Drain wasteway at Farmington, N. Mex.

Location.- Water-stage recorder, lat. 36°43'45", long. 108°11'5-", in SW¼NW¼ sec. 15, T. 29 N., R. 13 W., 0.7 mile east of Farmington.

Records available.- May to September 1938 (discontinued).

Extremes.- Maximum discharge during period, 19 second-feet Sept. 3 (gage height, 1.86 feet), from rating curve extended above 8 second-feet on basis of area-velocity studies; minimum daily discharge, 1.6 second-feet June 30, July 1.

Remarks.- Records good. Discharge for day of missing gage height, June 30, computed on basis of recorded range in stage. Discharge represents return flow to Animas River from irrigation near Farmington.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	3.2	1.6	5.9	11
2								-	4.0	2.0	5.2	10
3								-	3.3	2.4	5.0	12
4								-	3.3	2.5	4.7	5.9
5								3.9	3.8	2.5	4.5	6.1
6								3.9	3.2	2.5	4.5	7.2
7								3.6	3.2	2.5	4.0	6.9
8								4.1	3.3	2.7	3.9	6.1
9								3.5	3.5	4.1	6.2	6.6
10								3.5	4.0	4.3	6.2	7.0
11								3.2	4.1	5.8	5.6	7.6
12								3.5	3.8	6.1	5.2	6.9
13								3.2	3.3	5.9	4.6	6.1
14								3.1	3.5	6.1	5.9	5.8
15								3.0	2.7	5.9	6.5	5.0
16								2.7	2.5	6.2	5.9	4.5
17								2.4	2.6	5.9	5.1	4.1
18								2.0	3.2	5.5	4.6	3.5
19								1.9	3.1	5.4	3.9	3.1
20								2.4	3.3	5.1	3.8	2.6
21								2.4	3.4	4.7	3.6	2.6
22								2.0	3.6	5.2	3.2	3.0
23								2.6	2.8	5.1	2.9	3.3
24								3.0	3.0	5.5	3.3	3.3
25								3.1	2.9	4.8	3.4	3.4
26								2.9	2.7	4.7	3.6	3.4
27								2.6	2.3	6.2	4.3	3.1
28								3.5	2.1	6.6	5.6	2.9
29								2.8	1.8	7.0	6.1	2.9
30								2.5	1.6	6.8	-	3.4
31								3.2	-	5.5	6.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May 5-31	80.5	4.1	1.9	2.98	160
June	93.1	4.1	1.6	3.10	185
July	147.1	7.0	1.6	4.75	292
August	150.1	6.8	2.9	4.84	298
September	159.3	12	2.6	5.31	316
The period					1,250

Echo and Allen ditch wasteway near Farmington, N. Mex.

Location.- Water-stage recorder, lat. 36°42'35", long. 108°11'30", in E½SW¼ sec. 22, T. 29 N., R. 13 W., 1.6 miles southeast of Farmington.

Records available.- June to September 1938 (discontinued).

Extremes.- Maximum discharge during period, 6.9 second-feet June 23 (gage height, 0.58 foot), from rating curve extended above 4 second-feet on basis of velocity-area studies; no flow on many days or parts of days.

Remarks.- Records good except those for periods of missing or partial gage height record, Sept. 2-6, 17-30, which were computed on basis of engineers' notes and recorded range in stage and are fair. Discharge represents unused irrigation water in ditch returned to San Juan River.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									-	0.7	0.9	2.3
2									-	.3	0	1.5
3									-	.5	.6	1.3
4									-	.2	1.0	2.0
5									-	.7	.2	1.7
6									-	1.0	0	1.5
7									-	1.8	0	1.2
8									-	2.0	.1	1.2
9									-	.7	0	1.2
10									-	.2	0	1.1
11									-	.9	0	1.1
12									-	.9	0	1.2
13									-	1.1	0	1.2
14									-	.7	.7	1.2
15									-	1.6	.8	1.3
16									-	.6	.7	1.6
17									-	.6	.2	.9
18									0.7	.6	.2	.6
19									.2	.5	1.1	.3
20									2.3	1.7	1.0	.2
21									2.8	1.9	1.2	0
22									4.2	.8	.9	0
23									4.4	1.9	.6	0
24									3.0	1.8	.1	0
25									2.7	2.0	.1	0
26									3.3	1.3	.1	0
27									2.4	.7	.2	0
28									1.3	.5	0	0
29									.3	0	0	0
30									.7	0	0	.2
31									-	.2	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May					
June 18-30	28.3	4.4	0.2	2.18	56
July	28.4	2.0	0	.92	56
August	10.7	1.2	0	.35	21
September	24.8	2.3	0	.83	49
The period					182

Echo ditch near Farmington, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°44'50", long. 108°09'20", in NE¼ sec. 12, T. 29 N., R. 13 W., about 3,300 feet downstream from head and 3.3 miles northeast of Farmington.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 68 second-feet July 15 (gage height, 1.97 feet); minimum daily discharge, 5.5 second-feet Sept. 13.

Remarks.- Records excellent. Ditch diverts from left bank of Animas River about 4 miles above Farmington and water is used for irrigation near Farmington.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	42	50	56	33	50
2							-	38	48	55	29	40
3							-	46	57	54	23	18
4							-	50	60	49	20	9.8
5							-	48	43	30	16	16
6							-	47	38	54	14	15
7							-	46	41	44	12	22
8							17	44	43	36	18	23
9							18	43	50	34	42	9.5
10							19	46	49	39	41	8.4
11							21	54	54	40	40	15
12							23	60	52	45	40	21
13							33	59	57	49	42	5.5
14							40	55	61	58	55	7.8
15							38	45	59	68	55	12
16							36	49	63	62	52	25
17							35	52	63	61	48	23
18							39	53	59	61	47	22
19							38	49	51	57	47	22
20							36	51	46	55	42	32
21							35	53	45	50	39	39
22							29	53	48	47	39	39
23							37	54	38	44	37	39
24							36	54	33	36	33	39
25							47	56	36	34	27	39
26							45	54	48	30	28	40
27							37	49	42	34	28	44
28							39	50	49	45	28	46
29							45	54	58	53	30	47
30							43	48	61	46	29	47
31							-	50	-	38	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 8-30	786	47	17	34.2	1,560
May	1,552	60	38	50.1	3,080
June	1,502	63	33	50.1	2,980
July	1,464	68	30	47.2	2,900
August	1,074	55	12	34.6	2,130
September	816.0	50	5.5	27.2	1,620
The period					14,270

Eledge-Mill and Halford-Independent ditch wasteway at Flora Vista, N. Mex.

Location.- Water-stage recorder and wooden control, lat. 36°47'35", long. 108°05'30", in SW¼SW¼ sec. 22, T. 30 N., R. 12 W., 1,500 feet downstream from waste gates on Halford-Independent ditch and 0.7 mile southwest of Flora Vista.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum discharge during period, 92 second-feet June 13 (gage height, 2.25 feet); minimum daily discharge, 1.0 second-foot Apr. 27, Aug. 9.

Remarks.- Records good except those for period of missing or partial gage-height record, Sept. 6, 7, which were computed on basis of engineers' notes and are fair. Wasteway diverts from left bank of Eledge-Mill and Halford-Independent ditch, and water wastes into Animas River.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	6.6	12	10	2.8	33
2							-	3.5	6.6	12	2.2	33
3							-	6.0	3.5	11	3.0	35
4							-	5.7	2.4	6.6	3.5	46
5							-	5.4	2.0	4.7	2.8	13
6							-	2.6	2.4	3.0	2.8	3.9
7							-	3.2	1.3	2.8	2.2	3.4
8							-	4.7	3.0	1.7	2.4	6.8
9							-	4.2	4.4	1.7	1.0	13
10							-	3.5	7.8	2.0	1.3	13
11							-	1.9	7.5	3.2	3.0	15
12							-	2.8	7.5	4.0	2.4	17
13							-	3.5	13	3.0	3.7	16
14							-	4.2	8.8	2.2	6.3	16
15							-	5.4	9.2	3.2	7.2	15
16							-	5.4	7.8	4.2	6.3	15
17							-	3.7	6.6	4.7	5.2	14
18							-	3.5	7.2	4.4	4.0	12
19							-	3.5	8.1	4.2	2.8	12
20							-	6.6	5.7	3.7	3.0	12
21							-	4.0	14	3.5	3.5	12
22							-	3.5	14	6.9	3.0	12
23							-	3.2	6.6	5.2	2.6	12
24							-	3.7	10	5.7	2.6	11
25							-	3.2	13	6.9	4.9	10
26							-	5.7	13	3.7	5.4	9.7
27							1.0	6.3	12	2.4	5.2	10
28							3.5	4.9	13	4.0	5.4	10
29							5.2	4.2	13	4.4	5.4	10
30							4.4	6.6	17	3.5	4.4	10
31							-	10	-	3.5	5.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 27-30	14.1	5.2	1.0	3.52	28
May	141.2	10	1.9	4.55	280
June	252.4	17	1.3	8.41	501
July	142.0	12	1.7	4.58	282
August	115.7	7.2	1.0	3.73	229
September	450.8	46	3.4	15.0	894
The period					2,210

Eledge-Mill ditch near Aztec, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°49'35", long. 108°00'40", in NW¼SE¼ sec. 8, T. 30 N., R. 11 W., about 400 feet downstream from Aztec power plant and 1.1 miles west of Aztec.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 31 second-feet July 11: no flow Apr. 7-17, Aug. 10, 11.

Remarks.- Records good except those for period of missing gage heights, May 13-16, which were interpolated and are poor. Flow regulated by Aztec power plant about 400 feet above station. This ditch is branch of Mill ditch, which diverts water from Animas River at Aztec for irrigation near Flora Vista.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	17	21	14	22	0.8
2							-	12	21	14	18	.2
3							-	19	21	13	20	.3
4							-	20	24	11	8.2	.2
5							-	18	24	14	2.2	1.7
6							-	18	23	15	19	6.1
7							0	20	23	21	21	6.1
8							0	20	23	19	20	6.3
9							0	19	18	19	1.2	6.0
10							0	19	25	23	0	6.2
11							0	17	20	31	0	5.9
12							0	20	20	26	12	6.3
13							0	20	23	22	20	6.2
14							0	20	25	25	23	6.3
15							0	21	23	23	17	5.4
16							0	21	23	17	4.6	5.1
17							0	21	22	26	21	8.0
18							.5	20	25	20	19	8.5
19							6.0	21	25	21	20	9.3
20							7.2	24	22	24	20	10
21							3.7	24	24	24	19	10
22							11	21	23	20	19	11
23							11	20	18	4.3	18	8.3
24							11	18	19	14	17	8.8
25							8.4	20	19	20	20	8.1
26							9.2	21	19	13	19	6.0
27							4.2	22	17	25	19	7.8
28							14	21	15	24	14	6.9
29							16	22	11	23	.9	6.8
30							17	15	14	13	.8	7.8
31							-	21	-	25	.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 7-30	119.2	17	0	4.97	236
May	612	24	12	19.7	1,210
June	630	25	11	21.0	1,250
July	619.3	31	4.3	20.0	1,230
August	435.3	23	0	14.0	863
September	186.4	11	.2	6.21	370
The period					5,160

Farmers ditch at end, at Flora Vista, N. Mex.

Location.- Water-stage recorder, lat. 36°48'00", long. 108°04'35", in NE¼SE¼ sec. 22, T. 30 N., R. 12 W., about 1,650 feet upstream from point where ditch enters Animas River and 0.3 mile northeast of Flora Vista.

Records available.- July to September 1938 (discontinued).

Remarks.- Records fair for July 13 to Aug. 27; others poor. Discharge for period of missing gage heights, Aug. 28-30, computed on basis of recorded range in stage. Gage installation washed out Sept. 3. Water wastes into Animas River. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1										-	3.8	-
2										-	3.6	-
3										-	4.0	-
4										-	4.6	-
5										-	3.8	-
6										-	4.0	†4.0
7										-	4.0	-
8										-	4.3	-
9										-	3.4	-
10										-	3.1	-
11										-	5.1	-
12										-	5.4	-
13										3.1	4.8	-
14										3.4	3.6	†10
15										3.6	5.7	-
16										3.8	2.9	-
17										4.6	3.6	-
18										5.4	2.9	-
19										4.6	2.9	-
20										6.0	2.9	-
21										5.4	3.1	*17
22										4.6	2.9	-
23										3.8	2.7	-
24										3.6	2.5	-
25										3.6	3.1	-
26										3.4	3.1	-
27										3.6	3.0	-
28										3.6	3.1	*8.5
29										4.0	3.1	-
30										3.8	3.8	-
31										4.0	*4.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May					
June					
July 13-31	77.9	6.0	3.1	4.10	155
August	113.2	5.7	2.5	3.65	225
September	-	-	-	-	-
The period					

*Discharge measurement.
†Field estimate.

Farmers ditch at head, near Aztec, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°52'00", long. 107°58'20", in NE¼SE¼ sec. 27, T. 31 N., R. 11 W., 0.6 mile downstream from head and 3.3 miles northeast of Aztec.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 62 second-feet July 10, Aug. 9; no flow May 17, 18.

Remarks.- Records excellent except those for period of missing or partial gage-height record, July 25-27, which were computed on basis of recorded range in stage and are good. Ditch diverts from right bank of Animas River about 4 miles above Aztec. Water is used for irrigation near Flora Vista.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	31	48	10	58	46
2							-	28	45	20	57	39
3							-	24	53	26	57	33
4							-	30	56	23	56	37
5							-	33	54	18	55	41
6							-	31	52	31	57	21
7							-	29	42	35	60	12
8							-	29	42	52	61	11
9							-	30	50	60	62	10
10							-	29	57	62	61	9.7
11							6.9	28	56	61	60	14
12							6.9	31	55	58	59	20
13							10	42	57	58	61	18
14							17	54	56	59	58	16
15							15	45	46	55	50	14
16							13	22	46	55	47	13
17							14	0	47	54	47	11
18							19	0	48	52	47	9.7
19							23	30	46	50	46	8.3
20							23	47	45	49	45	31
21							22	45	44	46	44	40
22							24	44	36	45	46	20
23							23	28	19	42	50	18
24							24	38	14	40	48	18
25							27	52	36	36	46	17
26							24	52	49	35	46	20
27							19	51	47	45	45	31
28							20	50	33	56	45	39
29							32	47	31	58	44	38
30							32	47	31	60	46	37
31							-	47	-	59	49	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 11-30	394.8	32	6.9	19.7	783
May	1,094	54	0	35.3	2,170
June	1,341	57	14	44.7	2,660
July	1,410	62	10	45.5	2,800
August	1,613	62	44	52.0	3,200
September	692.7	46	8.3	23.1	1,370
The period					12,980

153585 O—39——12

Farmers ditch wasteway near Flora Vista, N. Mex.

Location.- Water-stage recorder and wooden control, lat. 36°49'10", long. 108°03'35", in NE¼NE¼ sec. 14, T. 30 N., R. 12 W., about 40 feet downstream from waste gates on Farmers ditch and 1.9 miles northeast of Flora Vista.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum discharge during period, 37 second-feet June 22 (gage height, 1.36 feet), from rating curve extended above 10 second-feet on basis of area-velocity studies; no flow on many days or parts of days.

Remarks.- Records good for April to August; others fair. Wasteway diverts from left bank of Farmers ditch about 40 feet above station. Discharge represents return flow to Animas River.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	1.6	0.7	1.9	0.8	0.8
2							-	1.9	.6	1.1	.6	14
3							-	1.5	.6	1.6	.5	27
4							-	1.0	1.2	.9	0	26
5							-	1.4	1.4	.2	0	31
6							-	1.2	1.3	.1	0	24
7							-	1.3	1.2	0	.3	8.9
8							-	.8	.6	.1	.5	9.1
9							-	.6	1.3	.3	1.1	2.3
10							-	.5	1.8	.3	1.1	1.9
11							-	.3	5.0	.3	.9	3.4
12							-	0	8.6	.1	.9	12
13							0	.3	8.2	0	.8	13
14							4.9	1.0	7.9	.1	2.1	11
15							7.6	1.5	6.0	.4	2.6	8.9
16							3.8	.7	6.3	.9	1.8	6.0
17							3.2	0	6.3	.7	.3	5.3
18							3.8	0	7.9	.8	0	5.5
19							6.3	.2	8.9	.7	0	6.0
20							5.5	.9	3.2	.8	0	8.9
21							5.0	0	2.8	.7	0	23
22							5.5	.2	13	.1	0	16
23							4.8	0	6.3	.3	0	12
24							1.9	.1	3.6	0	.2	7.6
25							.7	.4	7.7	0	.3	8.2
26							.7	.2	26	0	.3	7.6
27							.3	.8	21	0	.2	10
28							.1	.4	11	.1	.2	19
29							.7	.3	5.8	.6	0	14
30							.6	1.1	11	.8	0	10
31							-	.6	-	.7	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 13-30	55.4	7.6	0	3.08	110
May	20.8	1.9	0	.67	41
June	187.2	26	.6	6.24	371
July	14.6	1.9	0	.47	29
August	15.5	2.6	0	.50	31
September	352.4	31	.8	11.7	699
The period					1,280

Farmers Mutual ditch at end, near Waterflow, N. Mex.

Location.- Water-stage recorder, lat. 36°46'05", long. 108°29'20", in SE¼ sec. 35, T. 30 N., R. 16 W., about 30 feet downstream from waste gates at end of Farmers Mutual ditch and 2.0 miles northwest of Waterflow.

Records available.- May to September 1938 (discontinued).

Extremes.- Maximum daily discharge, 13 second-feet June 22, Sept. 20; no flow on many days or parts of days.

Remarks.- Records good. Discharge represents unused irrigation water in ditch returned to San Juan River.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	0	1.8	3.4	7.3
2								-	.6	1.4	1.3	2.7
3								-	1.0	1.0	0	0
4								-	1.2	1.6	0	0
5								3.0	.1	.7	0	0
6								2.4	.1	.1	1.2	0
7								2.5	.1	.1	.2	0
8								2.0	2.6	1.2	0	2.8
9								0	8.8	3.4	.9	6.8
10								0	7.0	2.3	2.0	5.8
11								0	4.2	.1	2.2	0
12								.1	9.8	0	1.3	0
13								.1	12	.4	2.0	.2
14								.1	10	0	2.3	2.4
15								.1	6.0	.1	2.4	5.1
16								1.2	6.1	.4	.9	6.7
17								2.2	2.8	1.2	0	6.7
18								.7	7.4	.1	0	3.9
19								.2	10	0	0	8.0
20								.2	10	.2	.3	13
21								2.4	12	0	1.2	12
22								4.5	13	.2	1.0	10
23								4.5	7.4	.9	.3	10
24								5.3	7.6	2.4	0	9.6
25								3.1	8.7	0	0	10
26								1.3	1.8	.2	0	8.4
27								.5	3.8	0	.6	6.4
28								.7	6.2	2.5	2.6	6.8
29								4.6	.4	3.2	.3	7.2
30								2.4	3.9	3.0	.7	7.1
31								0	-	5.5	.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May 5-31	44.1	5.3	0	1.63	87
June	164.6	13	0	5.49	326
July	34.0	5.5	0	1.10	67
August	27.8	3.4	0	.90	55
September	158.9	13	0	5.30	315
The period					350

Farmers Mutual ditch at head, near Kirtland, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°43'55", long. 108°17'20", in NE¼ sec. 15, T. 29 N., R. 14 W., about 7 miles downstream from head gates and 4 miles east of Kirtland.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 94 second-feet Aug. 21; minimum daily discharge, 5.0 second-feet Sept. 4, 5.

Remarks.- Records good. Ditch diverts from right bank of Animas River about 1,500 feet upstream from its confluence with San Juan River. Water is used for irrigation below Kirtland.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	54	83	53	87	79
2							-	74	80	58	86	85
3							-	80	81	62	87	25
4							64	81	82	68	88	5.0
5							66	75	78	63	89	5.0
6							66	70	78	63	89	27
7							64	71	78	77	88	64
8							63	68	79	85	87	66
9							63	62	78	84	86	67
10							66	64	82	86	87	68
11							68	50	82	85	86	70
12							68	85	78	84	85	69
13							66	90	75	84	84	67
14							37	90	76	87	84	67
15							28	90	73	89	87	65
16							25	90	76	88	82	64
17							36	88	78	83	84	64
18							60	87	78	77	90	64
19							73	87	77	81	92	64
20							65	86	76	84	93	64
21							55	83	74	86	94	65
22							75	83	74	88	91	65
23							76	82	66	87	88	64
24							70	82	69	85	84	64
25							77	83	50	80	81	64
26							79	83	13	76	79	64
27							82	83	82	84	79	64
28							83	81	80	87	78	63
29							85	81	71	88	83	63
30							84	74	63	87	78	63
31							-	83	-	87	76	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 4-30	1,744	85	25	64.6	3,460
May	2,440	90	50	78.7	4,840
June	2,210	83	13	73.7	4,380
July	2,476	89	53	79.9	4,910
August	2,652	94	76	85.5	5,260
September	1,788.0	85	5.0	59.6	3,550
The period					26,400

Farmers Mutual ditch wasteway 11 at Kirtland, N. Mex.

Location.- Water-stage recorder and wooden control, lat. 36°44'15", long. 108°20'20", in SW¼ sec. 8, T. 29 N., R. 14 W., about 60 feet downstream from waste gates on Farmers Mutual ditch and 1 mile northeast of Kirtland.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum discharge during period, 22 second-feet Aug. 6 (gage height, 1.64 feet); no flow on many days or parts of days.

Remarks.- Records fair. Wasteway diverts from left bank of Farmers Mutual ditch. Flow represents waste water returned to San Juan River.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	0	0.1	0	0.2	2.1
2							-	0	0	0	.1	4.4
3							-	0	0	0	.1	1.5
4							1.6	0	0	0	.2	0
5							1.5	0	0	0	.2	0
6							1.5	0	0	0	.9	.5
7							1.5	0	0	0	.6	1.5
8							1.1	0	0	0	.4	2.2
9							1.0	0	0	0	.4	2.2
10							1.3	0	.1	.1	.4	2.5
11							2.0	0	.1	.1	.5	2.5
12							2.9	0	0	0	.6	2.5
13							2.0	0	0	0	.5	2.4
14							0	0	0	.1	.5	2.4
15							4.8	.3	0	.1	.5	2.5
16							3.7	.2	0	.1	.5	2.5
17							3.7	.1	0	.1	.4	2.2
18							2.7	.3	0	.2	.2	2.4
19							2.7	.3	0	.2	.2	2.0
20							.8	.1	.1	.3	.3	2.0
21							.2	.1	0	.2	.3	1.8
22							1.5	.1	0	.6	.2	1.6
23							.2	.1	0	.4	.3	1.8
24							0	.4	0	.3	.3	2.0
25							0	.1	0	.1	.2	1.2
26							.1	0	0	.1	.2	.8
27							.1	.1	.4	.1	.2	0
28							0	0	0	.1	.2	0
29							.1	.1	0	.3	.2	0
30							0	0	0	.3	.2	0
31							-	.2	-	.4	.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 4-30	37.0	4.8	0	1.37	73
May	2.5	.4	0	.08	5.0
June	.8	.4	0	.03	1.6
July	4.2	.6	0	.14	8.3
August	10.2	.9	.1	.33	20
September	49.5	4.4	0	1.65	98
The period					206

Farmers Mutual ditch wasteway 12 at Fruitland, N. Mex.

Location.- Water-stage recorder and wooden control, lat. 36°44'45", long. 108°23'15", in NE¼ sec. 11, T. 29 N., R. 15 W., about 100 feet downstream from waste gates on Farmers Mutual ditch and 0.6 mile northeast of Fruitland.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum discharge during period not determined; maximum gage height, 2.96 feet July 23; no flow on many days or parts of days.

Remarks.- Records fair. Discharge for periods of missing, partial, or uncertain gage-height record, July 6, 23-27, Aug. 13, 17, 19, 20, 22, 23, computed on basis of recorded range in stage and knowledge of local conditions. Flow represents waste water from ditch returned to San Juan River.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	0	0.1	0.1	4.7	18
2							-	0	1.1	.2	.2	22
3							-	0	1.9	.1	.1	7.9
4							16	.2	5.1	1.0	0	0
5							16	.1	6.1	.1	.2	0
6							16	0	2.3	0	1.8	2.0
7							16	0	1.5	0	.6	21
8							15	.0	.1	0	.2	24
9							16	0	3.3	0	.4	21
10							16	0	4.4	.2	2.3	21
11							18	0	6.1	.1	2.0	21
12							12	0	3.3	.1	.1	21
13							7.4	0	1.9	.5	0	21
14							.1	0	3.0	0	5.1	20
15							4.0	.2	.4	0	6.1	16
16							0	.8	.2	0	1.5	14
17							.1	.9	2.6	0	.9	14
18							4.2	.2	5.5	0	.6	14
19							3.6	.1	8.6	0	.4	15
20							1.5	0	9.4	0	.2	11
21							1.9	.3	6.7	0	.1	10
22							4.0	.9	11	.1	.4	9.0
23							.8	1.6	5.8	14	0	9.8
24							.1	4.7	6.1	.2	.8	9.8
25							0	.3	1.8	.2	0	10
26							.1	.4	.1	.3	0	7.7
27							.1	.1	1.8	.4	.6	6.4
28							0	.1	5.8	.5	2.0	7.4
29							0	1.3	6.4	.3	4.0	6.4
30							0	.1	4.0	.9	.4	4.4
31							-	.3	-	4.0	1.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 4-30	168.9	18	0	6.26	335
May	12.6	4.7	0	.41	25
June	116.4	11	.1	3.88	231
July	23.3	14	0	.75	46
August	37.3	6.1	0	1.20	74
September	384.8	24	0	12.8	763
The period					1,470

Farmers Mutual ditch wasteway 13 near Waterflow, N. Mex.

Location.- Water-stage recorder, lat. 36°45'10", long. 108°25'20", in SW¼ sec. 4, T. 29 N., R. 15 W., about 250 feet downstream from waste gates on Farmers Mutual ditch and 1.8 miles east of Waterflow.
Records available.- July to September 1938 (discontinued).
Extremes.- Maximum discharge during period, 41 second-feet Sept. 2 (gage height, 1.67 feet), from rating curve extended above 25 second-feet on basis of area-velocity studies; no flow on many days or parts of days.
Remarks.- Records good. Flow represents waste water from ditch returned to San Juan River.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1										-	8.0	16
2										-	2.7	29
3										-	.1	21
4										-	.1	.4
5										-	.1	.1
6										*0	.2	.1
7										-	.2	21
8										*.1	.1	21
9										-	.1	21
10										-	0	21
11										-	0	21
12										-	0	22
13										.2	.1	22
14										.1	0	21
15										0	.1	20
16										0	.3	20
17										0	.2	20
18										0	.1	19
19										0	0	9.2
20										0	.2	2.9
21										0	.1	4.7
22										0	.1	8.9
23										0	0	8.0
24										0	.1	11
25										0	0	14
26										0	0	14
27										0	.2	13
28										.1	.4	10
29										1.9	.5	4.0
30										6.9	.4	5.6
31										8.0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 13-31	17.2	8.0	0	0.91	34
August	14.4	8.0	0	.46	29
September	420.9	29	.1	14	835
The period					898

*Discharge measurement.

Farmington drain at Farmington, N. Mex.

Location.- Staff gage, lat. 36°43'10", long. 108°12'35", in E½NW¼ sec. 21, T. 29 N., R. 13 W., about 700 feet upstream from point where drain enters Animas River and 0.6 mile south of Farmington.
Records available.- May to September 1938 (discontinued), discharge measurements only.
Remarks.- Discharge represents unused water from irrigation near Farmington returned to Animas River.

Discharge measurements, in second-feet, May to September, 1938

May	13	1.53	July	9	1.71	Aug.	13	1.95
	18	1.43		15	1.63		15	2.35
	27	1.45		18	1.70		22	1.57
June	3	1.82		21	1.43		27	1.47
	8	1.72		25	1.45	Sept.	3	2.01
	10	1.67		28	1.75		10	1.55
	15	1.31	Aug.	1	1.79		14	1.08
	24	1.18		6	2.05		17	1.00
July	2	1.17		8	1.79		24	1.11
	6	1.56		12	1.85		29	1.17

Glade Arroyo at Farmington, N. Mex.

Location.- Water-stage recorder and wooden control, lat. 36°44'05", long. 108°13'05", in NW¼NW¼ sec. 16, T. 29 N., R. 13 W., about 3,500 feet upstream from mouth and 0.8 mile northwest of Farmington.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum discharge, about 205 second-feet Sept. 3 (gage height, 4.74 feet), from rating curve extended above 50 second-feet on basis of area-velocity studies; minimum daily discharge, 1.9 second-feet Apr. 22.

Remarks.- Records poor. Flow represents unused water from irrigation and waste water from Halford-Independent ditch returned to San Juan River. Records also include flash flows in Arroyo from rain.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							17	5.4	3.4	10	7.4	26
2							16	4.4	3.2	13	6.1	12
3							14	3.9	2.7	12	8.4	36
4							12	4.5	3.8	12	5.8	5.6
5							11	4.5	4.6	11	5.2	5.4
6							16	4.5	5.0	7.7	5.0	9.0
7							19	5.2	5.4	5.9	5.0	7.4
8							21	4.8	5.6	4.0	10	5.1
9							21	4.5	6.1	4.2	12	8.8
10							25	3.8	6.7	4.6	9.4	9.9
11							24	3.3	7.9	5.4	7.4	18
12							18	2.9	8.4	5.4	8.6	29
13							4.8	3.2	8.9	4.8	11	25
14							8.3	3.6	8.6	4.8	15	23
15							12	4.8	8.1	5.2	16	23
16							10	5.6	7.2	4.2	9.6	22
17							9.4	5.8	6.7	4.4	7.4	23
18							4.4	8.4	6.1	4.6	6.9	20
19							6.7	6.7	6.5	5.9	6.7	12
20							2.5	9.4	8.1	7.2	6.7	10
21							3.4	9.4	9.7	7.4	6.3	9.6
22							1.9	11	12	8.1	5.5	9.0
23							4.5	6.7	9.1	7.9	5.3	9.2
24							4.0	7.4	7.7	9.1	5.3	10
25							4.4	8.1	7.7	8.1	5.3	9.2
26							4.2	7.4	6.3	7.4	6.2	9.0
27							4.5	6.7	6.1	7.2	6.4	8.3
28							2.9	5.8	14	7.2	6.2	7.0
29							2.6	4.4	16	7.7	6.4	6.3
30							3.3	3.6	17	7.9	6.7	6.2
31							-	3.6	-	8.1	6.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	307.8	25	1.9	10.3	611
May	173.3	11	2.9	5.59	344
June	228.6	17	2.7	7.62	453
July	222.4	13	4.0	7.17	441
August	236.1	16	5.0	7.62	468
September	414.0	36	5.1	13.8	821
The period					3,140

Halford-Independent ditch near Flora Vista, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°48'30", long. 108°03'40", in S½SE¼ sec. 14, T. 30 N., R. 12 W., 2¼ miles downstream from head and 1.3 miles northeast of Flora Vista.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 88 second-feet Aug. 12 (gage height, 1.84 feet); minimum daily, 2.3 second-feet Sept. 7.

Remarks.- Records good. Ditch diverts from right bank of Animas River 3.5 miles above Flora Vista, and water is used for irrigation and for municipal supply of Farmington.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	69	66	46	78	67
2							-	50	62	65	73	41
3							-	50	68	64	78	43
4							-	50	83	64	83	43
5							-	51	72	69	81	16
6							-	51	47	74	83	7.5
7							41	53	58	76	82	2.3
8							41	51	62	78	85	27
9							41	55	46	81	67	47
10							42	60	74	81	72	47
11							42	64	74	84	87	52
12							38	64	76	83	88	57
13							36	65	76	83	83	55
14							36	68	78	85	76	53
15							37	74	69	83	83	51
16							36	68	69	82	69	50
17							37	60	70	83	67	49
18							39	63	72	85	66	48
19							40	63	72	85	68	48
20							30	64	72	86	69	47
21							20	65	74	86	67	47
22							26	67	64	83	67	46
23							39	68	16	78	65	45
24							45	67	49	78	67	45
25							53	70	70	77	77	43
26							58	70	70	76	78	42
27							62	67	72	77	77	41
28							62	68	71	82	78	43
29							69	74	71	84	77	44
30							74	32	56	81	72	44
31							-	17	-	81	78	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 7-30	1,044	74	20	43.5	2,070
May	1,858	74	17	59.9	3,690
June	1,979	83	16	66.0	3,930
July	2,420	86	46	78.1	4,800
August	2,341	88	65	75.5	4,640
September	1,290.8	67	2.3	43.0	2,560
The period					21,690

Inca ditch at head, at Cedar Hill, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°56'30", long. 107°52'35", in NW¼SW¼ sec. 34, T. 32 N., R. 10 W., 0.2 mile below head and 0.7 mile northeast of village of Cedar Hill.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 31 second-feet July 10; no flow Apr. 18, 19, July 1.

Remarks.- Records good. Ditch diverts from right bank of Animas River, and water is used for irrigation near Cedar Hill.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	22	17	0	24	24
2							-	20	12	.1	23	21
3							-	20	22	4.7	22	17
4							-	18	21	15	22	13
5							-	18	9.2	14	21	13
6							-	18	14	15	21	12
7							-	18	7.6	14	20	11
8							-	17	9.6	17	21	10
9							-	17	5.5	30	23	9.6
10							-	20	20	31	22	9.6
11							-	21	20	30	21	13
12							-	22	21	29	22	16
13							-	22	24	28	24	15
14							-	24	26	29	27	14
15							-	23	23	29	26	12
16							-	20	23	29	24	12
17							-	19	24	28	22	11
18							0	18	25	28	20	10
19							0	17	24	27	19	10
20							9.6	17	24	27	21	9.6
21							19	16	27	25	25	9.2
22							20	16	20	25	25	8.9
23							22	17	5.6	24	23	8.1
24							21	17	12	24	25	9.4
25							20	18	12	24	25	11
26							21	19	14	24	25	11
27							19	20	14	25	24	11
28							18	23	14	26	23	10
29							20	26	16	27	23	10
30							22	19	8.8	26	23	9.8
31							-	14	-	25	27	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 18-30	211.6	22	0	16.3	420
May	596	26	14	19.2	1,180
June	515.3	27	5.5	17.2	1,020
July	699.8	31	0	22.6	1,390
August	713	27	19	23.0	1,410
September	361.2	24	8.1	12.0	716
The period					6,140

Inca ditch wasteway at Cedar Hill, N. Mex.

Location.- Water-stage recorder and wooden control, lat. 36°55'45", long. 107°53'05", in SW¼NE¼ sec. 4, T. 31 N., R. 10 W., about 30 feet downstream from waste gates on Inca ditch and 0.4 mile south of Cedar Hill.
Records available.- April to September 1938 (discontinued).
Extremes.- Maximum discharge during period, about 32 second-feet Aug. 8 (gage height, 1.73 feet), from rating curve extended above 15 second-feet on basis of velocity-area studies; no flow on many days or parts of days.
Remarks.- Records poor. Discharge for periods of missing or partial gage-height record, Apr. 30, May 1, 5-8, July 3, 4, Sept. 7-13, computed on basis of recorded range in stage and engineers' notes. Wasteway diverts from right bank of Inca ditch, and water wastes into Animas River.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	0.3	0	0	0.3	9.0
2							-	.1	0	0	.2	14
3							-	.1	0	0	.2	6.4
4							-	.1	0	.1	.2	5.4
5							-	.1	0	.2	.1	8.6
6							-	.1	0	.2	.1	3.2
7							-	.1	0	.2	.1	2.6
8							-	.1	0	.2	3.0	2.6
9							-	.1	.1	.2	14	2.0
10							-	0	.4	.1	4.7	1.8
11							-	0	.3	.6	0	1.0
12							-	0	.3	8.4	.1	.6
13							-	0	.3	3.5	2.5	2.4
14							-	0	.3	1.2	4.2	3.2
15							-	0	.3	1.1	1.1	2.1
16							-	0	.3	.8	1.7	1.5
17							-	0	.2	.6	1.2	1.7
18							0	0	.2	.6	.9	1.7
19							0	0	.2	.5	.6	1.9
20							6.0	0	2.9	.4	.6	2.4
21							14	0	4.7	.4	.6	3.0
22							14	0	.1	.4	.4	2.4
23							6.3	0	.1	.4	.4	2.4
24							1.2	0	.1	.4	.8	2.1
25							.9	0	.2	.4	.6	1.7
26							.8	0	.2	.4	.5	1.9
27							.6	0	.2	.4	.6	1.5
28							.6	0	.3	.4	.5	1.5
29							.5	0	.2	.4	.5	1.7
30							.5	0	0	.4	.5	1.9
31							-	0	-	.3	.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
April 18-30	45.4	14	0	3.49	90
May	1.1	.3	0	.04	2.2
June	11.9	4.7	0	.40	24
July	23.2	8.4	0	.75	46
August	41.8	14	0	1.35	83
September	94.2	14	.6	3.14	187
The period					432

Hello-Blancett ditch at end, at Flora Vista, N. Mex.

Location.- Water-stage recorder and wooden control, lat. 36°47'25", long. 108°04'30", in W½NW¼ sec. 26, T. 30 N., R. 12 W., about 200 feet upstream from point where ditch enters Animas River and 0.6 mile southeast of Flora Vista.
Records available.- July to September 1938 (discontinued), discharge measurements only.
Remarks.- Flow represents unused irrigation water returned to Animas River.

Discharge measurements, in second-feet, July to September, 1938

July 19	1.00	Aug. 23	0	Sept. 20	0
26	.23	30	.19	27	0
Aug. 9	.44	Sept. 6	0	30	0
16	0	13	0		

Kello-Blancett ditch at head, near Aztec, N. Mex.

Location.- Water-stage recorder and wooden control, lat. 36°49'05", long. 108°00'55", in E½NW¼ sec. 17, T. 30 N., R. 11 W., 0.6 mile downstream from head and 1.3 miles southwest of Aztec.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 18 second-feet May 15, June 14; no flow Apr. 26-29.

Remarks.- Records good for April to June; others fair. Discharge for Sept. 19 interpolated. Ditch diverts from left bank of Animas River about 1.1 miles below Aztec, and water is used for irrigation near Flora Vista.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	4.6	14	3.1	3.5	4.6
2							-	3.2	12	4.1	2.8	2.4
3							-	2.2	12	6.4	2.6	2.4
4							-	2.4	16	5.8	2.5	2.5
5							-	4.6	16	5.5	1.7	2.3
6							-	3.8	15	6.8	.8	2.4
7							-	5.0	13	6.2	1.0	2.0
8							-	7.8	8.8	7.5	1.4	1.2
9							-	6.6	11	7.2	3.5	1.3
10							-	6.4	13	6.9	4.3	1.5
11							-	6.8	12	7.3	3.2	1.9
12							-	7.6	13	8.7	2.6	2.4
13							-	9.0	16	8.7	3.2	1.9
14							-	12	18	9.6	5.6	1.5
15							-	18	9.3	9.5	3.6	1.2
16							-	17	9.6	9.8	1.2	1.2
17							-	16	9.6	8.5	.8	1.0
18							-	14	5.8	8.4	.7	1.0
19							-	12	3.8	7.7	.9	.7
20							-	9.3	8.0	7.4	.7	.4
21							-	8.0	14	7.1	.6	.4
22							-	9.3	14	7.5	.4	.3
23							-	9.8	7.8	7.9	.4	.4
24							-	10	7.1	7.0	.4	.4
25							-	15	9.8	6.3	.4	.4
26							0	17	9.0	5.7	.6	.4
27							0	13	8.0	5.9	.5	.2
28							0	11	5.9	6.9	.5	.2
29							0	14	5.9	7.7	.6	.2
30							3.0	15	11	8.1	.7	.7
31							-	14	-	5.3	1.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 26-30	3.0	3.0	0	0.60	6.0
May	304.4	18	2.2	9.82	604
June	328.4	18	3.8	10.9	651
July	220.5	9.8	3.1	7.11	437
August	53.6	5.6	.4	1.73	106
September	39.4	4.3	.2	1.31	78
The period					1,880

Lower Animas ditch near Aztec, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°52'05", long. 107°57'50", in N½SW¼ sec. 26, T. 31 N., R. 11 W., 0.5 mile downstream from head and 3.5 miles northeast of Aztec.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 59 second-feet July 29, Aug. 29, 31; minimum daily discharge, 0.4 second-foot Apr. 18-24.

Remarks.- Records excellent. Ditch diverts from left bank of Animas River about 4 miles above Aztec and water is used for irrigation near Aztec.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	51	53	35	57	47
2							-	51	44	38	56	5.2
3							-	49	50	32	55	2.8
4							-	47	57	29	55	2.9
5							-	46	48	26	55	2.0
6							-	45	53	40	53	9.8
7							-	44	50	48	51	2.4
8							-	43	41	47	54	3.6
9							-	43	35	53	54	3.3
10							-	43	42	56	54	4.6
11							-	43	51	56	54	2.0
12							-	43	51	54	51	1.9
13							-	43	54	53	52	3.6
14							-	47	54	54	54	9.8
15							-	51	52	55	54	9.8
16							-	49	55	55	51	9.1
17							-	46	55	55	48	8.8
18							0.4	42	55	54	50	8.8
19							.4	41	54	52	52	7.9
20							.4	46	51	52	50	6.8
21							.4	48	50	51	48	6.2
22							.4	50	54	48	47	14
23							.4	49	41	46	46	20
24							.4	48	43	43	50	20
25							3.4	51	47	42	58	20
26							15	55	54	41	58	19
27							37	51	51	42	58	19
28							50	43	48	51	58	19
29							51	43	48	59	59	18
30							52	48	44	58	58	18
31							-	52	-	57	59	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 18-30	211.2	52	0.4	16.2	419
May	1,451	55	41	46.8	2,880
June	1,485	57	35	49.5	2,950
July	1,482	59	26	47.8	2,940
August	1,659	59	46	53.5	3,290
September	325.3	47	1.9	10.8	645
The period					13,120

Lower Animas ditch wasteway at Aztec, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 36°48'50", long. 108°00'05", in NW¼SW¼ sec. 18, T. 30 N., R. 11 W., 80 feet downstream from waste gates on Lower Animas ditch and 0.8 mile southwest of Aztec.
Records available.- April to September 1938 (discontinued).
Extremes.- Maximum discharge during period, 30 second-feet Aug. 17 (gage height, 1.07 feet); no flow Apr. 19-24.
Remarks.- Records good. Wasteway diverts from right bank of Lower Animas ditch and water wastes into Animas River.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	9.9	0.7	4.2	2.5	1.8
2							-	8.0	1.2	6.6	1.3	5.7
3							-	9.0	1.6	3.6	1.1	2.1
4							-	6.2	3.0	2.5	.5	1.2
5							-	3.6	1.2	.5	.3	.4
6							-	5.2	1.7	1.8	.2	3.6
7							-	4.8	1.9	3.4	.2	.3
8							-	3.9	.6	.7	.8	2.1
9							-	3.0	.3	.1	1.2	1.1
10							-	2.8	.3	.3	4.2	1.1
11							-	4.5	1.1	.9	4.2	.7
12							-	2.5	3.3	.8	1.0	.7
13							-	2.8	5.2	2.8	10	.9
14							-	3.9	2.3	4.5	13	5.7
15							-	4.2	.9	5.2	10	6.6
16							-	1.8	1.2	4.5	6.6	6.2
17							-	2.1	3.9	3.6	8.6	4.8
18							-	2.3	4.5	1.4	19	4.5
19							0	1.6	4.5	.7	21	4.5
20							0	1.7	3.3	1.8	4.8	5.2
21							0	2.3	2.8	2.1	3.0	3.0
22							0	4.5	4.8	.9	1.1	4.5
23							0	3.3	4.0	.4	.2	12
24							0	2.8	9.5	.2	.2	13
25							1.4	2.1	11	.1	.2	13
26							5.7	4.2	13	.1	.2	13
27							8.7	1.9	7.6	.1	.3	11
28							14	.4	7.6	.2	1.8	11
29							13	1.2	9.9	.6	1.9	9.0
30							11	.9	9.5	15	3.0	6.2
31							-	1.3	-	5.4	3.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
April 19-30	53.8	14	0	4.48	107
May	108.7	9.9	.4	3.51	216
June	122.4	13	.3	4.08	243
July	75.0	15	.1	2.42	149
August	125.4	21	.2	4.05	249
September	154.9	13	.3	5.16	307
The period					1,270

Lower Animas drain near Aztec, N. Mex.

Location.- Staff gage, lat. 36°50'55", long. 107°59'00", in SW¼SW¼ sec. 34, T. 31 N., R. 11 W., about 1,800 feet downstream from waste gate on Lower Animas ditch and 1.9 miles northeast of Aztec.
Records available.- May to September 1938 (discontinued), discharge measurements only.
Remarks.- Flow represents waste water from Lower Animas ditch returned to Animas River.

Discharge measurements, in second-feet, May to September, 1938

May	24	0.57
June	8	1.03
	15	1.78
	29	1.09
July	23	1.18
Aug.	6	1.00
	13	1.43
	19	1.10
Sept.	10	1.43
	27	.52
	30	.55

Miller Arroyo near Cedar Hill, N. Mex.

Location.- Water-stage recorder, lat. 36°55'00", long. 107°54'20", in SE¼NW¼ sec. 8, T. 31 N., R. 10 W., on upstream side of bridge on U. S. Highway 550 and 1.7 miles southwest of village of Cedar Hill.

Records available.- July to September 1938 (discontinued), discharge measurements only.

Remarks.- Flow represents waste water from Old Inca ditch and run-off from occasional rains.

Discharge measurements, in second-feet, July to September 1938

July 12	0.18	Aug. 12	4.24	Sept. 20	0.71
18	1.01	16	4.06	22	0
25	.98	23	.55	23	0
Aug. 2	3.38	30	.48	27	1.61
9	0	Sept. 6	.96	30	1.19

North Farmington and Wright-Leggett ditch near Farmington, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°44'25", long. 108°10'25", in W½SE¼ sec. 11, T. 29 N., R. 13 W., about 1,900 feet downstream from head and 2.2 miles northeast of Farmington.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 34 second-feet July 7 (gage height, 1.13 feet); minimum daily, 8.1 second-feet Apr. 8.

Remarks.- Records excellent. Ditch diverts from right bank of Animas River about 2½ miles above Farmington and water is used for irrigation near Farmington.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	28	28	25	22	26
2							-	26	27	27	24	27
3							-	27	28	28	23	21
4							-	26	28	28	22	12
5							-	26	27	30	21	12
6							-	26	27	33	20	11
7							8.4	25	26	34	18	11
8							8.1	24	27	32	18	11
9							8.4	26	28	30	22	10
10							8.6	27	29	31	20	10
11							10	29	28	30	18	14
12							15	31	28	30	17	18
13							16	32	30	29	18	17
14							16	32	31	32	27	17
15							15	26	30	32	26	17
16							14	25	31	32	23	16
17							14	25	31	31	19	15
18							15	25	31	29	18	15
19							18	26	29	28	15	14
20							19	26	28	27	13	14
21							18	27	28	26	13	14
22							20	14	24	26	12	14
23							21	16	25	26	13	13
24							21	28	27	25	15	13
25							22	30	27	24	14	12
26							22	31	28	22	13	13
27							21	29	28	22	14	13
28							20	28	23	24	18	12
29							26	27	16	25	19	12
30							28	28	24	24	18	12
31							-	28	-	22	19	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 7-30	404.5	28	8.1	16.9	802
May	826	32	14	26.6	1,640
June	822	31	16	27.4	1,630
July	864	34	22	27.9	1,710
August	572	27	12	18.5	1,130
September	436	27	10	14.5	865
The period					7,780

North Farmington ditch wasteway at Farmington, N. Mex.

Location.- Staff gage, lat. 36°43'05", long. 108°12'35", in E½NW¼ sec. 21, T. 29 N., R. 13 W., 100 feet upstream from point where wasteway enters Animas River and 0.7 mile south of Farmington.
Records available.- May to September 1938 (discontinued), discharge measurements only.
Remarks.- Wasteway diverts from left bank of North Farmington ditch. Discharge represents unused irrigation water in ditch returned to Animas River.

Discharge measurements, in second-feet, May to September, 1938

May 4	1.24	June 15	0.77	July 15	1.84	Aug. 12	0.36	Sept. 3	0.66
13	.87	17	1.77	18	.44	13	.32	14	1.79
18	1.15	22	2.78	21	.16	15	.89	17	.67
27	.27	27	1.51	25	.23	20	1.68	24	.55
June 3	2.09	July 2	1.18	28	.28	20	.53	29	1.08
8	1.60	6	.94	Aug. 1	.02	22	.41		
10	.41	9	1.95	8	.74	27	.06		

Peninsula wasteway near Farmington, N. Mex.

Location.- Water-stage recorder, lat. 36°43'35", long. 108°11'30", in NE¼SW¼ sec. 15, T. 29 N., R. 13 W., about 150 feet upstream from point where wasteway enters Animas River and 1.1 mile east of Farmington.
Records available.- June to September 1938 (discontinued).
Extremes.- Maximum discharge during period, 17 second-feet Sept. 1 (gage height, 1.49 feet), from rating curve extended above 6 second-feet on basis of velocity-area studies; minimum daily discharge, 0.4 second-foot July 28, 29, Aug. 8.
Remarks.- Records fair. Flow represents unused water from irrigation on the peninsula returned to Animas River.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	-	1.6	1.7	11
2								-	-	3.6	1.5	9.8
3								-	-	.5	1.0	4.4
4								-	-	1.0	.6	1.3
5								-	-	.8	.7	2.6
6								-	-	1.1	1.1	2.3
7								-	-	1.5	.6	3.2
8								-	-	1.5	.4	3.6
9								-	-	1.4	2.5	1.4
10								-	*1.9	1.5	4.2	1.0
11								-	-	1.0	2.8	1.3
12								-	-	1.8	.7	2.2
13								-	-	2.3	.9	.8
14								-	-	1.3	1.7	.7
15								-	-	2.0	2.5	.8
16								-	-	2.2	2.2	1.6
17								*3.3	-	2.2	2.7	1.2
18								-	*5.8	3.9	1.7	1.0
19								-	-	3.8	2.0	1.8
20								-	-	5.2	4.0	2.2
21								-	-	3.3	2.0	2.7
22								-	-	1.1	.7	3.9
23								-	-	.7	1.0	3.9
24								*3.2	-	.6	1.6	2.4
25								-	*.9	1.2	.6	1.6
26								-	-	1.0	.7	1.0
27								-	-	.5	1.0	1.0
28								-	-	.4	1.8	1.5
29								-	3.6	.4	1.7	.7
30								-	1.9	1.0	1.5	.9
31								-	-	2.2	2.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May					
June					
July	52.6	5.2	0.4	1.70	104
August	50.4	4.2	.4	1.63	100
September	73.8	11	.7	2.46	146
The period					350

*Discharge measurement.

Ralston ditch near Cedar Hill, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°58'55", long. 107°52'10", in NW¼SE¼ sec. 15, T. 32 N., R. 10 W., 1.3 miles downstream from Colorado-New Mexico State line and 3.5 miles north of village of Cedar Hill.

Records available.- May to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 13 second-feet May 26, 28, 29; no flow May 1-12, 22-24, Sept. 7.

Remarks.- Records good. Discharge for Apr. 1 computed on basis of engineers' notes. Ditch diverts from left bank of Animas River above Colorado-New Mexico State line and water is used for irrigation above Cedar Hill.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0	12	10	7.6	11
2								0	12	9.8	6.2	10
3								0	12	9.3	5.4	8.4
4								0	12	9.8	4.7	7.2
5								0	12	12	3.8	6.7
6								0	12	12	3.2	5.7
7								0	12	12	2.6	0
8								0	11	12	3.7	2.2
9								0	11	11	8.9	7.4
10								0	11	11	10	7.0
11								0	11	11	8.4	7.6
12								0	11	11	8.1	7.6
13								1.7	11	11	9.3	7.4
14								2.0	12	11	9.8	7.4
15								12	11	12	9.3	7.2
16								12	11	11	8.9	7.0
17								12	11	11	8.9	6.9
18								12	11	11	9.5	6.9
19								12	11	11	9.7	6.7
20								11	11	10	8.1	6.9
21								5.5	11	9.7	4.5	6.7
22								0	10	9.7	2.9	6.9
23								0	8.9	9.3	1.9	6.4
24								0	7.0	7.6	5.1	5.7
25								2.0	7.0	6.4	7.4	5.4
26								13	7.7	5.7	7.0	5.1
27								12	8.6	6.4	6.4	5.7
28								13	11	6.9	6.2	5.7
29								13	11	10	6.1	5.9
30								12	9.4	10	6.2	5.6
31								12	-	8.9	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May	157.2	13	0	5.07	312
June	319.6	12	7.0	10.7	634
July	311.5	12	5.7	10.0	618
August	209.8	10	1.9	6.77	416
September	196.3	11	0	6.54	389
The period					2,370

153585 O—39——13

Sargent ditch near Cedar Hill, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°53'15", long. 107°56'50", in W½NW¼ sec. 24, T. 31 N., R. 11 W., 0.7 mile downstream from head and 4.8 miles southwest of Cedar Hill.

Records available.- Maximum daily discharge during period, 5.9 second-feet May 13 (gage height, 0.80 foot); no flow on many days or parts of days.

Remarks.- Records good. Ditch diverts from right bank of Animas River 4.2 miles below Cedar Hill and water is used for irrigation near Aztec.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	0	4.2	0	1.8	0
2							-	0	4.4	.1	2.8	0
3							-	0	3.6	.2	3.0	0
4							-	1.7	5.2	0	2.8	0
5							-	3.5	4.6	0	1.7	0
6							-	1.8	3.5	.3	2.5	0
7							-	3.8	2.2	.8	3.4	0
8							-	3.9	1.2	1.1	3.8	0
9							-	4.6	1.4	0	4.1	0
10							-	4.2	2.3	1.2	4.8	0
11							-	4.0	3.8	1.1	4.6	0
12							-	4.6	3.3	2.6	4.1	0
13							-	5.9	2.6	3.2	4.1	0
14							-	5.7	2.3	2.8	.6	0
15							-	.9	1.1	3.0	.4	0
16							-	.1	1.2	3.8	1.4	0
17							-	1.0	1.0	3.8	3.2	0
18							0	0	1.1	2.6	0	0
19							0	2.1	1.2	2.1	1.2	0
20							0	3.8	.8	3.3	4.0	0
21							0	4.1	1.6	3.3	3.5	0
22							0	4.2	.8	4.0	3.5	0
23							0	4.5	0	3.4	4.5	0
24							0	5.4	0	1.0	3.9	0
25							0	5.5	0	.4	3.6	0
26							0	2.4	0	1.2	4.6	0
27							0	0	0	.1	4.5	0
28							0	1.0	0	.3	4.2	0
29							0	3.4	0	1.3	3.7	0
30							.7	2.4	0	.6	2.6	.5
31							-	2.1	-	1.5	2.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 18-30	0.7	0.7	0	0.05	1.4
May	86.6	5.9	0	2.79	172
June	53.4	5.2	0	1.78	106
July	49.1	4.0	0	1.58	97
August	94.9	4.8	0	3.06	188
September	.5	.5	0	.02	1.0
The period					565

Stacey ditch at Cedar Hill, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°56'05", long. 107°53'45", in NE¼NE¼ sec. 5, T. 31 N., R. 10 W., 0.6 mile downstream from head and 0.6 mile west of village of Cedar Hill.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge period, 21 second-feet May 29, June 4; no flow Apr. 11-24.

Remarks.- Records good. Ditch diverts from right bank of Animas River 0.2 mile south of Cedar Hill and water is used for irrigation below Cedar Hill.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	20	10	9.6	16	10
2							-	18	14	5.0	15	18
3							-	18	15	6.6	15	18
4							-	18	21	8.4	15	19
5							-	18	20	6.8	16	10
6							-	18	19	6.4	16	18
7							-	19	14	5.1	15	17
8							-	19	8.5	4.8	16	16
9							-	10	3.2	10	17	17
10							-	18	6.6	11	17	16
11							0	10	12	12	17	17
12							0	18	13	12	16	16
13							0	18	15	12	17	16
14							0	19	15	12	18	16
15							0	20	14	12	18	16
16							0	20	15	13	10	16
17							0	20	14	13	18	16
18							0	18	13	14	18	16
19							0	17	12	13	17	16
20							0	18	12	13	17	16
21							0	19	12	12	16	15
22							0	19	15	12	15	15
23							0	20	12	12	14	16
24							0	20	10	5.7	13	16
25							3.5	20	8.2	2.3	13	15
26							14	20	8.4	4.1	12	15
27							11	20	9.5	1.6	12	14
28							17	20	12	5.8	12	14
29							19	21	11	16	11	14
30							20	20	16	16	11	14
31							-	19	-	16	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 11-30	84.5	20	0	4.22	168
May	588	21	17	19.0	1,170
June	388.4	21	3.2	12.9	770
July	305.2	18	1.6	9.85	605
August	476	10	11	15.4	944
September	484	19	14	16.1	960
The period					4,620

Stacey ditch wasteway near Cedar Hill, N. Mex.

Location.- Water-stage recorder, lat. 36°53'50", long. 107°56'30", in NE¼SW¼ sec. 13, T. 31 N., R. 11 W., about 1,300 feet downstream from waste gates on Stacey ditch and 4.1 miles southwest of village of Cedar Hill.

Records available.- May to September 1938 (discontinued).

Extremes.- Maximum discharge during period, 8.1 second-feet May 16; no flow June 10, July 27, Sept. 2-4, 6.

Remarks.- Records good. Wasteway diverts from left bank of Stacey ditch 4.1 miles below Cedar Hill and water wastes into Animas River.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	1.2	2.8	0.9	0.1
2								-	.6	1.1	1.0	0
3								-	.2	.8	.9	0
4								-	.2	1.4	1.5	0
5								-	.3	1.0	.9	.6
6								-	1.0	1.0	1.6	0
7								-	.7	.8	2.0	.1
8								-	.9	.8	1.8	.4
9								-	.2	.8	.2	.4
10								-	0	.8	1.2	.4
11								5.9	.7	.6	1.2	.5
12								2.1	1.3	.2	.1	1.0
13								1.7	2.1	.2	.4	.8
14								1.2	2.0	.2	1.2	.4
15								3.0	1.8	.2	2.7	.4
16								4.2	1.3	.5	1.3	.4
17								2.6	.8	.6	1.5	.3
18								2.1	.6	.4	1.3	.3
19								1.8	.2	.7	1.9	.3
20								2.2	.4	1.0	1.8	.3
21								2.3	.7	.9	1.7	.2
22								2.3	1.0	.4	1.5	.2
23								2.2	.8	.2	1.1	.2
24								2.4	.4	.2	.6	.2
25								2.0	.2	.1	.2	.2
26								2.1	.2	.1	.2	.2
27								2.0	.2	0	.2	.2
28								2.1	.3	.1	.1	.2
29								2.1	1.1	.7	.2	.1
30								1.8	3.1	.3	.1	.1
31								1.5	-	.7	.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May 11-31	49.6	5.9	1.2	2.36	98
June	24.5	3.1	0	.82	49
July	18.4	2.8	0	.59	36
August	31.9	2.7	.1	1.03	63
September	8.5	1.0	0	.28	17
The period					263

Starr ditch near Farmington, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°46'10", long. 108°07'50", in NE¼SE¼ sec. 31, T. 30 N., R. 12 W., 1,000 feet downstream from head and 5.4 miles northeast of Farmington.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 48 second-feet June 23 (gage height, 1.88 feet); minimum daily, 0.7 second-foot Sept. 9.

Remarks.- Records excellent. Ditch diverts from right bank of Animas River about 5½ miles above Farmington and water is used for irrigation near Farmington.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	11	17	33	13	16
2							-	11	16	27	13	18
3							-	15	15	25	12	20
4							-	18	18	24	11	14
5							-	16	17	22	11	14
6							-	17	17	20	9.3	11
7							7.5	18	16	18	7.2	6.8
8							7.5	17	15	16	7.2	2.8
9							7.5	16	14	17	12	.7
10							8.0	15	15	18	10	5.7
11							8.5	17	15	16	9.0	9.8
12							11	19	15	16	8.2	20
13							12	19	16	20	9.5	16
14							12	19	16	21	19	14
15							9.8	19	16	21	18	12
16							8.2	20	17	20	15	11
17							8.2	19	16	18	11	8.5
18							9.0	19	16	18	9.5	6.3
19							9.5	19	15	16	7.8	4.4
20							9.3	18	14	14	5.6	3.7
21							9.5	18	15	12	4.0	7.2
22							9.5	20	31	12	3.2	9.5
23							8.2	21	48	10	2.8	7.8
24							5.1	21	44	8.5	2.8	6.0
25							6.3	20	39	7.8	2.2	5.4
26							4.9	15	38	12	3.0	4.7
27							3.2	1.5	37	18	5.4	3.9
28							2.7	1.0	35	19	12	3.5
29							2.8	9.4	34	19	13	2.8
30							7.9	15	45	17	10	2.2
31							-	17	-	15	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 7-30	188.1	12	2.7	7.84	373
May	500.9	21	1.0	16.2	994
June	682	48	14	22.7	1,350
July	550.3	33	7.8	17.8	1,090
August	290.7	19	2.2	9.38	577
September	267.7	20	.7	8.92	531
The period					4,920

Tarrell ditch at Flora Vista, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°47'15", long. 108°05'15", in SE¼NW¼ sec. 27, T. 30 N., R. 12 W., 2,100 feet downstream from head and 0.7 mile southwest of Flora Vista.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 9.2 second-feet May 25, 26; maximum daily gage height, 1.48 feet May 25; no flow Apr. 28 to May 5, Sept. 4-30.

Remarks.- Records fair. Ditch diverts from left bank of Animas River and water is used for irrigation near Flora Vista.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	0	4.3	3.4	1.5	6.3
2							-	0	5.3	2.9	2.4	5.0
3							-	0	5.5	3.4	2.7	3.0
4							-	0	7.0	3.3	2.6	0
5							-	0	5.9	3.0	2.5	0
6							-	1.5	5.6	2.6	2.2	0
7							-	2.4	5.1	2.4	1.0	0
8							-	2.0	3.6	1.9	1.9	0
9							-	2.0	3.1	3.1	3.7	0
10							-	1.8	5.4	3.8	3.1	0
11							-	1.7	4.7	3.6	2.7	0
12							7.6	2.2	4.6	3.2	2.6	0
13							7.7	3.0	5.4	3.1	2.9	0
14							7.9	4.8	6.2	3.4	4.5	0
15							7.5	6.9	4.1	3.7	4.5	0
16							6.8	6.5	4.2	5.2	3.2	0
17							6.9	6.9	4.3	4.2	2.0	0
18							7.9	7.7	4.9	4.2	2.4	0
19							8.3	8.9	4.7	3.6	4.0	0
20							8.4	7.9	4.2	3.2	4.5	0
21							7.9	6.7	5.0	2.6	4.0	0
22							6.7	7.5	7.6	2.2	3.4	0
23							6.4	7.6	6.2	2.0	2.6	0
24							2.9	7.7	5.2	1.6	2.5	0
25							.2	9.2	4.0	1.0	2.5	0
26							0	9.2	4.1	.8	2.4	0
27							0	8.6	3.8	.8	2.2	0
28							0	6.8	3.2	1.0	2.3	0
29							0	7.0	4.2	2.0	2.4	0
30							0	4.7	7.3	1.8	2.0	0
31							-	3.7	-	1.0	3.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 12-30	93.1	8.4	0	4.90	185
May	144.9	9.2	0	4.67	287
June	148.7	7.6	3.1	4.96	295
July	85.1	5.2	.8	2.75	169
August	87.9	4.5	1.5	2.84	174
September	14.3	6.3	0	.48	28
The period					1,140

Twin Rock ditch near Cedar Hill, N. Mex.

Location.- Water-stage recorder and wooden control, lat. 37°00'00", long. 107°52'20", in W½ sec. 10, T. 32 N., R. 10 W., about 30 feet downstream from Colorado-New Mexico State line and 4.5 miles north of village of Cedar Hill.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 14 second-feet May 14; no flow Apr. 1-29, Aug. 9.

Remarks.- Records fair. Ditch diverts from right bank of Animas River in Colorado and water is used for irrigation above Cedar Hill. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	6.9	12	9.8	8.7	9.4
2							0	5.2	12	8.7	8.3	10
3							0	4.6	12	10	8.2	9.8
4							0	6.3	12	12	8.4	9.5
5							0	8.8	12	12	9.0	4.7
6							0	13	12	12	8.9	2.3
7							0	12	12	12	8.9	3.8
8							0	12	9.4	12	7.8	5.8
9							0	11	8.7	12	0	4.3
10							0	11	13	12	1.5	1.3
11							0	11	12	12	8.4	5.9
12							0	12	12	12	8.2	4.1
13							0	13	13	12	8.6	.2
14							0	14	13	12	8.9	2.1
15							0	12	12	12	8.7	4.4
16							0	12	12	11	8.6	.7
17							0	9.0	12	11	8.6	3.9
18							0	9.7	13	11	8.5	6.1
19							0	13	13	10	8.8	4.9
20							0	12	12	10	8.3	4.1
21							0	11	11	10	7.8	3.5
22							0	12	10	10	3.6	2.8
23							0	12	10	9.8	4.4	5.4
24							0	12	10	9.4	8.0	8.4
25							0	12	10	9.0	7.9	8.4
26							0	13	9.8	8.9	7.8	5.4
27							0	13	9.8	9.7	7.7	3.0
28							0	13	7.7	9.4	7.5	2.8
29							0	12	5.7	7.7	7.5	3.1
30							3.4	11	10	9.2	7.6	2.6
31							-	10	-	8.9	8.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	3.4	3.4	0	0.11	6.7
May	339.5	14	4.6	11.0	673
June	333.1	13	5.7	11.1	661
July	327.5	12	7.7	10.6	650
August	233.6	9.0	0	7.54	463
September	142.7	10	.2	4.76	283
The period					2,740

Wright-Leggett ditch wasteway near Farmington, N. Mex.

Location.- Water-stage recorder, lat. 36°44'10", long. 108°11'05", in NE¼NE¼ sec. 15, T. 29 N., R. 13 W., 50 feet downstream from waste gates on Wright-Leggett ditch and 1.5 miles northeast of Farmington.

Records available.- July to September 1938 (discontinued).

Extremes.- Maximum discharge during period, about 28 second-feet Sept. 12 (gage height, 1.56 feet), from rating curve extended above 13 second-feet on basis of velocity-area studies; minimum daily discharge, 0.8 second-foot July 26, Aug. 22, 23, 25, 26.

Remarks.- Records good. Wasteway diverts from Wright-Leggett ditch about 1½ miles above Farmington. Flow represents unused irrigation water from ditch returned to Animas River.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1										-	2.1	11
2										-	1.9	15
3										-	2.1	15
4										-	2.2	3.8
5										-	2.3	4.6
6										-	1.6	9.4
7										-	1.0	8.6
8										-	1.5	6.5
9										-	8.6	3.3
10										-	6.8	3.6
11										-	5.5	7.9
12										-	3.8	24
13										-	2.3	17
14										-	9.0	11
15										-	11	6.8
16										5.8	11	4.6
17										5.5	5.8	4.0
18										5.5	3.8	3.3
19										4.0	1.8	2.3
20										2.2	1.0	2.1
21										1.5	.9	1.9
22										1.2	.8	2.8
23										1.0	.8	2.3
24										1.3	.9	2.1
25										.9	.8	1.9
26										.8	.8	1.9
27										2.2	.9	1.7
28										4.0	1.8	1.3
29										4.0	2.1	1.5
30										2.6	2.1	1.5
31										1.9	2.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May					
June					
July 16-31	44.4	5.8	0.8	2.78	88
August	99.6	11	.8	3.21	198
September	182.7	24	1.3	6.09	362
The period					648

Mineral Creek near Silverton, Colo.

Location.- Water-stage recorder, lat. 37°48'50", long. 107°41'45", in sec. 13, T. 41 N., R. 8 W., 300 feet upstream from Bear Creek and 2 miles west of Silverton.

Drainage area.- 43.9 square miles.

Records available.- May 1936 to September 1938.

Extremes.- Maximum discharge during year, 1,700 second-feet June 29 (gage height, 4.69 feet); minimum occurred during period of no record.
1936-38: Maximum discharge, that of June 29, 1938; minimum occurred during period of no record.
Greatest flood known occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records good except those for periods of missing gage heights and of ice effect, which are fair. No diversions above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	*29					*18	*115	653	621	149	88
2	36	*29					*18	106	628	560	*130	105
3	37	*30					*17	92	766	548	*120	111
4	37	*32					17	79	746	525	*112	114
5	34	*33					16	70	746	459	108	88
6	32	*30					16	62	666	425	105	75
7	30	*27					15	55	501	393	102	72
8	29	*25					15	51	420	384	102	70
9	28	*20					17	50	434	375	111	63
10	27	*18					20	*50	469	344	99	88
11	27	*17					24	*58	425	320	90	213
12	27	*20					*24	*75	560	316	88	209
13	25	23					*33	*115	719	312	108	172
14	26	20					*31	*180	454	324	105	130
15	33	19					*30	236	454	328	85	108
16	32	19					*34	231	501	316	75	90
17	30	19					*40	198	584	300	68	78
18	31	19					*60	160	640	284	63	70
19	28	18					*78	143	542	260	59	61
20	28	20					*90	126	596	236	56	63
21	28	20					*96	134	1,210	205	52	52
22	29	18					*105	146	975	186	50	50
23	30	16					*115	143	780	172	50	50
24	30	17					*120	186	666	169	50	46
25	31	16					*125	250	800	155	48	44
26	31	15					*115	342	786	*160	52	42
27	32	15					*105	440	674	*170	50	40
28	*31	†15					*110	554	590	*165	48	40
29	*30	†15					*120	686	1,240	159	54	38
30	*30	†15					*135	640	821	152	68	37
31	*29	-					-	679	-	146	65	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	945	37	25	30.5	1,870
November	629	33	15	21.0	1,250
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	1,759	135	15	58.6	3,490
May	6,452	686	50	208	12,800
June	20,045	1,240	420	668	39,760
July	9,469	621	146	305	18,780
August	2,522	149	48	81.4	5,000
September	2,507	213	37	83.6	4,970
Water year					

Peak discharge.- May 29 (6 p.m.) 842 sec.-ft.; June 3 (6 p.m.) 1,040 sec.-ft.; June 12 (7 p.m.) 905 sec.-ft.; June 17 (8 p.m.) 877 sec.-ft.; June 21 (6 p.m.) 1,450 sec.-ft.; June 29 (2 p.m.) 1,700 sec.-ft.

*Gage height missing; discharge computed on basis of records for stations on nearby streams.

†Stage-discharge relation affected by ice; discharge computed on basis of records for stations on nearby streams.

Cascade Creek near Tacoma, Colo.

Location.- Staff gage, lat. 37°40', long. 107°49', in sec. 11, T. 39 N., R. 9 W., at crossing of U. S. Highway 550, 10 miles north of Tacoma.

Drainage area.- 26.8 square miles.

Records available.- October 1934 to September 1938 in reports of Geological Survey. October 1928 to September 1938 in reports of State engineer. January 1915 to September 1926 in files of office of State engineer.

Average discharge.- 24 years, 52.3 second-feet.

Remarks.- Complete records furnished by Western Colorado Power Co. No diversions above station. Flow in flume is combined with flow over diversion dam to get total flow in creek. Staff-gage read twice daily.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	11	4.2	4.2	4.2	4.4	5.1	116	339	242	44	60
2	17	12	4.8	4.2	4.2	4.2	5.5	83	287	179	42	56
3	15	11	5.0	4.2	4.2	4.2	5.5	60	516	163	42	53
4	14	12	4.2	4.2	4.2	4.2	5.9	53	461	140	50	50
5	12	11	4.4	4.2	4.2	3.7	5.9	42	461	99	42	39
6	12	11	5.0	4.2	4.2	3.3	5.5	39	364	138	44	36
7	13	11	4.8	4.2	4.2	4.2	5.5	36	292	145	36	39
8	12	11	4.2	4.2	4.2	3.7	5.5	31	247	156	33	36
9	13	9.7	4.4	4.2	3.7	3.7	6.3	26	247	137	39	33
10	12	9.9	4.4	4.2	3.7	3.7	7.5	26	239	137	36	33
11	11	6.8	5.0	4.2	3.7	3.7	9.3	28	216	96	33	80
12	11	8.7	5.0	4.2	4.0	3.7	10	37	313	91	39	115
13	11	9.0	4.4	4.2	4.2	4.0	16	65	352	74	60	95
14	11	8.8	4.2	4.2	4.2	4.2	13	129	248	87	42	72
15	18	7.2	4.4	4.2	4.2	4.4	12	172	257	81	33	53
16	17	5.7	4.4	4.2	4.2	4.2	12	157	270	44	31	50
17	16	6.3	4.4	4.2	4.2	4.4	26	141	285	79	26	39
18	16	6.8	4.4	4.2	4.2	4.2	24	124	257	74	26	42
19	12	8.0	4.2	4.2	4.2	4.7	16	99	223	66	22	39
20	12	8.0	4.2	4.2	4.0	5.5	44	83	250	66	22	39
21	11	7.1	4.2	4.2	4.2	6.7	54	83	332	59	22	20
22	12	7.7	4.2	4.2	4.2	6.7	46	103	288	51	22	31
23	13	6.6	3.3	4.2	4.2	7.1	121	124	268	48	22	28
24	13	7.5	4.4	4.2	4.0	8.9	90	153	251	56	20	26
25	13	5.8	4.2	4.2	4.2	9.8	98	247	236	60	20	24
26	13	6.1	4.2	4.2	4.0	11	90	300	266	50	20	24
27	13	7.5	4.4	4.2	4.0	9.3	76	339	224	59	20	22
28	13	5.3	3.3	4.2	4.2	8.4	83	377	205	62	20	22
29	14	5.7	3.3	4.2	-	5.5	137	395	354	66	22	20
30	14	5.9	2.7	4.2	-	5.5	116	364	330	56	22	20
31	13	-	3.3	4.2	-	5.5	-	377	-	53	24	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	419	22	11	13.5	831
November	250.1	12	5.3	8.34	496
December	131.5	5.0	2.7	4.24	261
Calendar year 1937	16,527.2	512	2.7	45.3	32,790
January	130.2	4.2	4.2	4.20	258
February	115.1	4.2	3.7	4.11	228
March	166.7	11	3.3	5.38	331
April	1,151.5	137	5.1	38.4	2,280
May	4,409	395	26	142	8,750
June	8,878	516	205	296	17,610
July	2,914	242	44	94.0	5,780
August	976	60	20	31.5	1,940
September	1,296	115	20	43.2	2,570
Water year 1937-38	20,837.1	516	2.7	57.1	41,340

Lightner Creek near Durango, Colo.

Location.- Water-stage recorder, lat. 37°16', long. 107°55', in sec. 26, T. 35 N., R. 10 W., 3 miles west of Durango.

Drainage area.- 64 square miles.

Records available.- October 1933 to September 1938 in reports of Geological Survey. June 1927 to September 1938 in reports of State engineer.

Average discharge.- 11 years, 21.1 second-feet.

Extremes.- Maximum discharge during year, 374 second-feet Apr. 19 (gage height, 2.23 feet); minimum discharge not determined.

1927-38: Maximum discharge, 1,830 second-feet June 26, 1937 (gage height, 5.00 feet from floodmarks), by slope-area method; minimum daily discharge, 1 second-foot at times during period 1930-31, 1933-35.

Remarks.- Records fair except those for period of ice effect, Nov. 27 to Feb. 28, which were estimated and are poor. No regulation or diversion.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.2	4.4				4.4	40	179	72	28	4.6	5.3
2	3.9	3.9				5.6	40	142	72	24	4.2	5.1
3	3.7	3.9				25	62	109	72	19	4.2	4.6
4	3.5	3.7				23	118	91	65	16	4.2	4.6
5	3.0	3.5				13	142	88	56	13	3.9	13
6	3.0	3.2				12	118	78	51	9.8	3.7	15
7	3.0	3.0				9.0	94	70	46	7.2	3.7	8.2
8	3.0	2.8				7.5	97	60	41	7.2	3.5	6.6
9	3.0	2.8				6.9	139	56	34	7.2	4.2	6.6
10	3.0	3.2				6.9	172	57	34	6.6	3.9	13
11	3.2	3.2				11	202	60	30	5.6	3.9	10
12	3.5	2.8				16	216	70	28	4.8	3.9	8.2
13	3.7	2.8				27	216	80	27	6.6	4.6	8.2
14	3.9	2.8				24	175	121	25	5.6	3.5	8.2
15	4.2	2.6				20	133	124	25	4.4	3.5	8.2
16	5.1	2.8				34	139	139	25	3.7	3.5	8.2
17	4.8	3.2				34	182	109	24	3.7	3.9	7.5
18	4.2	3.0				27	250	88	22	3.7	3.5	7.2
19	4.2	3.2				36	313	75	21	3.9	3.5	5.9
20	4.4	3.0				54	309	62	30	3.9	3.5	5.6
21	4.6	3.0				40	291	59	30	4.2	3.5	5.6
22	4.6	2.8				34	295	65	29	3.9	3.5	5.6
23	4.6	2.6				54	313	70	25	3.7	3.5	5.6
24	4.4	3.0				118	306	78	24	3.2	3.5	5.6
25	4.2	3.0				148	284	83	22	3.2	3.5	5.1
26	4.4	3.2				158	250	91	18	3.5	3.5	5.1
27	4.6	3.0				121	199	91	17	4.2	3.5	5.1
28	4.6	3.0				94	199	100	19	6.9	3.5	5.1
29	4.8	3.0				83	216	100	48	6.6	3.5	5.1
30	4.6	3.0				49	216	83	41	5.3	3.5	5.1
31	4.6	-				44	-	78	-	4.6	3.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	124.5	5.1	3.0	4.02	247
November	93.4	4.4	2.6	3.11	185
December	93	-	-	3.0	184
Calendar year 1937	11,602.5	441	1.2	31.8	23,020
January	93	-	-	3.0	184
February	84	-	-	3.0	167
March	1,339.3	158	4.4	43.2	2,660
April	5,726	313	40	191	11,360
May	2,766	179	56	889	5,470
June	1,073	72	17	35.8	2,130
July	233.2	28	3.2	7.52	463
August	115.9	4.6	3.5	3.74	230
September	212.2	15	4.6	7.07	421
Water year 1937-38	11,943.5	313	-	32.7	23,700

Peak discharge.- Apr. 19 (11 p.m.) 374 sec.-ft.; June 20 (5 p.m.) 320 sec.-ft.; Sept. 5 (3 p.m.) 364 sec.-ft.

Florida River near Durango, Colo.

Location.- Water-stage recorder, lat. 37°20', long. 107°45', in sec. 4, T. 35 N., R. 8 W., just downstream from Red Creek and 10½ miles northeast of Durango. Zero of gage is 7,303.58 feet above mean sea level (general adjustment of 1929).

Drainage area.- 96 square miles.

Records available.- May to July 1899, April 1901 to October 1903, September 1910 to September 1912, and October 1933 to September 1938 in reports of Geological Survey. May to July 1899, April 1901 to October 1903, September 1910 to September 1924, and April 1927 to September 1938 in reports of State engineer. During period of record, station has been located at several different sites in this vicinity; all records equivalent.

Average discharge.- 20 years (1910-12, 1917-24, 1927-38), 128 second-feet.

Extremes.- Maximum discharge during year, 1,170 second-feet May 28 (gage height, 3.86 feet); minimum discharge observed, 4.2 second-feet Jan. 10 (discharge measurement), probably less during period of ice effect.

1899, 1901-3, 1910-24, 1927-38: Maximum discharge observed, 4,640 second-feet June 28, 1927 (gage height, 4.50 feet, former site and datum); minimum daily discharge 0.4 second-foot Feb. 15, 1918.

Greatest flood known occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records good except those for period of ice effect, Nov. 25 to Mar. 6, which were computed on basis of two discharge measurements and weather records and are fair. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	23				8	31	448	743	415	46	88
2	30	22				10	28	338	663	349	37	253
3	30	20				15	36	288	820	294	37	222
4	31	18				40	53	243	840	260	33	229
5	28	17				25	77	209	781	222	41	190
6	26	16				15	75	193	743	196	36	162
7	25	20				20	65	174	623	168	32	196
8	26	17				15	63	151	557	154	31	190
9	26	16				15	77	140	513	137	31	148
10	20	17		*4.2		13	102	137	526	123	31	162
11	18	16				14	127	135	508	105	33	452
12	18	14				18	159	143	579	118	47	353
13	18	14				20	162	177	623	145	94	253
14	18	14				18	159	309	535	157	90	187
15	27	15				17	125	517	579	127	63	157
16	30	13				21	130	543	579	109	51	135
17	25	14				24	168	436	587	94	44	123
18	24	13				22	246	349	565	84	39	100
19	22	12				26	320	309	482	81	32	90
20	24	14	*9.6			33	342	266	474	81	29	81
21	25	12				39	361	270	681	77	26	73
22	24	10				33	384	323	710	71	23	67
23	26	10				37	436	349	638	81	19	62
24	28	9				46	491	411	526	68	21	57
25	26	9				62	504	504	478	62	20	53
26	27	9				68	452	681	436	57	18	44
27	28	9				54	364	781	411	65	18	42
28	27	9				49	400	875	392	92	17	39
29	27	9				44	474	955	700	71	21	39
30	27	9				38	513	890	561	63	30	37
31	25	-				30	-	825	-	54	39	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	787	31	18	25.4	1,560
November	420	23	9	14.0	833
December	279	-	-	9	553
Calendar year 1937	39,600	706	-	108	78,560
January	217	-	-	7	430
February	252	-	-	9	500
March	889	68	8	28.7	1,760
April	6,924	513	28	231	13,730
May	12,369	955	135	399	24,550
June	17,851	840	392	595	35,410
July	4,180	415	54	135	8,290
August	1,129	94	17	36.4	2,240
September	4,284	452	37	143	8,500
Water year 1937-38	49,581	955	-	136	98,340

Peak discharge.- May 28 (10 p.m.) 1,170 sec.-ft.; May 29 (10 p.m.) 1,090 sec.-ft.; June 3 (10 p.m.) 1,110 sec.-ft.

*Discharge measurement.

La Plata River at Hesperus, Colo.

Location.- Water-stage recorder, lat. 37°17', long. 108°02', in sec. 14, T. 35 N., R. 11 W., an eighth of a mile west of Hesperus.

Drainage area.- 37 square miles.

Records available.- June to August 1904, April to August 1906, August to December 1910, and October 1933 to September 1938 in reports of Geological Survey. June to August 1904, April to August 1906, August to December 1910, and May 1917 to September 1938 in reports of State engineer.

Average discharge.- 21 years (1917-38), 48.5 second-feet.

Extremes.- Maximum discharge during year, 658 second-feet May 30 (gage height, 2.92 feet); minimum daily discharge, 1.9 second-feet Jan. 10.

1904, 1906, 1910, 1917-38: Maximum discharge, 1,460 second-feet June 28, 1927 (gage height, 4.60 feet, former datum); no flow Apr. 4, 1906.

Greatest flood known occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records good except those for period of ice effect, Nov. 28 to Mar. 25, which were computed on basis of six discharge measurements and weather records and are fair. One diversion for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.6	4.4	2.7	2.0	3.3	4.0	9.2	272	341	104	20	12
2	9.5	4.0	2.8	2.0	3.3	4.4	9.8	177	304	85	18	14
3	12	4.0	2.9	2.0	3.2	4.6	10	130	410	78	18	24
4	13	3.6	3.5	2.0	3.2	6.0	10	100	328	72	16	30
5	12	3.6	3.5	2.0	3.2	4.9	10	78	264	65	15	29
6	11	3.2	4.0	2.0	3.2	4.6	10	75	229	53	17	28
7	10	3.2	4.1	2.0	3.2	4.9	10	67	202	45	18	35
8	9.8	3.4	4.1	2.0	3.2	4.7	11	62	181	42	17	37
9	9.5	3.4	4.1	2.0	3.2	4.5	14	59	170	37	17	30
10	9.2	3.2	4.1	1.9	3.2	4.3	23	59	150	35	15	32
11	8.6	3.2	4.0	2.0	3.2	4.5	54	64	104	34	16	67
12	8.0	3.0	4.0	2.2	6.0	4.9	128	80	107	38	15	69
13	8.0	2.9	4.0	2.2	8.0	5.2	128	124	123	47	16	55
14	7.7	2.9	4.0	2.4	7.0	5.4	105	286	80	53	21	44
15	9.5	2.9	3.9	2.5	5.0	5.4	85	362	90	39	22	37
16	10	2.8	3.5	2.6	4.7	5.4	88	340	99	38	22	32
17	9.5	2.8	3.0	2.7	4.5	5.6	147	250	93	38	19	30
18	9.2	2.9	2.5	2.8	4.2	5.8	277	170	87	37	17	26
19	7.7	2.9	2.4	2.9	3.9	6.0	418	138	69	32	16	23
20	7.1	2.9	2.1	3.0	3.7	5.8	390	111	61	32	15	22
21	6.8	2.9	2.0	3.1	3.7	6.0	323	114	87	34	13	21
22	6.5	2.9	2.0	3.2	3.8	6.2	350	148	104	35	12	22
23	5.9	3.0	2.0	3.4	3.8	6.2	356	184	93	35	11	21
24	5.9	2.9	2.0	3.5	3.9	6.2	491	264	90	28	12	20
25	6.2	2.9	2.0	3.5	4.0	6.5	471	367	85	24	10	19
26	4.8	2.8	2.0	3.5	4.0	6.8	312	405	80	22	9.5	18
27	4.8	2.7	2.0	3.4	4.0	6.8	206	458	85	24	8.5	17
28	4.8	2.7	2.0	3.4	4.0	6.8	259	483	96	23	8.0	16
29	4.8	2.7	2.0	3.4	-	7.4	308	388	276	21	8.0	14
30	4.8	2.7	2.0	3.4	-	8.0	317	554	166	20	8.5	14
31	4.8	-	2.0	3.3	-	8.0	-	360	-	20	8.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	250.0	13	4.8	8.06	496
November	93.4	4.4	2.7	3.11	185
December	91.2	4.1	2.0	2.94	181
Calendar year 1937	18,392.5	441	2.0	50.4	36,480
January	82.3	3.5	1.9	2.65	163
February	113.6	8.0	3.2	4.06	225
March	175.8	8.0	4.0	5.67	349
April	5,330.0	491	9.2	178	10,570
May	6,729	554	59	217	13,350
June	4,644	410	61	155	9,210
July	1,290	104	20	41.6	2,560
August	458.5	22	8.0	14.8	909
September	858	69	12	28.6	1,700
Water year 1937-38	20,115.8	554	1.9	55.1	39,900

Peak discharge.- May 27 (12 p.m.) 574 sec.-ft.; May 28 (8 p.m.) 608 sec.-ft.; May 30 (11 p.m.) 658 sec.-ft.

La Plata River at Colorado-New Mexico State line

Location.- Water-stage recorder, lat. 37°00', long. 108°11', in sec. 10, T. 32 N., R. 13 W., 300 feet south of Colorado-New Mexico State line and 3 miles north of Pendleton, N. Mex. Zero of gage is 5,975.15 feet above mean sea level (general adjustment of 1929).

Drainage area.- 331 square miles.

Records available.- October 1933 to September 1938 in reports of Geological Survey. February 1920 to September 1938 in reports of Colorado State engineer.

Average discharge.- 18 years, 37.0 second-feet.

Extremes.- Maximum discharge during year, 512 second-feet Sept. 3 (gage height, 3.10 feet); minimum daily discharge, 0.2 second-foot June 18, July 10-13, July 29 to Aug. 5.

1920-38: Maximum discharge, 4,750 second-feet Aug. 24, 1927 (gage height, 11.36 feet, present datum); no flow at times in 1922, 1924, 1928, 1930, and in each year of period 1933-37.

Remarks.- Records good except those for periods of ice effect, Dec. 11, Dec. 13 to Jan. 23, which were computed on basis of three discharge measurements and weather records and are fair. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	3.8	8.2	13	12	67	32	228	55	63	0.2	10
2	9.6	3.5	12	13	12	43	32	171	42	72	.2	5
3	7.9	3.8	12	13	12	86	32	119	81	89	.2	109
4	7.2	3.8	11	15	12	103	59	86	84	78	.2	23
5	5.9	3.8	10	22	14	47	86	59	73	67	.2	8.2
6	5.3	3.4	9.3	28	8.6	27	83	47	62	21	1.2	8.6
7	5.3	5.0	9.3	30	12	24	63	46	54	2.8	2.4	26
8	5.3	4.7	10	30	12	26	55	39	54	.5	3.8	9.3
9	5.0	4.4	10	30	12	23	52	34	76	.4	5.0	7.2
10	4.7	4.4	10	29	32	20	78	28	62	.2	5.3	40
11	5.0	4.1	11	20	47	20	98	24	39	.2	4.7	32
12	5.3	4.1	13	19	66	25	141	17	54	.2	5.9	9.6
13	5.2	4.4	13	19	23	31	186	35	60	.2	5.3	7.6
14	6.8	2.9	12	18	19	39	186	92	35	1.0	5.0	6.5
15	12	2.9	12	18	19	26	139	155	18	.8	4.7	6.8
16	11	2.8	12	18	19	27	137	155	4.4	.9	5.0	7.6
17	7.5	2.9	13	19	17	37	192	86	1.1	15	4.7	5.0
18	6.8	3.0	12	20	12	32	254	45	.2	27	3.5	4.1
19	7.2	3.2	7.0	22	14	27	366	29	.6	26	3.4	5.0
20	7.5	3.4	3.5	25	14	36	444	27	.9	26	3.8	5.6
21	5.9	3.8	3.0	24	12	54	417	27	.8	28	3.4	5.9
22	4.4	3.0	3.0	18	11	34	391	30	6.5	32	3.2	3.8
23	4.4	3.4	3.0	14	11	32	404	53	12	33	2.3	2.4
24	4.4	7.2	4.0	12	12	41	444	60	7.2	28	2.6	2.6
25	4.1	9.6	6.0	12	12	58	457	52	7.9	24	2.6	2.8
26	4.4	8.6	8.0	12	12	63	404	72	63	21	3.0	2.8
27	4.7	6.8	9.0	12	13	48	254	87	67	8.2	4.1	2.6
28	3.5	6.8	10	12	39	49	212	104	96	2.8	3.2	2.6
29	3.4	8.6	11	12	-	45	266	165	155	.2	2.9	2.8
30	3.5	9.0	12	10	-	41	232	106	116	.2	3.8	1.9
31	3.8	-	13	9.6	-	29	-	75	-	.2	3.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	193.1	16	3.4	6.23	383
November	141.1	9.6	2.8	4.70	280
December	292.3	13	3.0	9.43	580
Calendar year 1937	21,848.0	700	0	59.9	43,340
January	568.6	30	9.6	18.3	1,130
February	510.6	66	8.6	18.2	1,010
March	1,260	103	20	40.6	2,500
April	6,196	457	32	207	12,290
May	2,353	228	17	75.9	4,670
June	1,387.6	155	.2	46.3	2,750
July	668.8	89	.2	21.6	1,330
August	99.6	5.9	.2	3.21	198
September	366.3	109	1.9	12.2	727
Water year 1937-38	14,037.0	457	.2	38.5	27,860

Peak discharge.- Apr. 25 (8 p.m.) 498 sec.-ft.; Sept. 3 (2 p.m.) 512 sec.-ft.; Sept. 10 (9 p.m.) 303 sec.-ft.

La Plata River near Farmington, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 36°44'30", long. 108°14'45", in SW¼ sec. 7, T. 29 N., R. 13 W., 1,800 feet above mouth and 2½ miles northwest of Farmington.

Records available.- March to September 1938.

Extremes.- Maximum discharge during period, about 1,440 second-feet Apr. 19, from rating curve extended logarithmically above 400 second-feet; maximum gage height, 4.19 feet Sept. 1; no flow on many days or parts of days.

Remarks.- Records poor. Discharge for periods of missing or uncertain gage height record, May 2, 3, 19, June 10-16, Aug. 8, Sept. 11, 20, computed on basis of partial gage height record and weather records. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						-	54	277	4	9	0	78
2						-	32	203	1	8	0	38
3						-	22	128	0	7	0	129
4						-	29	54	0	10	0	118
5						-	46	43	1	1	0	66
6						-	64	25	0	0	0	68
7						-	60	18	0	0	0	9
8						-	54	18	0	0	45	25
9						-	30	12	0	0	3	7
10						-	32	12	*1	0	1	4
11						-	52	13	1	0	1	50
12						-	147	9	1	0	0	15
13						-	299	7	1	0	0	12
14						-	332	6	1	0	0	7
15						-	237	29	0	0	0	4
16						-	175	57	0	1	0	16
17						18	288	29	0	0	0	16
18						29	515	5	0	0	0	8
19						20	830	3	0	0	0	6
20						18	734	0	0	0	0	4
21						38	515	0	4	0	0	3
22						24	410	0	6	0	0	3
23						29	380	0	1	0	0	2
24						27	470	0	0	0	0	1
25						40	410	0	0	0	0	0
26						30	365	0	1	0	0	0
27						27	277	0	0	0	0	0
28						29	246	0	16	0	0	0
29						27	246	5	10	0	0	0
30						30	266	14	55	0	0	0
31						24	-	6	-	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March 17-31	410	40	18	27.3	813
April	7,617	830	22	254	15,110
May	973	277	0	31.4	1,930
June	104	55	0	3.5	206
July	36	10	0	1.2	71
August	50	45	0	1.6	99
September	689	129	0	23.0	1,370
The period					19,600

Peak discharge.- Apr. 19 (7 p.m.) about 1,440 sec.-ft.; Apr. 20 (10 a.m.) about 1,240 sec.-ft.; Sept. 1 (11 a.m.) 919 sec.-ft.

*Discharge measurement.

SAN JUAN RIVER BASIN

DIVERSIONS FROM LA PLATA RIVER

Cunningham ditch near La Plata, N. Mex.

Location.- Water-stage recorder and Parshall flume. lat. 36°56'55", long. 108°11'20" in NE¼NW¼ sec. 34, T. 32 N., R. 13 W., 500 feet downstream from head and 1.4 miles north of La Plata.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 25 second-feet June 29 (gage height, 2.05 feet); no flow Sept. 18-20, 25, 27.

Remarks.- Records good except those for periods of missing or partial gage-height record, Apr. 6, 17, 18, 23-26, Sept. 1-6, 11, 12, 16-19, which were computed on basis of recorded range in stage and engineers' notes and are fair. Ditch diverts from right bank of La Plata River 1.5 miles above La Plata, and water is used for irrigation near La Plata.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	5.2	11	9.0	0.8	3.2
2							-	6.8	4.6	11	.7	1.8
3							-	7.2	11	15	.6	6.5
4							-	5.8	16	13	.7	2.2
5							-	3.4	15	10	.6	7.0
6							4.1	1.4	12	4.9	.7	.5
7							4.3	1.6	9.2	2.2	.7	2.8
8							3.5	1.4	9.8	1.3	.7	2.8
9							3.0	1.2	15	1.2	.9	2.0
10							5.3	1.6	12	1.1	1.1	4.0
11							8.1	1.5	5.4	.9	.8	4.6
12							12	1.4	5.3	.8	.9	1.2
13							16	3.4	7.4	.7	.9	.5
14							17	8.7	2.6	.7	.9	.5
15							14	16	2.0	.7	1.0	1.1
16							12	17	1.8	.7	1.1	2.8
17							14	13	1.2	1.0	1.0	.2
18							16	7.2	.8	2.0	.9	0
19							20	5.9	.7	2.9	.8	0
20							18	5.6	.7	4.0	.8	0
21							16	5.9	.7	4.2	.5	.4
22							17	6.3	.9	5.1	.7	.8
23							19	10	.9	5.2	.7	.7
24							20	12	1.1	4.4	.7	.4
25							21	9.7	.9	4.3	.8	0
26							20	13	11	3.6	.7	.1
27							8.5	16	11	2.9	.7	0
28							4.4	18	18	1.6	.4	.1
29							6.0	19	25	1.2	.5	.1
30							5.2	12	18	1.1	.7	.1
31							-	12	-	.9	.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 6-30	304.4	21	3.0	12.2	604
May	249.2	19	1.2	8.04	494
June	231.0	25	.7	7.70	458
July	117.6	15	.7	3.79	233
August	23.8	1.1	.4	.77	47
September	46.4	7.0	0	1.55	92
The period					1,930

Etta Crame ditch near Farmington, N. Mex.

Location.- Staff gage, lat. 36°46'05", long. 108°13'50", in NE¼SW¼ sec. 32, T. 30 N., R. 13 W., about 1,000 feet downstream from head and 3.7 miles northwest of Farmington.
Records available.- May to September 1938 (discontinued), discharge measurements only.
Remarks.- Ditch diverts from right bank of La Plata River about 4 miles above Farmington, and water is used for irrigation on Etta Crame farm near Farmington.

Discharge measurements, in second-feet, May to September 1938

May	25	1.32	July	12	0.64	Aug.	16	0
June	2	.12		15	0		29	0
	8	.02		20	0	Sept.	14	0
	24	1.30		25	.02		21	0
July	2	.18	Aug.	1	0		27	0
	6	0		10	0			

Greenhorn ditch near La Plata, N. Mex.

Location. Water-stage recorder and Parshall flume, lat. 36°58'05", long. 108°11'30", in NE¼SW¼ sec. 22, T. 32 N., R. 13 W., about 1,500 feet downstream from head and 2.7 miles north of La Plata.
Records available.- April to September 1938 (discontinued).
Extremes.- Maximum daily discharge during period, 14 second-feet June 29 (gage height, 1.48 feet); no flow on many days or parts of days.
Remarks.- Records good except those for periods of missing gage heights, June 11, 12, Aug. 30, 31, which were computed on basis of engineers' notes and recorded range in stage and are fair. Ditch diverts from left bank of La Plata River 3.0 miles above La Plata, and water is used for irrigation above La Plata.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	1.5	8.2	8.8	0	3.0
2							-	.4	6.4	8.6	0	2.9
3							-	0	7.2	8.9	0	5.5
4							-	2.0	6.7	8.4	0	8.0
5							-	5.2	7.9	8.0	0	7.1
6							0	4.7	8.3	5.6	0	6.4
7							0	3.6	8.2	1.0	.3	6.0
8							0	2.5	7.6	.1	.8	5.2
9							0	2.0	8.3	0	1.0	4.5
10							0	.8	7.8	0	1.6	5.0
11							.2	.2	3.0	0	.9	6.3
12							.3	0	4.3	0	.6	5.1
13							0	2.4	8.5	0	.5	4.6
14							0	5.6	6.5	0	.4	4.4
15							0	8.2	4.5	0	.2	4.8
16							0	8.8	.7	0	0	5.2
17							.4	7.6	.1	2.1	0	4.7
18							0	6.2	0	4.2	0	3.2
19							0	3.8	0	3.6	0	2.1
20							0	2.5	0	3.2	.2	2.2
21							.3	2.5	0	3.3	1.0	2.4
22							.5	2.7	1.1	3.6	.3	2.0
23							.1	5.4	1.8	3.7	0	1.2
24							.3	7.3	.2	3.4	0	1.2
25							2.2	7.4	.4	3.1	0	1.5
26							3.2	8.6	8.6	2.8	0	1.4
27							.4	9.4	9.7	1.3	.1	1.4
28							.6	9.5	11	.5	.4	1.4
29							3.1	11	14	0	0	1.4
30							2.0	9.2	11	0	.1	1.2
31							-	8.4	-	0	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 6-30	13.6	3.2	0	0.54	27
May	149.4	11	0	4.82	296
June	162.0	14	0	5.40	321
July	84.2	8.9	0	2.72	167
August	8.5	1.6	0	.27	17
September	111.3	8.0	1.2	3.71	221
The period					1,050

153585 O—39——14

Highland Park ditch near La Plata, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°57'35", long. 108°11'35", in SW¼NW¼ sec. 27, T. 32 N., R. 13 W., 0.5 mile downstream from head and 2.1 miles north of La Plata.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 25 second-feet, June 29, 30; no flow on many days or parts of days.

Remarks.- Records good except those for days of missing or partial gage-height record, Sept. 18, 19, which were computed on basis of recorded range in stage and are fair. Ditch diverts from right bank of La Plata River 2.6 miles above La Plata, and water is used for irrigation near La Plata.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	20	17	23	0	1.3
2							-	16	14	23	0	1.3
3							-	11	20	24	0	8.3
4							-	11	21	24	0	10
5							-	14	20	23	0	4.9
6							0.1	9.7	19	14	.2	5.3
7							.4	15	17	2.1	1.6	7.7
8							.4	20	18	0	.9	4.6
9							0	20	22	0	.6	1.2
10							0	18	23	0	1.0	2.7
11							0	15	19	0	.9	8.1
12							8.5	12	20	0	.7	3.4
13							17	9.7	22	0	.7	2.7
14							16	20	17	0	.7	2.3
15							12	21	8.7	0	.2	3.2
16							14	19	1.2	0	0	4.5
17							15	20	0	2.0	0	3.5
18							15	15	0	6.8	0	1.8
19							17	9.5	0	7.6	0	.5
20							18	8.7	0	7.8	.3	.5
21							18	9.5	0	8.2	1.7	.6
22							19	11	2.7	9.3	.6	.6
23							20	18	6.8	9.7	0	.4
24							20	17	3.3	8.7	0	.4
25							18	15	3.0	8.4	0	.4
26							16	17	21	7.1	0	.5
27							14	19	23	4.6	.4	.5
28							13	19	24	1.3	1.8	.5
29							18	20	25	0	.6	.5
30							20	19	25	0	0	.5
31							-	17	-	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 6-30	309.4	20	0	12.4	614
May	486.1	21	8.7	15.7	964
June	412.7	25	0	13.8	819
July	214.6	24	0	6.92	426
August	12.9	1.8	0	.42	26
September	82.7	10	.4	2.76	164
The period					3,010

Hillside-Thomas ditch near La Plata, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°58'55", long. 108°11'30", in NE¼SW¼ sec. 15, T. 32 N., R. 13 W., 500 feet downstream from head and 3.8 miles north of La Plata.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 28 second-feet June 29 (gage height, 1.67 feet); no flow Apr. 12-21, June 17, Sept. 6.

Remarks.- Records good except those for day of missing gage-height, Sept. 5, which were computed on basis of engineers' notes and recorded range in stage and are fair. Ditch diverts from right bank of La Plata River, and water is used for irrigation near La Plata.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	22	19	18	0.8	1.6
2							-	18	13	19	.8	.7
3							-	16	18	23	.8	7.0
4							-	15	21	21	.8	3.8
5							-	8.5	20	19	.7	.2
6							-	10	13	8.4	.8	0
7							-	13	16	2.2	1.1	3.0
8							-	9.6	14	1.6	1.3	.4
9							-	7.8	19	1.4	1.4	1.6
10							-	5.8	16	1.3	1.8	3.8
11							-	4.3	11	1.2	1.8	4.9
12							0	2.9	15	1.3	2.0	2.0
13							0	5.1	16	1.2	2.0	1.1
14							0	16	11	1.4	2.0	.6
15							0	22	5.2	1.3	1.4	.6
16							0	22	1.2	1.3	1.2	.8
17							0	16	0	4.1	1.1	1.1
18							0	10	.9	6.6	1.0	4.2
19							0	8.2	1.3	5.6	.9	7.6
20							0	8.6	1.3	5.3	1.0	8.0
21							0	6.7	1.3	5.6	1.1	7.3
22							5.0	7.8	2.7	6.3	1.0	5.8
23							16	14	3.5	6.4	.8	5.0
24							18	19	2.9	6.8	.8	6.7
25							14	20	2.8	5.5	.9	5.5
26							13	22	15	4.6	.8	5.6
27							11	23	18	3.2	1.0	5.6
28							14	24	23	2.2	.8	6.5
29							22	24	28	1.2	.8	5.6
30							22	21	22	.8	.9	5.2
31							-	20	-	.8	1.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 12-30	135.0	22	0	7.11	268
May	441.3	24	2.9	14.2	875
June	356.1	28	0	11.9	706
July	186.6	23	.8	6.02	370
August	34.6	2.0	.7	1.12	69
September	110.7	8.0	0	3.69	220
The period					2,510

Helton ditch near La Plata, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°53'40", long. 108°11'00', in SE¼SE¼ sec. 15, T. 31 N., R. 13 W., 1.4 miles downstream from head and 2.5 miles south of La Plata.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 8.8 second-feet May 30 (gage height, 1.07 feet); no flow Apr. 13.

Remarks.- Records good except those for periods of missing or partial gage-height record, Apr. 15-18, Sept. 2-5, which were computed on basis of recorded range in stage, engineers' notes, and knowledge of local conditions and are fair. Ditch diverts water from right bank of La Plata River about 1.3 miles below La Plata for irrigation of lands below La Plata.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	1.3	4.5	2.6	2.3	1.9
2							-	2.0	2.5	3.2	2.2	.3
3							-	2.6	6.0	4.4	2.3	1.3
4							-	1.1	7.0	2.9	2.3	2.8
5							-	.1	6.9	3.2	2.2	1.0
6							0.1	.1	4.9	3.2	2.2	.8
7							.1	2.0	3.4	3.6	2.3	1.1
8							.2	2.7	2.5	4.0	2.4	1.1
9							.2	1.4	5.4	3.4	2.3	.5
10							.2	1.0	2.6	3.6	2.2	.4
11							.2	1.1	2.3	3.6	2.1	3.1
12							.2	1.2	4.0	3.6	2.1	1.2
13							0	1.4	5.6	2.7	2.2	.8
14							.1	4.7	4.9	2.3	1.9	.7
15							.6	5.6	4.6	3.0	1.8	1.1
16							.6	8.1	4.2	2.8	1.7	2.1
17							.6	8.0	4.0	2.8	1.6	1.4
18							.8	4.5	3.8	3.2	1.6	1.1
19							.6	2.6	3.8	2.8	1.5	1.7
20							.8	2.0	2.8	2.5	1.3	2.2
21							3.3	1.7	3.6	2.3	.6	1.6
22							5.6	2.4	4.2	2.8	1.4	1.9
23							5.7	3.3	5.4	2.7	1.3	1.9
24							4.7	5.2	5.5	2.5	1.4	1.8
25							4.0	2.4	4.4	3.0	.7	1.8
26							3.2	3.2	4.5	3.0	.6	1.3
27							.9	5.7	2.8	2.8	1.5	1.6
28							.4	6.6	5.8	2.7	1.6	1.8
29							2.0	7.4	7.5	3.0	1.6	2.0
30							2.0	8.8	5.6	2.5	1.6	1.7
31							-	7.3	-	2.6	1.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 6-30	37.3	5.7	0	1.49	74
May	107.7	8.8	.1	3.47	214
June	135.0	7.5	2.3	4.50	268
July	93.7	4.4	2.3	3.02	186
August	54.4	2.4	.6	1.75	108
September	44.0	3.1	.3	1.47	87
The period					937

Jackson ditch near La Plata, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°51'20", long. 108°13'20", in NE¼SE¼ sec. 32, T. 31 N., R. 13 W., 1.7 miles downstream from head and 5.4 miles southwest of La Plata.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 18 second-feet May 16 (gage height, 1.38 feet); no flow Aug. 29, Sept. 5-19.

Remarks.- Records fair. Ditch diverts from right bank of La Plata River 3.7 miles below La Plata, and water is used for irrigation and for storage in small reservoir about 3 miles below station (capacity, 380 acre-feet).

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							7.8	11	5.8	4.4	0.1	4.0
2							7.0	9.4	3.7	3.1	.3	3.2
3							8.8	7.2	5.8	6.5	.3	3.7
4							11	3.6	9.6	6.8	.2	.9
5							13	2.0	9.1	8.3	.3	0
6							14	.4	9.8	7.1	.5	0
7							12	.3	8.0	3.6	.2	0
8							11	.7	7.4	3.7	1.6	0
9							9.0	.3	15	2.2	4.8	0
10							10	1.6	16	2.6	.6	0
11							10	2.6	12	2.0	3.5	0
12							12	2.0	8.6	3.2	.6	0
13							12	1.8	12	3.6	.4	0
14							10	6.2	11	3.6	.7	0
15							3.2	13	7.6	4.2	.9	0
16							3.6	18	5.9	4.6	.7	0
17							6.0	15	5.0	2.7	.6	0
18							6.4	6.2	3.6	3.1	.5	0
19							4.4	3.6	5.2	2.5	.6	0
20							2.8	2.7	4.6	3.5	.5	.3
21							6.8	3.0	6.0	2.6	.9	.4
22							5.4	3.0	8.3	2.4	.9	.1
23							4.3	4.0	7.0	2.6	.5	.3
24							8.0	5.8	7.1	3.4	.6	.5
25							5.9	4.3	4.0	3.1	.5	.5
26							6.2	3.9	3.7	2.4	.9	.5
27							4.6	7.2	4.3	1.8	.5	.5
28							7.1	4.2	7.2	1.6	.2	.6
29							13	9.1	8.0	1.6	0	.6
30							9.8	13	10	1.8	.4	.6
31							-	11	-	.9	1.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	247.1	14	2.8	8.24	490
May	176.1	18	.3	5.68	349
June	231.3	16	3.6	7.71	459
July	105.5	8.3	.9	3.40	209
August	24.4	4.8	0	.79	48
September	16.7	4.0	0	.56	33
The period					1,590

La Plata Indian ditch near La Plata, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°57'40", long. 108°11'30", in NE¼NW¼ sec. 27, T. 32 N., R. 13 W., 0.3 mile downstream from head and about 2.2 miles north of La Plata.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 23 second-feet June 29 (gage height, 1.43 feet); no flow Apr. 6-18, Sept. 17, 18.

Remarks.- Records good except those for period of missing or partial gage height record, Apr. 26 to May 2, which were computed on basis of engineers' notes and are fair. Ditch diverts from right bank of La Plata River 2.5 miles above La Plata, and water is used for irrigation above La Plata.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	16	14	13	1.6	9.0
2							-	16	12	14	1.5	7.3
3							-	15	18	16	1.8	13
4							-	15	16	15	1.6	4.3
5							-	12	17	14	1.5	4.2
6							0	13	16	5.1	1.6	1.6
7							0	9.9	14	2.2	1.3	5.4
8							0	8.4	15	2.1	1.8	4.2
9							0	7.6	18	1.8	2.2	5.4
10							0	7.6	13	1.6	2.6	7.8
11							0	7.6	8.9	1.5	1.7	6.1
12							0	6.2	10	1.6	2.1	2.2
13							0	8.4	10	1.5	2.1	1.5
14							0	16	6.6	1.7	2.2	1.4
15							0	19	5.7	1.6	2.7	2.8
16							0	16	5.2	1.7	3.1	2.0
17							0	16	4.0	3.8	2.9	0
18							0	15	3.1	7.1	2.5	0
19							9.8	11	2.7	5.7	2.4	.4
20							10	10	2.9	6.1	2.4	.7
21							7.1	10	2.7	6.8	1.2	.8
22							15	10	3.5	7.6	1.9	.6
23							21	12	3.4	7.8	1.9	.6
24							22	12	3.6	6.8	1.8	.6
25							22	11	3.4	6.1	2.1	.6
26							19	16	11	4.8	1.9	.6
27							18	20	13	3.0	2.2	.6
28							18	17	17	2.6	1.0	.6
29							17	19	23	2.1	1.6	.6
30							17	15	18	1.8	2.4	.6
31							-	15	-	1.7	2.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 6-30	195.9	22	0	7.84	389
May	404.7	20	6.2	13.1	803
June	312.9	23	2.7	10.4	621
July	168.2	16	1.5	5.43	334
August	62.1	3.1	1.0	2.00	123
September	85.5	13	0	2.85	170
The period					2,440

Larkin-Reynolds ditch at La Plata, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°56'25", long. 108°11'10", in NE¼SE¼ sec. 34, T. 32 N., R. 13 W., 0.3 mile downstream from head and 0.9 mile northeast of La Plata.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 7.2 second-feet May 16 (gage height, 0.93 foot); no flow on many days or parts of days.

Remarks.- Records good. Ditch diverts from left bank of La Plata River, and water is used for irrigation in the vicinity of La Plata.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	4.1	2.4	2.2	1.6	1.1
2							-	3.9	2.0	2.4	1.6	.8
3							-	2.2	3.5	1.4	1.5	1.2
4							-	.5	3.7	.6	1.4	.3
5							-	.1	3.5	.4	1.4	0
6							0	0	3.5	0	1.5	0
7							0	0	3.1	.2	1.2	0
8							3.3	0	2.9	.3	.9	0
9							3.3	0	4.7	.2	0	0
10							2.8	0	3.8	.2	0	0
11							0	0	3.0	.2	0	0
12							0	0	4.4	.6	0	0
13							0	2.3	4.3	1.7	.8	0
14							0	5.0	3.5	1.7	1.6	0
15							0	6.8	2.9	1.6	1.7	0
16							0	7.2	2.0	1.6	2.0	0
17							0	5.5	2.9	1.8	2.0	0
18							0	3.0	2.6	2.4	1.9	0
19							0	2.8	2.4	2.3	1.7	0
20							1.9	2.5	2.4	2.3	1.9	0
21							.8	2.5	2.5	2.4	1.2	0
22							.6	2.6	2.7	2.5	1.5	0
23							.2	3.0	2.5	2.6	1.7	0
24							.5	3.8	2.7	2.5	1.6	0
25							2.8	3.0	2.5	2.6	1.9	0
26							4.1	3.6	3.6	2.4	1.7	0
27							2.3	4.1	3.2	2.2	1.9	0
28							2.8	4.5	4.4	2.1	1.2	0
29							4.1	6.0	5.8	1.9	1.5	0
30							4.0	5.6	4.8	1.8	1.9	0
31							-	4.0	-	1.7	1.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 6-30	33.5	4.1	0	1.34	66
May	90.2	7.2	0	2.91	179
June	99.0	5.8	2.0	3.30	196
July	48.8	2.6	0	1.57	97
August	42.1	2.0	0	1.36	84
September	3.4	1.2	0	.11	6.7
The period					629

Left Hand ditch at La Plata, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°55'10", long. 108°10'45", in NW¼NW¼ sec. 11, T. 31 N., R. 13 W., 0.6 mile downstream from head and 0.9 mile southeast of La Plata.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 5.9 second-feet May 16 (gage height, 1.31 feet); no flow Apr. 6-10, June 13, 14, Sept. 30.

Remarks.- Records good. Ditch diverts from left bank of La Plata River at La Plata, and water is used for irrigation near La Plata.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	1.6	2.9	2.8	0.9	0.9
2							-	2.0	2.4	3.2	1.0	1.1
3							-	1.2	3.5	4.6	.8	2.1
4							-	1.1	2.8	3.6	.5	1.9
5							-	1.6	2.0	3.4	.4	1.8
6							0	2.2	2.0	3.2	.3	.7
7							0	1.6	2.6	3.2	.3	.4
8							0	.5	3.0	1.8	.3	.2
9							0	.2	2.9	.9	.2	.1
10							0	.2	1.8	1.4	.2	.1
11							2.5	.5	1.0	1.3	.2	.1
12							3.6	.5	.3	1.4	.2	.6
13							1.9	2.1	0	1.5	.3	.9
14							1.8	5.3	0	1.6	.6	.9
15							1.1	5.7	.1	2.0	.6	1.1
16							1.3	5.9	.1	2.2	.6	.8
17							1.7	3.8	.1	1.9	.6	.5
18							1.4	2.2	.4	2.3	.7	1.5
19							2.4	1.7	.4	2.7	.7	1.3
20							2.0	1.1	.4	2.3	.6	.4
21							1.4	1.1	.4	2.0	.7	.1
22							1.4	2.0	.4	2.5	1.1	.1
23							1.3	1.7	.2	2.7	.9	.1
24							1.0	2.8	.1	1.8	.5	.1
25							.4	1.6	.1	1.2	.4	.4
26							1.0	2.7	.5	.9	.2	.8
27							.8	3.9	2.0	1.3	.2	.4
28							.7	4.4	3.6	1.8	.1	.3
29							1.1	6.5	5.4	1.2	.1	.1
30							1.3	5.5	5.1	1.0	.2	0
31							-	4.4	-	.9	.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 6-30	30.1	3.6	0	1.20	60
May	76.6	5.9	.2	2.47	152
June	46.5	5.4	0	1.55	92
July	64.6	4.6	.9	2.08	128
August	14.9	1.1	.1	.48	30
September	19.8	2.1	0	.66	39
The period					501

McDermott ditch at La Plata, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°55'45", long. 108°11'15", in SE¼NE¼ sec. 3, T. 31 N., R. 13 W., 0.3 mile below head and 0.2 mile east of La Plata.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 16 second-feet June 29 (gage height, 1.58 feet); no flow Apr. 6, 7.

Remarks.- Records good. Discharge for day of partial gage-height record, Apr. 8, computed on basis of engineers' notes and recorded range in stage. Ditch diverts water from right bank of La Plata River for irrigation of lands below La Plata.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	10	4.9	4.9	4.6	9.4
2							-	6.4	4.2	6.9	3.6	3.7
3							-	6.4	10	12	4.0	3.4
4							-	5.5	11	10	3.9	9.0
5							-	2.2	9.9	8.0	3.7	3.6
6							0	3.5	6.8	3.2	3.8	2.3
7							0	3.1	4.7	4.4	3.1	4.5
8							.8	2.2	4.4	7.3	3.7	3.2
9							1.7	3.1	9.9	6.9	5.0	1.6
10							2.8	1.8	6.5	6.5	5.5	1.5
11							3.6	.9	5.6	6.3	4.9	6.3
12							4.6	1.1	10	5.6	5.1	3.8
13							5.2	3.4	10	4.3	4.6	3.0
14							5.5	10	6.2	3.8	4.0	2.4
15							4.2	12	4.9	3.8	4.4	3.4
16							4.4	14	6.5	3.5	4.7	4.5
17							5.6	9.7	6.9	4.2	4.7	4.4
18							6.3	4.7	5.5	5.6	4.5	3.1
19							4.7	4.9	5.2	4.7	4.0	1.7
20							4.3	5.5	5.2	5.4	4.4	1.6
21							.7	6.0	5.6	5.8	3.1	1.2
22							8.4	5.2	6.2	7.6	3.0	.5
23							11	7.5	5.7	8.2	3.3	.4
24							7.5	8.4	6.2	7.6	3.4	.4
25							9.0	5.6	5.4	7.5	3.8	1.0
26							5.7	8.5	8.7	6.9	4.0	1.0
27							7.8	8.7	7.5	6.3	4.4	1.0
28							9.6	11	12	5.7	3.1	1.0
29							11	14	16	5.6	3.4	1.0
30							10	13	12	5.5	4.0	1.1
31							-	9.0	-	5.1	4.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 6-30	134.4	11	0	5.38	267
May	207.3	14	.9	6.69	411
June	223.6	16	4.2	7.45	444
July	189.1	12	3.2	6.10	375
August	126.6	5.5	3.0	4.08	251
September	85.0	9.4	.4	2.83	169
The period					1,920

Pickering ditch near Farmington, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 36°48'55", long. 108°12'55", in SW¼NW¼ sec. 16, T. 30 N., R. 13 W., 0.6 mile downstream from head and 6.7 miles north of Farmington.

Records available.- April to September 1938 (discontinued).

Extremes.- Maximum daily discharge during period, 4.4 second-feet May 1 (gage height, 0.68 foot); no flow on many days or parts of days.

Remarks.- Records good except those for period of missing gage heights, July 9-18, which were computed on basis of recorded range in stage and are fair. Ditch diverts from right bank of La Plata River about 7 miles above Farmington, and water is used for irrigation near Farmington.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							1.7	4.4	0.5	0	1.6	0.3
2							1.6	3.8	1.4	0	1.4	0
3							2.4	2.6	1.8	.5	1.2	0
4							1.2	1.4	2.0	.8	1.4	0
5							.9	.6	1.6	.9	1.3	0
6							4.3	.2	1.9	1.7	1.4	0
7							3.7	.3	1.7	1.6	1.5	0
8							3.1		2.4	1.7	1.6	0
9							2.9	.2	2.8	1.6	1.2	0
10							1.2	.6	2.4	1.4	.5	0
11							2.1	.9	1.8	1.4	.7	0
12							3.5	.9	1.8	1.4	1.3	0
13							1.3	.1	2.0	1.2	2.7	0
14							0	.6	2.0	1.2	1.0	0
15							.1	1.6	1.6	1.3	.7	0
16							.6	1.5	1.9	1.3	1.1	0
17							1.1	.5	2.2	1.3	1.2	0
18							1.8	.7	2.2	1.2	1.2	0
19							1.8	.9	1.4	1.2	1.0	0
20							1.9	1.2	2.1	1.5	1.0	0
21							2.3	1.1	2.5	1.4	1.2	0
22							2.2	1.5	2.9	1.5	1.2	0
23							2.2	1.7	2.4	1.5	1.2	0
24							1.5	1.5	2.4	1.5	1.0	.1
25							0	1.5	2.8	1.5	1.2	.2
26							.1	1.0	2.1	1.4	1.3	.4
27							.3	1.6	1.5	1.6	1.3	.4
28							1.0	1.2	1.2	1.4	1.4	.5
29							2.0	1.2	0	1.4	1.4	.4
30							2.1	1.5	.2	1.4	1.3	.4
31							-	1.2	-	1.2	1.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	50.9	4.3	0	1.70	101
May	38.0	4.4	0	1.23	75
June	55.5	2.9	0	1.85	110
July	39.0	1.7	0	1.26	77
August	38.9	2.7	.5	1.25	77
September	2.7	.5	0	.09	5.4
The period					445

Cherry Creek near Red Mesa, Colo.

Location.- Water-stage recorder, lat. 37°07', long. 108°12', in sec. 7, T. 33 N., R. 12 W., 2 miles northwest of Red Mesa.

Drainage area.- 66 square miles.

Records available.- October 1933 to September 1938 in reports of Geological Survey. March 1928 to September 1938 in reports of State engineer.

Extremes.- Maximum discharge during year, 407 second-feet Sept. 3 (gage height, 3.20 feet); no flow Aug. 6-30.
1928-38: Maximum discharge, 803 second-feet Aug 26, 1934 (gage height, 4.50 feet, from floodmarks); no flow at times during 1931, 1933-36, 1938.

Remarks.- Records fair except those for period of ice effect, Dec. 1 to Feb. 25 (computed on basis of one discharge measurement and records for La Plata River at Colorado-New Mexico State line) and those for periods Mar. 2-8, July 27 to Aug. 5 (estimated), which are poor. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.6	2.9				14	14	105	4.5	19	1.0	1.2
2	4.8	2.9				9.0	13	92	2.2	14	1.0	1.0
3	3.5	2.9				17	14	72	2.0	12	1.0	45
4	2.0	2.6				20	34	54	1.6	10	1.0	3.5
5	1.5	2.4				9.0	68	46	1.6	9.0	1.0	3.1
6	1.5	2.0				8.0	58	38	1.6	8.3	0	2.2
7	1.5	2.0				7.0	42	38	1.6	5.3	0	6.6
8	1.2	2.0				7.0	32	38	2.0	4.0	0	3.1
9	.9	2.0				6.6	28	34	3.1	4.0	0	5.3
10	.8	2.0				7.6	50	30	3.6	3.5	0	12
11	.9	2.0				7.6	68	27	3.5	3.1	0	8.3
12	.9	2.0				8.3	84	27	2.7	2.6	0	5.3
13	.9	2.0			1.8	13	85	24	3.1	2.2	0	4.0
14	.9	2.0				27	82	32	2.7	2.0	0	3.1
15	1.2	2.0				13	65	44	2.6	1.6	0	2.2
16	2.4	1.4				13	78	52	2.6	1.6	0	3.1
17	1.8	1.4				22	98	48	2.0	1.8	0	2.2
18	1.5	1.4				20	108	48	2.0	2.2	0	2.7
19	1.5	1.4				16	125	46	2.0	2.2	0	2.6
20	1.5	1.4				26	154	34	2.2	2.2	0	2.2
21	1.5	1.4				42	144	24	3.1	2.2	0	2.2
22	1.5	1.4				23	136	20	19	2.2	0	2.2
23	1.5	1.4				18	134	19	22	3.1	0	2.2
24	1.5	1.4				24	148	18	19	3.1	0	2.2
25	1.5	1.4			3.2	36	142	16	15	3.1	0	2.2
26	1.5	1.4			2.7	42	136	15	14	2.6	0	2.2
27	1.5	1.4			3.1	32	114	14	16	1.5	0	2.2
28	1.7	1.4			3.1	28	95	13	16	1.2	0	2.2
29	2.9	1.4			-	23	98	11	25	1.2	0	2.2
30	2.9	1.4			-	19	94	10	30	1.2	0	2.2
31	2.9	-			-	13	-	7.3	-	1.2	1.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	58.7	6.6	0.8	1.89	116
November	54.7	2.9	1.4	1.82	108
December	46.5	-	-	1.5	92
Calendar year 1937	7,192.8	410	.3	19.7	14,260
January	46.5	-	-	1.5	92
February	55.3	-	-	1.98	110
March	571.1	42	6.6	18.4	1,130
April	2,541	154	13	84.7	5,040
May	1,096.3	105	7.3	35.4	2,170
June	228.3	30	1.6	7.61	453
July	133.2	19	1.2	4.30	264
August	6.2	1.2	0	.20	12
September	140.7	45	1.0	4.69	279
Water year 1937-38	4,978.5	154	0	13.6	9,870

Peak discharge.- Apr. 20 (9 a.m.) 171 sec.-ft.; Sept. 3 (7 a.m.) 407 sec.-ft.; Sept. 10 (4 p.m.) 95 sec.-ft.

West Mancos River near Mancos, Colo.

Location.- Water-stage recorder, lat. 37°22'30", long. 108°15'20" in sec. 14, T. 36 N., R. 13 W., 1½ miles upstream from confluence with Middle Mancos River and 3½ miles northeast of Mancos. Staff gage at practically same site used 1910-11.

Drainage area.- 42.1 square miles.

Records available.- September 1910 to December 1911, April to September 1938.

Extremes.- Maximum discharge during period, 380 second-feet June 29 (gage height, 2.93 feet); minimum, 6.2 second-feet Sept. 30 (gage height, 0.90 foot).
1910-11, 1938: Maximum discharge, that of June 29, 1938; minimum, that of Sept. 30, 1938.

Remarks.- Records good. No diversions above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	218	180	124	17	35
2							-	155	170	102	16	60
3							-	133	187	90	16	62
4							-	108	180	81	14	47
5							-	95	170	72	15	35
6							-	84	159	63	13	36
7							-	73	150	56	12	40
8							-	64	139	52	15	39
9							-	62	135	48	16	29
10							-	60	128	43	15	28
11							-	67	120	38	15	52
12							-	84	120	38	48	43
13							-	131	122	39	26	33
14							-	206	104	35	24	24
15							-	246	102	33	18	22
16							-	224	104	31	15	21
17							-	204	106	28	12	18
18							-	175	100	28	10	14
19							-	164	88	26	9.0	12
20							-	142	80	25	8.2	11
21							-	144	100	27	7.8	9.5
22							-	150	131	33	7.8	9.0
23							-	144	112	37	7.8	8.2
24							-	155	100	31	11	8.2
25							-	180	95	26	14	8.2
26							236	209	86	24	14	7.8
27							192	224	90	25	11	7.4
28							231	246	99	26	12	6.6
29							254	246	251	22	14	7.0
30							274	221	170	20	15	6.6
31							-	204	-	19	17	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 26-30	1,187	274	192	237	2,350
May	4,818	246	60	155	9,560
June	3,878	251	80	129	7,690
July	1,342	124	19	43.3	2,660
August	465.6	48	7.8	15.0	924
September	739.5	62	6.6	24.6	1,470
The period					24,650

Peak discharge.- Apr. 25 (8 p.m.) 372 sec.-ft.; Apr. 30 (6 p.m.) 323 sec.-ft.; June 29 (10 a.m.) 380 sec.-ft.

Mancos River near Mancos, Colo.

Location.- Water-stage recorder, lat. 37°22', long. 108°15', in sec. 27, T. 36 N., R. 13 W., 2 miles east of Mancos.

Drainage area.- 73 square miles.

Records available.- October 1933 to September 1938 (discontinued) in reports of Geological Survey. October 1931 to September 1938 in reports of State engineer.

Extremes.- Maximum discharge during year, 662 second-feet June 29 (gage height, 3.43 feet); minimum daily discharge, 2.2 second-feet Nov. 28.
1931-38: Maximum discharge, 892 second-feet May 4, 1937 (gage height, 3.45 feet); minimum not determined.

Remarks.- Records fair. Those for periods of ice effect, Dec. 11 to Mar. 6, Mar. 9, computed on basis of four discharge measurements and weather records; those for Nov. 6-8, 24-26, Mar. 31, Apr. 1, 2, estimated. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	4.2	3.0			7	4.6	348	315	168	14	27
2	12	4.6	2.3			8	7.0	243	285	142	14	73
3	10	4.9	3.4			9	11	201	312	122	14	87
4	10	5.2	3.0			10	30	165	312	107	12	58
5	8.4	4.2	3.2			10	68	142	308	92	12	34
6	6.3	4.2	3.8			13	58	130	292	71	11	35
7	5.2	4.2	3.2	*2.7		7.0	44	115	265	62	10	46
8	5.2	4.2	2.8			3.5	53	100	240	49	10	42
9	5.6	4.2	2.8			4.0	78	94	216	35	11	27
10	5.6	4.6	2.8			5.2	108	94	204	35	12	27
11	5.2	4.6				7.0	125	104	181	34	11	68
12	4.9	4.9				13	133	127	173	35	18	66
13	4.9	3.4				19	133	195	168	35	21	46
14	4.9	2.3				8.4	120	348	142	34	20	30
15	9.1	2.4				8.4	99	462	144	32	16	26
16	16	2.4				15	91	422	132	29	14	24
17	13	2.4				12	112	366	122	27	12	20
18	10	2.4			*4.8	6.3	177	315	134	24	11	16
19	8.4	2.3				13	262	295	115	24	10	14
20	7.7	2.8				24	279	246	96	25	10	12
21	5.2	2.6	2.8			33	322	253	134	28	9.4	11
22	5.2	2.6				26	362	269	184	32	8.6	11
23	7.0	3.0				22	392	259	147	38	7.4	10
24	6.6	3.0				23	422	278	127	30	8.0	10
25	6.3	2.5				42	434	325	115	20	9.8	10
26	6.3	2.5				48	392	362	109	18	9.4	9.4
27	6.3	2.3				26	295	377	109	30	8.2	9.2
28	5.2	2.2				12	352	388	118	35	8.8	9.0
29	4.2	3.4				6.3	403	384	402	23	10	8.8
30	3.8	3.2				4.9	418	342	259	23	11	8.6
31	3.8	-				4.5	-	328	-	13	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	234.3	22	3.8	7.56	465
November	101.7	5.2	2.2	3.39	202
December	89.1	3.8	-	2.87	177
Calendar year 1937	27,925.4	650	-	76.5	55,390
January	93.0	-	-	3.0	184
February	140	-	-	5.0	278
March	450.5	48	3.5	14.5	894
April	5,784.6	434	4.6	193	11,470
May	8,077	462	94	261	16,020
June	5,860	402	96	195	11,620
July	1,474	168	15	47.5	2,920
August	365.6	21	7.4	11.8	725
September	875.0	87	8.6	29.2	1,740
Water year 1937-38	23,544.8	462	-	64.5	46,700

Peak discharge.- Apr. 25 (9 p.m.) 606 sec.-ft.; May 14 (10 p.m.) 533 sec.-ft.; June 29 (1 p.m.) 662 sec.-ft.

*Discharge measurement.

Mancos River near Towaoc, Colo.

Location.- Water-stage recorder, lat. 37°01', long. 108°48', in sec. 15, T. 32 N., R. 18 W., at Mancos River trading post, 12 miles south of Towaoc.

Drainage area.- 558 square miles.

Records available.- October 1933 to September 1938 in reports of Geological Survey. February 1921 to September 1938 in reports of State engineer.

Average discharge.- 17 years, 58.0 second-feet.

Extremes.- Maximum discharge during year, 1,780 second-feet Aug. 31 (gage height, 4.52 feet); no flow Aug. 21-26.
1921-38: Maximum discharge, 4,900 second-feet Aug. 26, 1934 (gage height, 6.55 feet); no flow at times.

Remarks.- Records good except those for period of ice effect, Nov. 28 to Feb. 24 (computed on basis of three discharge measurements and weather records), and those for periods of missing gage heights, May 19-25, Aug. 9-16 (computed on basis of records for station near Mancos), which are fair. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	6.6			-	135	74	471	214	172	4.8	115
2	11	6.6			-	104	80	336	187	129	3.4	106
3	9.9	6.6			-	117	80	248	165	119	.4	127
4	9.9	5.2			-	254	149	209	165	117	.4	76
5	9.4	4.4			-	125	198	169	165	111	.4	57
6	7.7	4.4			-	89	174	145	155	79	.4	57
7	7.7	4.4		*5.8	-	86	153	133	149	54	.4	32
8	7.7	6.6			-	101	107	119	133	45	1.4	37
9	7.7	7.7			-	101	123	107	120	40	1.5	47
10	6.0	8.2	*5.5		-	86	163	103	109	30	2.0	37
11	6.0	9.4			-	86	198	93	109	24	2.0	76
12	6.6	9.4			-	93	275	90	93	16	2.5	70
13	7.7	9.4			-	135	266	101	89	11	3.0	52
14	6.6	9.4			-	145	236	155	98	5.5	3.5	42
15	9.4	9.4			-	109	209	322	86	13	3.0	32
16	23	9.4			-	86	209	392	80	12	1.5	42
17	16	6.6			-	109	195	322	74	6.6	1.4	47
18	12	6.6			*11	109	266	257	55	5.5	1.0	37
19	9.4	5.5			-	101	421	230	50	4.4	.8	24
20	9.4	6.6			-	101	538	210	48	3.8	.4	24
21	9.4	9.4			-	135	518	220	107	2.0	0	28
22	9.4	9.4			-	109	538	225	55	47	0	28
23	9.4	9.4			-	109	578	200	125	37	0	28
24	9.4	9.4			-	117	625	195	93	16	0	24
25	9.4	9.4			11	125	704	190	84	12	0	20
26	9.4	9.4			12	125	666	187	71	12	0	20
27	9.4	9.4			18	109	444	214	65	7.7	1.0	20
28	9.4	9.0			29	101	382	228	65	6.6	1.0	20
29	9.4	8.8			-	101	468	242	86	12	.8	16
30	8.2	8.8			-	101	440	242	333	10	9.4	12
31	7.2	-			-	86	-	214	-	7.7	128	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	311.1	28	6.0	10.0	617
November	234.8	9.4	4.4	7.83	466
December	173.6	-	-	5.6	344
Calendar year 1937	27,552.3	560	2.6	75.5	54,640
January	229.4	-	-	7.4	455
February	336	-	-	12	666
March	3,490	254	86	113	6,920
April	9,477	704	74	316	18,800
May	6,569	471	90	212	13,030
June	3,428	333	48	114	6,800
July	1,167.8	172	2.0	37.7	2,320
August	174.4	128	0	5.63	346
September	1,343	127	12	44.8	2,660
Water year 1937-38	26,934.1	704	0	73.8	53,420

Peak discharge.- Apr. 25 (4 p.m.) 946 sec.-ft.; June 21 (4 p.m.) 960 sec.-ft.; Aug. 31 (5 p.m.) 1,780 sec.-ft.
*Discharge measurement.

Middle Mancos River near Mancos, Colo.

Location.- Water-stage recorder, lat. 37°22'15", long. 108°13'35", in SE¼ sec. 13, T. 36 N., R. 13 W., 500 feet upstream from East Mancos River and 4 miles northeast of Mancos.

Drainage area.- 13.7 square miles.

Records available.- March to September 1938.

Extremes.- Maximum discharge for period, 131 second-feet May 17 (gage height, 2.64 feet); minimum daily discharge, 0.2 second-foot Mar. 8-10.

Remarks.- Records good except those computed from staff-gage readings, Mar. 1 to Apr. 26, May 15, 16, 26-31, and those estimated, Aug. 12-16, which are fair. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0.6	2.8	71	31	6.8	0.3	1.3
2						1.3	3.2	49	24	5.5	.3	2.2
3						1.9	3.4	41	24	4.5	.4	2.5
4						2.1	3.9	32	23	3.5	.4	2.2
5						1.3	4.4	27	24	2.7	.6	1.8
6						.9	5.3	24	30	2.4	.8	1.9
7						.3	6.7	20	19	1.4	.8	2.0
8						.2	8.6	18	17	.6	.7	2.2
9						.2	14	17	17	.4	.7	1.8
10						.2	14	17	14	.4	.5	1.9
11						.3	18	18	13	.3	.6	2.7
12						.6	20	22	13	.3	.8	2.5
13						.9	22	35	13	.3	.8	1.9
14						.9	20	65	11	.5	.8	1.4
15						.8	17	91	8.8	.4	.8	1.4
16						1.1	18	82	7.0	.4	.8	1.4
17						1.3	22	68	6.2	.4	.8	1.0
18						.9	35	62	5.5	.3	.7	.9
19						1.1	44	54	4.8	.3	.5	.8
20						1.3	47	45	4.5	.3	.5	.8
21						1.7	59	45	6.2	.4	.5	.7
22						1.4	69	48	6.8	.4	.5	.5
23						1.4	78	44	4.8	.6	.5	.7
24						1.7	84	44	3.7	.4	.5	.5
25						2.8	95	43	3.5	.3	.5	.6
26						4.7	78	40	3.1	.3	.5	.7
27						4.4	55	42	3.3	.4	.5	.7
28						3.4	66	37	2.9	.6	.6	.5
29						3.2	80	36	13	.5	.7	.6
30						2.8	83	32	9.4	.3	.8	.5
31						2.8	-	30	-	.3	.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	48.5	4.7	0.2	1.56	96
April	1,076.3	95	2.8	35.9	2,130
May	1,299	91	17	41.9	2,580
June	366.5	31	2.9	12.2	727
July	36.2	6.8	.3	1.17	72
August	18.8	.8	.3	.61	37
September	40.6	2.7	.5	1.35	81
The period					5,720

Peak discharge.- Apr. 30 (4 p.m.) 99 sec.-ft.; May 14 (11 p.m.) 94 sec.-ft.; May 17 (5 p.m.) 131 sec.-ft.

East Mancos River near Mancos, Colo.

Location.- Water-stage recorder, lat. 37°22'10", long. 108°13'35", in NE¼ sec. 24, T. 36 N., R. 13 W., 800 feet upstream from mouth and 4 miles northeast of Mancos.

Drainage area.- 11.1 square miles.

Records available.- March to September 1938.

Extremes.- Maximum discharge during period, 145 second-feet Apr. 28 (gage height, 1.46 feet); minimum daily discharge, 0.5 second-foot Aug. 3, 4.

Remarks.- Records fair. Discharge for periods Mar. 1 to Apr. 26, May 5-15 computed from staff-gage readings. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						3.2	11	84	70	14	0.8	4.4
2						5.5	12	53	59	11	.7	8.9
3						8.0	13	37	65	8.9	.5	8.0
4						7.6	14	25	65	7.4	.5	5.9
5						6.8	14	22	53	6.2	.8	4.2
6						5.1	15	19	45	5.9	1.0	6.8
7						3.9	15	15	42	5.3	1.1	7.1
8						3.2	14	11	45	4.2	1.1	6.8
9						2.9	18	10	43	2.8	1.1	5.6
10						2.2	24	10	41	2.0	.7	5.6
11						1.9	32	16	38	2.6	.8	11
12						2.2	44	22	36	3.0	3.2	13
13						2.5	45	56	32	3.9	4.8	8.9
14						2.2	41	116	26	4.6	3.7	7.1
15						2.5	32	120	28	3.7	2.4	6.5
16						3.2	28	108	25	3.7	2.0	5.6
17						3.6	36	66	24	3.7	2.0	4.6
18						4.3	68	54	20	2.8	1.6	3.7
19						4.3	85	54	16	2.8	1.3	3.2
20						5.1	90	47	13	3.0	1.0	2.8
21						7.6	87	49	16	2.7	.8	2.7
22						8.5	100	54	16	3.5	.7	2.4
23						9.5	101	54	12	3.7	.8	2.2
24						9.5	112	60	11	2.7	1.0	2.1
25						13	118	81	9.4	2.4	.9	2.1
26						16	96	97	8.9	2.4	1.0	2.0
27						14	60	108	8.3	2.7	.8	1.8
28						13	86	88	8.9	2.2	1.0	1.6
29						12	93	74	40	1.4	1.3	1.8
30						12	99	83	21	1.2	1.3	1.6
31						12	-	79	-	1.0	1.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	207.3	16	1.9	6.69	411
April	1,603	118	11	53.4	3,180
May	1,772	120	10	57.2	3,510
June	937.5	70	8.3	31.2	1,860
July	127.4	14	1.0	4.11	253
August	42.2	4.8	.5	1.36	84
September	150.0	13	1.6	5.00	298
The period					9,600

Paria River at Lees Ferry, Ariz.

Location.- Water-stage recorder, lat. 36°52'15" (revised), long. 111°36'30" (revised), in NW¼NE¼ sec. 13, T. 40 N., R. 7 E., half a mile upstream from mouth, and one mile northwest of Lees Ferry. Zero of gage is 3,123.4 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,820 square miles.

Records available.- November 1923 to September 1938.

Average discharge.- 15 years, 35.8 second-feet.

Extremes.- Maximum discharge during year, 7,440 second-feet Mar. 3 (gage height, 11.22 feet), from rating curve extended above 500 second-feet on basis of slope-area measurements of 6,000 and 12,000 second-feet; minimum, 3 second-feet several days in June and in August.

1923-38: Maximum discharge, 16,100 second-feet Oct. 5, 1925 (gage height, 17.5 feet), by float-area method; no flow during several periods in December and January of many years.

Remarks.- Records good except those above 1,000 second-feet, which are fair. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	73	15	17	20	21	71	29	16	4	23	4	533
2	31	27	17	21	30	177	24	20	4	15	4	93
3	22	23	27	24	24	2,510	19	21	4	8	4	229
4	21	21	26	30	21	1,060	18	19	4	6	4	280
5	17	19	23	25	30	131	20	15	4	5	4	121
6	17	18	19	24	29	68	27	13	5	4	4	59
7	17	19	19	21	22	51	27	12	4	4	66	26
8	17	23	18	20	21	42	19	11	4	4	153	26
9	17	18	17	20	22	33	17	10	5	4	302	22
10	17	17	17	20	25	29	18	7	4	4	39	15
11	18	17	19	20	26	28	20	6	4	4	16	13
12	18	17	22	22	35	43	20	6	4	4	11	77
13	17	17	57	25	58	164	21	5	4	4	11	101
14	17	17	28	24	27	224	20	4	4	4	11	40
15	17	19	19	24	26	75	21	4	4	4	11	21
16	49	18	20	38	27	57	17	4	4	4	7	14
17	21	18	20	44	23	45	13	4	3	4	6	11
18	16	19	19	31	18	52	17	4	3	16	4	13
19	16	19	17	32	18	30	21	6	4	11	4	12
20	16	17	14	42	26	26	23	47	4	6	3	10
21	15	17	11	40	25	27	25	29	4	5	3	10
22	15	17	10	22	21	44	24	18	4	4	4	12
23	15	17	11	22	20	27	17	13	4	4	4	12
24	16	17	24	21	22	23	15	10	4	9	3	10
25	16	17	25	11	22	21	11	6	4	13	3	9
26	15	18	21	10	19	22	13	5	4	11	3	9
27	14	17	19	21	20	38	24	5	4	14	9	8
28	14	17	23	26	25	35	19	4	5	13	13	8
29	14	17	24	24	-	100	16	4	368	11	10	7
30	13	18	21	23	-	103	14	4	66	6	8	7
31	14	-	21	22	-	48	-	4	-	5	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	615	73	13	19.8	1,220
November	550	27	15	18.3	1,090
December	645	57	10	20.8	1,280
Calendar year 1937	13,210	668	3	36.2	26,200
January	769	44	10	24.8	1,530
February	706	58	18	25.2	1,400
March	5,410	2,510	21	175	10,730
April	589	29	11	19.6	1,170
May	336	47	4	10.8	666
June	547	368	3	18.2	1,080
July	233	23	4	7.5	462
August	754	302	3	24.3	1,500
September	1,808	533	7	60.3	3,590
Water year 1937-38	12,962	2,510	3	35.5	25,720

Peak discharge.- Mar. 3 (3:50 p.m.) 7,440 sec.-ft.; Sept. 1 (6:30 a.m.) 2,170 sec.-ft.

133565 O—39——15

Little Colorado River at St. Johns, Ariz.

Location.- Water-stage recorder, lat. 34°30', long. 109°22', in sec. 27, T. 13 N., R. 28 E., at St. Johns.

Drainage area.- 938 square miles.

Records available.- April 1906 to December 1909, May 1929 to October 1933, September 1935 to September 1938.

Extremes.- Maximum discharge during year, 834 second-feet Sept. 1 (gage height, 2.62 feet); no flow on many days.
1929-38: Maximum discharge, 2,100 second-feet Sept. 2, 1936 (gage height, 4.19 feet), from rating curve extended above 350 second-feet by velocity-area method; no flow for part or all of many days each year.

Remarks.- Records good. Discharge for periods of ice effect, Dec. 5-7, 18-22, Jan. 6-13, 22-25, Feb. 6, 13-25, computed on basis of six discharge measurements, parts of gage-height graph which were unaffected by ice, and weather records; that for period of missing gage heights, Sept. 12-16, computed on basis of partial gage-height record and weather records. Diversions for irrigation above station. Regulation by numerous storage reservoirs upstream, largest of which is Lyman Reservoir (combined capacity about 35,000 acre-feet).

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.3	5	7	11	9	7	5	4	0.1	0.6	32	118
2	.2	5	8	11	9	7	5	7	.1	.2	6	14
3	.1	6	8	12	9	6	4	7	0	0	1	4
4	.1	6	8	12	9	9	3	6	0	0	.8	4
5	.1	6	8	12	8	7	1	4	0	.2	.6	3
6	.1	7	8	11	8	8	3	3	.2	.2	2	2
7	0	6	8	8	8	10	3	3	0	0	.4	10
8	0	6	8	7	8	10	2	5	0	0	.2	57
9	0	6	7	7	8	9	2	5	.1	0	.5	4
10	0	7	7	6	9	8	1	5	.5	0	.3	101
11	0	7	8	6	9	8	.8	3	1	0	.6	121
12	0	7	8	7	9	9	.6	1	1	.1	.3	5
13	.8	7	9	7	9	11	.5	2	1	.2	.2	3
14	2	7	9	8	8	11	.6	1	1	.2	24	2
15	2	8	8	9	7	11	.6	1	.6	0	2	1
16	50	8	9	8	7	8	.5	1	.1	0	.8	.8
17	8	8	9	8	7	5	.2	1	.2	2	.2	.8
18	6	8	8	8	6	8	.1	3	.4	0	.9	.8
19	5	8	8	8	6	8	.1	2	.8	.1	1	.8
20	4	8	8	9	6	8	.4	1	1	.2	2	.6
21	3	8	8	9	7	8	.5	.9	1	.1	2	.2
22	4	7	8	8	6	7	1	1	4	.1	2	0
23	4	7	8	8	6	7	2	1	3	0	2	0
24	5	8	8	7	6	7	2	.9	1	0	2	.3
25	5	8	8	7	5	7	2	.5	.1	.1	24	.4
26	4	8	9	8	5	6	2	.3	0	.1	4	.4
27	4	8	9	8	6	5	3	.8	0	.1	.8	.5
28	4	8	10	9	6	4	3	.8	.3	.1	.6	.8
29	4	7	10	9	-	4	2	.6	.5	0	.5	.6
30	4	7	10	9	-	5	2	.2	1	0	.5	.8
31	5	-	10	9	-	5	-	.2	-	50	.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	124.7	50	0	4.02	247
November	212	8	5	7.1	420
December	259	10	7	8.4	514
Calendar year 1937	1,798.6	50	0	4.93	3,570
January	266	12	6	8.6	528
February	206	9	5	7.4	409
March	236	11	4	7.6	468
April	52.9	5	.1	1.76	105
May	72.2	7	.2	2.33	143
June	19.0	4	0	.63	38
July	54.6	50	0	1.76	108
August	114.7	32	.2	3.70	228
September	456.8	121	0	15.2	906
Water year 1937-38	2,073.9	121	0	5.68	4,110

Peak discharge.- Oct. 16 (12:50 a.m.) 262 sec.-ft.; July 31 (8 p.m.) 722 sec.-ft.; Sept. 1 (5:30 p.m.) 834 sec.-ft.; Sept. 8 (12:15 a.m.) 314 sec.-ft.; Sept. 10 (9 p.m.) 624 sec.-ft.; Sept. 11 (1 a.m.) 515 sec.-ft.

Little Colorado River near Woodruff, Ariz.

Location.- Water-stage recorder, lat. 34°48', long. 110°03', in sec. 7, T. 16 N., R. 22 E., 1½ miles northwest of Woodruff and 4 miles below Silver Creek. Zero of gage is 5,123.5 feet above mean sea level (river profile survey).

Drainage area.- 9,060 square miles.

Records available.- March 1905 to December 1908, December 1915 to December 1919 (fragmentary), April 1929 to December 1933, September 1935 to September 1938.

Extremes.- Maximum discharge during year, 2,960 second-feet Aug. 8 (gage height, 7.20 feet); no flow during parts of period April to July.

1929-38: Maximum discharge, 10,700 second-feet July 21, 1929 (gage height, 12.45 feet); no flow on some days in spring or summer of each year.

Maximum discharge recorded, 25,000 second-feet Dec. 5, 1919 (gage height, 12.0 feet, former datum), from rating curve extended above 2,000 second-feet; maximum gage height recorded, 12.7 feet, former datum, Jan. 10, 1916 (discharge not determined).

Remarks.- Records good. Discharge for periods of ice effect, Dec. 22, Jan. 9-12, 24-27, computed on basis of weather records and parts of gage-height graph which were unaffected by ice. Diversions for irrigation above station. Some regulation by reservoirs upstream (combined capacity, about 73,000 acre-feet).

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	6	7	7	6	56	5	0	0	13	0.4	667
2	8	5	9	8	6	46	6	0	0	3	.2	141
3	5	5	11	8	4	40	5	0	0	1	.3	90
4	3	4	10	8	3	1,160	4	0	0	0	.2	50
5	3	5	9	7	3	216	3	0	0	0	42	47
6	2	6	7	7	3	82	5	1	0	0	86	28
7	3	9	6	6	2	36	5	1	0	0	550	74
8	3	9	6	5	2	19	7	1	0	0	555	39
9	2	8	6	5	3	11	5	.6	0	0	357	50
10	3	10	7	5	3	8	4	.4	0	0	50	432
11	3	9	7	5	3	6	3	.4	.3	0	22	244
12	2	14	8	5	3	6	3	.1	0	0	6	60
13	2	13	11	7	3	6	3	.1	0	26	7	28
14	2	12	14	6	3	7	4	.2	0	6	41	11
15	5	10	13	10	3	7	6	.2	0	1	113	6
16	8	9	12	12	3	7	6	0	0	0	92	4
17	43	8	11	10	5	6	7	0	0	4	16	5
18	13	7	9	9	5	5	5	0	0	2	6	3
19	12	7	8	7	5	5	3	0	0	1	3	4
20	6	7	8	8	10	5	2	0	0	1	2	2
21	8	6	6	10	14	4	2	0	0	1	1	1
22	7	6	5	9	13	3	4	0	0	1	.7	2
23	6	6	6	7	13	3	5	0	0	1	.6	2
24	5	6	7	5	15	3	4	0	77	1	40	2
25	4	6	7	5	13	3	3	.3	22	1	11	2
26	4	6	7	6	9	3	3	.3	3	1	5	2
27	4	7	8	4	8	4	1	0	.1	18	2	2
28	4	7	7	6	47	7	1	0	0	10	2	1
29	6	7	7	6	-	27	0	0	124	2	1	2
30	7	8	7	7	-	9	0	0	47	1	1	2
31	6	-	6	6	-	6	-	0	-	1	191	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	213	43	2	6.9	422
November	228	14	4	7.6	452
December	252	14	5	8.1	500
Calendar year 1937	22,192.4	1,940	0	60.8	44,010
January	216	12	4	7.0	428
February	210	47	2	7.5	417
March	1,806	1,160	3	58.3	3.580
April	114	7	0	3.8	226
May	5.6	1	0	.18	11
June	273.4	124	0	9.11	542
July	96	26	0	3.1	190
August	2,204.4	555	.2	71.1	4,370
September	2,003	667	1	66.8	3,970
Water year 1937-38	7,621.4	1,160	0	20.9	15,110

Peak discharge.- Mar. 4 (7:30 a.m.) 2,880 sec.-ft.; Aug. 7 (2:15 a.m.) 2,070 sec.-ft.; Aug. 8 (7:30 p.m.) 2,960 sec.-ft.

Little Colorado River at Grand Falls, Ariz.

Location.- Water-stage recorder, lat. 35°26', long. 111°12', in T. 24 N., R. 11 E., unsurveyed, on Navajo Indian Reservation, at Grand Falls, 38 miles northeast of Flagstaff. Zero of gage is about 4,440 feet above mean sea level.

Drainage area.- 22,100 square miles.

Records available.- November 1925 to September 1938.

Average discharge.- 13 years, 328 second-feet.

Extremes.- Maximum discharge during year, 38,000 second-feet Mar. 5 (gage height, 26.1 feet); no flow on many days.

1925-38: Maximum discharge, 50,500 second-feet Apr. 5, 1929 (gage height 30.0 feet); no flow some periods of most year.

A discharge of about 120,000 second-feet occurred on Sept. 19, 1923 (gage height 47.0 feet).

Remarks.- Records excellent except those for periods of ice effect, Dec. 21, Jan. 21-23 (computed on basis of parts of gage-height graph that were not affected by ice), and those for period of missing gage heights, Dec. 22 to Jan. 3 (computed on basis of recorded range in stage, weather records, and records for nearby stations), which are good. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,040	0	3	2	1	553	184	14		0	0	1
2	1,170	0	4	1	4	2,170	154	7		0	0	1,460
3	436	0	4	1	3	3,000	135	1		37	0	970
4	169	0	5	1	1	12,600	105	0		34	0	667
5	90	0	5	1	4	19,200	77	0		12	0	850
6	48	0	5	0	3	4,360	95	0		2	0	279
7	31	0	2	0	2	2,500	82	0		1	0	190
8	21	0	1	0	2	1,670	56	0		0	983	690
9	15	0	1	0	1	1,210	54	0		0	1,760	255
10	12	0	0	0	0	920	86	0		0	888	150
11	9	0	0	0	0	770	91	0		0	252	981
12	5	0	0	0	0	655	76	0		0	125	1,560
13	3	0	1	0	0	867	61	0		0	75	569
14	2	0	2	0	0	3,230	48	0		0	659	150
15	1	1	3	0	0	2.400	45	0		0	317	90
16	1	3	5	2	0	1,840	38	0		0	155	60
17	0	4	46	8	1	1,180	35	0		0	133	38
18	0	6	51	7	0	920	28	0		0	133	24
19	0	6	35	7	0	770	27	0		0	86	17
20	0	5	28	6	1	710	26	0		0	41	9
21	16	3	16	5	6	545	21	0		0	21	4
22	20	2	12	3	8	445	92	0		0	11	20
23	19	3	9	2	10	400	161	0		0	6	11
24	17	2	7	1	32	305	151	0		0	3	4
25	13	2	6	0	93	252	103	0		0	2	1
26	11	1	5	0	151	204	76	0		0	1	1
27	8	2	4	0	161	174	64	0		0	1	0
28	4	2	3	0	147	154	49	0		0	1	0
29	3	2	3	0	-	174	36	0		0	1	0
30	2	4	3	0	-	196	24	0		0	1	0
31	1	-	2	0	-	233	-	0		0	1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,167	1,170	0	102	6,280
November	48	6	0	1.6	95
December	271	51	0	8.7	538
Calendar year 1937	171,882	12,700	0	471	340,900
January	47	8	0	1.5	93
February	631	161	0	22.5	1,250
March	64,607	19,200	154	2,084	128,100
April	2,240	184	21	74.7	4,440
May	22	14	0	.7	44
June	0	0	0	0	0
July	86	37	0	2.8	171
August	5,655	1,760	0	182	11,220
September	9.051	1,560	0	302	17,950
Water year 1937-38	85,826	19,200	0	235	170,200

Silver Creek near Woodruff, Ariz.

Location.- Water-stage recorder, lat. 34°44', long. 110°02', in sec. 32, T. 16 N., R. 22 E., half a mile upstream from mouth and 3 miles south of Woodruff. Control for station is crest of diversion dam 1,700 feet downstream.

Drainage area.- 942 square miles.

Records available.- April 1929 to October 1933, October 1935 to September 1938.

Extremes.- Maximum discharge during year, 3,100 second-feet Aug. 8 (gage height, 6.52 feet); no flow on many days.
1929-38: Maximum discharge, 12,100 second-feet July 21, 1929 (gage height, 11.67 feet), from rating curve extended above 3,000 second-feet on basis of records for station at Woodruff; no flow during several periods in spring and summer of each year.

Remarks.- Records good. Diversions for irrigation above station. Regulation by several storage reservoirs (combined capacity about 27,000 acre-feet). Records show discharge over dam but do not include flow in canal that diverts at dam (see p. 278).

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1	1	2	3	1	3	4		0	1	0	455
2	1	2	2	3	1	3	4		0	1	0	26
3	.9	1	2	3	1	2	4		0	0	0	8
4	.9	1	2	3	.9	1,110	3		0	0	3	4
5	.9	1	2	3	.9	138	3		0	0	5	2
6	.8	2	2	2	.8	39	4		0	0	209	6
7	.8	3	2	1	.9	13	3		0	0	329	31
8	.9	3	2	1	.9	7	2		0	0	523	33
9	.9	2	1	1	1	4	2		0	0	160	12
10	.9	2	2	1	.8	3	2		0	0	25	4
11	1	3	2	1	.8	3	2		0	0	10	2
12	1	4	2	1	.8	3	2		0	8	2	2
13	1	4	3	1	.9	3	2		0	21	12	2
14	1	2	3	1	.9	3	3		0	8	10	2
15	2	1	3	2	.8	3	4		0	1	15	2
16	2	1	3	3	1	3	3		0	1	5	1
17	2	1	4	2	2	3	3		0	5	2	1
18	3	1	4	2	1	3	3		0	1	2	1
19	2	1	3	1	2	3	2		0	0	4	3
20	2	1	3	2	3	3	2		0	0	2	0
21	3	1	2	2	2	3	2		0	0	1	0
22	2	1	2	2	2	3	0		0	0	1	0
23	2	1	3	2	2	3	0		0	0	1	0
24	1	1	2	1	2	3	0		0	0	1	0
25	1	2	2	1	2	3	0		0	0	2	0
26	1	2	2	1	1	3	0		0	0	1	1
27	1	2	3	1	2	4	0		0	16	1	0
28	1	1	3	1	3	3	0		0	6	1	1
29	2	1	3	2	-	3	0		1	1	2	1
30	2	2	3	1	-	4	0		1	1	1	0
31	1	-	2	1	-	4	-		-	1	102	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	43.0	3	0.8	1.39	85
November	51	4	1	1.7	101
December	76	4	1	2.5	151
Calendar year 1937	11,042.7	1,320	0	30.3	21,900
January	52	3	1	1.7	103
February	38.4	3	.8	1.37	76
March	1,386	1,110	2	44.7	2,750
April	59	4	0	2.0	117
May	0	0	0	0	0
June	2	1	0	.1	4.0
July	72	21	0	2.3	143
August	1,433	523	0	46.2	2,840
September	600	455	0	20.0	1,190
Water year 1937-38	3,812.4	1,110	0	10.4	7,560

Peak discharge.- Mar. 4 (5 a.m.) 2,900 sec.-ft.; Aug. 8 (6:10 p.m.) 3,100 sec.-ft.

Chevelon Fork near Winslow, Ariz.

Location.- Water-stage recorder, lat. 34°56', long. 110°31', in sec. 27, T. 18 N., R. 17 E., 3 miles upstream from mouth and 12 miles southeast of Winslow.

Drainage area.- 1,010 square miles.

Records available.- December 1905 to December 1908, December 191 to December 1919, March 1929 to February 1934, September 1935 to September 1938.

Extremes.- Maximum discharge during year, 9,400 second-feet Mar. 4 (gage height, 14.15 feet) from rating curve extended above 3,200 second-feet; minimum, 3 second-feet on many days.

1929-38: Maximum discharge, 16,100 second-feet April 4, 1929 (gage height, 17.8 feet), from rating curve extended above 8,000 second-feet; minimum, about 1 second-foot sometime in almost every year.

Remarks.- Records good except those above 5,000 second-feet, which are fair. No diversions above station. Chevelon canal, which diverts below station (see p. 278), has maximum capacity of about 10 second-feet.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8	4	4	4	5	1,160	29	4	5	4	4	11
2	6	4	4	4	5	1,080	27	4	5	4	4	4
3	3	4	4	4	5	920	26	4	5	4	4	4
4	3	4	4	4	5	5,040	25	4	5	3	4	3
5	3	4	3	5	4	1,060	27	5	5	3	4	3
6	4	4	3	5	4	517	31	5	5	4	4	3
7	4	4	4	5	4	328	28	5	4	4	35	3
8	4	4	4	6	5	267	24	5	4	4	30	3
9	4	4	4	6	5	225	22	5	4	4	11	3
10	4	4	4	6	4	196	19	4	4	4	5	8
11	4	4	4	7	4	169	16	4	4	3	5	4
12	4	4	4	7	3	176	13	4	4	3	4	3
13	4	4	4	7	3	1,190	10	4	4	4	7	3
14	3	4	6	8	3	830	10	4	5	18	7	3
15	3	4	5	8	3	472	9	4	5	5	4	3
16	4	4	4	8	4	316	7	4	5	4	4	3
17	4	4	4	8	4	267	6	4	4	4	4	3
18	4	4	3	8	5	233	5	4	4	4	4	3
19	3	4	3	8	5	182	5	4	4	4	4	3
20	3	4	4	9	6	145	30	4	4	4	4	3
21	3	4	3	9	5	118	44	4	4	4	4	3
22	3	4	3	9	4	110	31	5	4	4	4	3
23	3	4	3	9	4	99	23	5	4	4	4	3
24	3	4	3	8	4	76	16	5	4	4	4	3
25	3	4	4	8	4	58	11	5	4	4	4	3
26	3	4	4	8	3	50	9	5	4	4	3	3
27	3	4	5	8	4	44	7	5	4	5	3	3
28	3	4	4	7	3	43	6	5	4	5	3	4
29	3	4	4	6	-	40	5	5	10	4	4	4
30	3	4	4	5	-	37	4	5	6	4	4	4
31	3	4	4	5	-	32	-	5	-	4	5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	112	8	3	3.6	222
November	120	4	4	4.0	238
December	120	6	3	3.9	238
Calendar year 1937	35,112	1,170	1	96.2	69,640
January	209	9	4	6.7	415
February	117	6	3	4.2	232
March	15,500	5,040	32	500	30,740
April	525	44	4	17.5	1,040
May	139	5	4	4.5	276
June	137	10	4	4.6	272
July	137	18	3	4.4	272
August	194	35	3	6.3	385
September	109	11	3	3.6	216
Water year 1937-38	17,419	5,040	3	47.7	34,550

Peak discharge.- Mar. 1 (3 a.m.) 1,330 sec.-ft.; Mar. 2 (4:30 p.m.) 1,420 sec.-ft.; Mar. 4 (6:30 a.m.) 9,400 sec.-ft.; Mar. 13 (11 a.m.) 2,090 sec.-ft.

Clear Creek near Winslow, Ariz.

Location.- Water-stage recorder, lat. 34°58', long. 110°38', in SE¼ sec. 9, T. 18 N., R. 15 E., 1½ miles upstream from mouth and 5 miles southeast of Winslow. Control for station is crest of diversion dam 1,000 feet downstream.

Drainage area.- 607 square miles.

Records available.- March 1929 to February 1934, October 1935 to September 1938. June 1906 to January 1909 at site 3 miles upstream.

Extremes.- Maximum discharge during year, 26,200 second-feet Mar. 4 (gage height, 14.3 feet) from rating curve extended above 13,500 second-feet on basis of velocity-area studies; no flow on many days.

1929-38: Maximum discharge, 50,000 second-feet (revised) Apr. 4, 1929 (gage height, 15.1 feet) from rating curve extended above 13,500 second-feet on basis of velocity-area studies; no flow on many days of each year.

Remarks.- Records good except those above 20,000 second-feet, which are fair. Water diverted above station for municipal and industrial supply. Records show discharge over dam but do not include flow in canal that diverts at dam (see p. 278 for flow in canal and flow at mouth of creek). Revised figures given below supersede those previously published.

Revised discharge, in second-feet, for high-water period in April 1929

Apr. 4 3,150 Apr. 5 15,600

	Maximum	Minimum	Mean	Run-off in acre-feet
April.....	15,600	130	1,270	75,800
The period..	15,600	0	226	84,600

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					0	666	87	9.5		0	0	
2					0	1,410	75	7.9		0	0	
3					0	1,410	64	5.6		0	0	
4					0	12,900	60	4.6		0	0	
5					0	2,640	56	5.1		0	0	
6					0	1,170	72	9.5		0	0	
7					0	685	91	6.4		.1	37	
8					0	503	118	3.7		0	2.7	
9					0	381	107	3.2		0	.7	
10					0	294	83	2.1		0	.1	
11					.1	228	68	1.0		0	0	
12					.1	194	60	.6		0	0	
13					.1	905	49	.4		0	.5	
14					.1	1,480	49	.2		0	.4	
15					.1	927	46	.1		0	0	
16					.1	625	52	0		0	0	
17					.2	494	56	0		0	0	
18					.2	485	52	0		0	0	
19					.2	423	121	0		0	0	
20					.2	340	250	0		0	0	
21					.2	294	208	0		0	0	
22					.2	286	182	0		0	0	
23					.2	221	133	0		0	0	
24					.2	182	91	0		0	0	
25					.2	150	64	0		0	0	
26					.2	139	46	0		0	0	
27					.2	139	35	0		0	0	
28					.2	144	25	0		0	0	
29					-	133	18	0		0	0	
30					-	118	12	0		0	0	
31					-	96	-	0		0	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	0	0	0	0	0
November.....	0	0	0	0	0
December.....	0	0	0	0	0
Calendar year 1937.....	59,147.1	2,120	0	162	117,300
January.....	0	0	0	0	0
February.....	3.0	.2	0	.11	6.0
March.....	30,062	12,900	96	970	59,600
April.....	2,450	250	12	81.7	4,860
May.....	59.9	9.5	0	1.93	119
June.....	0	0	0	0	0
July.....	.1	.1	0	.003	.2
August.....	41.4	37	0	1.34	82
September.....	0	0	0	0	0
Water year 1937-38.....	32,616.4	12,900	0	89.4	64,670

Peak discharge.- Mar. 2 (8:30 p.m.) 2,020 sec.-ft.; Mar. 4 (6:45 a.m.) 26,200 sec.-ft.; Mar. 13 (8:00 p.m.) 2,300 sec.-ft.

Moenkopi Wash near Tuba, Ariz.

Location.- Water-stage recorder, lat. 36°08', long. 111°18', in T. 31 N., R. 10 E. unsurveyed, on Navajo Indian Reservation, at highway bridge, 5 miles southwest of Tuba and 17 miles upstream from mouth.

Drainage area.- 2,270 square miles.

Records available.- July 1926 to September 1938.

Extremes.- Maximum discharge during year, 3,680 second-feet Sept. 4 (gage height, 7.30 feet) from rating curve extended above 300 second-feet by velocity-area method; no flow for many days.

1926-38: Maximum discharge, 15,100 second-feet Aug. 4, 1929 (gage height, 15.4 feet), by slope-area method; no flow during several days in each year.

Remarks.- Records good except those for October 1, 2, which are fair. Discharge for periods of ice effect, Dec. 1 and 21, computed on basis of partial gage-height graph that was not affected by ice. Diversions for irrigation above station; none below.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	447	3.8	4.4	5.0	5.7	390	0.1		0	0.1	0	37
2	41	3.8	5.7	5.7	7.2	95	2.5		0	0	0	93
3	16	3.8	8.0	5.7	7.2	52	.2		0	0	0	43
4	8.0	3.8	6.4	5.7	5.0	103	0		0	0	0	654
5	5.0	3.8	5.0	5.7	4.4	59	.9		0	0	0	30
6	4.4	3.8	3.8	5.0	4.4	18	1.1		0	0	0	5.8
7	4.4	3.8	2.9	4.4	3.8	12	.1		0	0	.5	6.4
8	3.8	3.8	2.5	3.7	4.4	7.2	0		0	0	38	5.7
9	3.8	3.8	1.8	3.3	4.4	5.7	1.4		0	0	242	5.0
10	3.8	3.8	3.2	2.9	3.8	5.0	1.8		0	0	14	4.4
11	3.8	3.8	5.0	2.9	4.4	4.4	.1		0	0	14	3.8
12	3.8	3.8	6.4	4.4	5.0	3.8	.1		0	0	159	4.4
13	3.8	4.4	2.8	5.0	4.4	3.8	1.4		0	0	80	3.8
14	3.3	4.4	7.2	5.7	3.8	4.4	1.3		0	0	89	3.3
15	3.3	4.4	5.7	6.4	2.9	5.0	1.6		0	0	6.7	.9
16	3.3	4.4	5.0	8.0	4.4	5.7	1.8		0	0	.3	.1
17	3.2	4.4	5.0	7.2	4.4	3.7	.2		0	0	0	.1
18	3.8	5.0	5.7	5.7	3.8	2.9	.3		0	0	0	0
19	3.8	5.0	5.7	5.7	3.8	2.5	1.1		0	0	0	0
20	3.3	5.0	9.6	7.2	7.2	2.2	.1		0	0	0	0
21	3.3	5.0	4.4	7.2	6.4	2.2	0		0	0	0	0
22	3.3	5.0	2.9	6.4	5.0	2.5	0		0	.1	0	0
23	3.8	5.0	4.4	5.7	5.0	1.6	0		0	18	0	0
24	3.8	5.0	6.4	4.4	4.4	1.3	0		0	17	0	0
25	3.8	4.4	5.7	2.9	4.4	.5	0		0	1.3	0	0
26	3.8	4.4	5.0	2.9	4.4	1.3	0		0	.1	0	0
27	3.8	4.4	5.7	4.4	5.7	.9	0		0	0	0	0
28	3.8	4.4	5.7	5.7	5.7	3.8	0		0	0	0	1.1
29	3.8	4.4	5.7	5.7	-	.9	0		60	0	.8	.4
30	3.8	5.0	5.0	5.7	-	.6	0		2.0	0	.9	0
31	3.8	-	5.0	5.7	-	.1	-		-	0	274	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	614.0	447	3.3	19.8	1,220
November	129.6	5.0	3.8	4.32	257
December	164.3	9.6	1.8	5.30	326
Calendar year 1937	9,377.3	2,920	0	25.7	18,600
January	162.0	8.0	2.9	5.23	321
February	135.4	7.2	2.9	4.84	269
March	795.6	390	.1	25.7	1,580
April	16.1	2.5	0	.54	32
May	0	0	0	0	0
June	62.0	60	0	2.07	123
July	34.6	17	0	1.12	69
August	919.2	274	0	29.7	1,820
September	902.2	654	0	30.1	1,790
Water year 1937-38	3,935.0	654	0	10.8	7,810

Peak discharge.- Mar. 1 (11:30 a.m.) 788 sec.-ft.; Sept. 4 (7:10 a.m.) 3,680 sec.-ft.

Bright Angel Creek near Grand Canyon, Ariz.

Location.- Staff gage, lat. 36°05'55", long. 112°05'38", an eighth of a mile upstream from mouth and 11 miles by trail from Grand Canyon post office, Coconino County. Prior to June 16, 1937, water-stage recorder 400 feet upstream at datum 11.9 feet higher, supplemented by temporary staff gages since Aug. 19, 1936. Zero of gage is 2,446.3 feet above mean sea level (preliminary 1929 adjustment).

Drainage area.- 100 square miles.

Records available.- October 1923 to September 1938.

Average discharge.- 15 years, 39.1 second-feet.

Extremes.- Maximum discharge observed during year, 575 second-feet Apr. 21, 22; minimum observed, 22 second-feet Oct. 22.

1923-38: Maximum discharge, 4,400 second-feet Aug. 19, 1936 (gage height, 15.0 feet, from floodmarks), by slope-area method; minimum, 0 second-feet (regulated) June 29, 1934.

Remarks.- Records good. Gage read twice daily or oftener. Small diversions for irrigation above station. Some fluctuation in discharge caused by operation of power plant 9 miles upstream; no regulation by storage.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	28	24	26	28	76	53	358	94	37	30	28
2	26	27	24	25	28	59	52	310	89	36	31	29
3	25	27	24	24	26	159	52	262	86	34	29	34
4	25	27	24	24	26	132	56	206	77	34	29	29
5	24	27	24	25	26	69	62	181	71	34	29	27
6	24	27	24	25	27	59	64	166	70	33	29	29
7	24	27	24	25	26	54	64	162	67	33	31	29
8	24	26	24	25	26	52	62	156	63	34	31	28
9	24	26	24	25	25	44	62	140	60	32	30	26
10	24	25	27	25	25	41	74	144	55	31	29	26
11	24	25	26	24	25	39	99	156	52	32	30	26
12	24	25	57	24	32	59	121	166	49	31	31	28
13	25	25	27	24	27	56	140	188	48	31	31	26
14	25	25	26	24	26	50	122	202	47	30	32	25
15	24	25	26	25	25	47	113	245	45	31	33	25
16	24	25	26	23	25	44	121	265	43	31	33	25
17	24	25	26	23	36	44	145	251	42	31	32	25
18	24	25	26	23	26	44	226	245	43	32	31	25
19	24	25	25	28	26	44	298	216	42	33	31	25
20	24	25	25	38	26	44	414	197	42	33	29	26
21	23	25	26	30	26	46	490	181	42	31	29	26
22	22	25	26	26	25	48	520	164	40	33	29	26
23	24	24	25	24	26	50	470	156	39	33	29	26
24	24	25	27	24	26	53	466	150	36	32	29	26
25	24	25	26	24	24	53	475	150	34	39	29	26
26	24	24	26	24	25	54	410	148	34	30	28	26
27	24	24	26	24	26	62	350	146	34	29	26	26
28	24	24	25	24	111	66	285	142	34	29	26	26
29	24	24	25	25	-	61	294	135	41	28	25	26
30	28	24	26	26	-	59	333	130	39	31	28	27
31	27	-	26	25	-	52	-	110	-	31	29	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	756	28	22	24.4	1,500
November	761	28	24	25.4	1,510
December	818	57	24	26.4	1,620
Calendar year 1937	21,627	395	19	59.3	42,890
January	781	38	23	25.2	1,550
February	812	111	24	29.0	1,610
March	1,820	159	39	58.7	3,610
April	6,499	520	52	217	12,890
May	5,831	358	110	188	11,570
June	1,557	94	34	51.9	3,090
July	999	39	28	32.2	1,980
August	918	33	25	29.6	1,820
September	802	34	25	26.7	1,590
Water year 1937-38	22,354	520	22	61.2	44,340

Virgin River at Virgin, Utah

Location.- Chain gage, lat. 37°13', long. 113°11', in SE¼ sec. 22, T. 41 S., R. 12 W., at east edge of Virgin, half a mile downstream from North Creek.

Drainage area.- 990 square miles.

Records available.- April 1905 to September 1928 (fragmentary) and October 1928 to September 1938.

Average discharge.- 14 years (1910-14, 1915-16, 1917-18, 1923-24, 1928-38), 233 second-feet.

Extremes.- Maximum discharge during year, 13,500 second-feet Mar. 3 (gage height, 10.7 feet from floodmarks) by slope-area method; minimum discharge observed, 42 second-feet Aug. 3.
1909-38: Maximum discharge, that of Mar. 3, 1938; minimum discharge observed, 23 second-feet Sept. 30, 1931.

Remarks.- Records poor. Gage read once daily. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	113	142	134	152	211	462	332	864	*298	166	56	258
2	104	125	142	*180	140	1,000	404	855	292	147	54	195
3	104	108	161	211	171	5,000	455	767	270	125	48	147
4	104	113	142	142	171	855	404	743	258	134	58	138
5	104	104	142	134	211	468	642	658	237	117	64	138
6	97	104	142	134	*190	*350	529	592	253	117	326	129
7	97	*110	142	142	171	291	571	642	221	104	166	121
8	113	117	142	134	171	320	474	571	206	90	481	121
9	104	125	152	*138	161	285	529	550	200	*83	190	*125
10	97	117	180	142	161	270	371	695	190	76	161	129
11	121	121	180	142	161	303	522	650	206	73	147	142
12	104	121	550	142	309	700	665	680	185	66	129	152
13	97	121	*200	142	180	495	759	791	166	105	138	117
14	90	113	171	142	171	361	727	994	161	86	*130	117
15	97	125	180	152	152	338	711	940	142	83	121	125
16	104	125	180	275	142	349	823	940	142	83	113	142
17	97	152	190	171	142	343	735	932	121	76	104	152
18	113	142	190	171	180	332	898	886	129	104	104	152
19	104	134	180	166	171	343	967	932	129	86	97	152
20	104	125	180	221	*156	*370	1,040	751	125	73	97	142
21	104	134	180	171	142	392	1,170	855	125	66	80	*145
22	97	134	180	161	142	392	1,250	688	*123	61	80	147
23	100	142	180	142	152	373	1,450	743	121	83	86	147
24	100	*138	211	125	152	386	1,340	642	121	83	86	147
25	100	134	*200	134	152	373	1,160	680	248	113	93	138
26	93	134	190	134	142	410	1,010	585	93	97	86	129
27	97	134	180	161	*156	338	914	578	93	93	180	108
28	97	125	171	152	171	338	1,030	557	100	86	152	121
29	97	134	152	190	-	326	1,150	416	226	73	142	138
30	97	125	152	171	-	343	1,050	326	299	80	142	129
31	100	-	161	161	-	343	-	303	-	76	152	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,150	121	90	102	6,250
November	3,778	142	104	126	7,490
December	5,637	550	134	182	11,180
Calendar year 1937	108,649	1,920	56	298	215,500
January	4,935	275	125	159	9,790
February	4,771	309	142	170	9,460
March	17,211	5,000	270	555	34,140
April	24,282	1,450	332	809	48,160
May	21,839	994	303	704	43,320
June	5,473	298	93	182	10,860
July	2,908	166	61	93.8	5,770
August	4,065	481	48	131	8,060
September	4,243	258	108	141	8,420
Water year 1937-38	102,292	5,000	48	280	202,900

*Gage-height missing; discharge computed on basis of records for North Fork of Virgin River near Springdale.

Virgin River at Littlefield, Ariz.

Location.- Staff gage, lat. 36°53', long. 113°56', in SW¼ sec. 4, T. 40 N., R. 15 W., half a mile downstream from Beaverdam Wash and half a mile east of Littlefield.

Drainage area.- 4,400 square miles.

Records available.- October 1929 to September 1938.

Extremes.- Maximum discharge during year, 22,000 second-feet Mar. 3 (gage height, 10.3 feet, from floodmarks), by slope-area method; minimum discharge observed, 55 second-feet June 18.

1929-38: Maximum discharge, 25,000 second-feet (estimated) Aug. 27, 1932; minimum discharge observed, 25 second-feet Aug. 31, 1935.

Remarks.- Records poor. Gage read once daily. Discharge for period of missing gage heights Mar. 3-5 (gage destroyed by flood), computed on basis of slope-area determination and observer's notes. No diversion in Arizona above station except a few second-feet from Beaverdam Springs; several diversions in Utah. Mesquite canal diverts water at a point a few miles downstream for irrigation in Nevada.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	135	111	200	260	268	1,020	274	2,220	377	129	71	134
2	137	109	203	268	274	1,070	264	1,800	278	129	71	159
3	111	115	203	265	268	17,000	246	922	246	90	71	112
4	102	115	205	265	262	11,000	238	742	234	90	71	103
5	86	117	203	262	268	4,000	222	550	167	76	71	103
6	74	115	205	257	274	922	214	478	141	76	686	94
7	74	121	213	257	268	503	207	469	125	76	530	94
8	74	121	218	260	262	469	207	452	108	76	1,200	94
9	77	121	240	257	279	399	201	460	104	70	590	94
10	83	124	251	254	285	377	198	452	90	70	345	94
11	79	124	254	260	310	351	194	421	90	67	136	94
12	75	121	260	262	296	309	198	550	90	66	112	94
13	79	128	262	328	305	303	204	719	88	66	80	94
14	88	130	260	348	319	315	207	686	84	67	80	94
15	74	135	268	500	325	333	201	686	68	67	80	94
16	79	139	274	360	337	327	207	719	66	67	94	85
17	96	155	274	279	360	351	478	675	56	67	80	85
18	86	150	279	279	366	333	570	882	55	68	80	77
19	86	155	285	274	369	339	664	1,050	63	70	106	77
20	94	153	282	276	345	298	1,190	882	66	70	80	77
21	96	155	279	268	366	288	1,780	855	70	68	80	77
22	96	157	290	274	360	278	2,280	755	63	68	80	77
23	98	155	288	265	354	254	2,360	653	58	70	85	77
24	100	162	279	262	345	230	2,300	600	58	70	85	77
25	98	157	282	260	348	207	2,250	540	56	70	84	80
26	102	155	271	260	345	201	2,260	620	97	70	84	77
27	109	155	260	262	363	242	2,310	570	88	73	85	76
28	111	187	260	260	513	264	2,300	540	80	76	106	85
29	106	192	257	257	-	259	2,230	520	80	76	101	84
30	104	197	260	262	-	274	2,200	421	73	71	123	85
31	113	-	262	268	-	264	-	399	-	71	112	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,922	137	74	94.3	5,800
November	4,231	197	109	141	8,390
December	7,827	290	200	252	15,520
Calendar year 1937	123,893	1,440	39	339	245,700
January	8,669	500	254	280	17,190
February	9,034	513	262	323	17,920
March	42,780	17,000	201	1,380	84,850
April	28,654	2,360	194	955	56,830
May	22,288	2,220	399	719	44,210
June	3,319	377	55	111	6,580
July	2,340	129	66	75.5	4,640
August	5,659	1,200	71	183	11,220
September	2,747	159	76	91.6	5,450
Water year 1937-38	140,470	17,000	55	385	278,600

North Fork of Virgin River near Springdale, Utah

Location.- Staff gage, lat. 37°12'35", long. 112°58'40", in SW¼NW¼ sec. 22, T. 41 S., R. 10 W., in Zion National Park, half a mile downstream from Pine Creek and 2 miles northeast of Springdale. Gage datum lowered 0.98 foot [illegible] Mar. 7, 1933.

Records available.- October 1932 to September 1938. June to November 1923 and April 1925 to September 1932 at site a quarter of a mile upstream from Pine Creek.

Average discharge.- 12 years (1925-31, 1932-38), 100 second-feet.

Extremes.- Maximum discharge during year, 3,000 second-feet Mar. 8 (gage height, 11.0 feet, from flood marks), by slope-area method; minimum discharge observed, 50 second-feet Feb. 20.

1925-38: Maximum discharge, that of Mar. 8, 1933; minimum discharge observed, 24 second-feet Dec. 17 and 31, 1928.

Remarks.- Records poor. Gage read once daily. Records give the combined flow of the North Fork of Virgin River and Springdale Canal, which diverts in NW¼NW¼ sec. 22, T. 41 S., R. 10 W., for irrigation in vicinity of Springdale.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	61	63	63	70	75	202	81	753	266	105	59	75
2	66	73	74	81	74	503	95	749	243	91	57	75
3	62	69	71	81	*75	3,000	118	668	231	90	57	75
4	61	70	67	81	*79	*500	118	620	209	83	56	57
5	61	66	67	75	*73	*200	219	*572	208	83	54	57
6	61	64	67	70	*71	*150	150	527	198	83	78	57
7	61	70	65	62	*70	108	124	408	189	78	170	57
8	57	64	65	59	69	*130	*109	341	179	72	190	57
9	57	67	65	58	71	*120	*116	340	176	72	72	55
10	57	67	103	56	71	*110	152	409	170	72	65	65
11	57	67	71	56	74	*150	247	452	161	71	58	85
12	57	67	303	58	69	368	258	482	151	71	58	75
13	57	67	79	58	65	324	286	782	126	71	58	66
14	61	67	79	58	61	135	220	574	117	71	58	58
15	57	67	81	101	61	126	257	528	117	71	54	58
16	57	67	81	74	54	144	235	527	118	65	63	54
17	57	67	81	74	51	154	358	451	117	106	58	55
18	57	65	81	71	51	95	448	588	117	71	57	55
19	57	65	75	81	51	119	701	602	117	65	57	53
20	57	65	66	81	50	95	947	828	117	71	55	61
21	57	63	62	80	53	95	814	450	103	65	57	58
22	57	63	55	74	56	118	897	422	110	59	57	56
23	58	65	62	67	56	110	964	422	104	66	57	56
24	58	65	62	67	60	110	947	426	104	62	57	56
25	58	65	62	61	60	144	964	411	104	59	57	56
26	58	65	75	61	60	144	730	411	104	67	65	56
27	57	65	70	74	73	126	556	411	104	59	65	56
28	57	65	70	74	250	126	589	370	90	59	108	56
29	57	63	66	80	-	102	764	343	191	59	76	56
30	57	63	66	80	-	95	799	329	112	62	66	56
31	63	-	70	65	-	81	-	273	-	59	66	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,815	66	57	58.5	3,600
November	1,979	73	63	66.0	3,930
December	2,424	303	55	78.2	4,810
Calendar year 1937	71,241	2,070	51	195	141,300
January	2,187	101	56	70.5	4,340
February	1,983	250	50	70.8	3,930
March	7,983	3,000	81	258	15,830
April	13,214	964	81	440	26,210
May	15,574	828	278	502	30,890
June	4,453	266	90	148	8,830
July	2,238	106	59	72.2	4,440
August	2,165	190	54	69.8	4,290
September	1,812	85	53	60.4	3,590
Water year 1937-38	57,827	3,000	50	158	114,700

*Gage height missing; discharge computed on basis of records for Virgin River at Virgin.

Williams River at Planet, Ariz.

Location.- Water-stage recorder, lat. 34°16', long. 113°59', in NE¼ sec. 36, T. 11 N., R. 17 W., 1 mile west of Planet and 12 miles upstream from mouth. Zero of gage is 556.33 feet above mean sea level (general adjustment of 1929).

Drainage area.- 5,140 square miles.

Records available.- September 1910 to December 1915 (fragmentary), October 1928 to September 1938.

Average discharge.- 10 years (1928-38), 140 second-feet.

Extremes.- Maximum discharge during year, 61,000 second-feet Mar. 4 (gage height, 10.7 feet); minimum, 12 second-feet May 20.

1928-38: Maximum discharge, 92,500 second-feet Feb. 7, 1937 (gage height, 13.1 feet), from rating curve extended above 51,000 second-feet (revised) on basis of velocity-area study; minimum, 7 second-feet Sept. 30, Oct. 1, 1934.

Floods estimated as greater than 150,000 second-feet occurred about Feb. 21, 1891, and Jan. 20, 1916.

Remarks.- Records good. Discharge for periods of missing gage heights, Oct. 10-21, Oct. 23 to Nov. 4, Aug. 24-29, Sept. 8-13, and that for periods of faulty gage-height record Oct. 7-9, Mar. 25, 26, June 12, interpolated. Small diversions above station for irrigation.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	137	20	17	19	17	1,130	24	17	17	18	14	15
2	143	20	17	19	17	1,340	24	17	17	19	16	15
3	35	20	17	19	17	14,900	24	19	17	21	17	15
4	19	20	17	19	17	24,100	22	17	16	22	17	15
5	19	20	17	19	17	4,080	21	17	16	22	17	15
6	19	19	18	18	17	1,560	21	17	17	21	17	15
7	19	19	18	18	17	752	19	17	17	19	16	15
8	19	18	18	18	18	771	19	18	17	19	15	15
9	19	18	19	19	18	403	18	18	17	19	15	16
10	19	18	21	18	18	366	18	17	17	19	15	16
11	19	18	21	18	18	233	17	16	17	19	15	16
12	19	19	21	18	17	187	21	15	17	19	15	16
13	19	17	22	18	17	139	21	16	17	18	15	16
14	19	17	22	18	34	94	19	15	17	18	14	16
15	19	17	22	18	42	70	22	15	17	18	14	16
16	19	18	22	18	19	63	21	15	17	18	13	16
17	19	19	21	18	18	60	22	15	17	18	14	16
18	19	21	21	18	21	56	25	15	17	16	14	16
19	19	22	21	17	24	38	25	14	17	17	14	16
20	19	22	19	17	24	35	24	13	17	17	16	16
21	19	27	19	17	22	29	22	14	17	17	15	16
22	19	27	19	17	21	29	19	14	17	16	15	16
23	19	21	19	17	19	28	18	14	17	16	15	16
24	19	19	19	17	18	27	18	14	17	17	15	16
25	19	18	19	17	18	27	17	15	17	27	15	16
26	19	17	22	17	17	26	18	16	17	17	15	16
27	19	17	22	17	21	26	19	16	17	16	14	15
28	19	17	21	17	21	25	21	16	46	15	14	15
29	20	16	21	17	-	24	17	16	29	14	14	15
30	20	16	19	17	-	24	17	16	17	15	14	15
31	20	-	19	17	-	24	-	17	-	15	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	850	143	19	27.4	1,690
November	576	27	16	19.2	1,140
December	610	22	17	19.7	1,210
Calendar year 1937	127,696	44,700	10	350	253,200
January	550	19	17	17.7	1,090
February	564	42	17	20.1	1,120
March	50,665	24,100	24	1,634	100,500
April	613	25	17	20.4	1,220
May	491	19	13	15.8	974
June	549	46	16	18.3	1,090
July	564	27	14	18.2	1,120
August	464	17	13	15.0	920
September	468	16	15	15.6	928
Water year 1937-38	56,964	24,100	13	156	113,000

Peak discharge.- Oct. (2 p.m.) 340 sec.-ft.; Mar. 1 (3:45 a.m.) 2,400 sec.-ft.; Mar. 2 (6:30 a.m.) 3,150 sec.-ft.; Mar. 3 (5:30 p.m.) 46,300 sec.-ft.; Mar. 4 (1:30 a.m.) 61,000 sec.-ft.; Mar. 5 (4:30 a.m.) 7,770 sec.-ft.

Gila River near Gila, N. Mex.

Location.- Water-stage recorder, lat. 33°03', long. 108°32', in sec. 30, T. 14 S., R. 16 W., at Hooker dam site, 1 mile upstream from Mogollon Creek and 7 miles northeast of Gila. Zero of gage is 4,655.8 feet above mean sea level.

Drainage area.- 1,780 square miles.

Records available.- April to December 1914 (at site 3 miles upstream and about a quarter of a mile downstream from Turkey Creek) and October 1930 to September 1938 in reports of Geological Survey. April to December 1914 and November 1927 to December 1928 (at site 3 miles upstream) and January 1929 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 1,820 second-feet March 4 (gage height, 7.04 feet); minimum daily discharge, 24 second-feet June 17.
1930-38: Maximum discharge, about 6,110 second-feet Feb. 16, 1937 (gage height 10.12 feet), from rating curve extended above 1,160 second-feet; minimum daily discharge, 21 second-feet June 22, 27, 1934.

Remarks.- Records fair except those for periods of missing gage heights, May 30 to June 14, June 16, 18, 19, July 3-15, which were computed on basis of weather records and records for station at Red Rock and near Fuller ranch and are poor. One small diversion for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	65	61	58	65	66	94	122	133	45	76	47	78
2	61	61	59	65	73	115	124	145	40	68	46	176
3	60	61	61	66	72	143	126	147	40	60	42	78
4	56	61	63	66	69	1,120	128	141	35	50	40	100
5	54	63	63	72	69	880	137	126	30	45	63	70
6	54	61	61	72	66	524	147	115	30	40	58	88
7	52	69	60	70	66	430	160	104	30	40	49	104
8	53	73	58	69	68	391	156	98	30	35	49	60
9	52	69	59	66	68	361	141	96	30	35	49	69
10	55	68	59	64	66	301	130	93	30	35	47	133
11	64	68	59	64	66	249	120	90	30	60	45	74
12	108	68	64	63	69	238	113	84	30	50	45	886
13	154	65	104	64	70	295	111	80	30	40	42	770
14	111	66	101	65	70	394	124	79	30	80	46	441
15	96	66	85	69	72	351	137	78	33	110	47	246
16	132	66	76	72	73	274	133	79	30	93	45	364
17	139	65	70	70	80	226	124	82	24	78	41	313
18	133	64	68	70	78	203	115	86	25	96	39	233
19	120	63	64	69	74	189	109	88	25	109	35	180
20	108	63	63	69	73	171	113	84	26	331	34	145
21	98	63	64	72	73	156	130	78	26	325	34	128
22	85	63	64	72	73	145	154	72	25	194	31	113
23	79	64	63	70	72	139	171	69	33	130	28	104
24	74	63	63	66	73	132	175	66	47	104	27	96
25	70	61	64	63	72	122	177	66	43	82	31	93
26	69	61	68	59	73	120	173	60	41	76	33	86
27	65	60	68	60	74	130	169	58	39	78	35	82
28	64	59	65	61	84	141	154	54	63	85	34	78
29	63	58	64	64	-	132	137	54	73	69	34	76
30	61	58	64	65	-	122	130	50	86	61	33	74
31	60	-	64	65	-	126	-	45	-	52	34	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,515	154	52	81.1	4,990
November	1,911	73	58	63.7	3,790
December	2,066	104	58	66.6	4,100
Calendar year 1937	80,110	3,400	32	219	158,900
January	2,067	72	59	66.7	4,100
February	2,002	84	66	71.5	3,970
March	8,414	1,120	94	271	16,690
April	4,140	177	109	138	8,210
May	2,702	147	45	87.2	5,360
June	1,099	86	24	36.6	2,180
July	2,787	331	35	89.9	5,530
August	1,263	63	27	40.7	2,510
September	5,838	886	60	195	10,980
Water year 1937-38	36,504	1,120	24	100	72,410

Peak discharge.- Mar. 4 (2 p.m.) 1,820 sec.-ft.; Sept. 12 (10 a.m.) 1,440 sec.-ft.; Sept. 13 (8 a.m.) 1,030 sec.-ft.

Gila River near Red Rock, N. Mex.

Location.- Water-stage recorder, lat. 32°45', long. 108°40', in sec. 23, T. 18 S., R. 18 W., 4 miles northeast of Red Rock and 11 miles downstream from Mangas Creek.

Drainage area.- 2,840 square miles.

Records available.- May 1908 to December 1914 and October 1930 to September 1938 in reports of Geological Survey. May 1908 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 7,940 second-feet Sept. 1 (gage height, 11.36 feet); minimum daily discharge, 14 second-feet June 22, 23.
1930-38: Maximum discharge, 11,800 second-feet (revised) Feb. 16, 1937 (gage height, 13.87 feet), from rating curve extended above 5,000 second-feet logarithmically and on basis of peak flow for station at Fuller ranch; minimum daily discharge, 7.0 second-feet June 18, 1934.

Remarks.- Records fair except those for periods of uncertain or missing gage heights, Oct. 1-11, Mar. 18-26, Mar. 31 to Apr. 15, Sept. 20-30, which were computed on basis of records for stations near Gila and Fuller ranch and are poor. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	90	90	78	90	85	112	170	143	46	48	42	743
2	80	89	78	92	88	126	160	145	42	46	37	367
3	70	88	80	92	88	129	160	141	36	46	35	250
4	65	88	82	92	88	1,140	150	149	33	45	35	147
5	60	87	83	93	88	1,730	140	141	26	44	35	213
6	60	87	84	96	87	684	140	114	26	42	76	198
7	55	85	81	97	85	515	150	111	27	39	58	206
8	55	87	78	96	85	470	150	107	29	32	73	147
9	55	84	80	92	84	470	140	107	28	30	46	436
10	60	84	78	90	82	430	140	90	28	30	44	332
11	70	84	78	90	83	392	130	82	26	29	35	410
12	96	84	82	90	84	384	130	72	26	29	49	859
13	131	84	98	89	84	415	120	66	26	29	514	1,110
14	140	84	115	89	84	520	110	63	28	29	189	520
15	127	85	110	93	84	505	130	69	28	60	42	290
16	135	84	108	92	85	440	125	72	25	78	40	286
17	142	84	104	92	90	380	120	67	24	153	33	314
18	138	82	103	92	89	340	118	67	24	90	31	286
19	133	81	102	92	89	300	101	69	24	423	28	258
20	124	81	96	90	87	270	98	72	24	900	27	220
21	115	82	100	90	85	240	111	69	20	537	26	190
22	110	82	98	89	87	220	125	75	14	324	24	160
23	104	83	94	90	85	210	149	77	14	220	23	140
24	103	83	90	89	85	200	152	63	44	170	22	120
25	98	83	92	89	85	180	156	57	23	150	18	100
26	96	83	96	87	89	180	149	53	19	119	22	90
27	94	82	97	84	87	204	161	53	20	95	20	85
28	94	80	96	84	88	213	156	52	54	375	21	80
29	93	80	97	84	-	201	141	55	65	110	20	75
30	92	80	94	84	-	182	139	52	52	62	20	70
31	90	-	92	85	-	170	-	49	-	47	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,975	142	55	96.0	5,900
November	2,520	90	80	84.0	5,000
December	2,844	115	78	91.7	5,640
Calendar year 1937	111,476	8,210	25	305	221,100
January	2,794	97	84	90.1	5,540
February	2,406	90	82	85.9	4,770
March	11,952	1,730	112	386	23,710
April	4,121	170	98	137	8,170
May	2,602	149	49	83.9	5,160
June	901	65	14	30.0	1,790
July	4,431	900	29	143	8,790
August	1,711	514	18	55.2	3,390
September	8,702	1,110	70	290	17,260
Water year 1937-38	47,959	1,730	14	131	95,120

Peak discharge.- July 19 (11 p.m.) 4,350 sec.-ft.; Aug. 13 (10 p.m.) 4,650 sec.-ft.; Sept. 1 (8 p.m.) 7,940 sec.-ft.

Gila River at Fuller ranch, near Duncan, Ariz.

Location.- Water-stage recorder, lat. 32°32'45", long. 109°50'45", in SE¼SW¼ sec. 18, T. 19 S., R. 19 W., N. Mex., at head of canyon just downstream from Fuller ranch, 16 miles east of Duncan. Zero of gage is about 3,875 feet above mean sea level.

Drainage area.- 3,140 square miles.

Records available.- June 1931 to September 1938. May 1914 to September 1915 at site 6 miles downstream, above intake of Sunset canal. January 1923 to September 1926 at site 8 miles downstream, below intake of Sunset canal. October 1926 to September 1931 at site at Virden Bridge, 8½ miles downstream.

Extremes.- Maximum discharge during year, 6,400 second-feet Aug. 31 (gage height, 12.28 feet); minimum, 4 second-feet Aug. 31 (gage height, 3.74 feet).
1931-38: Maximum discharge, 8,100 second-feet Aug. 3, 1931; minimum, 1 second-foot July 14, 1934.

Remarks.- Records good. Diversions for irrigation above station, which is above all diversions for Duncan Valley.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	71	78	83	99	89	102	155	142	42	60	45	537
2	70	77	83	99	91	120	153	144	37	60	40	602
3	66	76	83	99	91	127	153	138	34	60	30	269
4	61	76	82	99	89	405	146	147	29	57	30	158
5	57	77	84	99	89	1,350	136	151	24	41	30	176
6	54	80	83	99	86	732	134	134	20	29	250	228
7	51	83	80	102	86	538	146	122	14	20	100	214
8	47	92	77	100	82	472	151	118	12	16	85	193
9	46	94	73	102	80	454	140	116	12	20	65	209
10	48	92	74	100	82	411	134	115	11	15	50	340
11	54	91	74	97	82	373	138	104	9	16	40	293
12	77	91	76	97	84	333	134	88	11	17	30	475
13	99	91	89	99	84	337	116	73	10	14	55	747
14	124	89	105	97	84	424	111	60	11	12	360	477
15	117	89	108	100	86	450	131	52	10	26	75	293
16	122	84	108	100	86	386	132	52	10	146	55	230
17	126	86	105	99	92	337	122	52	12	130	44	275
18	129	86	103	99	95	307	119	52	12	79	33	242
19	124	83	102	99	99	285	111	51	11	143	29	205
20	119	84	102	97	95	258	104	55	10	718	24	178
21	115	88	105	97	92	233	99	55	10	502	21	159
22	107	86	105	99	91	224	111	53	9	275	18	140
23	103	86	102	99	91	214	131	65	11	188	13	123
24	100	83	97	95	91	198	142	59	12	146	9	113
25	95	83	95	94	83	183	142	50	19	122	8	101
26	91	84	97	95	86	172	146	46	11	103	8	95
27	86	84	100	94	91	168	147	43	10	107	7	88
28	84	84	100	92	92	174	153	43	24	368	8	78
29	82	84	100	89	-	174	146	43	60	120	7	72
30	80	84	102	88	-	168	144	46	65	70	6	65
31	80	-	100	88	-	161	-	43	-	55	543	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,685	129	46	86.6	5,330
November	2,545	94	76	84.8	5,050
December	2,877	108	73	92.8	5,710
Calendar year 1937	103,822	6,850	6	284	206,000
January	3,012	102	88	97.2	5,970
February	2,474	99	80	88.4	4,910
March	10,270	1,350	102	331	20,370
April	4,026	155	99	134	7,990
May	2,512	151	43	81.0	4,980
June	572	65	9	19.1	1,130
July	3,735	718	12	120	7,410
August	2,118	543	6	68.3	4,200
September	7,375	747	65	246	14,630
Water year 1937-38	44,201	1,350	6	121	87,680

Peak discharge.- Mar. 5 (5:55 a.m.) 1,760 sec.-ft.; July 20 (8:50 p.m.) 2,530 sec.-ft.; Aug. 31 (7:30 p.m.) 6,400 sec.-ft.; Sept. 2 (1:15 a.m.) 2,250 sec.-ft.

Gila River near Clifton, Ariz.

Location.- Water-stage recorder, lat. 33°57'30", long. 109°18'15", in SE¼ sec. 25, T. 5 S., R. 29 E., at highway bridge, 7 miles south of Clifton and 5 miles upstream from San Francisco River. Zero of gage is 3,335.3 feet above mean sea level (unadjusted).

Drainage area.- 4,040 square miles.

Records available.- March 1925 to October 1933, May 1935 to September 1938. November 1910 to July 1915 at site 4 miles upstream, published as Gila River at Guthrie, Ariz.

Extremes.- Maximum discharge during year, 5,930 second-feet Aug. 6 (gage height, 11.80 feet); minimum, 15 second-feet Aug. 28.

1928-38: Maximum discharge, about 11,500 second-feet Aug. 26, 1934 (gage height, 16.0 feet, from floodmarks); minimum probably occurred in 1934; minimum recorded, 10 second-feet July 28, 1935.

Remarks.- Records good. Discharge for period of missing gage heights, June 5-16, computed on basis of recorded range in stage. Diversions for irrigation above station, which is below all diversions from Gila River above San Francisco River.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	66	79	110	90	83	102	79	20	39	37	582
2	40	68	79	115	89	85	95	75	20	30	31	1,370
3	39	68	83	118	89	98	90	74	19	28	26	280
4	43	64	86	118	89	114	88	75	19	26	24	224
5	43	61	83	116	82	908	85	79	20	24	379	134
6	40	63	82	118	71	927	76	84	21	23	579	215
7	35	64	83	116	68	595	67	76	20	22	398	344
8	36	67	83	118	67	425	72	69	20	22	192	182
9	36	68	80	113	64	357	79	59	20	22	114	194
10	37	73	79	116	65	329	88	54	20	22	179	331
11	36	74	83	113	64	298	80	50	20	21	92	448
12	59	77	86	111	64	269	77	47	20	22	72	399
13	98	76	92	111	62	261	76	40	20	22	72	557
14	102	80	106	110	63	281	66	35	20	21	324	534
15	124	83	115	111	62	345	61	30	20	22	156	336
16	118	79	119	111	62	326	61	27	20	22	74	243
17	120	80	120	109	59	296	68	25	20	40	59	215
18	130	78	118	110	62	277	65	23	20	59	51	217
19	139	77	115	113	63	257	52	24	20	60	42	202
20	133	76	113	111	66	232	45	23	19	136	32	175
21	130	73	115	110	72	215	40	22	19	1,020	27	156
22	124	78	118	111	76	197	38	22	18	271	24	132
23	115	82	116	110	78	182	36	22	20	191	23	114
24	105	82	115	106	79	163	38	22	54	129	20	97
25	98	82	113	102	78	148	51	22	33	90	18	82
26	97	85	110	96	80	134	59	21	24	72	18	72
27	92	85	114	96	77	124	65	21	27	55	19	64
28	90	85	111	97	79	119	65	21	23	90	18	57
29	89	83	113	97	-	118	73	21	266	307	20	50
30	73	80	111	96	-	114	79	20	80	114	18	44
31	62	-	110	92	-	108	-	20	-	61	21	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,527	139	35	81.5	5,010
November	2,257	85	61	75.2	4,480
December	3,130	120	79	101	6,210
Calendar year 1937	90,943	4,890	19	249	180,400
January	3,381	118	92	109	6,710
February	2,020	90	59	72.1	4,010
March	8,385	927	83	270	16,630
April	2,037	102	36	67.9	4,040
May	1,282	84	20	41.4	2,540
June	962	266	18	32.1	1,910
July	3,083	1,020	21	99.5	6,120
August	3,159	579	18	102	6,270
September	8,050	1,370	44	268	15,970
Water year 1937-38	40,273	1,370	18	110	79,900

Peak discharge.- Mar. 5 (4:30 p.m.) 1,490 sec.-ft.; July 21 (3:20 a.m.) 2,770 sec.-ft.; Aug. 6 (5:05 p.m.) 5,930 sec.-ft.; Sept. 2 (1:10 a.m.) 3,170 sec.-ft.

153585 O—39——16

Gila River below Bonita Creek, near Solomonsville, Ariz.

Location.- Water-stage recorder, lat. 32°53'15", long. 109°29'45", in SE¼ sec. 21, T. 6 S., R. 28 E., unsurveyed, three-eighths of a mile downstream from Bonita Creek and 10 miles northeast of Solomonsville.

Drainage area.- 7,900 square miles.

Records available.- February 1932 to October 1933, May 1935 to September 1938. April 1914 to September 1932 at site 3 miles downstream and below intake of Brown canal, published as Gila River near Solomonsville, Ariz.

Average discharge.- 15 years (1921-33, 1935-38), 395 second-feet.

Extremes.- Maximum discharge during year, 4,690 second-feet Mar. 4 (gage height, 12.85 feet); minimum, 38 second-feet June 22.
1914-38: Maximum discharge, about 100,000 second-feet Jan. 19, 1916, by slope-area measurement; minimum probably occurred in 1934; minimum recorded, 29 second-feet July 4, 1923.

Remarks.- Records good. Diversions for irrigation above station, which is above all diversions for Safford Valley.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	140	126	156	199	173	183	266	195	66	224	161	371
2	152	132	155	209	176	206	252	195	64	162	152	1,610
3	138	132	164	209	183	224	243	204	60	131	254	566
4	135	132	170	209	183	2,580	243	195	55	108	263	536
5	135	129	170	206	173	2,650	229	195	62	93	493	353
6	126	129	164	206	167	2,040	221	184	66	85	601	388
7	118	132	164	209	161	1,220	216	176	66	76	1,040	590
8	110	138	164	206	155	869	216	165	58	69	816	455
9	107	140	164	199	155	680	221	161	51	60	391	329
10	116	143	158	199	152	646	221	154	51	54	326	486
11	118	146	164	196	152	591	216	144	49	50	230	508
12	161	152	173	196	146	544	208	131	49	82	160	959
13	189	155	196	196	146	536	199	125	51	165	238	753
14	189	155	235	196	143	587	191	119	51	85	559	748
15	199	161	228	202	140	670	187	111	51	67	455	542
16	209	158	220	202	146	650	184	103	49	126	247	501
17	236	158	209	199	146	591	191	97	49	226	169	403
18	236	158	209	196	149	548	180	97	45	243	144	348
19	246	155	206	192	158	523	172	97	42	192	125	318
20	228	152	206	192	158	491	165	97	42	167	103	289
21	213	149	220	209	164	453	161	92	42	1,090	90	260
22	202	149	216	199	164	408	168	87	40	480	81	230
23	192	152	216	189	170	379	180	85	51	307	74	210
24	176	158	213	183	170	358	184	85	72	246	69	187
25	167	158	209	179	170	323	191	83	117	193	63	169
26	161	158	213	167	167	296	199	80	75	152	69	149
27	158	161	224	167	173	286	208	75	85	137	93	134
28	152	158	224	167	179	365	199	71	128	149	74	126
29	149	161	216	170	-	337	187	73	703	354	67	108
30	143	158	209	173	-	310	187	73	418	313	65	106
31	129	-	202	176	-	280	-	73	-	190	69	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	5,190	266	107	167	10,290
November	4,445	161	126	148	8,820
December	6,036	235	155	195	11,970
Calendar year 1937	210,955	13,200	60	578	418,500
January	5,997	209	167	193	11,890
February	4,519	183	140	161	8,960
March	20,824	2,650	183	672	41,300
April	6,085	266	161	203	12,070
May	3,822	204	71	123	7,580
June	2,808	703	40	94.0	5,570
July	6,074	1,090	50	196	12,050
August	7,751	1,040	63	250	15,370
September	12,732	1,610	106	424	25,250
Water year 1937-38	86,283	2,650	40	236	171,100

Peak discharge.- Mar. 4 (1:10 p.m.) 4,690 sec.-ft.; Sept. 2 (5:00 a.m.) 2,650 sec.-ft.

Gila River at Calva, Ariz.

Location.- Water-stage recorder, lat. 33°11'15", long. 110°12'45", in sec. 5, T. 3 S., R. 21 E., unsurveyed, on San Carlos Indian Reservation, at railroad bridge at head of San Carlos Reservoir, 1½ miles northwest of Calva. Zero of gage is 2,514.77 feet above mean sea level (general adjustment of 1929).

Drainage area.- 11,490 square miles.

Records available.- March 1929 to September 1938.

Extremes.- Maximum discharge during year 4,310 second-feet Mar. 5 (gage height, 6.02 feet); no flow in parts of June, July, August, and September.

1929-38: Maximum discharge, 21,500 second-feet Feb. 12, 1932 (gage height, 9.7 feet); no flow on several days each year.

Maximum discharge known, probably in excess of 100,000 second-feet, occurred Jan. 20, 1916, computed on basis of peak discharge at stations near Solomonsville and at Kelvin.

Remarks.- Records good. Discharge for period of missing gage heights Apr. 11-25 computed on basis of four discharge measurements made in period Apr. 11-26. Large diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	69	89	127	174	114	174	83	21	1	122	0	0
2	53	84	101	225	127	166	72	22	1	35	0	311
3	45	69	89	215	127	191	66	20	0	15	0	691
4	40	72	86	210	142	601	61	20	0	5	7	338
5	40	79	101	210	138	3,270	60	18	0	2	188	204
6	34	82	120	210	124	1,950	56	17	0	1	191	126
7	30	74	120	215	150	1,430	52	16	0	0	498	105
8	28	60	124	225	153	1,180	48	16	0	0	586	244
9	25	62	127	225	142	905	46	15	0	0	338	168
10	26	79	127	210	138	730	43	14	0	0	155	114
11	24	101	124	230	131	602	40	13	0	0	183	328
12	32	101	117	235	138	560	37	12	0	0	112	490
13	125	95	146	230	108	602	35	12	0	34	77	701
14	138	95	170	240	120	620	33	12	0	10	168	584
15	135	104	183	215	124	768	33	11	0	15	442	504
16	146	104	157	196	95	768	33	9	0	0	239	410
17	266	114	161	200	98	710	33	9	0	0	128	382
18	235	135	174	187	98	593	33	15	0	45	62	290
19	196	131	187	166	120	536	33	9	0	10	38	251
20	215	120	178	153	138	460	33	8	0	0	21	149
21	205	124	183	161	174	430	33	7	0	0	12	106
22	183	124	200	191	187	344	32	6	0	551	8	81
23	170	120	166	191	183	273	31	6	0	138	5	56
24	153	114	166	210	191	235	30	6	0	62	3	39
25	146	127	166	200	166	202	29	4	0	38	5	26
26	135	142	183	170	153	176	28	4	0	22	2	17
27	124	117	187	150	161	152	27	3	0	8	4	12
28	117	111	200	142	191	149	25	3	2	3	2	10
29	108	117	174	114	-	129	24	2	89	0	0	8
30	101	131	157	108	-	96	22	2	458	0	0	6
31	92	-	153	111	-	85	-	1	-	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,436	266	24	111	6,820
November	3,077	142	60	103	6,100
December	4,654	200	86	150	9,230
Calendar year 1937	161,856	8,670	0	443	320,900
January	5,919	240	108	191	11,740
February	3,931	191	95	140	7,800
March	19,087	3,270	85	616	37,860
April	1,211	83	22	40.4	2,400
May	333	22	1	10.7	660
June	551	458	0	18.4	1,090
July	1,116	551	0	36.0	2,210
August	3,474	586	0	112	6,890
September	6,751	701	0	225	13,390
Water year 1937-38	53,540	3,270	0	147	106,200

San Carlos Reservoir at Coolidge Dam, Ariz.

Location.- Water-stage recorder, lat. 33°10'30", long. 110°31'45", in NW¼ sec. 17, T. 3 S., R. 18 E., unsurveyed, at Coolidge Dam, in Gila River. Datum of gage is mean sea level (from Indian Irrigation Service benchmark).
Drainage area.- 12,880 square miles.
Records available.- November 1928 to September 1938.
Extremes.- Maximum contents during year, 90,200 acre-feet Mar. 24 (elevation of water surface, 2,420.50 feet); minimum, 7,620 acre-feet Sept. 30 (elevation, 2, 388.70 feet).
1928-38: Maximum contents, 444,200 acre-feet Apr. 5, 1932 (elevation, 2,471.56 feet); minimum since operation of reservoir began, 1,800 acre-feet Aug. 11, 1934 (elevation, 2,383.96 feet).
Remarks.- Daily records are as of midnight at close of date shown. Lowest outlet in dam is at elevation 2,383.00 feet. Storage begun Nov. 15, 1928. Available storage, 1,165,000 acre-feet at spillway elevation 2,523.00 feet, top of automatic gates. Revised table of storage capacity was completed in 1937 and used for computing the records of contents published since Oct. 1, 1936. The revised capacity table was furnished by Indian Irrigation Service.

Gage height, in feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	418.04	412.64	409.16	409.55	410.00	410.57	419.86	413.99	406.89	397.80	392.86	389.24
2	417.80	412.53	409.09	409.60	409.98	410.62	419.76	413.73	406.66	397.63	392.55	389.13
3	417.56	412.43	409.01	409.62	409.97	410.92	419.64	413.43	406.42	397.44	392.18	390.14
4	417.31	412.31	408.94	409.64	409.94	413.21	419.54	413.19	406.20	397.26	392.08	390.30
5	417.07	412.18	408.86	409.67	409.93	414.91	419.40	412.98	405.99	397.11	392.10	390.63
6	416.85	412.04	408.80	409.73	409.89	416.12	419.29	412.78	405.73	396.98	392.28	390.83
7	416.58	411.88	408.75	409.77	409.88	416.92	419.13	412.58	405.48	396.83	392.50	390.84
8	416.34	411.71	408.69	409.79	409.89	417.37	419.01	412.30	405.14	396.66	393.23	390.85
9	416.10	411.55	408.64	409.82	409.91	417.71	418.82	411.99	404.80	396.46	393.64	390.78
10	415.85	411.39	408.60	409.86	409.92	417.98	418.60	411.67	404.47	396.26	393.80	390.86
11	415.62	411.23	408.54	409.91	409.96	418.22	418.38	411.36	404.14	395.95	393.80	391.40
12	415.38	411.07	408.60	409.95	409.98	418.48	418.22	411.14	403.71	395.70	393.74	391.88
13	415.18	410.92	408.64	409.98	409.98	418.71	418.04	410.92	403.26	395.43	393.67	392.64
14	415.00	410.77	408.69	410.02	409.98	418.90	417.89	410.70	402.96	395.19	393.97	393.11
15	414.86	410.62	408.76	410.04	409.99	419.15	417.71	410.49	402.68	394.90	394.38	393.39
16	414.66	410.49	408.83	410.04	410.03	419.45	417.50	410.23	402.41	394.66	394.43	393.41
17	414.50	410.36	408.89	410.05	410.05	419.71	417.31	409.99	402.04	394.48	394.24	393.32
18	414.40	410.25	408.96	410.07	410.06	419.90	417.12	409.78	401.62	394.28	393.93	393.19
19	414.26	410.14	409.01	410.08	410.07	420.05	416.95	409.57	401.12	394.02	393.61	392.97
20	414.11	410.04	409.09	410.09	410.09	420.19	416.72	409.37	400.68	393.76	393.26	392.69
21	413.99	409.95	409.12	410.07	410.12	420.27	416.52	409.15	400.23	393.60	392.92	392.38
22	413.87	409.84	409.19	410.08	410.16	420.38	416.30	408.97	399.90	393.92	392.53	392.04
23	413.74	409.73	409.26	410.08	410.21	420.46	416.08	408.80	399.56	394.03	392.17	391.64
24	413.59	409.65	409.31	410.08	410.26	420.50	415.83	408.62	399.21	394.10	391.78	391.28
25	413.45	409.56	409.38	410.09	410.30	420.41	415.58	408.42	398.80	394.15	391.53	390.89
26	413.33	409.48	409.44	410.09	410.38	420.38	415.32	408.23	398.40	394.18	391.17	390.48
27	413.22	409.40	409.49	410.08	410.47	420.32	415.09	408.01	398.00	394.08	390.78	390.03
28	413.10	409.34	409.51	410.08	410.51	420.28	414.83	407.73	397.88	393.76	390.42	389.61
29	412.96	409.27	409.53	410.05	-	420.20	414.54	407.45	397.78	393.66	390.06	389.15
30	412.84	409.22	409.54	410.01	-	420.11	414.27	407.26	397.80	393.55	389.69	388.70
31	412.74	-	409.55	410.00	-	419.98	-	407.09	-	393.22	389.35	-

Note.- Add 2,000.00 feet to above gage heights to obtain elevations above mean sea level.

Contents, in acre-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	81,800	64,200	53,000	54,200	55,600	57,500	87,900	68,600	46,400	23,800	14,400	8,440
2	81,000	63,900	52,800	54,400	55,600	57,600	87,600	67,800	45,700	23,500	13,800	8,280
3	80,200	63,500	52,600	54,500	55,600	58,600	87,200	66,800	45,000	23,100	13,200	9,850
4	79,400	63,100	52,400	54,500	55,400	66,100	86,800	66,000	44,400	22,700	13,000	10,100
5	78,600	62,700	52,100	54,600	55,400	71,600	86,400	65,300	43,800	22,400	13,100	10,600
6	77,900	62,300	52,000	54,800	55,300	75,500	86,000	64,700	43,100	22,200	13,400	11,000
7	77,000	61,800	51,800	54,900	55,300	78,100	85,400	64,000	42,400	21,900	13,800	11,000
8	76,200	61,200	51,600	55,000	55,300	79,600	85,000	63,100	41,400	21,500	13,000	11,000
9	75,500	60,700	51,500	55,100	55,400	80,700	84,400	62,100	40,500	21,100	15,800	10,900
10	74,600	60,200	51,400	55,200	55,400	81,600	83,700	61,100	39,600	20,700	16,000	11,000
11	73,900	59,600	51,200	55,400	55,500	82,400	83,000	60,100	38,700	20,100	16,000	11,900
12	73,100	59,100	51,400	55,500	55,600	83,300	82,400	59,300	37,600	19,600	15,900	12,700
13	72,500	58,600	51,500	55,600	55,600	84,000	81,800	58,600	36,400	19,100	15,800	14,000
14	71,900	58,100	51,600	55,700	55,600	84,700	81,300	57,900	35,600	18,600	16,400	14,800
15	71,400	57,600	51,800	55,800	55,500	85,500	80,700	57,200	34,900	18,100	17,100	15,300
16	70,800	57,200	52,000	55,800	55,700	86,500	80,000	56,400	34,200	17,600	17,200	15,400
17	70,300	56,800	52,200	55,800	55,800	87,400	79,400	55,600	33,300	17,300	16,900	15,200
18	69,900	56,400	52,400	55,900	55,800	88,000	78,800	55,000	32,300	16,900	16,300	15,000
19	69,500	56,100	52,600	55,900	55,900	88,500	78,200	54,300	31,100	16,400	15,700	14,600
20	69,000	55,800	52,800	55,900	55,900	89,000	77,500	53,700	30,100	16,000	15,100	14,100
21	68,600	55,500	52,900	55,900	56,000	89,300	76,800	53,000	29,000	15,700	14,500	13,600
22	68,200	55,100	53,100	55,900	56,200	89,700	76,100	52,500	28,300	16,300	13,800	13,000
23	67,800	54,800	53,400	55,900	56,300	90,000	75,400	52,000	27,600	16,500	13,200	12,300
24	67,300	54,600	53,500	55,900	56,500	90,200	74,600	51,400	26,800	16,600	12,500	11,700
25	66,900	54,300	53,700	55,900	56,600	89,800	73,800	50,800	25,900	16,700	12,100	11,000
26	66,500	54,000	53,900	55,900	56,900	89,700	72,900	50,300	25,100	16,700	11,500	10,400
27	66,100	53,800	54,100	55,900	57,200	89,500	72,200	49,600	24,200	16,600	10,900	9,670
28	65,700	53,600	54,100	55,900	57,300	89,400	71,300	48,800	24,000	16,000	10,300	9,020
29	65,300	53,400	54,200	55,800	-	89,100	70,400	48,000	23,800	15,800	9,720	8,300
30	64,900	53,200	54,200	55,700	-	88,800	69,500	47,400	23,800	15,600	9,140	7,620
31	64,500	-	54,200	55,600	-	88,300	-	47,000	-	15,000	8,620	-

Gila River at Coolidge Dam, Ariz.

Location.- Water-stage recorder and Parshall flume, lat. 33°10'15", long. 110°31'45", in SW¼ sec. 17, T. 5 S., R. 18 E., unsurveyed, 2,200 feet downstream from Coolidge Dam. Zero of gage is 2,309.94 feet above mean sea level (from Indian Irrigation Service benchmark).

Drainage area.- 12,880 square miles.

Records available.- April 1914 to September 1938. July 1899 to November 1905 at site 8 miles upstream, below mouth of San Carlos River. August 1910 to February 1911 at site 9 miles upstream, above mouth of San Carlos River.

Extremes.- Maximum discharge during year, 620 second-feet June 19 (head on flume, 2.92 feet); minimum daily discharge, 5 second-feet Mar. 4.

1914-28: Maximum discharge, 130,000 second-feet Jan. 20, 1916, computed on basis of peak discharge at Solomonsville and at Kelvin; no flow for several periods.

1929-38: Maximum discharge, 1,240 second-feet July 31, 1937 (head on flume, 4.35 feet); no flow on several days of most years.

Remarks.- Records excellent. Crest width of Parshall flume, 30 feet. Large diversions above San Carlos Reservoir. Flow regulated at Coolidge Dam since Nov. 15, 1928. Flow of about one second-foot from spring between dam and gage included in records since March 1937, when gage was moved to present site.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	430	248	243	180	182	129	311	477	286	194	322	131
2	461	256	243	180	182	129	301	467	314	229	324	88
3	436	248	248	180	182	120	311	467	309	210	282	194
4	430	258	233	182	177	5	306	442	306	194	159	178
5	421	283	233	164	177	6	306	363	316	151	28	163
6	442	309	236	131	180	7	298	338	309	135	107	8
7	461	314	233	164	175	47	319	346	346	155	103	124
8	433	338	238	200	135	116	349	458	424	172	20	198
9	424	335	241	189	129	125	383	503	435	192	20	210
10	424	338	238	184	131	159	445	509	433	236	19	106
11	433	338	238	184	135	181	509	470	448	246	108	10
12	433	338	168	186	131	185	357	352	516	250	189	10
13	397	335	107	186	131	198	330	346	532	266	131	10
14	397	330	96	189	131	185	322	352	371	263	58	52
15	386	332	96	191	127	183	430	332	332	243	54	253
16	409	309	96	193	127	183	415	349	343	256	226	296
17	418	303	96	193	129	196	409	366	433	258	293	324
18	418	293	96	196	127	203	406	343	490	208	324	349
19	421	288	96	198	127	205	386	311	546	288	324	383
20	424	286	96	198	127	205	418	288	496	330	324	371
21	391	276	96	200	129	205	418	283	493	190	327	368
22	386	293	120	200	129	210	424	268	415	26	330	368
23	391	288	127	200	127	210	439	260	377	73	324	388
24	391	256	118	203	127	210	442	286	368	19	332	327
25	366	263	122	203	127	261	445	268	412	18	332	332
26	319	253	124	203	129	298	470	278	430	15	327	335
27	322	248	137	203	129	280	474	319	409	84	319	349
28	330	236	186	203	131	283	483	363	296	278	322	335
29	322	238	180	179	-	301	506	383	217	100	301	338
30	293	238	180	177	-	324	490	296	185	103	278	332
31	258	-	180	182	-	311	-	263	-	270	263	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	12,267	461	258	396	24,330
November	8,668	338	236	289	17,190
December	5,141	248	96	166	10,200
Calendar year 1937	150,332.3	1,190	0	412	298,200
January	5,821	203	131	188	11,550
February	3,970	182	127	142	7,870
March	5,660	324	5	183	11,230
April	11,934	506	298	398	23,670
May	11,146	509	260	360	22,110
June	11,587	546	185	386	22,980
July	5,652	330	15	182	11,210
August	6,870	332	19	222	13,630
September	6,930	388	8	231	13,750
Water year 1937-38	95,646	546	5	262	189,700

Gila River at Kelvin, Ariz.

Location.- Water-stage recorder, lat. 33°06'15", long. 110°58'45", in NW¼ sec. 12, T. 4 S., R. 13 E., at Kelvin, 15 miles downstream from San Pedro River and 19 miles upstream from Ashurst-Hayden Dam.

Drainage area.- 18,200 square miles.

Records available.- January 1911 to September 1938.

Extremes.- Maximum discharge during year, 5,660 second-feet Aug. 5 (gage height, 6.55 feet); minimum, 33 second-feet July 28 (gage height, 2.53 feet); minimum daily discharge, 37 second-feet July 27.

1911-38: Maximum discharge, about 132,000 second-feet Jan. 20, 1916 (gage height, 19.5 feet), from rating curve extended above slope-area measurement at 82,000 second-feet; minimum, less than one second-foot in summer of several years prior to 1929.

Remarks.- Records good. Discharge for period of missing gage heights, July 6-8, computed on basis of partial gage-heights and records for nearby stations. Large diversions for irrigation above station. No regulation in the basin above this station and below Coolidge Dam.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	625	272	272	229	203	203	314	511	258	215	310	659
2	508	266	272	214	219	157	314	486	264	148	526	419
3	520	266	260	219	224	783	294	486	301	163	362	135
4	485	253	266	214	192	2,470	307	486	294	163	881	167
5	485	253	253	219	192	720	314	470	294	145	1,490	156
6	475	279	253	214	192	193	307	399	301	110	508	597
7	496	305	253	183	192	129	288	327	275	100	322	256
8	542	313	279	203	198	92	307	362	314	110	2,270	206
9	485	337	272	246	161	107	347	478	406	122	933	301
10	455	337	279	235	148	138	391	528	406	129	210	370
11	465	345	272	229	153	163	470	546	406	178	105	426
12	465	345	305	229	161	219	519	478	429	201	110	449
13	455	353	290	229	161	294	369	354	470	201	226	546
14	425	353	183	224	157	264	340	347	470	215	764	192
15	566	353	161	224	157	230	327	354	321	215	643	145
16	445	353	153	229	166	215	429	340	264	252	275	270
17	455	305	140	224	229	201	453	347	270	356	270	275
18	435	298	130	214	203	219	414	384	362	252	301	288
19	425	292	123	208	170	230	399	354	429	239	347	321
20	425	298	120	219	170	235	391	307	478	461	340	340
21	425	286	120	224	166	224	437	288	437	578	340	347
22	395	286	120	219	157	224	437	275	429	635	334	334
23	385	305	134	214	157	224	445	252	340	300	347	340
24	395	305	161	214	153	219	470	247	314	170	369	362
25	405	292	157	219	144	224	462	270	307	97	377	321
26	369	292	161	219	144	273	478	252	362	49	377	314
27	337	279	153	219	153	301	502	258	391	37	334	327
28	345	272	153	219	339	281	502	294	414	93	327	340
29	353	266	208	214	-	281	519	354	653	979	327	321
30	345	272	224	192	-	294	528	384	224	570	294	334
31	313	-	229	203	-	321	-	294	-	196	301	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	13,704	625	313	442	27,180
November	9,031	353	253	301	17,910
December	6,356	305	120	205	12,610
Calendar year 1937	192,101	4,570	56	526	381,000
January	6,761	246	183	218	13,410
February	5,061	339	144	181	10,040
March	10,128	2,470	92	327	20,090
April	12,074	528	288	402	23,950
May	11,512	546	247	371	22,830
June	10,883	653	224	363	21,590
July	7,679	979	37	248	15,230
August	14,920	2,270	105	481	29,590
September	9,858	659	135	329	19,550
Water year 1937-38	117,967	2,470	37	323	234,000

Gila River at Ashurst-Hayden Dam, near Florence, Ariz.

Location.- Water-stage recorder, lat. 33°05'30", long. 111°14'15", in sec. 8, T. 4 S., R. 11 E., at Ashurst-Hayden Dam, 10 miles northeast of Florence. Crest of dam, on which head is measured, is 1,563.0 feet above mean sea level.

Drainage area.- 18,500 square miles.

Records available.- July 1923 to September 1939 (head on crest of dam only).

Extremes.- Maximum head during year, 1.7 feet July 29; no flow over dam greater part of year.
1923-38: Maximum head, 8.0 feet Sept. 28, 1926; no flow over dam for greater part of each year.

Remarks.- Record for Aug. 31 computed on basis of record for station at Kelvin. Florence-Casa Grande canal diverts water for irrigation at this dam. Many other diversions for irrigation upstream. Flow largely regulated at Coolidge Dam, but no regulation in the basin above this station and below Coolidge Dam. A considerable quantity of water is passed through the sluice gates in the dam. Water-stage recorder graph furnished by Indian Irrigation Service.

Mean head, in feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-					-			-	-	(*)	0.08
2	-					-			-	-	0.02	.07
3	-					0.26			-	-	-	-
4	-					.75			-	-	.20	-
5	-					.02			-	-	.25	-
6	-					-			-	-	.01	.03
7	-					-			-	-	.02	(*)
8	*0.01					-			-	-	.39	-
9	-					-			-	-	.29	.02
10	-					(*)			-	-	-	(*)
11	-					-			-	-	-	(*)
12	-					.01			-	-	-	-
13	-					.01			-	-	-	.01
14	-					(*)			-	-	.13	-
15	.01					-			-	-	.04	-
16	-					-			-	-	-	.01
17	-					-			-	0.02	-	-
18	-					-			-	-	-	-
19	-					-			-	-	-	-
20	-					-			-	(*)	-	-
21	-					-			-	.11	-	-
22	-					-			-	.01	-	-
23	-					-			-	-	.04	-
24	-					-			-	-	.01	(*)
25	-					-			-	(*)	-	-
26	-					-			-	-	-	-
27	-					.02			-	-	-	-
28	-					-			0.01	-	-	(*)
29	-					-			.21	.15	-	-
30	-					-			-	.08	-	-
31	-					-			-	-	(*)	-

*Flow over crest of dam for short time, but mean head for day was less than 0.01 foot.
Note.- Water was below crest of dam on days for which no head is shown.

Gila River at Gillespie Dam, Ariz.

Location.- Water-stage recorder above left end of Gillespie Dam, lat. 33°13'45", long. 112°45'30", in SE¼NE¼ sec. 28, T. 2 S., R. 5 W., 9 miles downstream from Hassayampa River. Zero of gage is 5.00 feet below average elevation of crest of dam, which is 753.48 feet above mean sea level (general adjustment of 1929).

Drainage area.- 49,700 square miles.

Records available.- August 1921 to September 1938.

Extremes.- Maximum discharge during year, 60,000 second-feet Mar. 5 (height over crest of dam, 4.95 feet); no flow for greater part of year.
1921-38: Maximum discharge, 70,000 second-feet Dec. 28, 1933 (height over crest of dam, 6.0 feet); no flow for several periods in each year.

Remarks.- Records good except those below 100 second-feet, which are fair. Discharge for Jan. 24, 25 computed on basis of records for station on Gillespie canal at this dam. Both Gillespie and Enterprise canals divert from river at this dam, but records of their flow are not included here (see pages 271 and 272). Other diversions for irrigation above station. Water passed through sluice gates is included in this record. Flow of Gila River and tributaries above station is regulated by San Carlos Reservoir on Gila River (capacity, 1,165,000 acre-feet), by a series of reservoirs on Salt River (capacity, 1,790,000 acre-feet), and by Lake Pleasant on Agua Fria River (capacity, 183,500 acre-feet).

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0		0	14				0	
2				0		16	20				0	
3				0		1,640	14				0	
4				0		3,950	9				0	
5				0		35,800	5				0	
6				0		28,000	0				0	
7				0		10,300	0				0	
8				0		4,580	0				0	
9				0		2,740	0				0	
10				0		1,510	0				121	
11				0		916	0				18	
12				0		619	0				0	
13				0		455	0				0	
14				7		355	0				0	
15				0		907	0				0	
16				0		910	0				0	
17				0		480	0				0	
18				0		280	0				0	
19				0		180	0				0	
20				0		130	0				0	
21				0		120	0				0	
22				0		80	0				0	
23				0		80	0				0	
24				100		80	0				0	
25				120		50	0				0	
26				0		38	0				0	
27				0		80	0				0	
28				0		100	0				0	
29				0		38	0				0	
30				0		28	0				0	
31				0		20	-				0	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1937	199,356	24,500	0	546	395,500
January	227	120	0	7.3	450
February	0	0	0	0	0
March	94,512	35,800	0	3,049	187,500
April	62	20	0	2.1	123
May	0	0	0	0	0
June	0	0	0	0	0
July	0	0	0	0	0
August	139	121	0	4.5	276
September	0	0	0	0	0
Water year 1937-38	94,940	35,800	0	260	188,300

Gila River near Dome, Ariz.

Location.- Water-stage recorder, lat. 32°45'30", long. 114°25'15", in SW¼ sec. 4, T. 8 S., R. 21 W., 3 miles west of Dome and 12 miles (revised) upstream from mouth. Zero of gage is 148.18 feet above mean sea level (general adjustment of 1929).

Drainage area.- 58,100 square miles.

Records available.- May 1929 to September 1938. October 1903 to December 1906, at site 4 miles upstream.

Extremes.- Maximum discharge during year, 8,670 second-feet Mar. 10 (gage height, 12.92 feet); no flow for most of year.
1929-38: Maximum discharge, 20,700 second-feet Feb. 15, 1932 (gage height, 16.75 feet); no flow for part of each year.
Maximum daily discharge (estimated), 200,000 second-feet Jan. 22, 1916.

Remarks.- Records excellent. Diversions for irrigation above station. Flow regulated above station by reservoirs. See records for stations at Coolidge and Gillespie Dams. No regulation below Gillespie Dam.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0						
2						0						
3						0						
4						0						
5						0						
6						0						
7						0						
8						0						
9						1,220						
10						7,920						
11						6,330						
12						3,020						
13						1,670						
14						1,040						
15						648						
16						422						
17						269						
18						170						
19						105						
20						63						
21						44						
22						95						
23						69						
24						35						
25						15						
26						4						
27						1						
28						0						
29						0						
30						0						
31						0						

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1937	77,492	8,110	0	212	153,700
January	0	0	0	0	0
February	0	0	0	0	0
March	23,140	7,920	0	746	45,900
April	0	0	0	0	0
May	0	0	0	0	0
June	0	0	0	0	0
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1937-38	23,140	7,920	0	63.4	45,900

San Francisco River near Glenwood, N. Mex.

Location.- Water-stage recorder, lat. 33°18', long. 108°53', in W½ sec. 23, T. 12 S., R. 20 W., a quarter of a mile above the hot springs and 6 miles south of Glenwood. Zero of gage is 4,552.06 feet above mean sea level (general adjustment of 1929).

Records available.- October 1930 to February 1934 (at site 4½ miles upstream) and February 1934 to September 1938 in reports of Geological Survey. October 1927 to December 1931 (at site 4½ miles upstream) in reports of State engineer.

Extremes.- Maximum discharge during year, 1,690 second-feet Sept. 15 (gage height, 4.89 feet), from rating curve extended above 200 second-feet: minimum daily discharge, 12 second-feet Aug. 28, 29.

1930-38: Maximum discharge, about 5,730 second-feet Feb. 7, 1937, from rating curve extended above 300 second-feet; maximum gage height, 8.18 feet, former site and datum, Sept. 16, 1931; minimum daily discharge, 7.7 second-feet June 21, 1934.

Remarks.- Records fair except those for periods of missing, partial, or uncertain gage-height record, Oct. 3-15, 19-21, Nov. 17, Mar. 5, 6, Aug. 2-4, Sept. 18-30, which were computed on basis of records for Gila River near Red Rock and near Gila and are poor. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	29	27	27	24	25	42	58	19	52	32	148
2	40	29	27	27	26	24	42	52	20	42	80	102
3	40	29	28	27	26	42	43	41	21	34	40	63
4	35	29	27	26	25	791	47	34	22	30	30	59
5		29	26	29	24	250	46	29	23	29	28	47
6	30	29	26	28	24	150	43	26	22	28	24	37
7		29	26	26	25	108	46	26	22	27	52	136
8		30	26	26	25	105	43	27	21	23	129	42
9		30	26	25	25	108	41	24	24	20	30	33
10	25	30	26	25	24	90	36	24	24	24	29	37
11		30	26	25	24	80	35	22	24	81	22	195
12	30	30	27	25	24	80	34	24	24	34	29	217
13	35	30	33	25	24	108	31	24	22	24	75	95
14	30	30	33	25	24	136	32	26	23	24	103	53
15	30	30	30	27	24	115	32	30	22	72	52	193
16	88	30	29	27	24	90	29	29	18	83	36	150
17	61	30	28	27	26	80	30	26	16	44	26	100
18	52	30	27	26	26	67	33	28	19	67	24	70
19	45	30	26	26	25	59	32	27	16	44	20	55
20	40	30	27	26	26	52	40	24	16	41	18	45
21	35	29	28	26	26	50	47	24	16	25	17	40
22	34	28	28	25	25	49	41	24	24	56	15	35
23	34	28	28	24	24	49	42	25	40	46	15	35
24	33	28	28	23	25	48	43	26	35	33	15	30
25	32	28	28	23	24	46	47	22	43	26	18	30
26	32	28	29	22	24	45	42	22	80	23	18	
27	31	27	29	22	24	49	38	22	47	24	20	
28	30	27	29	24	25	52	36	22	36	23	12	25
29	30	26	28	25	-	50	38	22	90	58	12	
30	29	27	27	25	-	45	46	20	59	40	13	
31	29	-	27	24	-	42	-	20	-	33	29	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,105	86	-	35.6	2,190
November	869	30	26	29.0	1,720
December	860	33	26	27.7	1,710
Calendar year 1937	37,678	1,740	13	103	74,720
January	788	29	22	25.4	1,560
February	692	26	24	24.7	1,370
March	3,085	791	24	99.5	6,120
April	1,177	47	29	39.2	2,330
May	850	58	20	27.4	1,690
June	888	90	16	29.6	1,760
July	1,286	93	20	41.5	2,550
August	1,063	129	12	34.3	2,110
September	2,172	217	-	72.4	4,310
Water year 1937-38	14,835	791	12	40.6	29,420

Peak discharge.- Mar. 4 (6 a.m.) 1,210 sec.-ft.; July 11 (4 p.m.) 559 sec.-ft.; Sept. 15 (8 p.m.) 1,690 sec.-ft.

San Francisco River at Clifton, Ariz.

Location.- Water-stage recorder, lat. 33°03'00", long. 109°17'45", in SW¼SE¼ sec. 30, T. 4 S., R. 30 E., at Railroad Boulevard Bridge at Clifton. Zero of gage is 3,430.5 feet above mean sea level (unadjusted).

Drainage area.- 2,790 square miles.

Records available.- July 1927 to October 1933 and May 1935 to September 1938. October 1910 to July 1918 (fragmentary) at several sites, each not more than 2 miles upstream.

Extremes.- Maximum discharge during year, 4,830 second-feet Mar. 4 (gage height, 9.80 feet); minimum, 22 second-feet June 21 (gage height, 2.33 feet).
1927-38: Maximum discharge, 12,400 second-feet Feb. 8, 1937 (gage height, 12.7 feet); probably no flow at times in 1934; minimum discharge recorded, 15 second-feet June 24, 1929.

Remarks.- Records good. Diversions for irrigation and municipal supply above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	82	57	56	65	58	83	133	114	40	114	76	96
2	86	56	58	66	63	99	130	124	39	95	101	223
3	78	56	58	65	64	99	130	119	38	69	124	243
4	74	57	58	65	60	2,830	130	116	40	58	136	192
5	70	56	58	68	59	1,290	130	103	43	51	89	189
6	65	55	58	71	57	632	128	92	43	46	280	108
7	63	56	58	69	56	372	128	87	41	43	154	266
8	60	58	58	66	55	299	126	80	34	41	281	155
9	61	58	57	64	55	269	120	83	35	38	113	122
10	65	59	58	64	56	241	117	78	34	35	79	172
11	70	69	58	63	56	212	112	75	35	36	80	189
12	83	60	61	63	58	202	111	71	35	79	101	549
13	88	60	87	62	58	244	108	67	35	66	221	309
14	82	61	96	62	59	347	109	65	35	48	232	131
15	77	61	87	65	60	332	111	65	33	50	150	110
16	102	60	78	67	61	282	111	65	32	181	105	312
17	161	60	73	67	68	244	109	66	30	176	78	139
18	120	61	71	65	74	227	103	66	26	119	64	95
19	99	61	67	64	69	207	106	65	26	117	55	86
20	85	59	67	64	71	186	105	64	26	78	49	73
21	79	58	73	68	69	166	112	59	25	75	44	65
22	74	58	74	64	67	161	126	55	28	77	42	60
23	70	57	70	62	64	150	133	54	47	94	38	57
24	67	56	67	60	63	139	132	54	49	84	33	53
25	64	57	67	58	62	132	128	54	40	55	37	49
26	62	56	76	57	61	126	128	51	42	44	61	47
27	61	56	77	55	62	163	122	48	77	65	49	43
28	60	55	73	55	68	221	114	48	69	42	41	42
29	59	55	69	56	-	173	105	49	843	67	38	43
30	58	56	66	58	-	150	108	48	183	65	42	42
31	58	-	65	59	-	139	-	43	-	58	53	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,383	161	58	76.9	4,730
November	1,736	61	55	57.8	3,440
December	2,099	96	56	67.7	4,160
Calendar year 1937	91,246	6,980	35	250	181,000
January	1,957	71	55	63.1	3,880
February	1,733	74	55	61.9	3,440
March	10,417	2,830	83	336	20,660
April	3,565	133	103	119	7,070
May	2,228	124	43	71.9	4,420
June	2,103	843	25	70.1	4,170
July	2,266	181	35	73.1	4,490
August	3,046	281	33	98.3	6,040
September	4,240	549	42	141	8,410
Water year 1937-38	37,772	2,830	25	103	74,910

Peak discharge.- Mar. 4 (8:55 a.m.) 4,830 sec.-ft.

San Simon Creek near San Simon, Ariz.

Location.- Water-stage recorder, lat. 32°13'30", long. 109°10'30", in SW¼ sec. 10, T. 14 S., R. 31 E., 4½ miles southeast of San Simon.

Drainage area.- 803 square miles.

Records available.- June 1931 to October 1933 and May 1935 to September 1938. August 1919 to September 1925 at site 3½ miles downstream.

Extremes.- Maximum discharge during year, 1,820 second-feet June 29 (gage height, 8.50 feet); no flow during most of year.
1919-25, 1931-38: Maximum discharge, 5,350 second-feet July 21, 1923; no flow for greater part of each year.

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

Discharge, in second-feet, water year October 1973 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0		0			0			0	0	0	4
2	0		0			0			0	0	0	0
3	0		0			0			0	0	0	0
4	0		0			50			0	0	45	0
5	0		0			1			0	0	9	15
6	0		0			0			0	0	10	2
7	0		0			0			0	0	0	0
8	0		0			0			0	0	10	0
9	6		0			0			0	0	2	10
10	0		0			0			0	0	3	6
11	0		0			0			0	0	1	10
12	4		1			0			0	0	0	2
13	1		2			0			0	0	50	40
14	0		1			0			0	0	70	2
15	0		0			0			0	0	0	0
16	45		0			0			0	20	0	0
17	0		0			0			0	3	0	0
18	0		0			0			0	0	0	0
19	0		0			0			0	15	0	0
20	0		0			0			0	10	0	0
21	0		0			0			0	0	0	0
22	0		0			0			0	0	0	0
23	0		0			0			0	0	0	0
24	0		0			0			0	0	0	0
25	0		0			0			0	0	0	0
26	0		0			0			0	0	0	0
27	0		0			0			0	0	0	0
28	0		0			0			60	0	0	0
29	0		0			0			190	80	0	0
30	0		0			0			2	5	0	0
31	0		0			0			-	2	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	56	45	0	1.8	111
November	0	0	0	0	0
December	4	2	0	.1	7.9
Calendar year 1937	220	45	0	.6	437
January	0	0	0	0	0
February	0	0	0	0	0
March	51	50	0	1.6	101
April	0	0	0	0	0
May	0	0	0	0	0
June	252	190	0	8.4	500
July	135	80	0	4.4	268
August	200	70	0	6.5	397
September	91	40	0	3.0	180
Water year 1937-38	789	190	0	2.2	1,560

Peak discharge.- June 29 (12:10 a.m.) 1,820 sec.-ft.; July 29 (2:40 a.m.) 460 sec.-ft.; Aug. 4 (9:20 p.m.) 595 sec.-ft.; Aug. 13 (5:10 p.m.) 376 sec.-ft.; Aug. 14 (1:30 a.m.) 520 sec.-ft.; Sept. 13 (8:15 p.m.) 550 sec.-ft.

San Simon Creek near Solomonsville, Ariz.

Location.- Water-stage recorder, lat. 32°48'00", long. 109°38'15", in NW¼NE¼ sec. 25, T. 7 S., R. 26 E., 1 mile southwest of Solomonsville and 2½ miles upstream from mouth. Zero of gage is 2,960.15 feet above mean sea level (general adjustment of 1929).

Drainage area.- 2,280 square miles.

Records available.- June 1931 to September 1932, May 1935 to September 1938.

Extremes.- Maximum discharge during year, 4,000 second-feet Aug. 5 (gage height, 9.0 feet); no flow on many days.
1931-38: Maximum discharge, 27,500 second-feet Aug. 9, 1931 (gage height, 19.0 feet), by slope-area method: no flow on many days in each year.

Remarks.- Records fair. Small diversions for irrigation above station. Waste water from San Jose canal, which diverts from Gila River, not included in these records.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0		0			0			0	0	0	33
2	0		0			0			0	0	0	110
3	0		0			0			0	0	0	82
4	0		0			2			0	0	60	163
5	0		0			17			0	0	360	6
6	0		0			0			0	0	25	0
7	0		0			0			0	0	0	14
8	0		0			0			0	0	0	1
9	0		0			0			0	0	0	0
10	0		0			0			0	0	0	8
11	2		0			0			0	0	0	75
12	49		0			0			0	180	0	10
13	1		1			0			0	35	65	0
14	0		11			0			0	0	395	0
15	0		3			0			0	0	121	0
16	82		1			0			0	0	2	0
17	120		0			0			0	0	0	0
18	2		0			0			0	0	0	0
19	1		0			0			0	0	0	0
20	0		1			0			0	0	0	0
21	0		1			0			0	150	0	0
22	0		0			0			29	116	0	0
23	0		0			0			10	15	0	0
24	0		0			0			0	0	0	0
25	0		0			0			0	0	0	0
26	0		0			0			0	0	0	0
27	0		0			0			0	0	0	0
28	0		0			0			0	0	0	0
29	0		0			0			370	0	0	0
30	0		0			0			120	0	0	0
31	0		0			0			-	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	257	120	0	8.3	510
November	0	0	0	0	0
December	18	11	0	.6	36
Calendar year 1937	1,582	352	0	4.3	3,140
January	0	0	0	0	0
February	0	0	0	0	0
March	19	17	0	.6	38
April	0	0	0	0	0
May	0	0	0	0	0
June	529	370	0	17.6	1,050
July	496	180	0	16.0	984
August	1,028	395	0	33.2	2,040
September	502	163	0	16.7	996
Water year 1937-38	2,849	395	0	7.8	5,650

Peak discharge.- June 29 (5 p.m.) 2,450 sec.-ft.; Aug. 5 (4 a.m.) 4,000 sec.-ft.; Aug. 14 (2:45 a.m.) 1,210 sec.-ft.

San Carlos River near Peridot, Ariz.

Location.- Water-stage recorder, lat. 33°16'00", long. 110°26'30", in sec. 7, T. 2 S., R. 19 E., unsurveyed, on San Carlos Indian Reservation, at railroad bridge at head of San Carlos Reservoir, 2 miles south of Peridot. Zero of gage is 2,506.6 feet above mean sea level (from Southern Pacific Railroad benchmark).

Drainage area.- 1,070 square miles.

Records available.- March 1929 to September 1938. August 1910 to January 1911 and April 1914 to September 1915 (fragmentary) at site 5½ miles downstream.

Extremes.- Maximum discharge during year, 8,640 second-feet Mar. 4 (gage height, 7.35 feet); no flow for part of several days in July.

1929-38: Maximum discharge, 29,400 second-feet Feb. 7, 1937 (gage height, 10.7 feet), from rating curve extended above 15,000 second-feet on basis of records of inflow of San Carlos Reservoir; no flow for several days of most years.

Remarks.- Records good except those for July 25-31, Aug. 16-20, 27-31, Sept. 8-10, 13-20 (computed from partial gage-height record and weather records and those above 15 second-feet in July, August, and September (periods of unstable control), which are fair. Small diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2	5	11	13	12	27	10	6	1	1	24	40
2	1	5	12	13	14	28	10	5	1	1	25	6
3	2	5	11	13	14	442	9	6	2	1	1	30
4	2	5	11	14	9	2,610	8	6	2	1	0	8
5	2	5	11	13	8	536	7	6	1	0	6	8
6	2	6	10	13	10	225	6	5	1	0	3	30
7	3	6	10	13	9	110	6	5	1	0	30	20
8	3	6	10	13	8	63	6	5	1	0	70	4
9	3	7	9	13	8	39	5	4	1	0	13	3
10	4	7	11	14	10	36	6	4	1	0	7	10
11	4	8	12	13	9	35	6	4	1	0	9	215
12	5	7	13	13	8	47	6	4	1	0	10	30
13	5	7	14	13	8	38	6	4	1	4	10	10
14	4	7	14	13	8	46	6	4	1	1	220	5
15	4	7	13	13	6	43	6	3	1	0	50	2
16	5	7	12	14	6	36	6	3	1	104	10	10
17	5	7	12	15	12	32	6	3	1	31	5	2
18	5	7	11	16	15	28	6	2	1	2	2	2
19	5	7	12	13	15	24	6	2	1	139	1	1
20	5	8	12	14	15	22	6	2	1	32	1	1
21	4	7	13	15	13	20	6	2	1	4	1	1
22	3	6	12	15	12	17	6	2	1	2	1	1
23	3	7	13	13	12	15	6	1	1	4	1	1
24	3	7	13	13	12	16	6	1	1	22	1	1
25	4	7	13	11	12	16	6	1	1	10	220	1
26	4	8	14	12	13	16	6	1	1	2	6	1
27	4	8	14	13	16	15	5	1	1	1	2	1
28	4	10	13	13	19	13	4	2	2	1	1	1
29	4	10	15	13	-	12	5	2	8	1	1	1
30	5	10	13	11	-	12	6	1	2	1	1	1
31	5	-	14	9	-	10	-	1	-	1	1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	114	5	1	3.7	226
November	209	10	5	7.0	415
December	378	15	9	12.2	750
Calendar year 1937	23,243	11,400	1	63.7	46,100
January	407	16	9	13.1	807
February	313	19	6	11.2	621
March	4,629	2,610	10	149	9,180
April	189	10	4	6.3	375
May	98	6	1	3.2	194
June	41	8	1	1.4	81
July	366	139	0	11.8	726
August	733	220	0	23.6	1,450
September	447	215	1	14.9	887
Water year 1937-38	7,924	2,610	0	21.7	15,710

Peak discharge.- Mar. 4 (2:15 a.m.) 8,640 sec.-ft.

San Pedro River at Palominas, Ariz.

Location.- Water-stage recorder, lat. 31°22'45", long. 110°06'30", in SE¼ sec. 33, T. 23 S., R. 22 E., at bridge half a mile east of Palominas, 4 miles downstream from international boundary and 12 miles southwest of Bisbee.

Drainage area.- 949 square miles.

Records available.- May 1930 to October 1933, May 1935 to September 1938.

Extremes.- Maximum discharge during year, 6,300 second-feet Aug. 7 (gage height, 7.55 feet); minimum, 0.3 second-foot June 25 and 26.
1930-38: Maximum discharge, 13,500 second-feet Sept. 10, 1936 (gage height, 9.95 feet, present datum), from rating curve extended above 8,000 second-feet by velocity-area method; no flow June 29, July 1, 1930.

Remarks.- Records good except those for period of missing gage heights, July 18-21, which were computed on basis of partial gage-height record, weather records, and records for station at Charleston and are poor. No diversions above station in Arizona and probably none in Mexico.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6	5	5	8	5	8	5	3	1	49	12	112
2	5	5	5	8	6	7	5	2	1	35	10	28
3	5	5	5	8	5	6	5	2	1	13	10	85
4	5	5	70	7	5	18	5	3	1	12	98	145
5	4	5	38	7	5	18	5	3	1	10	163	88
6	4	5	19	7	5	11	4	2	.8	10	131	103
7	3	6	13	8	5	10	4	3	.7	9	1,490	194
8	3	6	10	8	5	9	4	3	.7	9	216	33
9	3	6	10	8	5	8	4	3	.7	9	51	30
10	4	5	10	8	5	8	4	3	.6	15	36	116
11	5	5	10	8	5	8	4	3	.6	11	23	115
12	257	5	10	8	6	8	4	3	.6	9	21	75
13	260	5	10	8	6	8	3	2	.5	265	67	202
14	32	5	10	8	6	6	3	2	.6	92	30	244
15	23	5	10	10	6	5	3	2	.6	23	10	34
16	13	6	10	9	7	5	4	2	.6	35	9	16
17	12	6	10	6	8	5	4	2	.6	96	9	13
18	10	6	10	5	8	5	3	2	.5	150	9	12
19	9	6	9	5	8	5	3	2	.4	100	8	10
20	9	6	9	5	8	5	3	2	.4	400	8	8
21	9	6	9	6	7	5	3	2	.4	275	8	8
22	8	6	9	6	7	5	3	2	.4	40	7	7
23	8	6	9	7	7	5	3	2	.4	22	6	7
24	8	6	9	6	7	5	3	2	.4	16	7	7
25	8	5	9	5	7	4	3	2	.4	25	11	7
26	8	6	9	5	8	4	3	2	.4	19	10	6
27	8	6	10	5	8	4	3	2	.4	37	7	6
28	8	6	10	5	8	5	3	2	118	632	7	6
29	8	6	9	5	-	5	3	2	115	163	7	6
30	6	5	8	5	-	5	3	1	88	28	9	6
31	5	-	8	5	-	5	-	1	-	16	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	756	260	3	24.4	1,500
November	166	6	5	5.5	329
December	382	70	5	12.3	758
Calendar year 1937	19,532	2,340	1	53.5	38,730
January	209	10	5	6.7	415
February	178	8	5	6.4	353
March	215	18	4	6.9	426
April	109	5	3	3.6	216
May	69	3	1	2.2	137
June	337.7	118	.4	11.3	670
July	2,625	632	9	84.7	5,210
August	2,510	1,490	6	81.0	4,980
September	1,729	244	6	57.6	3,430
Water year 1937-38	9,285.7	1,490	.4	25.4	18,420

Peak discharge.- Aug. 7 (11 a.m.) 6,300 sec.-ft.

San Pedro River at Charleston, Ariz.

Location.- Water-stage recorder, lat. 31°38'45", long. 110°10'45", in SW¼ sec. 35, T. 20 S., R. 21 E. unsurveyed, in Spanish land grant of San Juan de las Boquillas y Nogales, at Charleston dam site, three-quarters of a mile north of Charleston and 6 miles upstream from Babocomari River. Zero of gage is 3,923.0 feet above mean sea level (from Southern Pacific Railroad benchmark).

Drainage area.- 1,440 square miles.

Records available.- May 1928 to December 1933 and May 1935 to September 1938. 1904 to 1906 and 1910 to 1928 at several different sites upstream or downstream.

Average discharge.- 21 years (1915-33, 1935-38), 72.2 second-feet.

Extremes.- Maximum discharge during year, 7,450 second-feet Aug. 7 (gage height, 7.74 feet); minimum, 3 second-feet several days in June.

1928-38: Maximum discharge, 24,500 second-feet Aug. 9, 1931 (gage height, 12.0 feet), from rating curve extended above 8,000 second-feet on basis of slope-area measurement at 98,000 second-feet; minimum, 2 second-feet in June or July of each of several years.

Maximum discharge known, about 98,000 second-feet Sept. 28, 1926 (gage height, 21.9 feet, from floodmarks), by slope-area measurement.

Remarks.- Records good except those above 300 second-feet, which are fair. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	15	16	19	14	24	11	10	6	38	32	139
2	17	14	18	20	16	23	11	10	7	43	365	104
3	15	12	16	20	15	24	13	11	7	26	40	72
4	14	12	33	20	17	23	13	12	7	17	73	222
5	14	14	58	21	19	24	12	11	6	14	101	259
6	14	13	30	20	21	25	12	11	6	12	275	137
7	14	12	24	20	22	22	12	11	5	10	2,290	196
8	14	12	20	20	20	20	11	11	4	10	764	51
9	12	13	20	22	17	18	12	11	4	9	129	114
10	12	12	20	24	17	19	14	12	4	8	95	303
11	13	14	22	25	19	18	15	11	4	9	68	97
12	38	13	27	21	20	18	14	10	3	10	52	495
13	400	13	25	19	20	16	14	10	3	102	95	170
14	83	13	22	20	20	16	14	10	4	260	212	445
15	45	14	21	23	20	16	14	10	4	34	52	106
16	33	14	21	21	19	16	14	10	4	34	32	40
17	27	15	22	18	21	16	12	9	4	126	22	32
18	27	15	23	17	20	15	12	9	4	304	19	28
19	28	15	24	17	14	15	11	8	4	164	18	24
20	28	14	28	19	16	16	10	8	4	185	16	20
21	31	14	25	20	14	15	10	8	4	729	14	19
22	27	15	19	19	15	15	10	10	3	66	13	19
23	25	14	22	20	16	15	10	10	3	28	15	18
24	23	15	30	18	18	14	9	9	4	19	15	17
25	22	18	24	15	20	13	8	8	4	16	18	16
26	21	17	21	15	23	11	11	8	4	33	19	15
27	20	15	23	17	20	12	11	8	4	26	20	16
28	19	15	20	21	18	12	11	7	58	1,320	24	14
29	17	14	20	20	-	12	11	6	201	366	16	13
30	17	14	19	16	-	12	11	7	109	98	17	12
31	18	-	19	15	-	12	-	6	-	48	118	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,107	400	12	35.7	2,200
November	420	18	12	14.0	833
December	732	58	16	23.6	1,450
Calendar year 1937	28,491	3,880	5	78.1	56,500
January	602	25	15	19.4	1,190
February	511	23	14	18.2	1,010
March	527	25	11	17.0	1,050
April	353	15	8	11.8	700
May	292	12	6	9.4	579
June	488	201	3	16.3	968
July	4,164	1,320	8	134	8,260
August	5,039	2,290	13	163	9,990
September	3,213	495	12	107	6,370
Water year 1937-38	17,448	2,290	3	47.8	34,600

Peak discharge.- July 21 (1:30 a.m.) 2,680 sec.-ft.; July 28 (5:30 a.m.) 3,540 sec.-ft.; July 28 (7:55 p.m.) 5,700 sec.-ft.; Aug. 2 (8:15 p.m.) 6,180 sec.-ft.; Aug. 7 (2:50 p.m.) 7,450 sec.-ft.; Sept. 12 (1:10 a.m.) 2,200 sec.-ft.

San Pedro River near Mammoth, Ariz.

Location.- Water-stage recorder, lat. 32°44'30", long. 110°38'45", in NE¼ sec. 18, T. 8 S., R. 17 E., at highway bridge, 1½ miles north of Mammoth. Zero of gage is 2,307.06 feet above mean sea level (general adjustment of 1929).

Drainage area.- 3,800 square miles.

Records available.- May 1931 to September 1938.

Extremes.- Maximum discharge during year, 7,800 second-feet Aug. 5 (gage height, 10.5 feet); no flow during part of year.

1931-38: Maximum discharge, 19,400 second-feet Oct. 2, 1931 (gage height, 11.1 feet), from rating curve extended above 7,000 second-feet on basis of peak discharge at Charleston and Gila River at Kelvin; no flow part of each year.

Greatest known flood occurred Sept. 28, 1926 (discharge, 90,000 second-feet, estimated on basis of peak discharge at Charleston and Gila River at Kelvin).

Remarks.- Records fair except those for periods of unstable control. Oct. 14-18, Aug. 6-10, 14-16, Sept. 1-8, 14-18, which are poor. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6		0	1	0	1			0	37	55	621
2	0		0	1	0	0			0	14	18	110
3	0		0	0	0	3			0	7	433	69
4	0		0	0	0	552			0	2	483	63
5	0		0	0	0	44			0	1	1,860	255
6	0		1	1	0	5			0	0	196	190
7	0		14	1	0	2			0	0	512	91
8	0		8	1	0	0			0	0	2,070	147
9	0		9	0	0	0			0	0	535	63
10	0		8	0	0	0			0	0	91	188
11	0		7	0	0	0			0	0	66	473
12	0		9	0	0	0			0	2	51	617
13	0		14	0	0	0			0	0	57	297
14	163		22	0	0	0			0	0	468	161
15	73		9	0	0	0			0	63	195	184
16	7		8	0	0	0			0	169	24	36
17	4		6	0	3	0			0	25	8	12
18	2		6	0	0	0			0	2	4	10
19	0		6	0	0	0			0	63	1	7
20	0		7	1	0	0			0	280	0	2
21	0		7	2	0	0			0	294	0	0
22	0		6	0	0	0			0	539	0	0
23	0		5	0	0	0			0	61	2	0
24	0		4	0	0	0			0	32	24	3
25	0		4	0	0	0			0	11	76	1
26	0		3	0	0	0			0	6	32	0
27	0		2	0	1	0			0	37	9	0
28	0		2	0	3	0			119	13	8	0
29	0		2	0	-	0			1	1,450	7	0
30	0		2	0	-	0			72	293	6	0
31	0		2	0	-	0			-	109	32	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	255	163	0	8.2	506
November	0	0	0	0	0
December	173	22	0	5.6	343
Calendar year 1937	31,802	5,620	0	87.1	63,090
January	8	2	0	.3	16
February	7	3	0	.2	14
March	607	552	0	19.6	1,200
April	0	0	0	0	0
May	0	0	0	0	0
June	192	119	0	6.4	381
July	3,510	1,450	0	113	6,960
August	7,323	2,070	0	236	14,520
September	3,600	621	0	120	7,140
Water year 1937-38	15,675	2,070	0	42.9	31,080

Peak discharge.- July 29 (9 a.m.) 6,000 sec.-ft.; Aug. 5 (8 a.m.) 7,800 sec.-ft.; Aug. 8 (3:30 a.m.) 6,600 sec.-ft.

153385 O—39——17

San Pedro River at Winkelman, Ariz.

Location.- Lat. 32°58'45", long. 110°47'15", in SW¼ sec. 23, T. 5 S., R. 15 E., at mouth, 1 mile west of Winkelman.

Drainage area.- 4,680 square miles.

Records available.- April to August 1890 (monthly discharge only, published as San Pedro River at Dudleyville, Ariz.) and December 1928 to September 1938 (discharge measurements only, of which those for October 1933 to September 1934 were published as miscellaneous measurements).

Remarks.- Diversions for irrigation above station.

Discharge measurements, in second-feet, water year October 1937 to September 1938

Oct.	4	4.3	Jan.	17	9.4	May	2	0.18
	18	12.6	Feb.	1	8.9	July	1	27.7
Nov.	1	5.5		14	9.6		18	12.2
	16	4.0	Mar.	1	17.7	Aug.	11	72.8
Dec.	1	7.5		15	12.4	Sept.	19	6.6
	16	28.2		31	5.0			
Jan.	3	8.7	Apr.	18	.84			

Aravaipa Creek near Feldman, Ariz.

Location.- Water-stage recorder, lat. 32°50'30", long. 110°37'45", in NW¼ sec. 9, T. 7 S., R. 17 E., 8 miles upstream from mouth and 6 miles southeast of Feldman.

Drainage area.- 535 square miles.

Records available.- May 1931 to September 1938. April 1919 to September 1921 at site 3 miles downstream.

Extremes.- Maximum discharge during year, 3,600 second-feet Mar. 4 (gage height, 7.56 feet); minimum, 1 second-foot Sept. 23.

1931-38: Maximum discharge, 10,000 second-feet Aug. 15, 1935 (gage height, 10.9 feet), from rating curve extended above 3,000 second-feet; minimum, 1 second-foot several days in each of several years.

A discharge of 20,000 second-feet occurred Aug. 2, 1919, at former site.

Remarks.- Records good except those for period of missing gage heights, July 23-26 (computed on basis of partial gage-height record and weather records), and those for periods of unstable control, Aug. 7-9, Aug. 31 to Sept. 1, and Sept. 5-9, which are poor. Diversions for irrigation above and below station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8	7	11	15	12	16	12	9	6	9	62	80
2	7	8	12	14	33	16	13	8	6	9	20	17
3	8	8	12	14	17	165	12	9	6	8	7	14
4	6	9	13	12	15	1,280	12	8	6	8	132	9
5	8	10	14	12	15	152	12	8	6	8	18	20
6	7	9	13	12	16	26	11	8	6	8	47	5
7	7	10	13	12	15	20	11	7	6	8	15	7
8	7	10	14	12	16	17	12	7	6	7	15	10
9	7	11	14	12	16	18	13	6	5	7	25	15
10	8	12	15	13	15	19	12	6	5	7	6	189
11	8	12	15	13	15	17	12	7	4	8	7	15
12	9	12	17	14	15	16	10	6	4	16	6	9
13	9	12	19	15	14	16	10	6	4	14	16	6
14	5	12	18	14	13	16	13	6	3	12	107	5
15	5	12	16	15	13	16	12	6	3	12	9	4
16	8	12	15	14	15	15	11	6	3	13	8	3
17	9	12	13	14	42	16	11	6	3	17	8	2
18	9	12	13	13	20	16	11	7	3	14	7	2
19	9	11	13	12	14	15	11	7	3	72	5	2
20	9	12	14	13	16	14	10	6	3	26	5	2
21	9	11	14	13	16	15	9	6	3	121	6	2
22	9	11	14	12	19	14	10	6	3	13	6	2
23	9	12	14	13	18	14	9	6	3	8	5	2
24	6	12	15	12	17	14	9	5	2	7	5	3
25	5	12	15	13	15	14	9	5	2	6	13	4
26	6	12	15	13	13	14	8	5	2	6	7	4
27	7	12	15	12	15	13	8	5	2	24	8	4
28	7	11	14	12	18	13	8	5	15	26	8	4
29	7	11	15	9	-	12	8	5	21	10	9	4
30	8	10	15	11	-	12	9	6	9	8	8	4
31	8	-	15	11	-	12	-	6	-	6	60	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	236	9	5	7.6	468
November	327	12	7	10.9	649
December	445	19	11	14.4	883
Calendar year 1937	9,296	1,060	2	25.5	18,440
January	396	15	9	12.8	785
February	490	43	12	17.5	972
March	2,033	1,280	12	65.6	4,030
April	318	13	8	10.6	631
May	199	9	5	6.4	395
June	153	21	2	5.1	303
July	518	121	6	16.7	1,030
August	660	132	5	21.3	1,310
September	459	189	2	15.3	910
Water year 1937-38	6,234	1,280	2	17.1	12,370

Peak discharge.- Mar. 4 (1:30 a.m.) 3,600 sec.-ft.

Santa Cruz River near Nogales, Ariz.

Location.- Water-stage recorder, lat. 31°20'30", long. 110°51'15", in NW¼ sec. 18, T. 24 S., R. 15 E. unsurveyed, on Spanish land grant of Buena Vista, three-quarters of a mile downstream from international boundary and 5½ miles east of Nogales.

Drainage area.- 515 square miles.

Records available.- May 1930 to December 1933, July 1935 to September 1938. March to November 1907 and April 1909 to June 1920 (fragmentary) at site 5¼ miles downstream. April 1921 to June 1922 at site 6 miles downstream.

Extremes.- Maximum discharge during year, 2,200 second-feet July 28 (gage height, 7.45 feet); no flow for part of month in April, June, and July.
1930-38: Maximum discharge, 14,000 second-feet Aug. 31, 1935 (gage height, 12.0 feet) from rating curve extended above 4,000 second-feet. no flow for several days or parts of several days each year.

Remarks.- Records good except those above 100 second-feet, which are fair, and those for period of missing gage heights. June 28-30 (computed on basis of partial gage-height record, weather records, and records for station at Sonoita Creek near Patagonia), and those for period July 19-21, which are poor. Small diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	7	6	7	5	3	0.5	0.4	0.2	0	3	52
2	9	6	6	7	6	1	.6	.3	.2	0	66	18
3	8	6	6	7	5	2	.7	.6	.1	0	230	12
4	8	5	9	5	5	14	.7	.9	0	0	145	32
5	8	6	9	4	5	18	.6	.4	0	0	17	31
6	7	7	9	4	6	12	.4	.4	0	0	63	245
7	7	7	9	4	6	9	.6	.4	0	0	14	68
8	7	7	8	4	6	7	.5	.4	0	0	14	20
9	7	7	7	5	5	6	.5	.5	0	0	8	24
10	7	7	7	5	5	6	.1	.5	0	0	141	24
11	8	7	5	6	4	5	.1	.5	0	0	42	122
12	16	7	6	7	4	5	0	.4	0	0	10	175
13	19	6	7	7	4	6	.1	.5	0	0	10	30
14	18	6	8	7	4	5	.1	.4	0	0	7	22
15	18	6	7	8	4	4	.1	.4	0	.2	5	15
16	18	7	7	9	3	3	.3	.4	0	0	3	9
17	18	7	8	7	5	2	.5	.5	0	0	2	7
18	16	6	7	5	7	2	.5	.9	0	0	.7	5
19	16	5	8	6	9	2	.2	.6	0	80	.6	3
20	14	6	7	7	9	1	.2	.5	0	95	.4	3
21	12	7	6	8	8	1	.2	.5	0	125	.4	2
22	12	7	6	7	7	1	.2	.5	0	9	.2	2
23	12	7	5	6	5	1	.2	.5	0	4	9	2
24	11	7	6	6	4	1	.2	.4	0	11	41	2
25	11	7	6	6	4	1	.2	.5	0	28	133	2
26	10	7	6	6	4	1	.2	.5	0	31	38	2
27	9	7	7	6	4	1	.2	.4	0	5	18	1
28	8	7	7	6	4	.7	.2	.4	10	305	14	1
29	8	7	6	5	-	.6	.3	.5	20	140	12	1
30	7	6	6	4	-	.6	.4	.5	2	15	29	.9
31	7	-	7	5	-	.7	-	.4	-	7	21	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	346	19	7	11.2	686
November	197	7	5	6.6	391
December	214	9	5	6.9	424
Calendar year 1937	8,510.2	517	0	23.3	16,880
January	186	9	4	6.0	369
February	147	9	3	5.2	292
March	122.6	18	.6	3.95	243
April	9.6	.7	0	.32	19
May	15.0	.9	.3	.48	30
June	32.5	20	0	1.08	64
July	855.2	305	0	27.6	1,700
August	1,097.3	230	.2	35.4	2,180
September	932.9	245	.9	31.1	1,850
Water year 1937-38	4,155.1	305	0	11.4	8,250

Peak discharge.- July 19 (10:45 p.m.) 1,600 sec.-ft.; July 28 (6:30 p.m.) 2,200 sec.-ft.; Aug. 3 (5:50 p.m.) 1,850 sec.-ft.; Aug. 6 (6:30 p.m.) 960 sec.-ft.; Sept. 6 (1:10 p.m.) 1,750 sec.-ft.; Sept. 11 (11:30 p.m.) 1,290 sec.-ft.

Santa Cruz River at Tucson, Ariz.

Location.- Water-stage recorder, lat. 32°13', long. 110°59', in NE¼ sec. 14, T. 14 S., R. 13 E., at Congress Street Bridge in Tucson. Zero of gage is 2,327.16 feet above mean sea level (general adjustment of 1929).

Drainage area.- 2,140 square miles.

Records available.- October 1905 to September 1938.

Average discharge.- 26 years (1912-38), 22.9 second-feet.

Extremes.- Maximum discharge during year, 9,000 second-feet Aug. 5 (gage height, 11.70 feet); no flow during greater part of year.
1905-38: Maximum discharge, about 15,000 second-feet (revised) Dec. 23, 1914 (formerly published as Dec. 24, 1914), from rating curve extended above 9,000 second-feet; no flow during greater part of each year.

Remarks.- Records good above 300 second-feet, fair between 100 and 300 second-feet, and poor below 100 second-feet. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	0					0	0	0	0
2			0	0					0	0	0	0
3			0	0					0	0	1	10
4			0	0					0	0	92	1
5			0	0					0	0	1,910	0
6			0	0					0	0	26	0
7			0	0					0	0	273	8
8			0	0					0	0	9	2
9			0	0					0	0	0	0
10			0	0					0	0	5	0
11			0	0					0	0	2	0
12			0	0					0	1	1	0
13			56	0					0	1	697	1
14			0	0					0	0	1	0
15			0	0					0	1	0	0
16			0	0					0	0	0	0
17			0	0					0	0	0	0
18			0	0					0	1	0	0
19			0	0					0	0	0	0
20			0	1					0	0	0	0
21			0	5					0	69	0	0
22			0	1					0	96	0	0
23			0	0					0	2	0	0
24			0	0					0	0	7	0
25			0	0					0	227	0	0
26			0	0					0	22	0	0
27			0	2					0	3	1	0
28			0	2					148	23	1	0
29			0	0					73	45	1	0
30			0	0					0	10	1	0
31			0	0					-	0	1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	56	56	0	1.8	111
Calendar year 1937	4,221	905	0	11.6	8,370
January	11	5	0	.4	22
February	0	0	0	0	0
March	0	0	0	0	0
April	0	0	0	0	0
May	0	0	0	0	0
June	221	148	0	7.4	438
July	501	227	0	16.2	994
August	3,029	1,910	0	97.7	6,010
September	22	10	0	.7	44
Water year 1937-38	3,840	1,910	0	10.5	7,620

Peak discharge.- June 28 (5:25 p.m.) 1,250 sec.-ft.; July 22 (9:45 a.m.) 546 sec.-ft.; July 25 (2 a.m.) 1,920 sec.-ft.; Aug. 5 (1:50 a.m.) 9,000 sec.-ft.; Aug. 7 (12:50 a.m.) 1,630 sec.-ft.; Aug. 13 (6:55 a.m.) 3,080 sec.-ft.

Sonoita Creek near Patagonia, Ariz.

Location.- Water-stage recorder, lat. 31°30'00", long. 110°49'30", in sec. 20, T. 22 S., R. 15 E. unsurveyed, in Spanish land grant of San Jose de Sonoita, 5½ miles downstream from Patagonia.

Drainage area.- 210 square miles.

Records available.- June 1930 to December 1933, July 1935 to September 1938.

Extremes.- Maximum discharge during year, 3,400 second-feet Sept. 9 (gage height, 8.2 feet); minimum, 0.2 second-foot June 25, 26.
1930-38: Maximum discharge, about 20,000 second-feet sometime in August, 1934 (gage height, 15.2 feet, from floodmarks), by slope-area measurement; minimum, 0.2 second-foot Aug. 8, 1933, June 25, 26, 1938.

Remarks.- Records good for period prior to July 18 and fair for remainder of year except those for periods of missing gage heights, Aug. 12-21, Aug. 23 to Sept. 7 (computed on basis of recorded range in stage, weather records, and records for Santa Cruz River near Nogales), and those above 50 second-feet, which are poor. Small diversions for irrigation and mining above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3	3	5	3	5	5	3	2	1	2	1	2
2	3	3	5	3	5	5	3	3	1	2	1	2
3	3	3	5	4	5	4	3	3	.9	2	1	2
4	3	3	6	4	5	5	3	2	.9	2	2	10
5	3	3	5	4	5	5	3	2	.8	1	24	3
6	3	3	5	4	5	5	3	2	.8	1	2	2
7	3	4	5	4	5	5	3	2	.8	1	3	2
8	3	4	5	4	5	4	3	2	.7	.9	3	2
9	3	4	4	4	5	4	3	2	.7	.9	88	167
10	3	4	4	4	5	4	3	2	.7	.9	7	6
11	5	4	4	4	6	4	3	2	.6	.8	8	40
12	4	4	4	4	6	4	3	2	.6	2	5	4
13	4	4	5	4	5	4	3	2	.6	2	50	3
14	4	4	4	4	5	4	3	2	.6	1	5	3
15	4	4	4	4	6	4	3	2	.6	1	3	3
16	4	4	4	4	6	4	3	2	.5	1	2	3
17	4	4	4	4	6	4	3	2	.5	1	2	2
18	4	4	4	4	6	4	2	2	.4	6	2	2
19	4	4	4	4	5	4	2	2	.4	2	2	2
20	4	4	4	4	5	4	2	2	.4	62	2	2
21	4	4	4	5	5	4	2	2	.4	12	5	2
22	4	4	4	5	5	4	2	2	.3	8	2	1
23	4	4	4	5	5	4	2	2	.3	3	2	1
24	4	5	4	5	5	4	2	2	.3	12	60	1
25	4	5	4	5	5	4	2	2	.2	12	4	1
26	4	5	4	5	5	4	2	1	.2	6	2	1
27	4	5	4	5	5	4	2	1	.3	6	3	1
28	4	5	4	5	5	4	2	1	2	3	2	.9
29	3	5	4	5	-	3	2	1	3	2	2	.9
30	3	5	3	5	-	3	2	1	2	2	2	.8
31	3	-	3	5	-	3	-	1	-	1	2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	112	5	3	3.6	222
November	121	5	3	4.0	240
December	132	6	3	4.3	262
Calendar year 1937	2,473	390	1	6.8	4,900
January	133	5	3	4.3	264
February	146	6	5	5.2	290
March	127	5	3	4.1	252
April	77	3	2	2.6	153
May	58	3	1	1.9	115
June	22.5	3	.2	.75	45
July	159.5	62	.8	5.15	316
August	289	88	1	9.3	573
September	292.6	187	.8	9.75	580
Water year 1937-38	1,669.6	187	.2	4.57	5,310

Peak discharge.- Sept. 9 (4:20 p.m.) 3,400 sec.-ft.

Rillito Creek near Tucson, Ariz.

Location.- Water-stage recorder, lat. 32°17'45", long. 110°59'00", in sec. 23, T. 13 S., R. 13 E., at Oracle Road Bridge, 4 miles upstream from confluence with Santa Cruz River and 4 miles north of Tucson. Zero of gage is 2,290.78 feet above mean sea level (general adjustment of 1929).

Drainage area.- 903 square miles.

Records available.- January 1911 to September 1938.

Average discharge.- 25 years (1913-38), 26.6 second-feet.

Extremes.- Maximum discharge during year, 3,000 second-feet Mar. 4 (gage height, 7.54 feet); no flow during most of year.

1911-38: Maximum discharge, 24,000 second-feet Sept. 23, 1929, from rating curve extended above 5,000 second-feet by slope-area measurement; no flow during most of each year.

Remarks.- Records poor. Discharge for Mar. 5, 6, June 28 to Sept. 30 computed on basis of four discharge measurements, partial gage-height record, weather records, and engineers' estimates. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0			0	0	0	0
2						0			0	0	0	0
3						129			0	0	0	2
4						783			0	0	20	0
5						30			0	0	173	0
6						5			0	0	1	0
7						0			0	0	0	0
8						0			0	0	0	0
9						0			0	0	0	0
10						0			0	0	0	0
11						0			0	0	0	0
12						0			0	0	0	0
13						0			0	17	15	0
14						0			0	0	2	0
15						0			0	0	0	0
16						0			0	0	0	0
17						0			0	0	0	0
18						0			0	0	0	0
19						0			0	0	0	0
20						0			0	1	0	0
21						0			0	4	0	0
22						0			0	1	0	0
23						0			0	0	0	0
24						0			0	2	22	0
25						0			0	2	4	0
26						0			0	0	0	0
27						0			0	0	0	0
28						0			26	0	0	0
29						0			4	15	0	0
30						0			0	0	0	0
31						0			-	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1937	2,241	748	0	6.1	4,440
January	0	0	0	0	0
February	0	0	0	0	0
March	947	783	0	30.5	1,880
April	0	0	0	0	0
May	0	0	0	0	0
June	30	26	0	1.0	60
July	42	17	0	1.4	83
August	237	173	0	7.6	470
September	2	2	0	.1	4
Water year 1937-38	1,258	783	0	3.4	2,500

Peak discharge.- Mar. 4 (3:05 a.m.) 3,000 sec.-ft.

Sabino Creek near Tucson, Ariz.

Location.- Water-stage recorder and concrete control, lat. 32°19'00", long. 110°48'45", in NE¼ sec. 9, T. 13 S., R. 15 E., half a mile north of Coronado National Forest boundary and 12 miles northeast of Tucson.

Drainage area.- 35.0 square miles.

Records available.- June 1932 to September 1938.

Extremes.- Maximum discharge during year, 4,100 second-feet Mar. 3 (gage height, 7.13 feet), from rating curve for spillway of dam 1,000 feet downstream from gage, extended above 2,500 second-feet logarithmically; no flow in part of November and part of June.

1932-38: Maximum discharge, that of Mar. 3, 1938; no flow at times during several years.

Remarks.- Records excellent. No diversions above station. Slight regulation by several small recreational detention dams.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.07	0.01	0.01	0.03	0.03	21	1.5	0.09	0.01	2.3	0.1	32
2	.05	.03	.01	.03	.04	11	1.3	.07	.01	.6	.09	11
3	.04	.01	.01	.03	4.6	836	1.2	.07	.01	.2	.07	19
4	.04	.01	.01	.03	2.8	594	1.2	.07	.01	.1	.1	12
5	.04	.01	.01	.02	.9	115	1.1	.07	.01	.09	6.4	21
6	.03	.01	.01	.02	.3	58	1.1	.05	.01	.05	6.7	30
7	.03	.01	.01	.02	.5	40	1.0	.04	.01	.04	40	16
8	.03	.01	.01	.02	.7	30	.9	.04	.01	.03	28	7.7
9	.03	0	.01	.02	.5	21	.8	.04	.01	.02	8.4	4.5
10	.03	0	.01	.02	.5	17	.8	.04	.01	.02	4.0	3.2
11	.04	0	.01	.02	.5	14	.7	.07	.01	.02	3.2	2.4
12	.05	0	.01	.02	.5	12	.6	.05	0	.02	1.9	1.8
13	.03	0	.01	.03	.4	12	.5	.03	0	.01	8.3	1.3
14	.02	0	.01	.03	.3	10	.5	.03	0	.01	42	1.1
15	.02	0	.01	.03	.3	9.0	.5	.03	0	.01	15	.8
16	.02	0	.01	.03	.3	7.4	.4	.02	0	.01	6.5	.6
17	.02	0	.01	.03	1.4	6.7	.4	.02	0	.01	3.7	.5
18	.01	0	.01	.03	1.5	5.4	.4	.02	0	.01	2.3	.4
19	.01	0	.01	.02	1.1	4.8	.4	.03	0	.01	1.6	.4
20	.01	0	.01	.03	1.1	4.5	.3	.02	0	.01	1.2	.2
21	.01	0	.01	.03	2.1	4.0	.3	.02	0	.01	.8	.1
22	.01	0	.01	.03	1.8	3.7	.3	.02	0	.01	1.3	.09
23	.01	0	.01	.03	2.7	3.2	.2	.02	0	.01	1.5	.07
24	.01	0	.01	.02	4.0	3.0	.2	.03	0	.01	.6	.05
25	.01	0	.02	.02	4.0	2.7	.1	.03	0	.01	16	.04
26	.01	0	.03	.02	3.5	2.3	.1	.03	0	.01	4.6	.09
27	.01	0	.03	.02	24	2.3	.1	.02	0	.01	2.6	.04
28	.01	0	.03	.02	76	2.1	.09	.01	17	.01	1.3	.03
29	.01	0	.03	.02	-	1.9	.09	.01	41	.01	1.0	.05
30	.01	0	.03	.03	-	1.8	.09	.01	6.4	.01	.7	.04
31	.01	-	.03	.03	-	1.6	-	.01	-	.1	38	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0.73	0.07	0.01	0.024	1.4
November	.10	.03	0	.003	.20
December	.44	.03	.01	.014	.87
Calendar year 1937	4,196.02	655	0	11.5	8,310
January	.78	.03	.02	.025	1.5
February	136.37	76	.03	4.87	270
March	1,857.4	836	1.6	59.9	3,680
April	17.17	1.5	.09	.572	34
May	1.11	.09	.01	.036	2.2
June	64.51	41	0	2.15	128
July	3.77	2.3	.01	.122	7.5
August	247.96	42	.07	8.00	492
September	166.50	32	.03	5.55	330
Water year 1937-38	2,496.84	836	0	6.84	4,950

Peak discharge.- Feb. 27 (10:30 p.m.) 235 sec.-ft.; Mar. 3 (4:55 p.m.) 3,440 sec.-ft.; Mar. 3 (11:10 p.m.) 4,110 sec.-ft.

Salt River near Chrysotile, Ariz.

Location.- Water-stage recorder, lat. 33°48', long. 110°30', in sec. 5, T. 5 N., R. 18 E. unsurveyed, on San Carlos Indian Reservation, 1,200 feet above bridge on U. S. Highway 60, 5½ miles northeast of Chrysotile, and 8 miles above Cibecue Creek. Zero of gage is 3,353.8 feet above mean sea level (general adjustment of 1929).

Drainage area.- 2,830 square miles.

Records available.- September 1924 to September 1938.

Average discharge.- 14 years, 639 second-feet (revised).

Extremes.- Maximum discharge during year, 21,600 second-feet Mar. 4 (gage height, 9.68 feet); minimum, 104 second-feet July 11 (gage height, 1.44 feet).

1924-28: Maximum discharge, 61,500 second-feet Feb. 7, 1937 (gage height, 15.18 feet), from rating curve extended above 15,000 second-feet; minimum, 95 second-feet July 16, 1934.

The following table gives the figures of maximum discharge for water years 1924-25 to 1936-37, some of which have been revised:

Water year	Date	W.S.P. No.	Gage height (feet)	Discharge (second-feet)
1924-25	Mar. 8	609	6.5	6,550
1925-26	Apr. 6	629	8.5	*14,800
1926-27	Feb. 17	649	9.9	*22,900
1927-28	July 21	669	3.58	1,670
1928-29	Sept.23	689	7.95	*12,100
1929-30	Aug. 11	704	8.0	*12,300
1930-31	Feb. 15	719	6.67	7,400
1931-32	Feb. 10	734	13.3	*43,600
1932-33	Feb. 28	749	4.40	2,880
1933-34	Aug. 20	764	6.20	3,850
1934-35	Apr. 9	789	9.00	15,000
1935-36	Feb. 17	809	8.4	*14,200
1936-37	Feb. 7	829	15.18	61,500

*Supersedes figure previously published.

Remarks.- Records excellent. Small diversions above station.

Revisions.- The figures of daily discharge for high-water periods in 1926, 1927, 1929, 1930, 1932, and 1936 and for a low-water period in 1934 have been revised. The figures published in the following table supersede those published in Water-Supply Papers 629, 649, 689, 704, 734, 764, and 809.

Daily discharge (revised), in second-feet, for high-water periods in 1926, 1927, 1929, 1930, 1932, and 1936 and a low-water period in 1934

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1926		1929		1934		1934		1934	
Apr. 6	6,550	Apr. 5	6,220	Aug. 19	673	Sept.10	316	Sept.25	305
7	9,520	Sept.22	1,960	20	670	11	279	26	310
9	5,890	23	5,080	21	1,270	12	240	27	268
				22	1,000	13	214	28	222
1927		1930		Sept. 2	863	14	195	29	192
Feb. 15	3,890	Mar. 17	6,080	3	697	15	181	30	181
16	9,060	Aug. 11	3,110	4	562	16	175		
17	18,700			5	478	17	169	1936	
18	7,290	1932		6	403	18	169	Feb. 17	8,890
		Feb. 9	12,500	7	344	19	172		
		10	35,900	8	321	23	234		
		11	12,600	9	284	24	300		

Discharge, in second feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	202	156	156	182	174	1,030	634	590	246	215	159	241
2	159	156	159	186	186	1,440	604	626	237	197	153	246
3	159	159	167	186	189	3,600	604	611	223	170	140	331
4	156	159	174	186	186	12,600	626	576	215	153	156	307
5	159	159	170	186	193	3,820	739	555	210	140	1,340	329
6	153	159	170	186	189	2,010	929	541	197	130	665	329
7	146	163	167	178	178	1,410	978	500	186	122	537	675
8	143	167	167	170	178	1,130	856	448	174	119	681	506
9	146	170	159	163	178	978	770	417	170	114	453	363
10	146	174	159	163	178	864	746	398	167	106	251	323
11	146	174	167	156	182	770	770	380	156	106	261	802
12	167	178	186	153	189	746	801	374	153	114	396	514
13	182	174	384	159	197	1,310	832	369	149	171	847	345
14	174	170	369	159	223	2,410	872	363	143	119	1,460	276
15	174	167	232	174	241	2,020	888	380	140	119	781	237
16	251	167	210	186	261	1,510	824	398	133	119	480	424
17	251	167	197	189	261	1,260	824	429	130	229	345	261
18	241	167	189	186	251	1,160	770	436	124	281	271	197
19	215	167	186	193	228	1,030	793	423	122	186	223	197
20	206	167	178	201	223	912	880	398	119	272	193	201
21	186	167	174	206	223	888	937	369	117	223	174	178
22	178	167	167	197	206	920	920	345	114	251	159	163
23	170	167	174	193	197	840	904	334	109	197	149	159
24	167	167	170	189	197	746	880	313	114	178	182	153
25	163	163	178	178	197	724	848	291	117	261	206	149
26	159	163	193	153	201	793	801	281	122	341	244	146
27	159	163	193	156	210	888	746	271	130	174	178	143
28	159	156	193	163	313	856	678	266	156	349	170	140
29	159	156	189	174	-	739	604	261	195	186	167	133
30	159	156	186	182	-	693	576	261	189	163	163	130
31	159	-	186	182	-	671	-	256	-	402	228	-

Discharge, in second-feet, Salt River near Chrysotile, Ariz. for water years 1925-26, 1926-27, 1928-29, 1929-30, 1931-32, 1933-34, 1935-36, 1937-38

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1925	11,007	474	263	355	21,800
November	10,029	398	263	334	19,900
December	8,538	334	227	275	16,900
Calendar year 1925	147,010	3,660	143	403	292,000
January	7,315	286	182	236	14,500
February	6,372	263	198	228	12,700
March	40,386	2,880	254	1,300	79,900
April	108,880	9,520	2,030	3,630	216,000
May	70,812	4,600	798	2,280	140,000
June	15,665	864	249	522	31,100
July	9,808	1,120	194	316	19,400
August	9,205	607	164	297	18,300
September	7,316	1,000	153	244	14,500
Water year 1925-26	305,333	9,520	153	837	605,000
October 1926	5,648	260	157	182	11,200
November	5,402	198	168	180	10,700
December	7,396	627	160	239	14,700
Calendar year 1926	294,205	9,520	153	806	583,000
January 1927	8,329	345	175	269	16,500
February	63,400	18,700	219	2,260	126,000
March	53,580	3,260	1,170	1,730	106,000
April	62,500	2,900	1,180	2,080	124,000
May	38,551	2,360	566	1,240	76,200
June	12,389	742	272	413	24,600
July	9,664	504	178	312	19,200
August	10,459	535	254	337	20,700
September	13,665	1,820	249	456	27,100
Water year 1926-27	290,983	18,700	157	797	577,000
October 1928	5,113	406	124	165	10,100
November	5,730	234	-	191	11,400
December	5,343	259	-	172	10,600
Calendar year 1928	116,268	1,250	108	318	231,000
January 1929	5,669	264	154	183	11,200
February	5,695	230	177	203	11,300
March	14,773	1,200	189	477	29,300
April	36,906	6,220	460	1,230	73,200
May	12,184	448	306	393	24,200
June	5,120	290	106	171	10,200
July	8,323	1,110	109	268	16,500
August	24,353	2,080	460	786	48,300
September	23,833	5,080	230	794	47,300
Water year 1928-29	153,042	6,220	106	419	304,000
October 1929	10,444	530	229	337	20,700
November	6,930	284	186	231	13,700
December	5,379	190	146	174	10,700
Calendar year 1929	159,609	6,220	106	437	317,000
January 1930	7,289	584	156	235	14,500
February	14,347	968	340	512	28,500
March	44,149	6,080	497	1,420	87,600
April	45,960	2,400	900	1,530	91,200
May	19,276	813	464	622	38,200
June	8,079	457	146	269	16,000
July	14,377	1,300	120	464	28,500
August	17,369	3,110	199	560	34,500
September	6,114	413	-	204	12,100
Water year 1929-30	199,713	6,080	120	547	396,000
October 1931	29,462	3,500	321	950	58,400
November	14,343	1,240	261	478	28,400
December	20,302	1,080	385	655	40,300
Calendar year 1931	269,765	5,700	153	739	535,000
January 1932	14,657	641	350	473	29,100
February	118,446	35,900	397	4,080	235,000
March	91,500	4,470	1,960	2,950	181,000
April	88,610	4,550	1,620	2,950	176,000
May	33,004	1,480	670	1,060	65,500
June	11,718	634	236	391	23,200
July	11,909	1,390	217	384	23,600
August	19,044	1,320	279	614	37,800
September	8,915	724	183	297	17,700
Water year 1931-32	461,910	35,900	183	1,260	916,000

Discharge, in second-feet, of Salt River near Chrysotile, Ariz., for water years 1925-26, 1926-27, 1928-29, 1929-30, 1931-32, 1933-34, 1935-36, 1937-38--Continued

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1933	10,320	857	204	333	20,470
November	5,986	241	179	200	11,870
December	7,065	297	183	228	14,010
Calendar year 1933	186,765	2,010	164	512	370,400
January 1934	5,800	222	140	187	11,500
February	5,933	286	183	212	11,770
March	11,433	454	260	369	22,680
April	8,343	381	236	278	16,550
May	5,846	250	143	189	11,600
June	3,469	168	100	116	6,880
July	4,727	324	98	152	9,380
August	20,743	1,420	134	669	41,140
September	9,731	1,130	168	324	19,300
Water year 1933-34	99,396	1,420	98	272	197,200
October 1935	5,559	277	162	179	11,030
November	5,947	306	162	198	11,800
December	6,132	230	150	198	12,160
Calendar year 1935	329,352	9,330	150	902	653,300
January 1936	6,040	629	150	195	11,980
February	45,569	8,890	286	1,571	90,380
March	52,930	3,020	1,010	1,709	105,100
April	90,650	4,290	1,990	3,022	179,800
May	34,407	1,900	654	1,110	68,250
June	10,342	801	178	345	20,510
July	5,618	313	145	181	11,140
August	8,244	479	181	266	16,350
September	10,401	679	239	347	20,630
Water year 1935-36	281,899	8,890	145	770	559,100
October 1937	5,394	251	143	174	10,700
November	4,945	178	156	165	9,810
December	5,949	384	156	192	11,800
Calendar year 1937	342,495	28,900	140	938	679,100
January 1938	5,515	206	153	178	10,940
February	5,829	313	174	208	11,560
March	50,768	12,600	671	1,638	100,700
April	23,634	978	576	788	46,880
May	12,460	826	256	402	24,710
June	4,757	246	109	159	9,440
July	5,907	402	106	191	11,720
August	11,812	1,460	140	381	23,430
September	8,598	802	130	287	17,050
Water year 1937-38	145,568	12,600	106	399	288,700

Peak discharge.- Mar. 4 (6:00 a.m.) 21,600 sec.-ft.; Aug. 5 (5:10 a.m.) 4,400 sec.-ft.; Aug. 13 (10:30 p.m.) 6,700 sec.-ft.

Salt River near Roosevelt, Ariz.

Location.- Water-stage recorder, lat. 33°37' (revised), long. 110°55' (revised), in NE¼ sec. 9, T. 3 N., R. 14 E. unsurveyed, 100 feet downstream from bridge on Roosevelt-Young highway, a quarter of a mile downstream from Pinal Creek, 1 mile upstream from diversion dam for power canal, 3 miles upstream from Roosevelt Reservoir, and 13 miles east of Roosevelt. Zero of gage is 2,177.14 feet above mean sea level (general adjustment of 1929).

Drainage area.- 4,310 square miles.

Records available.- October 1913 to September 1938.

Average discharge.- 25 years, 994 second-feet.

Extremes.- Maximum discharge during year, 24,100 second-feet Mar. 4 (gage height, 16.38 feet); minimum, 116 second-feet July 10 (gage height, 5.62 feet).
1913-38: Maximum discharge, about 100,000 second-feet Jan. 19, 1916, by computation based on flow over Roosevelt Dam; minimum, 91 second-feet June 30, 1934.
Minimum discharge known, about 42 second-feet Aug. 5, 1911.

Remarks.- Records excellent. Small diversions for irrigation above station. Two hundred thirty-eight discharge measurements were made during the year.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	199	180	194	220	215	773	709	607	279	326	412	350
2	225	176	194	215	220	1,710	673	672	275	252	394	418
3	190	178	199	225	223	2,670	650	664	254	224	484	438
4	185	185	196	223	225	17,800	635	643	246	196	780	682
5	180	185	203	218	218	6,260	661	614	236	174	2,770	885
6	180	183	206	220	223	3,120	822	600	229	158	1,080	457
7	176	187	203	220	215	2,020	1,030	571	222	146	731	962
8	174	194	199	206	208	1,540	1,070	536	216	138	1,110	718
9	167	192	201	199	211	1,300	893	494	199	130	538	489
10	165	194	201	192	213	1,150	798	460	187	123	445	401
11	169	199	196	192	211	1,020	798	426	180	126	479	577
12	176	199	220	190	213	926	829	413	177	134	463	718
13	187	201	294	187	220	1,390	861	400	171	130	487	498
14	196	196	449	192	228	2,590	893	394	168	166	2,370	373
15	201	196	383	203	245	2,670	901	388	162	166	903	308
16	206	192	272	213	280	1,950	901	394	156	190	645	416
17	253	190	253	215	329	1,580	861	413	148	188	464	378
18	266	192	235	220	298	1,380	853	446	145	257	361	319
19	258	196	225	213	286	1,280	806	446	139	316	298	270
20	235	196	223	230	264	1,140	845	433	136	394	251	251
21	225	201	220	240	255	1,030	917	413	133	304	222	242
22	211	201	218	238	250	1,040	958	382	131	267	201	226
23	203	196	215	235	230	1,050	934	359	128	330	190	205
24	196	194	225	223	228	947	909	347	125	270	213	198
25	192	196	220	213	223	834	893	334	123	243	622	194
26	187	199	218	203	223	814	861	311	130	400	343	187
27	187	201	235	190	240	905	806	298	134	337	297	184
28	187	196	228	194	298	1,000	760	294	166	253	242	180
29	185	187	225	196	-	905	701	291	321	333	226	173
30	185	192	225	208	-	820	621	287	448	210	217	166
31	185	-	223	220	-	763	-	291	-	274	260	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	6,131	266	165	198	12,160
November	5,774	201	176	192	11,450
December	7,198	449	194	232	14,280
Calendar year 1937	435,487	35,000	153	1,193	863,800
January	6,553	240	187	211	13,000
February	6,692	329	208	239	13,270
March	64,377	17,800	763	2,077	127,700
April	24,852	1,070	621	828	49,290
May	13,621	672	287	439	27,020
June	5,764	448	123	192	11,430
July	7,155	400	123	231	14,190
August	18,498	2,770	190	597	36,690
September	11,863	962	166	395	23,530
Water year 1937-38	178,478	17,800	123	489	354,000

Peak discharge.- Mar. 2 (7:30 p.m.) 1,970 sec.-ft.; Mar. 4 (12 m.) 24,100 sec.-ft.; Mar. 14 (3 p.m.) 2,950 sec.-ft.; Aug. 5 (7:10 a.m.) 8,300 sec.-ft.; Aug. 5 (2 p.m.) 4,560 sec.-ft.; Aug. 14 (7:10 a.m.) 5,700 sec.-ft.

Reservoir system on Salt River at and below Roosevelt Dam, Ariz.

Location.- This system comprises four reservoirs on Salt Rivers: Roosevelt Lake, formed by Roosevelt Dam in sec. 20, T. 4 N., R. 12 E. unsurveyed; Apache Lake, formed by Horse Mesa Dam, 17 miles downstream from Roosevelt Dam; Canyon Lake, formed by Mormon Flat Dam 26 miles downstream from Roosevelt Dam; Stewart Mountain Lake, formed by Stewart Mountain Dam 36 miles downstream from Roosevelt Dam.

Drainage area.- 6,200 square miles at Stewart Mountain Dam.

Records available.- October 1934 to September 1938.

Extremes.- Maximum daily contents of system during year, 822,600 acre-feet Mar. 25; minimum daily, 314,700 acre-feet Sept. 30.
1934-38: Maximum daily contents, 1,312,200 acre-feet May 3, 1937; minimum daily, 177,500 acre-feet Nov. 16, 1934.

Remarks.- Total storage capacity of the four reservoirs is 1,790,000 acre-feet, divided as follows: Roosevelt Lake, 1,412,000 acre-feet; Apache Lake, 245,000 acre-feet; Canyon Lake, 63,200 acre-feet; Stewart Mountain Lake, 70,000 acre-feet. Water from this system is used for irrigation of Salt River Valley near Phoenix. The four dams forming these reservoirs completely develop the fall in Salt River from Roosevelt Lake to Stewart Mountain Dam. Records of daily contents furnished by Salt River Valley Water Users' Association.

Daily contents, in thousands of acre-feet, of reservoir system on Salt River at and below Roosevelt Dam, Ariz., water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	744.3	686.2	655.2	652.5	651.5	652.6	820.4	771.7	691.2	578.1	470.9	405.3
2	741.5	685.4	654.4	652.9	651.8	655.0	819.4	770.1	687.5	575.9	467.3	402.8
3	738.7	684.0	654.0	653.3	652.4	658.9	818.7	768.2	683.5	573.1	463.1	400.5
4	735.9	682.3	653.8	653.4	653.1	692.1	817.9	766.4	679.6	571.2	458.6	399.8
5	733.5	680.7	652.9	653.1	653.5	736.0	816.4	764.5	676.0	568.6	456.6	398.8
6	730.9	679.2	651.9	652.8	653.4	757.7	814.4	762.4	672.8	564.2	459.1	398.4
7	728.4	677.3	650.8	652.3	653.2	766.3	812.6	759.7	669.2	560.9	460.0	396.6
8	725.7	676.5	650.5	651.9	653.1	771.7	810.9	757.7	665.5	556.7	459.3	397.3
9	723.4	675.4	650.4	651.9	652.7	775.7	809.2	755.6	661.7	552.3	459.2	395.7
10	721.8	674.0	650.1	652.0	652.3	778.8	809.0	753.3	657.9	548.1	458.2	391.9
11	720.5	672.7	650.0	652.3	651.6	781.4	808.5	750.5	654.0	543.9	456.1	387.8
12	718.9	671.3	649.7	652.1	651.7	783.7	807.1	750.4	650.5	539.6	453.3	384.6
13	717.6	670.6	650.6	651.9	652.3	785.9	804.7	744.6	646.1	535.3	450.3	380.1
14	715.3	670.0	651.5	651.8	652.9	790.4	802.2	741.5	642.2	531.7	448.2	375.7
15	713.4	669.3	651.8	650.8	653.4	796.1	800.1	732.2	638.4	527.7	450.1	370.2
16	711.7	668.7	652.6	650.3	653.9	801.7	799.2	735.8	634.5	523.4	450.6	365.3
17	711.0	667.7	653.2	650.6	654.6	806.2	798.7	733.5	630.7	520.0	448.0	360.5
18	709.6	666.5	653.7	650.8	655.5	809.9	798.6	730.5	626.9	516.4	446.2	356.4
19	708.2	665.4	653.4	650.5	655.8	812.7	797.6	727.9	622.8	513.7	443.5	352.2
20	706.8	664.5	654.0	650.0	656.3	815.2	795.3	725.4	619.1	510.2	440.7	349.2
21	705.1	663.8	654.3	650.3	656.7	817.6	793.0	723.0	615.2	507.2	437.8	345.6
22	703.3	663.1	653.9	651.0	657.1	819.5	790.6	720.7	611.2	503.4	435.2	341.6
23	701.5	662.3	653.9	651.5	657.5	821.0	788.5	717.8	607.1	500.1	431.9	337.6
24	699.9	661.4	654.5	651.7	656.8	822.1	786.9	716.4	603.0	497.3	428.4	334.0
25	698.2	661.0	655.0	651.7	655.0	822.6	784.9	713.9	598.7	494.7	424.8	330.6
26	696.2	660.0	655.9	652.2	652.9	822.1	782.4	710.7	594.6	491.7	422.1	327.1
27	694.5	659.0	656.4	652.2	651.4	822.0	780.5	707.2	591.0	489.0	419.4	324.5
28	692.8	658.1	656.1	651.8	651.2	821.9	778.6	703.4	587.1	485.8	416.7	321.3
29	690.9	657.0	654.7	651.1	-	821.9	776.1	700.0	582.9	481.9	413.1	317.9
30	689.3	656.2	653.3	650.9	-	821.5	773.6	697.2	580.1	478.1	410.4	314.7
31	687.6	-	652.8	651.1	-	821.1	-	694.3	-	474.3	408.0	-

Salt River at Stewart Mountain Dam, Ariz.

Location.- Water-stage recorder, lat. 33°33' (revised), long. 111°32' (revised), in SE¼ sec. 33, T. 3 N., R. 8 E. unsurveyed, in Tonto National Forest, three-quarters of a mile downstream from Stewart Mountain Dam and 9 miles upstream from Verde River. Zero of gage is 1,396.33 feet above mean sea level (general adjustment of 1929).

Drainage area.- 6,200 square miles.

Records available.- October 1934 to September 1938.

Extremes.- Maximum discharge during year, 3,000 second-feet Sept. 14; minimum, 5 second-feet Jan. 24.
1934-38: Maximum discharge, 3,450 second-feet Sept. 16, 1937; minimum, 3 second-feet Jan. 8-20, 1935.

Remarks.- Records excellent. Eighty-seven discharge measurements were made during the year. Discharge completely regulated at Stewart Mountain Dam and at three other dams (see p. 263). Entire flow is diverted for irrigation by Salt River Valley Water Users' Association at Granite Reef Dam, 13 miles downstream.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,720	791	545	22	163	13	1,130	1,240	2,010	1,450	2,150	1,720
2	1,660	887	438	22	7	13	1,130	1,240	2,210	1,440	2,410	1,330
3	1,400	983	410	28	7	18	990	1,440	2,210	1,420	2,510	1,440
4	1,570	998	566	77	82	14	1,320	1,540	1,950	1,370	2,440	1,220
5	1,570	921	488	228	205	13	1,680	1,670	1,820	1,830	1,630	1,390
6	1,510	900	341	201	153	13	1,710	1,670	1,960	2,380	1,270	1,590
7	1,400	778	332	235	211	13	1,700	1,530	2,060	2,510	914	1,840
8	1,370	712	336	341	519	13	1,620	1,490	2,050	2,510	962	2,090
9	1,060	822	341	100	414	13	1,120	1,580	2,050	2,390	1,140	2,390
10	766	867	341	97	363	13	751	1,830	2,130	2,260	1,520	2,540
11	803	778	336	244	405	13	1,530	1,850	2,100	2,340	1,840	2,550
12	1,050	599	139	232	345	13	1,960	1,850	1,950	2,360	2,030	2,630
13	1,330	438	9	144	85	13	2,120	1,870	1,930	2,070	2,110	2,850
14	1,180	400	9	482	18	13	1,830	1,820	2,080	1,990	1,000	2,980
15	1,060	483	8	478	43	13	1,340	1,540	2,060	2,040	721	2,970
16	874	577	15	297	213	13	1,000	1,570	1,960	2,080	1,530	2,850
17	701	615	29	236	39	13	808	1,540	2,010	1,850	1,820	2,630
18	835	599	7	289	260	13	1,360	1,690	2,060	1,680	1,740	2,180
19	1,030	638	7	434	42	13	1,920	1,520	1,910	1,940	1,830	1,970
20	1,200	529	11	171	11	19	2,090	1,490	1,950	2,080	1,750	2,170
21	1,180	514	15	8	11	149	2,080	1,310	2,030	2,200	1,660	2,300
22	1,140	514	21	7	22	405	1,920	1,100	2,040	1,990	1,740	2,280
23	1,060	524	75	7	545	604	1,840	1,280	2,120	1,850	1,910	2,130
24	1,070	514	12	24	1,120	654	1,730	1,730	2,170	1,740	1,910	2,040
25	1,120	508	11	131	1,310	835	1,810	1,930	2,040	1,610	1,920	1,980
26	1,160	519	11	209	1,150	914	1,790	1,920	2,040	1,610	1,980	1,890
27	1,080	572	40	260	500	810	1,810	1,890	2,340	2,130	1,840	1,870
28	1,110	534	359	448	45	907	1,810	1,870	2,430	2,370	1,740	1,900
29	1,020	493	626	400	-	1,240	1,810	1,610	1,680	2,370	1,660	1,850
30	1,030	524	791	10	-	1,200	1,630	1,620	1,390	2,200	1,810	1,850
31	810	-	104	40	-	1,140	-	1,760	-	2,020	1,850	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	35,869	1,720	701	1,157	71,150
November	19,531	995	400	651	38,740
December	6,773	791	7	218	13,430
Calendar year 1937	449,136	3,400	7	1,231	890,900
January	5,902	482	7	190	11,710
February	8,288	1,310	7	296	16,440
March	9,130	1,240	13	295	18,110
April	47,337	2,120	751	1,578	93,890
May	50,030	1,930	1,100	1,614	99,230
June	60,740	2,430	1,390	2,025	120,500
July	62,080	2,510	1,370	2,003	123,100
August	53,337	2,510	721	1,721	105,800
September	63,420	2,980	1,220	2,114	125,800
Water year 1937-38	422,437	2,980	7	1,157	837,900

Tonto Creek near Roosevelt, Ariz.

Location.- Staff gage, about lat. 33°52', long. 111°18', at several sites in sec. 14, T. 6 N., R. 10 E., all about 7 miles upstream from Roosevelt Reservoir and 17 miles northwest of Roosevelt. Site changed from time to time because of changes in channel.

Drainage area.- 813 square miles.

Records available.- October 1913 to September 1938.

Extremes.- Maximum discharge during year not determined; minimum discharge observed, 1 second-foot several days in July, August, and September.
1913-38: Maximum discharge not determined; probably no flow at times during the drier years.

Remarks.- Records fair for periods of low and uniform flow, and poor for periods of high and fluctuating flow. Discharge during period of flood Mar. 4-13, not determined. Small diversions for irrigation above station. Once-daily gage readings furnished by Salt River Valley Water Users' Association.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6	5	3	7	8	490	61	16	4	6	2	219
2	6	5	3	7	10	387	56	9	4	4	1	84
3	6	3	3	7	10	342	51	15	4	4	1	155
4	6	5	3	7	10	-	46	13	4	3	248	198
5	6	4	3	7	10	-	41	12	4	2	132	405
6	6	4	3	7	10	-	39	15	4	2	23	110
7	6	4	4	7	10	-	37	14	4	2	26	85
8	6	4	4	7	10	-	35	13	4	2	63	47
9	5	4	4	7	10	-	33	11	4	2	43	37
10	5	4	4	7	10	-	31	10	4	2	41	20
11	5	4	4	7	10	-	29	10	3	2	23	20
12	12	4	4	7	13	-	27	9	3	2	138	28
13	9	4	5	7	10	-	27	9	3	2	87	20
14	8	3	5	7	10	630	26	9	3	2	50	20
15	9	3	5	7	10	324	26	8	3	1	39	4
16	9	3	5	7	10	233	25	8	3	1	30	4
17	8	3	5	7	13	195	24	8	3	2	16	4
18	8	3	5	7	12	162	23	7	3	2	12	4
19	8	3	5	7	12	151	23	7	3	2	10	2
20	7	3	6	10	19	140	23	7	3	10	7	2
21	7	3	6	9	19	128	23	6	3	20	6	1
22	7	3	6	9	22	116	23	6	3	11	6	1
23	6	3	6	9	22	106	22	6	3	6	4	1
24	6	3	6	9	21	96	22	5	3	3	4	1
25	6	3	7	9	20	86	22	5	3	2	3	1
26	6	3	7	9	20	76	22	5	3	2	2	1
27	5	3	7	8	19	76	21	5	3	2	2	1
28	5	3	7	8	381	76	21	5	68	2	2	1
29	5	3	7	8	-	76	16	6	71	2	2	1
30	5	3	7	8	-	71	16	4	13	2	1	1
31	5	-	7	8	-	66	-	4	-	2	401	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	205	12	5	6.6	407
November	105	5	3	3.5	208
December	156	7	3	5.0	309
Calendar year					
January	237	10	7	7.6	470
February	741	381	8	26.5	1,470
March	-	-	66	-	-
April	891	61	16	29.7	1,770
May	266	16	4	8.6	528
June	243	71	3	8.1	482
July	109	20	1	3.5	216
August	1,425	401	1	46.0	2,830
September	1,478	405	1	49.3	2,930
Water year					

Verde River near Camp Verde, Ariz.

Location.- Water-stage recorder, lat. 34°27'(revised), long. 111°47' (revised), in sec. 1, T. 12 N., R. 5 E. unsurveyed, a short distance downstream from Camp Verde dam site, about 750 feet upstream from Chasm Creek, and 9 miles southeast of Camp Verde. Zero of gage is 2,874.1 feet above mean sea level (general adjustment of 1929).

Drainage area.- 5,010 square miles.

Records available.- April 1934 to September 1938. December 1912 to March 1920 at site 15 miles upstream (published as Verde River at Camp Verde, Ariz.).

Extremes.- Maximum discharge during year, 97,000 second-feet Mar. 3 (gage height, 26.1 feet), computed by slope-area method and verified by comparison with records for nearby stations; minimum, 57 second-feet June 10.

1912-20, 1934-38: Maximum discharge, that of Mar. 3, 1938; minimum, 31 second-feet July 28, 29, 1914.

Remarks.- Records excellent except those above 50,000 second-feet for parts of a day, which are fair. One hundred eighty-three discharge measurements were made during the year. Small diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	509	159	188	217	192	8,720	227	101	77	153	118	128
2	359	163	200	217	200	7,760	209	94	73	134	99	131
3	244	163	208	217	200	39,800	209	88	79	118	90	131
4	200	163	208	217	204	33,000	200	90	77	118	81	404
5	179	156	213	208	208	7,200	192	94	88	108	151	243
6	175	163	213	213	204	3,690	178	114	92	94	233	180
7	163	179	213	213	204	2,350	164	101	79	92	189	180
8	159	179	208	208	200	1,740	155	104	73	90	247	158
9	152	175	200	208	200	1,320	155	97	67	90	294	144
10	148	163	200	200	196	1,040	153	88	67	85	206	131
11	148	171	204	200	200	927	147	83	69	169	169	128
12	144	175	208	204	426	1,330	139	83	67	99	144	124
13	144	171	222	204	1,740	4,690	126	85	65	101	1,590	124
14	141	175	230	204	815	2,230	116	88	77	97	764	116
15	141	171	217	208	560	1,730	131	83	81	118	310	114
16	141	171	208	213	411	1,230	142	79	79	104	240	108
17	133	167	204	213	354	927	183	79	69	101	218	111
18	144	171	204	213	305	763	291	83	67	106	209	111
19	144	179	208	208	290	605	203	85	69	99	186	108
20	137	179	213	208	276	490	150	88	71	111	175	106
21	141	188	208	222	257	435	124	90	69	114	161	101
22	137	192	204	226	244	409	114	92	69	101	153	99
23	144	188	200	217	239	357	106	97	69	116	147	106
24	148	184	213	213	230	322	99	97	79	106	136	101
25	148	188	222	213	226	291	101	90	79	159	139	108
26	156	188	222	204	230	270	92	85	79	106	134	108
27	156	184	222	192	248	266	90	85	81	131	121	106
28	152	188	222	184	6,460	266	90	83	97	111	111	108
29	159	188	217	192	-	259	93	81	142	114	111	114
30	163	188	217	192	-	243	94	79	158	114	136	114
31	163	-	217	188	-	237	-	79	-	106	128	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	5,372	509	133	173	10,660
November	5,269	192	156	176	10,450
December	6,533	230	188	211	12,960
Calendar year 1937	292,504	34,700	65	801	580,200
January	6,436	226	184	208	12,770
February	15,519	6,460	192	554	30,780
March	124,877	39,800	237	4,028	247,700
April	4,474	291	90	149	8,870
May	2,765	114	79	89.2	5,480
June	2,408	158	65	80.3	4,780
July	3,465	169	85	112	6,870
August	7,190	1,590	81	232	14,260
September	4,045	404	9	135	8,020
Water year 1937-38	188,353	39,800	65	516	373,600

Peak discharge.- Feb. 28 (8:10 p.m.) 12,300 sec.-ft.; Mar. 2 (4:20 a.m.) 12,000 sec.-ft.; Mar. 3 (5 p.m.) 97,000 sec.-ft.; Mar. 5 (12 p.m.) 87,500 sec.-ft.; Mar. 13 (1:10 a.m.) 7,230 sec.-ft.

Verde River below East Verde River, near Pine, Ariz.

Location.- Water-stage recorder, lat. 34°16' (revised), long. 111°41' (revised), in sec. 30, T. 11 N., R. 7 E. unsurveyed, 2½ miles downstream from East Verde River and 15 miles southwest of Pine. Zero of gage is 2,401.6 feet above mean sea level (general adjustment of 1929).

Drainage area.- 5,650 square miles.

Records available.- June 1934 to September 1938.

Extremes.- Maximum discharge during year, 110,000 second-feet Mar. 3 (gage height, 24.7 feet), by slope-area method, verified by comparison with records for related stations; minimum, 83 second-feet June 19 (gage height, 6.43 feet), caused by power regulation on Fossil Creek.

1934-38: Maximum discharge, that of Mar. 3, 1938; minimum, 68 second-feet June 21, 1938, caused by regulation.

Remarks.- Records excellent except for parts of a day above 40,000 second-feet, which are fair. Small diversions for irrigation above station. Some regulation by power plant 9 miles upstream using water from Fossil Creek.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	413	200	224	264	246	9,650	287	126	121	181	117	446
2	460	196	232	254	264	8,760	266	129	117	178	137	172
3	312	200	246	264	254	41,000	250	129	117	150	134	248
4	250	196	250	259	268	39,500	246	129	126	140	131	348
5	232	192	241	264	259	9,190	242	129	119	137	114	350
6	216	196	246	254	241	4,530	235	145	129	131	251	246
7	204	208	250	254	259	2,800	216	150	140	126	227	216
8	200	216	254	254	254	1,950	198	129	119	121	309	208
9	194	212	250	250	250	1,520	198	134	114	117	401	178
10	181	208	250	254	246	1,180	191	140	110	112	266	172
11	187	208	250	250	250	1,030	181	124	108	117	223	150
12	188	204	259	246	272	946	181	124	95	218	194	150
13	188	212	268	250	1,580	4,900	165	121	99	131	661	150
14	185	208	282	250	1,000	2,760	162	119	108	126	1,600	148
15	181	208	268	254	669	1,980	165	114	112	117	414	142
16	174	208	254	254	502	1,430	184	110	114	158	314	137
17	167	208	254	272	421	1,020	178	112	108	129	271	124
18	178	212	250	268	372	861	312	114	103	129	238	140
19	185	216	250	264	338	700	287	119	95	129	231	137
20	174	220	254	268	327	587	212	117	97	121	212	140
21	174	220	254	268	307	513	178	121	108	165	202	134
22	178	224	254	277	302	484	159	117	108	131	191	131
23	185	228	250	259	287	440	150	124	103	129	208	129
24	174	228	250	264	277	398	140	124	103	140	184	137
25	188	224	259	264	272	364	131	129	105	129	153	117
26	185	228	259	254	282	336	137	126	103	185	181	131
27	188	220	264	241	297	318	129	114	103	158	165	137
28	188	220	259	236	5,240	318	126	121	137	153	153	131
29	192	220	259	236	-	322	131	110	162	131	150	137
30	200	224	264	224	-	300	137	117	191	134	153	137
31	200	-	259	236	-	296	-	124	-	126	275	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	6,521	460	167	210	12,930
November	6,364	228	192	212	12,620
December	7,863	282	224	254	15,600
Calendar year 1937	369,780	41,300	101	1,013	733,400
January	7,906	277	224	255	15,680
February	15,536	5,240	241	555	30,820
March	140,383	41,000	296	4,528	278,400
April	5,774	312	126	192	11,450
May	3,841	150	110	124	7,620
June	3,474	191	95	116	6,890
July	4,349	218	112	140	8,630
August	8,460	1,600	114	273	16,780
September	5,323	446	117	177	10,560
Water year 1937-38	215,794	41,000	95	591	428,000

Peak discharge.- Feb. 28 (10:45 p.m.) 13,700 sec.-ft.; Mar. 2 (8:10 a.m.) 13,200 sec.-ft.; Mar. 3 (7:20 p.m.) 110,000 sec.-ft.; Mar. 4 (1 a.m.) 94,100 sec.-ft.

153365 O—39——18

Verde River above Camp Creek, near McDowell, Ariz.

Location.- Water-stage recorder, lat. 33°47' (revised), long. 111°39' (revised), in sec. 16, T. 5 N., R. 7 E. unsurveyed, half a mile upstream from Camp Creek, 4½ miles downstream from Bartlett Dam, and 10 miles north of McDowell. Zero of gage is 1,529.8 feet above mean sea level (general adjustment of 1929).

Drainage area.- 6,230 square miles.

Records available.- February 1925 to September 1938. August to September 1889, April 1897 to November 1899, and January 1901 to February 1925, at site 17 miles downstream and three-quarters of a mile upstream from mouth; records equivalent.

Average discharge.- 35 years (1903-38), 810 second-feet.

Extremes.- Maximum discharge during year, 95,000 second-feet Mar. 4 (gage height, 21.9 feet), from rating curve extended above 44,000 second-feet on basis of slope-area computation, velocity-area studies, logarithmic extension, and relation of mean depth to discharge per unit width, verified by comparison of peak discharge and total run-off of flood with peak discharge and total run-off of flood at other stations on Verde River and at stations on Salt and Gila Rivers; minimum, 60 second-feet May 28, caused by temporary regulation at Bartlett dam.

1897-1938: Maximum discharge at present site, that of Mar. 4, 1938; maximum discharge at former site, 96,000 second-feet (estimated) Nov. 27, 1905; minimum, 32 second-feet July 19 and 20, 1904.

Remarks.- Records excellent except those above 60,000 second-feet for parts of a day, which are fair. Two hundred twenty-five discharge measurements were made during the year. Small diversions above station. Some temporary regulation of low flow during construction of Bartlett Dam.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	165	187	227	276	251	9,490	326	147	104	150	128	277
2	273	189	227	273	282	9,300	317	147	114	164	116	386
3	413	192	233	269	285	14,800	304	140	106	158	110	296
4	336	197	239	273	276	59,700	288	145	106	150	132	380
5	276	197	248	276	279	13,500	277	140	104	135	558	380
6	245	192	251	269	273	5,800	269	140	108	128	208	385
7	225	200	248	269	263	3,760	265	140	106	123	166	273
8	216	208	257	273	273	2,700	254	147	106	114	237	248
9	213	211	257	273	276	2,010	237	147	116	106	288	227
10	200	216	254	269	266	1,580	230	132	104	104	347	204
11	200	216	251	266	269	1,290	224	130	100	96	288	192
12	205	216	266	263	279	1,460	211	137	93	95	234	178
13	192	211	282	266	330	3,080	211	128	88	132	227	156
14	184	211	273	269	1,510	3,830	204	130	86	153	1,260	158
15	184	213	276	279	920	2,450	198	130	84	128	926	158
16	184	216	273	276	706	1,990	195	123	90	131	500	156
17	179	219	273	269	548	1,450	198	114	93	186	375	214
18	172	222	266	279	485	1,130	201	110	95	156	339	200
19	167	222	263	279	432	946	247	116	93	130	262	147
20	172	222	260	285	401	803	304	123	91	125	244	137
21	169	225	269	285	368	682	254	125	84	153	230	132
22	169	225	269	279	354	616	211	120	84	137	217	132
23	172	225	269	279	346	559	192	128	91	145	198	135
24	172	230	269	279	329	512	172	125	95	172	204	135
25	172	233	269	276	309	462	166	123	90	156	195	135
26	174	230	276	282	298	420	153	116	84	137	181	135
27	177	233	282	273	332	394	150	116	91	153	175	128
28	182	230	282	266	436	375	150	97	96	142	172	132
29	184	227	276	254	-	366	147	114	128	147	161	135
30	184	227	276	254	-	361	147	120	132	142	153	132
31	189	-	273	248	-	338	-	114	-	128	145	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	6,345	413	165	205	12,590
November	6,442	233	187	215	12,780
December	8,134	282	227	262	16,130
Calendar year 1937	408,987	39,200	92	1,121	811,300
January	8,426	285	248	272	16,710
February	11,376	1,510	251	406	22,560
March	146,154	59,700	338	4,715	289,900
April	6,702	326	147	223	13,290
May	3,964	147	97	128	7,860
June	2,962	132	84	98.7	5,880
July	4,276	186	95	138	8,480
August	8,976	1,260	110	290	17,800
September	6,083	386	128	203	12,070
Water year 1937-38	219,840	59,700	84	602	436,000

Peak discharge.- Mar. 1 (8:30 a.m.) 11,400 sec.-ft.; Mar. 2 (4 p.m.) 11,600 sec.-ft.; Mar. 4 (1:30 a.m.) 95,000 sec.-ft.; Mar. 4 (8:30 a.m.) 83,000 sec.-ft.; Mar. 12 (9:15 p.m.) 3,260 sec.ft.; Mar. 13 (5 p.m.) 5,940 sec.-ft.

Granite Creek near Prescott, Ariz.

Location.- Water-stage recorder, lat. 34°33'30", long. 112°26'30", in SW¼ sec. 26, T. 14 N., R. 2 W. unsurveyed. at highway bridge, 2 miles north of Prescott and 4½ miles upstream from mouth of Willow Creek. Zero of gage is 5,207.3 feet above mean sea level (from Arizona Highway Department benchmark).

Drainage area.- 39 square miles.

Records available.- July 1932 to September 1938.

Extremes.- Maximum discharge during year, 2,400 second-feet Mar. 3 (gage height, 8.70 feet); no flow on many days.
1932-38: Maximum discharge, 2,900 second-feet Feb. 7, 1937 (gage height, 9.20 feet), from rating curve extended above 1,500 second-feet; no flow for part of each year.

Remarks.- Records good except those for Aug. 4-19, which are fair. City of Prescott takes water for municipal supply from reservoirs on tributaries of creek. Water stored for irrigation in reservoir 3 miles downstream from station (capacity, about 4,000 acre-feet).

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0				1.2	129	2.4	0.4	0.1	0.2	0.1	0.7
2	.1				4.5	95	2.4	.2	.1	.2	.1	.2
3	0				3.8	1,050	2.4	.2	.2	.2	.1	.2
4	0				3.4	307	2.2	.5	.2	.2	38	.2
5	0				3.1	110	2.0	.5	.2	.2	.5	.2
6	0				2.4	65	1.9	.5	.2	.1	1.6	.2
7	0				2.2	45	1.7	.5	.2	.1	5.7	.2
8	0				2.0	36	1.7	.4	.2	.1	.5	.2
9	0				1.9	26	1.7	.5	.1	.1	.6	.2
10	0				1.6	20	1.6	.4	.2	.1	.2	.2
11	0				41	17	1.4	.4	.2	.1	.2	.2
12	0				106	60	1.4	.4	.2	.1	.5	.2
13	0				36	43	1.4	.5	.2	.1	1.0	.2
14	0				18	26	1.4	.6	.2	.1	.5	.2
15	0				8.5	19	1.7	.5	.2	.1	.4	.2
16	0				7.6	16	1.6	.4	.2	11	.4	12
17	0				4.8	14	1.1	.4	.2	10	.2	.5
18	0				3.1	11	1.1	.2	.4	.4	.2	.2
19	0				3.8	10	1.1	.2	.4	.1	.2	.1
20	0				3.4	8.5	.9	.2	.4	12	.1	.1
21	0				2.2	7.3	.9	.2	.4	.6	.1	.1
22	0				2.0	6.2	.9	.2	.4	.2	.1	.1
23	0				1.9	6.2	.8	.2	.4	.2	.1	.1
24	0				1.7	5.6	.6	.1	.4	.2	.1	.1
25	0				1.4	4.3	.5	.1	.4	.6	.1	.1
26	0				1.1	4.0	.6	.1	.4	.7	.1	.1
27	0				8.7	3.6	.8	.1	.4	.1	.4	.1
28	0				132	3.4	.6	.1	.2	.1	1.3	.1
29	0				-	3.6	.4	.1	.2	.1	.4	.1
30	0				-	3.6	.2	.1	.2	.1	.5	.1
31	0				-	2.7	-	.1	-	.1	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0.1	0.1	0	0.003	0.2
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1937	6,688.7	1,450	0	18.3	13,260
January	0	0	0	0	0
February	409.3	132	1.1	14.6	812
March	2,158.0	1,050	2.7	69.6	4,280
April	39.4	2.4	.2	1.31	78
May	9.3	.6	.1	.30	18
June	7.7	.4	.1	.26	15
July	38.5	12	.1	1.24	76
August	54.4	38	.1	1.75	108
September	17.4	12	.1	.58	35
Water year 1937-38	2,734.1	1,050	0	7.49	5,420

Peak discharge.- Feb. 12 (5:30 a.m.) 164 sec.-ft.; Mar. 1 (3 p.m.) 173 sec.-ft.; Mar. 3 (7:20 a.m.) 2,400 sec.-ft.; Mar. 3 (3:30 p.m.) 1,490 sec.-ft.; Mar. 12 (12:30 p.m.) 370 sec.-ft.; Aug. 4 (4 p.m.) 646 sec.-ft.

Hassayampa River at Box dam site, near Wickenburg, Ariz.

Location.- Water-stage recorder, lat. 34°02'45", long. 112°43'30", in SE¼ sec. 12, T. 8 N., R. 5 W., at Box dam site, 6½ miles upstream from Wickenburg.

Drainage area.- 420 square miles.

Records available.- February to July 1938 (discontinued).

Extremes.- Maximum stage, about 10.5 feet, from floodmarks, Mar. 3 (discharge not determined); no flow Feb. 7-11.

Remarks.- Records good. Discharge for period of missing gage heights, Feb. 23-25, computed on basis of partial gage-height record and weather records. Small diversions for irrigation and mining above station. Measurements of discharge at a point 2 miles above station are given on p. 279.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				2	1	54	8	3	0.3	0.3		
2				1	1	59	7	4	.3			
3				.7	.8	-	7	4	.3			
4				.5	.4	1,700	7	3	.2			
5				.6	2	260	7	4	.2			
6				1	.1	102	7	3	.2			
7				1	0	67	7	3	.2			
8				1	0	39	7	2	.2			
9				1	0	37	7	2	.2			
10				1	0	18	5	2	.2			
11				1	0	21	5	2	.2			
12				1	1	18	5	1	.2			
13				2	1	13	5	1	.2			
14				2	.4	18	3	.8	.2			
15				1	.2	19	4	.6	.3			
16				1	.7	17	3	.6	.4			
17				1	.6	18	3	.8	.4			
18				2	.4	18	4	.7	.4			
19				2	1	19	3	.7	.5			
20				2	.4	17	3	.6	.5			
21				2	.2	12	3	.6	.6			
22				3	.1	13	3	.7	.4			
23				5	.1	13	3	.6	.6			
24				4	.1	9	4	.6	.6			
25				3	.2	8	4	.6	.4			
26				2	.4	9	3	.6	.4			
27				2	3	11	3	.5	.2			
28				2	35	12	3	.4	2			
29				1	-	9	3	.4	.6			
30				1	-	8	3	.3	.4			
31				1	-	8	-	.3	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	50.8	5	0.5	1.64	101
February	50.1	35	0	1.79	99
March	-	-	8	-	-
April	139	8	3	4.6	276
May	45.4	4	.3	1.46	90
June	11.8	2	.2	.39	23
July	-	-	-	-	-
August	-	-	-	-	-
September	-	-	-	-	-
The period					

Gillespie canal at Gillespie Dam, Ariz.

Location.- Water-stage recorder, lat. 33°13'45", long. 112°45'30", in SE¼NE¼ sec. 28, T. 2 S., R. 5 W., 200 feet downstream from head gates at Gillespie Dam. Zero of gage is 743.91 feet above mean sea level (general adjustment of 1929).

Records available.- May 1935 to September 1938.

Remarks.- Records good. Canal diverts water from left bank of Gila River at Gillespie Dam for irrigation near village of Gila Bend.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	54	92	136	168	162	192	136	90	48	38	48
2	51	55	92	136	174	156	192	139	87	46	54	68
3	50	56	92	136	180	168	192	139	87	45	52	54
4	47	56	92	136	174	136	192	136	84	46	43	48
5	48	55	92	136	168	109	192	136	82	47	53	40
6	48	58	101	145	162	136	192	131	82	48	77	37
7	48	60	106	145	162	162	186	128	77	48	73	45
8	47	58	109	142	162	199	186	123	75	46	120	45
9	49	59	112	139	162	205	186	123	74	45	117	36
10	48	59	114	139	168	212	180	123	72	44	144	31
11	46	63	117	142	162	225	180	120	70	42	174	30
12	46	67	126	168	162	218	174	120	71	42	145	35
13	45	66	148	180	162	212	174	117	68	42	112	36
14	45	64	152	180	162	212	163	120	65	42	92	31
15	46	67	148	180	168	205	168	120	63	41	82	28
16	47	70	145	174	162	199	162	117	62	41	75	30
17	47	72	145	162	162	199	162	117	61	43	69	32
18	48	74	145	162	162	199	162	117	61	46	64	32
19	52	71	148	156	162	199	162	112	61	41	62	30
20	50	75	150	156	162	199	162	106	60	42	60	30
21	48	84	150	150	162	199	156	106	59	38	60	29
22	50	84	150	150	162	199	150	106	58	37	58	29
23	51	82	150	150	162	192	148	106	58	37	55	28
24	49	82	150	116	156	192	145	104	56	42	58	28
25	51	82	150	31	156	192	142	101	55	50	51	29
26	52	87	162	135	156	192	142	98	52	60	48	29
27	52	90	168	150	150	192	145	95	48	50	44	29
28	52	95	162	156	156	192	142	92	48	45	44	28
29	52	101	156	162	-	192	139	92	48	40	44	27
30	52	95	145	168	-	192	136	90	48	34	40	27
31	53	-	139	168	-	192	-	87	-	34	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,528	58	45	49.3	3,030
November	2,141	101	54	71.4	4,250
December	4,108	168	92	133	8,150
Calendar year 1937	43,654	222	26	120	86,600
January	4,586	180	31	148	9,100
February	4,566	180	150	163	9,060
March	5,838	225	109	188	11,580
April	5,009	192	136	167	9,940
May	3,557	139	87	115	7,060
June	1,982	90	48	66.1	3,930
July	1,352	60	34	43.6	2,680
August	2,248	174	38	72.5	4,460
September	1,049	68	27	35.0	2,080
Water year 1937-38	37,964	225	27	104	75,320

Enterprise canal at Gillespie Dam, Ariz.

Location.- Lat. 33°13'30", long. 112°45'45", in SW¼NE¼ sec. 28, T. 2 S., R. 5 W., at head at Gillespie Dam.

Records available.- June 1935 to September 1938 (discharge measurements only).

Remarks.- Canal diverts water for irrigation from right bank of Gila River at Gillespie Dam. The quantity of water diverted is so regulated as to be nearly constant.

Discharge measurements, in second-feet, water year 1937-38

Oct. 6	8.9	Apr. 2	12.4
20	10.4	20	9.7
Nov. 3	7.3	May 4	12.0
18	10.2	17	12.5
Dec. 3	9.1	31	11.3
18	9.9	June 16	10.4
Jan. 5	10.0	29	10.2
19	11.3	July 23	7.2
Feb. 4	11.7	Aug. 13	7.8
17	14.3	31	9.6
Mar.17	13.2	Sept.21	8.8

WHITEWATER DRAW BASIN

Whitewater Draw near Douglas, Ariz.

Location.- Water-stage recorder, lat. 31°21'15", long. 109°35'00", in SW¼SE¼ sec. 10, T. 24 S., R. 27 E., at bridge on U. S. Highway 80, 1½ miles upstream from international boundary and 2 miles west of Douglas. Gage moved across channel and datum lowered 0.03 foot May 14, 1938. Zero of gage is 3,887.6 feet (revised) above mean sea level (from Arizona Highway Department benchmark).

Drainage area.- 1,023 square miles.

Records available.- August 1911 to April 1922, June 1930 to December 1933, May 1935 to September 1938.

Extremes.- Maximum discharge during year, 1,990 second-feet Aug. 7 (gage height, 9.29 feet); minimum, 0.3 second-foot June 8, Aug. 3, 4.

1930-38: Maximum discharge, 3,450 second-feet Aug. 10, 1931 (gage height, 12.15 feet); minimum, 0.1 second-foot May 26, June 9, 1937 (published erroneously in Water-Supply Paper 829 as about 0.25 second-foot Aug. 17, 1937).

Maximum discharge known, 4,050 second-feet (estimated) July 27, 1919, instead of July 28 as previously published.

Remarks.- Records good except those above 100 second-feet during period July to September, which are fair, and those for periods of obstructed intake, which are poor. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.4	0.9	0.8	0.8	0.9	0.7	1	0.6	0.4	18	0.5	25
2	.4	.9	.8	.8	.9	.7	1	.6	.4	1	.4	10
3	.4	.9	.8	.8	.9	.7	1	.5	.5	.7	.4	3
4	.4	.9	400	.8	.9	.6	1	.5	.5	.6	23	2
5	*.4	.9	80	.8	.9	.6	1	.4	.5	.7	95	1
6	.4	.9	20	.8	.9	.6	1	.4	.6	.6	48	12
7	.4	*.9	5	*.8	.9	.6	1	*.4	.4	.5	1,150	10
8	.4	.9	3	.9	.9	*.6	1	.4	.3	.8	294	2
9	.4	.9	2	.9	.9	.5	1	.4	.4	.7	33	115
10	.4	.9	1	.9	.9	.6	1	.5	.5	.6	7	14
11	7	.9	.9	.9	.9	.7	1	.5	.6	.7	4	19
12	100	.9	.9	.9	.9	.7	1	.5	.6	4	3	47
13	45	.9	.9	.9	.9	.7	1	.6	.6	2	8	8
14	5	.9	.9	.9	.9	.7	1	.6	.4	1	32	3
15	1	.9	.9	.9	.9	.8	1	.5	.6	.8	10	1
16	1	.9	.8	.9	.9	.8	1	.4	.6	50	13	.8
17	*1	.8	.8	.9	*.9	.8	*1	.4	.6	4	2	.7
18	1	.8	*.8	.9	.9	.9	1	.4	.6	.8	2	.7
19	1	.8	.8	.9	.9	.9	1	.4	.6	.4	2	.7
20	1	.8	.8	.9	.9	.9	1	.4	.6	375	2	.7
21	1	.8	.8	.9	.9	.9	1	.5	.5	175	2	.7
22	1	.8	.8	.9	.8	1	1	.5	.6	13	1	.8
23	1	.8	.8	.9	.8	1	1	.6	.6	2	1	.8
24	1	.8	.8	.9	.8	1	1	.5	.6	1	88	.7
25	1	.8	.8	.9	.8	1	.9	.6	.6	.6	58	.7
26	1	.8	.8	.9	.8	1	.9	*.6	.7	.6	10	.7
27	1	*.8	.8	.9	.8	1	.8	.6	.7	.7	4	.6
28	1	*.8	.8	*.9	.7	*1	.8	.6	.7	25	3	.6
29	1	.8	.8	.9	-	1	.7	.5	.8	135	3	.6
30	1	.8	.8	.9	-	1	.7	.5	.6	3	2	.7
31	1	-	.8	.9	-	1	-	.7	-	.7	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	178.0	100	0.4	5.74	353
November	25.6	.9	.8	.85	51
December	530.7	400	.8	17.1	1,050
Calendar year 1937	5,989.6	1,130	.1	16.4	11,880
January	27.2	.9	.8	.88	54
February	24.4	.9	.7	.87	48
March	25.1	1	.6	.81	50
April	28.8	1	.7	.96	57
May	15.6	.7	.4	.50	31
June	16.7	.8	.3	.56	33
July	819.5	375	.4	26.4	1,630
August	1,937.3	1,150	.4	62.5	3,840
September	282.5	115	.6	9.42	560
Water year 1937-38	3,911.4	1,150	.3	10.7	7,760

Peak discharge.- Aug. 7 (3:45 a.m.) 1,990 sec.-ft.; Aug. 7 (8 p.m.) 1,840 sec.-ft.

*Discharge measurements.

Note.- Gage heights missing Oct. 1-10, Oct. 15 to Dec. 3, Dec. 7 to May 13; discharge interpolated between discharge measurements. Intake obstructed Oct. 11-14, Dec. 4-6; discharge computed on basis of partial gage-height record and weather records.

In addition to the records of stream flow obtained at gaging stations in the Colorado River Basin and reported in the preceding pages, measurements of flow were made also at other points, as indicated in the following table:

Miscellaneous discharge measurements in the Colorado River Basin during the water year October 1937 to September 1938

Tributaries above Green River

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
Apr. 30	Deep Creek.....	Blue River.....	Sec. 3, T. 2 S., R. 80 W., Colo.....	28.5
May 24	....do.....	....do.....	....do.....	23.7
June 16	....do.....	....do.....	....do.....	16.5
July 11	....do.....	....do.....	....do.....	.5
Aug. 12	....do.....	....do.....	....do.....	.5
Sept.20	....do.....	....do.....	....do.....	.4
Apr. 30	Spring Creek....	....do.....	Sec. 33, T. 1 S., R. 80 W., Colo.....	.8
May 24	....do.....	....do.....	....do.....	2.4
June 16	....do.....	....do.....	....do.....	10.0
July 11	....do.....	....do.....	....do.....	.7
Aug. 12	....do.....	....do.....	....do.....	.2
Sept.20	....do.....	....do.....	....do.....	.2
Oct. 28	Porter Creek....	Buzzard Creek....	Sec. 29, T. 9 S., R. 92 W., Colo.....	.8
June 8	....do.....	....do.....	....do.....	6.9
July 16	....do.....	....do.....	....do.....	1.0
Aug. 15	....do.....	....do.....	....do.....	.2
Sept.21	....do.....	....do.....	....do.....	.1
Oct. 28	Hightower Creek.	....do.....	Sec. 17, T. 9 S., R. 92 W., Colo.....	.8
May 14	....do.....	....do.....	....do.....	29.5
June 8	....do.....	....do.....	....do.....	1.5
July 16	....do.....	....do.....	....do.....	.1
Aug. 15	....do.....	....do.....	....do.....	0
Sept.21	....do.....	....do.....	....do.....	0

Green River Basin

Dec. 29	Utah Power & Light Co.'s canal.	Ashley Creek.....	SW¼ sec. 7, T. 3 S., R. 21 E., at flume half a mile below head, 10 miles northwest of Vernal, Utah.	25.8
May 28	Lake Fork.....	Duchesne River...	NE¼ sec. 19, T. 2 N., R. 5 W. Uinta meridian, below Moon Lake Dam, 14 miles northwest of Mountain Home, Utah. Altitude about 7,950 feet.	211
28	....do.....	....do.....	....do.....	130
June 29	....do.....	....do.....	....do.....	335
July 27	....do.....	....do.....	....do.....	373
Aug. 9	....do.....	....do.....	....do.....	266
9	....do.....	....do.....	....do.....	229
9	....do.....	....do.....	....do.....	123
Sept. 9	....do.....	....do.....	....do.....	42.5
Nov. 5	South Fork of Rock Creek.....	Rock Creek.....	NW¼ sec. 28, T. 2 N., R. 7 W. Uinta meridian, at confluence with Rock Creek, 20 miles northwest of Mountain Home, Utah. Altitude about 7,800 feet.	5.4
4	Fish Creek.....	Price River.....	Sec. 18, T. 12 S., R. 7 E., at road crossing, 4 miles north of Scofield, Utah.	11.4
Sept.28	....do.....	....do.....	....do.....	8.7
Nov. 4	....do.....	....do.....	Sec. 10, T. 12 S., R. 7 E., below reservoir, 5 miles northeast of Scofield, Utah.	145
Sept.28	....do.....	....do.....	....do.....	56.2
Nov. 3	Gooseberry Creek	Fish Creek.....	Sec. 25, T. 13 S., R. 5 E., at State Highway 7 and 7 miles northeast of Fairview, Utah.	.8
3	....do.....	....do.....	At dam site, 1 mile below site of preceding measurement.	1.8
May 13	Ferron Creek....	San Rafael River.	Sec. 7, T. 20 S., R. 7 E., above diversions, 3 miles west of Ferron, Utah.	152
13	....do.....	....do.....	Sec. 16, T. 20 S., R. 7 E., at bridge on State Highway 10, below diversions.	8.4

Fremont River Basin

Nov. 11	Fremont River...	Colorado River...	Sec. 34, T. 25 S., R. 2 E., 1 mile below Fremont Irrigation Co.'s dam at Fish Lake, 14 miles north of Loa, Utah.	0.1
June 22	....do.....	....do.....	....do.....	71
23	....do.....	....do.....	....do.....	61
Aug. 6	....do.....	....do.....	....do.....	18
Sept. 4	....do.....	....do.....	....do.....	5.0
Apr. 22	....do.....	....do.....	Sec. 16, T. 29 S., R. 8 E., below canal, at ford 6 miles above Caineville, Utah.	193
Aug. 5	....do.....	....do.....	Sec. 3, T. 29 S., R. 8 E., below canal, 2 miles above Caineville, Utah.	*15.4
Oct. 10	....do.....	....do.....	Sec. 10, T. 28 S., R. 11 E., at Hanksville, Utah.	53
Dec. 28	....do.....	....do.....	....do.....	113
29	....do.....	....do.....	....do.....	97
Feb. 26	....do.....	....do.....	....do.....	116
Feb. 27	....do.....	....do.....	....do.....	122
Aug. 5	....do.....	....do.....	Sec. 18, T. 28 S., R. 11 E., at diversion works, 4 miles west of Hanksville, Utah.	4
Apr. 21	Road Creek.....	Fremont River....	Sec. 2, T. 28 S., R. 2 E., 1½ miles northwest of Loa, Utah.	7.6

*Total flow of river and Caineville canal, 27.5 sec.-ft.

Miscellaneous discharge measurements in the Colorado River Basin during the water year October 1937 to September 1938--Continued

Fremont River Basin--Continued

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
Apr. 21	Pine Creek.....	Bailey Creek.....	Sec. 4, T. 30 S., R. 3 E., 8 miles southwest of Bicknell, Utah.	18.8
23	....do.....	....do.....	....do.....	22.8
Aug. 5	Caineville canal.	Fremont River....	Sec. 3, T. 29 S., R. 8 E., 2 miles above Caineville, Utah.	12.1
Apr. 22	Hanksville South canal.	....do.....	Sec. 18, T. 28 S., R. 11 E., at head of canal, 4 miles west of Hanksville, Utah.	23.1
May 14	Muddy River.....	....do.....	Sec. 21, T. 21 S., R. 6 E., above diversion, 3½ miles north of Emery, Utah.	38.5
14	....do.....	....do.....	Sec. 36, T. 21 S., R. 6 E., at State Highway 10 and 3 miles northeast of Emery, Utah.	5.5
13	Quitchupah Creek.	Muddy River.....	Sec. 33, T. 22 S., R. 6 E., at State Highway 10 and 5 miles southwest of Emery, Utah.	.5

San Juan River Basin

Sept.29	San Brecito Arroyo.	San Juan River...	NE¼ sec. 16, T. 32 N., R. 6 W., about 2½ miles west of Rosa, N. Mex.	3.57
July 15	Citizens ditch waste.	....do.....	NE¼ sec. 35, T. 30 N., R. 9 W., 200 feet below waste gates, 2.8 miles northeast of Turley, N. Mex.	8.26
22	....do.....	....do.....	....do.....	21.0
29	....do.....	....do.....	....do.....	1.20
Aug. 5	....do.....	....do.....	....do.....	.46
12	....do.....	....do.....	....do.....	.41
Sept.23	....do.....	....do.....	NE¼ sec. 4, T. 29 N., R. 9 W., about 3½ miles northeast of Blanco, N. Mex.	1.99
23	....do.....	....do.....	E½ sec. 23, T. 29 N., R. 10 W., about 2½ miles southwest of Blanco, N. Mex.	*.1
23	....do.....	....do.....	SE¼ sec. 20, T. 29 N., R. 10 W., about 6 miles east of Bloomfield, N. Mex.	4.12
23	....do.....	....do.....	SW¼ sec. 20, T. 29 N., R. 10 W., about 5½ miles east of Bloomfield, N. Mex.	*.25
23	....do.....	....do.....	E½ sec. 21, T. 29 N., R. 11 W., about 1 mile west of Bloomfield, N. Mex.	*.2
23	....do.....	....do.....	W½ sec. 21, T. 29 N., R. 11 W., about 1¼ miles west of Bloomfield, N. Mex.	*.1
23	....do.....	....do.....	W½ sec. 21, T. 29 N., R. 11 W., about 1½ miles west of Bloomfield, N. Mex.	*.1
23	....do.....	....do.....	SE¼ sec. 20, T. 29 N., R. 11 W., about 2¼ miles west of Bloomfield, N. Mex.	2.16
23	....do.....	....do.....	SE¼ sec. 19, T. 29 N., R. 11 W., about 3 miles west of Bloomfield, N. Mex.	*.1
23	....do.....	....do.....	NW¼ sec. 30, T. 29 N., R. 11 W., about 3½ miles west of Bloomfield, N. Mex.	*.1
June 25	Citizens ditch at end.	....do.....	NE¼ sec. 26, T. 29 N., R. 12 W., about 5 miles west of Bloomfield, N. Mex.	10.7
July 26	....do.....	....do.....	....do.....	.57
29	....do.....	....do.....	....do.....	.59
Aug. 2	....do.....	....do.....	....do.....	.31
5	....do.....	....do.....	....do.....	.39
9	....do.....	....do.....	....do.....	.45
9	....do.....	....do.....	....do.....	.45
12	....do.....	....do.....	....do.....	.36
26	....do.....	....do.....	....do.....	.53
30	....do.....	....do.....	....do.....	.35
Sept.16	....do.....	....do.....	....do.....	16.4
23	....do.....	....do.....	....do.....	2.69
23	Citizens ditch extension waste.	....do.....	NE¼ sec. 27, T. 29 N., R. 12 W., about 6½ miles west of Bloomfield, N. Mex.	*.1
Aug. 1	Martin-Valencia ditch at head.	....do.....	NW¼ sec. 8, T. 29 N., R. 9 W., 50 feet below head, 1.3 miles west of Turley, N. Mex.	.85
15	....do.....	....do.....	....do.....	2.70
Apr. 18	Bloomfield-Porter ditch at head.	....do.....	NW¼SE¼ sec. 23, T. 29 N., R. 11 W., 1,600 feet below head, 1.4 miles east of Bloomfield, N. Mex.	14.9
25	....do.....	....do.....	....do.....	14.5
May 9	....do.....	....do.....	....do.....	7.83
16	....do.....	....do.....	....do.....	20.7
27	....do.....	....do.....	....do.....	28.1
Sept.30	Bloomfield-Hill drain.	....do.....	NE¼ sec. 17, T. 29 N., R. 14 W., about 1½ miles east of Kirtland, N. Mex.	.06
30	Bond-Palmer drain.	....do.....	NE¼ sec. 13, T. 29 N., R. 15 W., a quarter of a mile west of Kirtland, N. Mex.	1.15
30	Foutz drain.....	....do.....	SW¼ sec. 12, T. 29 N., R. 15 W., three-quarters of a mile west of Kirtland, N. Mex.	.28
30	Kennedy-Collier drain.	....do.....	S½ sec. 11, T. 29 N., R. 15 W., about a quarter of a mile southeast of Fruitland, N. Mex.	2.27
30	Fruitland drain.	....do.....	SE¼ sec. 10, T. 29 N., R. 15 W., a quarter of a mile west of Fruitland, N. Mex.	.21

Miscellaneous discharge measurements in the Colorado River Basin during the water year October 1937 to September 1938--Continued

San Juan River Basin--Continued

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
Oct. 7	West Fork of San Juan River.	San Juan River...	Sec. 17, T. 37 N., R. 1 E., Colo.....	25.6
30	....do.....	....do.....	....do.....	19.3
Nov. 16	....do.....	....do.....	....do.....	16.3
Dec. 15	....do.....	....do.....	....do.....	10.4
Jan. 9	....do.....	....do.....	....do.....	14.9
20	....do.....	....do.....	....do.....	13.6
Feb. 20	....do.....	....do.....	....do.....	11.2
Mar. 2	....do.....	....do.....	....do.....	12.0
Oct. 24	Piedra River....	....do.....	Sec. 8, T. 35 N., R. 4 W., Colo.....	83
Nov. 14	....do.....	....do.....	....do.....	62
Dec. 14	....do.....	....do.....	....do.....	46.4
Jan. 18	....do.....	....do.....	....do	44.3
Feb. 22	....do.....	....do.....	....do.....	41.4
Mar. 2	....do.....	....do.....	....do.....	68
July 18	Twin Rock ditch at end.	Animas River.....	SE¼ sec. 21, T. 32 N., R. 10 W., about 2½ miles north of Cedar Hill, N. Mex.	1.78
18	Ralston ditch waste.	....do.....	SE¼ sec. 21, T. 32 N., R. 10 W., about 2¼ miles north of Cedar Hill, N. Mex.	.70
18	....do.....	....do.....	NE¼ sec. 28, T. 32 N., R 10 W., about 2 miles north of Cedar Hill, N. Mex.	.14
18	....do.....	....do.....	SE¼ sec. 28, T. 32 N., R. 10 W., about 1¾ miles north of Cedar Hill, N. Mex.	.21
18	....do.....	....do.....	NW¼ sec. 34, T. 32 N., R. 10 W., about 1 mile northeast of Cedar Hill, N. Mex.	.20
Sept. 22	Cedar Hill ditch at end.	....do.....	NE¼ sec. 32, T. 32 N., R. 10 W., about half a mile west of Cedar Hill, N. Mex.	.95
July 19	Inca ditch waste.	....do.....	NW¼ sec. 4, T. 31 N., R. 10 W., about half a mile south of Cedar Hill, N. Mex.	1.17
19	....do.....	....do.....	NE¼ sec. 5, T. 31 N., R. 10 W., about three-quarters of a mile southwest of Cedar Hill, N. Mex.	.62
Aug. 2	Stacey ditch waste.	....do.....	NW¼ sec. 5, T. 31 N., R. 10 W., about 1 mile west of Cedar Hill, N. Mex.	.11
2	....do.....	....do.....	SW¼ sec. 5, T. 31 N., R. 10 W., about 1⅛ miles southwest of Cedar Hill, N. Mex.	.47
2	....do.....	....do.....	NW¼ sec. 18, T. 31 N., R. 10 W., about 2¾ miles southwest of Cedar Hill, N. Mex.	.91
2	....do.....	....do.....	SW¼ sec. 13, T. 31 N., R. 11 W., about 4 miles southwest of Cedar Hill, N. Mex.	.64
July 20	Aztec ditch waste.	....do.....	SE¼ sec. 13, T. 31 N., R. 11 W., about 4 miles southwest of Cedar Hill, N. Mex.	1.72
20	....do.....	....do.....	NW¼ sec. 24, T. 31 N., R. 11 W., about 4½ miles southwest of Cedar Hill, N. Mex.	3.81
20	....do.....	....do.....	W½ sec. 24, T. 31 N., R. 11 W., about 4⅓ miles southwest of Cedar Hill, N. Mex.	.78
20	....do.....	....do.....	SW¼ sec. 24, T. 31 N., R. 11 W., about 4¾ miles southwest of Cedar Hill, N. Mex.	2.67
20	....do.....	....do.....	NE¼ sec. 26, T. 31 N., R. 11 W., about 3¾ miles northeast of Aztec, N. Mex.	.33
21	....do.....	....do.....	NW¼ sec. 16, T. 30 N., R. 11 W., in Aztec, N. Mex.	2.18
25	Lower Animas ditch waste.	....do.....	NW¼ sec. 3, T. 30 N., R. 11 W., about 1¾ miles north of Aztec, N. Mex.	2.18
25	....do.....	....do.....	NW¼ sec. 4, T. 30 N., R. 11 W., about 1⅛ miles north of Aztec, N. Mex.	.16
25	....do.....	....do.....	E½ sec. 4, T. 30 N., R. 11 W., about 1½ miles north of Aztec, N. Mex.	.08
25	....do.....	....do.....	SE¼ sec. 4, T. 30 N., R. 11 W., about 1¼ miles north of Aztec, N. Mex.	.88
25	....do.....	....do.....	SE¼ sec. 4, T. 30 N., R. 11 W., about 1 1/8 miles north of Aztec, N. Mex.	.78
21	....do.....	....do.....	NW¼ sec. 9, T. 30 N., R. 11 W., half a mile northwest of Aztec, N. Mex.	1.40
25	....do.....	....do.....	....do.....	1.40
21	....do.....	....do.....	SW¼ sec. 9, T. 30 N., R. 11 W., at west edge of fairgrounds in Aztec, N. Mex.	2.12
26	....do.....	....do.....	W½ sec. 17, T. 30 N., R. 11 W., about 1½ miles west of Aztec, N. Mex.	.63
26	....do.....	....do.....	NE¼ sec. 19, T. 30 N., R. 11 W., about 2¼ miles west of Aztec, N. Mex.	.79
Aug. 5	....do.....	....do.....	SE¼ sec. 23, T. 30 N., R. 12 W., about 4 miles west of Aztec, N. Mex.	.18
2	Farmers ditch waste.	....do.....	NE¼ sec. 4, T. 30 N., R. 11 W., about 1⅛ miles north of Aztec, N. Mex.	.43
2	....do.....	....do.....	SE¼ sec. 4, T. 30 N., R. 11 W., about 1 mile north of Aztec, N. Mex.	2.26
5	....do.....	....do.....	SW¼ sec. 12, T. 30 N., R. 12 W., about 2¼ miles northeast of Flora Vista, N. Mex.	.21
July 28	Eledge-Mill and Farmers ditches waste.	....do.....	NW¼ sec. 24, T. 30 N., R. 12 W., about 1½ miles east of Flora Vista, N. Mex.	.60
Sept. 27	New Mexico Public Service Co.'s power ditch.	....do.....	SE¼ sec. 9, T. 30 N., R. 11 W., about 200 feet above bridge on U. S. Highways 84 and 550, half a mile west of Aztec, N. Mex.	128
July 28	Halford-Independent ditch waste.	....do.....	NW¼ sec. 24, T. 30 N., R. 12 W., about 1½ miles east of Flora Vista, N. Mex.	.85
28	....do.....	....do.....	NW¼ sec. 23, T. 30 N., R. 12 W., about three-quarters of a mile east of Flora Vista, N. Mex.	.88

Miscellaneous discharge measurements in the Colorado River Basin during the water year October 1937 to September 1938--Continued

San Juan River Basin--Continued

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
July 28	Halford-Independent ditch waste.	Animas River.....	SE¼ sec. 22, T. 30 N., R. 12 W., in Flora Vista, N. Mex.	0.75
28	....do.....	....do.....	NW¼ sec. 27, T. 30 N., R. 12 W., a quarter of a mile west of Flora Vista, N. Mex.	2.10
27	....do.....	....do.....	NW¼ sec. 28, T. 30 N., R. 12 W., about 1¼ miles southwest of Flora Vista, N. Mex.	.37
27	....do.....	....do.....	SE¼ sec. 29, T. 30 N., R. 12 W., about 2 miles southwest of Flora Vista, N. Mex.	.92
27	....do.....	....do.....	W½ sec. 32, T. 30 N., R. 12 W., about 5 miles northeast of Farmington, N. Mex.	.63
27	....do.....	....do.....	SW¼ sec. 31, T. 30 N., R. 12 W., about 4½ miles northeast of Farmington, N. Mex.	.37
27	Halford-Independent and Starr ditches waste.	....do.....	N½ sec. 6, T. 29 N., R. 12 W., about 4 miles northeast of Farmington, N. Mex.	.86
27	....do.....	....do.....	SE¼ sec. 1, T. 29 N., R. 13 W., about 3 miles northeast of Farmington, N. Mex.	.80
27	....do.....	....do.....	S½ sec. 1, T. 29 N., R. 13 W., about 3 miles northeast of Farmington, N. Mex.	.72
Aug. 6	Halford-Independent ditch waste.	....do.....	W½ sec. 7, T. 29 N., R. 13 W., about 2½ miles northwest of Farmington, N. Mex.	.56
July 27	Starr ditch waste.	....do.....	SE¼ sec. 1, T. 29 N., R. 13 W., about 3½ miles northeast of Farmington, N. Mex.	1.53
27	....do.....	....do.....	SW¼ sec. 1, T. 29 N., R. 13 W., about 2¾ miles northeast of Farmington, N. Mex.	.12
27	....do.....	....do.....	NW¼ sec. 12, T. 29 N., R. 13 W., about 2¾ miles northeast of Farmington, N. Mex.	.36
Sept. 28	New Mexico Public Service Co.'s power ditch.	....do.....	SE¼ sec. 15, T. 29 N., R. 13 W., about 1 mile west of Farmington, N. Mex.	175
Aug. 24	New Mexico Public Service Co.'s power ditch waste.	....do.....	NW¼ sec. 14, T. 29 N., R. 13 W., about 2 miles east of Farmington, N. Mex.	.53
31	....do.....	....do.....	....do.....	.59
Sept. 14	....do.....	....do.....	....do.....	0
21	....do.....	....do.....	....do.....	0
28	....do.....	....do.....	....do.....	.25
14	Farmers Mutual ditch waste-way 10.	....do.....	SW¼NE¼ sec. 16, T. 29 N., R. 14 W., about 25 feet below waste gates, 1½ miles east of Kirtland, N. Mex.	.52
21	....do.....	....do.....	....do.....	.36
Aug. 1	Farmers Mutual ditch waste-way 14.	....do.....	NW¼ sec. 6, T. 29 N., R. 15 W., about three-quarters of a mile northwest of Waterflow, N. Mex.	4.80
3	....do.....	....do.....	....do.....	4.27
10	....do.....	....do.....	....do.....	5.64
14	....do.....	....do.....	....do.....	5.20
21	....do.....	....do.....	....do.....	4.81
Sept. 14	....do.....	....do.....	....do.....	9.29
21	....do.....	....do.....	....do.....	13.6
Oct. 4	La Plata River..	San Juan River...	Sec. 3, T. 31 N., R. 13 W., 1,900 feet southeast of La Plata, N. Mex., 15 miles above mouth.	3.52
18	....do.....	....do.....	....do.....	7.68
Nov. 6	....do.....	....do.....	....do.....	5.68
Dec. 12	....do.....	....do.....	....do.....	11.1
Jan. 10	....do.....	....do.....	....do.....	12.0
24	....do.....	....do.....	....do.....	8.81
Feb. 11	....do.....	....do.....	....do.....	28.7
Mar. 17	....do.....	....do.....	....do.....	36.8
24	....do.....	....do.....	....do.....	53.8
Apr. 2	....do.....	....do.....	....do.....	18.0
8	....do.....	....do.....	....do.....	49.2
May 6	....do.....	....do.....	....do.....	13.8
12	....do.....	....do.....	....do.....	*2.0
18	....do.....	....do.....	....do.....	1.71
24	....do.....	....do.....	....do.....	12.6
June 7	....do.....	....do.....	....do.....	1.94
14	....do.....	....do.....	....do.....	2.53
July 5	....do.....	....do.....	....do.....	1.53
12	....do.....	....do.....	....do.....	*1.0
19	....do.....	....do.....	....do.....	2.26
26	....do.....	....do.....	....do.....	.56
Aug. 2	....do.....	....do.....	....do.....	.66
9	....do.....	....do.....	....do.....	.45
16	....do.....	....do.....	....do.....	.40
23	....do.....	....do.....	....do.....	1.01
Sept. 20	....do.....	....do.....	....do.....	.43
27	....do.....	....do.....	....do.....	.38
May 6	Enterprise ditch.	La Plata River...	NW¼ sec. 10, T. 32 N., R. 13 W., about a quarter of a mile north of Colo.-N. Mex. State line, 5¼ miles north of La Plata, N. Mex.	.48
June 6	....do.....	....do.....	....do.....	5.21
July 10	....do.....	....do.....	....do.....	.76
24	....do.....	....do.....	....do.....	4.07
Aug. 13	....do.....	....do.....	....do.....	0

Miscellaneous discharge measurements in the Colorado River Basin during the water year October 1937 to September 1938--Continued

San Juan River Basin--Continued

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
Aug. 29	Enterprise ditch.	La Plata River...	NW¼ sec. 10, T. 32 N., R. 13 W., about a quarter of a mile north of Colo.-N. Mex. State line, 5¼ miles north of La Plata, N. Mex.	0
Sept.15	....do.....	....do.....	....do.....	0
Apr. 19	Pioneer ditch...	....do.....	SE¼ sec. 10, T. 32 N., R. 13 W., an eighth of a mile below Colo.-N. Mex. State line, 4.7 miles north of La Plata, N. Mex.	3.21
May 6	....do.....	....do.....	....do.....	4.29
June 6	....do.....	....do.....	....do.....	5.15
July 10	....do.....	....do.....	....do.....	0
24	....do.....	....do.....	....do.....	4.98
Aug. 13	....do.....	....do.....	....do.....	2.72
29	....do.....	....do.....	....do.....	1.86
Sept.15	....do.....	....do.....	....do.....	2.48
20	Murphy Arroyo...	....do.....	SE¼ sec. 3, T. 31 N., R. 13 W., at south edge of La Plata, N. Mex.	2.03
20	McCarthy drain..	....do.....	SE¼ sec. 22, T. 31 N., R. 13 W., about 3 miles south of La Plata, N. Mex.	.18

*Estimated.

Virgin River Basin

Nov. 15	Virgin River....	Colorado River...	SW¼ sec. 5, T. 42 S., R. 10 W., below Rockville canal, 500 feet above mouth of North Fork, 1 mile east of Rockville, Utah.	50.7
15	Rockville canal.	Virgin River.....	SW¼ sec. 5, T. 42 S., R. 10 W., at head, 1 mile east of Rockville, Utah.	3.5
16	Santa Clara River.	....do.....	NE¼ sec. 29, T. 8 S., R. 17 W., below Winsor Dam, 1 mile above Shebit Indian School and 8 miles northwest of Santa Clara, Utah.	7.5
Dec. 8	....do.....	....do.....	....do.....	20.9
Mar. 5	....do.....	....do.....	....do.....	85
Nov. 16	Ivins canal.....	Santa Clara River.	NE¼ sec. 29, T. 8 S., R. 17 W., at Winsor Dam, 1 mile above Shebit Indian School, 8 miles northwest of Santa Clara, Utah.	7.9
Dec. 8	....do.....	....do.....	....do.....	*3

*Estimated

Little Colorado River Basin

Apr. 25	Woodruff canal..	Silver Creek.....	NW¼ sec. 32, T. 16 N., R. 22 E., at diversion dam that is control for station on Silver Creek near Woodruff, Ariz.	4.35
July 17	....do.....	....do.....	....do.....	8.54
Nov. 4	Chevelon Irrigation Co.'s canal.	Chevelon Fork....	W½ sec. 23, T. 18 N., R. 17 E., at diversion dam 2 miles below station on Chevelon Fork near Winslow, Ariz.	1.93
May 21	....do.....	....do.....	....do.....	3.60
10	Clear Creek.....	Little Colorado River.	SW¼ sec. 3, T. 18 N., R. 16 E., 1 mile below diversion dam that is control for station on Clear Creek, near Winslow, Ariz.	4.98
21	....do.....	....do.....	....do.....	3.41
June 21	....do.....	....do.....	....do.....	3.30
July 16	....do.....	....do.....	....do.....	3.03
Aug. 2	....do.....	....do.....	....do.....	2.87
May 10	Clear Creek canal.	Clear Creek.....	....do.....	6.04
21	....do.....	....do.....	....do.....	3.46

Gila River Basin

June 18	Gila River.....	Colorado River...	SE¼SW¼ sec. 31, T. 14 S., R. 16 W., five-eighths of a mile below mouth of Mogollon Creek, 1 7/8 miles southwest of Gila, N. Mex.	30.7
18	Upper Gila ditch.	Gila River.....	SE¼SW¼ sec. 31, T. 14 S., R. 16 W., three-quarters of a mile below mouth of Mogollon Creek, 2 miles southwest of Gila, N. Mex.	7.33
18	Fort West ditch.	....do.....	NE¼SW¼ sec. 6, T. 15 S., R. 16 W., 1½ miles below mouth of Mogollon Creek, 2¾ miles southwest of Gila, N. Mex.	13.8
18	Maldonodo ditch.	....do.....	SE¼SW¼ sec. 6, T. 15 S., R. 16 W., 1 5/8 miles below mouth of Mogollon Creek, 2 7/8 miles southwest of Gila, N. Mex.	.77
18	Gila Farm ditch.	....do.....	NE¼NW¼ sec. 23, T. 15 S., R. 17 W., 3 miles below mouth of Mogollon Creek, 4¼ miles southwest of Gila, N. Mex.	1.35
18	McMillan-Sleighbock ditch.	....do.....	SE¼NW¼ sec. 23, T. 15 S., R. 17 W., 3¼ miles below mouth of Mogollon Creek, 4½ miles southwest of Gila, N. Mex.	8.21
Mar. 2	Mineral Creek...	....do.....	At mouth, at Kelvin, Ariz.....	3.35
4	....do.....	....do.....	....do.....	336

Miscellaneous discharge measurements in the Colorado River Basin during the water year October 1937 to September 1938--Continued

Gila River Basin--Continued

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
Nov. 29	Buena Vista canal.	Santa Cruz River.	NE¼ sec. 18, T. 24 S., R. 15 E., ½ mile below point of diversion, opposite station on Santa Cruz River near Nogales, Ariz.	0.23
Dec. 20	....do.....	....do.....	....do.....	.99
Jan. 7	....do.....	....do.....	....do.....	.33
28	....do.....	....do.....	....do.....	.15
Feb. 18	....do.....	....do.....	....do.....	1.51
Apr. 7	....do.....	....do.....	....do.....	1.22
27	....do.....	....do.....	....do.....	.53
May 25	....do.....	....do.....	....do.....	.02
Oct. 12	Willow Creek*...	Granite Creek....	SE¼NW¼ sec. 12, T. 14 N., R. 2 W., three-eighths of a mile above mouth, at site of former station near Prescott, Ariz.	.24
26	....do.....	....do.....	....do.....	9.46
Nov. 9	....do.....	....do.....	....do.....	.09
23	....do.....	....do.....	....do.....	.34
Dec. 7	....do.....	....do.....	....do.....	.11
21	....do.....	....do.....	....do.....	.01
Mar. 9	....do.....	....do.....	....do.....	.06
May 3	....do.....	....do.....	....do.....	.69
16	....do.....	....do.....	....do.....	4.49
June 1	....do.....	....do.....	....do.....	5.86
July 6	....do.....	....do.....	....do.....	.75
22	....do.....	....do.....	....do.....	.02
Aug. 24	....do.....	....do.....	....do.....	4.98
Sept. 23	....do.....	....do.....	....do.....	19.3
Apr. 20	Arizona canal..	Salt River.....	¼ mile below Granite Reef diversion dam on Salt River, Ariz.	1,290
Feb. 3	Hassayampa River.	Gila River.....	2 miles above station at Box dam site, near Wickenburg, Ariz.	2.74
16	....do.....	....do.....	....do.....	2.99
June 1	....do.....	....do.....	....do.....	.01
15	....do.....	....do.....	....do.....	1.54
30	....do.....	....do.....	....do.....	1.42

*In addition to the measurements made on Willow Creek during the water year 1937-38 the following were made during 1937: Apr. 28, 3.87 sec.-ft.; Apr. 29, 3.83 sec.-ft.; May 13, 0.31 sec.-ft.; May 21, 14.3 sec.-ft.; May 26, 6.54 sec.-ft.; June 8, 0.92 sec.-ft., 0.76 sec.-ft.; June 23, 0.80 sec.-ft.; July 18, 1.20 sec.-ft.; July 21, 0.56 sec.-ft.; Aug. 4, 0.71 sec.-ft.; Aug. 10, 0.69 sec.-ft.; Aug. 17, 0.76 sec.-ft.; Sept. 29, 0.29 sec.-ft.

INDEX

Page

Accuracy of data and computed results.. 3
Acre-foot, definition of..... 1
Agencies other than Geological Survey, records collected by..... 8-9
Allen ditch near Farmington. N. Mex.... See also Echo and Allen ditches. 160
Allison, Colo., South lateral from Pine River canal near..... 155
Almont, Colo., East River at..... 62
Taylor River at..... 59
Animas River at Durango, Colo..... 157
at Farmington, N. Mex..... 159
at Howardsville, Colo..... 156
diversions from.....160-195
near Cedar Hill, N. Mex..... 158
Arapaho Creek below Monarch Lake, Colo. 30
Aravaipa Creek near Feldman, Ariz..... 253
Archuleta ditch near Turley, N. Mex.... 122
Arizona canal, Ariz., discharge measurement of..... 279
Ashley Creek near Vernal, Utah..... 100
Aspen, Colo., Roaring Fork at..... 51
Aztec, N. Mex., Aztec and Lower Animas ditch wasteway near..... 162
Eledge-Mill ditch near..... 169
Farmers ditch near..... 171
Kello-Blancett ditch near..... 182
Lower Animas ditch near..... 183
Lower Animas ditch wasteway at..... 184
Lower Animas drain near..... 184
Aztec and Lower Animas ditches, wasteway of, near Aztec, N. Mex..... 162
Aztec ditch near Cedar Hill, N. Mex.... 161
waste from, discharge measurements of 276

Bardine, Colo., East Muddy Creek near.. 69
Barrett lateral near Farmington, N. Mex..... 163
Bayfield, Colo., Los Pinos River near.. 152
Bicknell, Utah, Fremont River near..... 115
Blacks Fork above Blacks Fork ranger station, Utah..... 88
at Blacks Fork ranger station, Utah.. 89
near Lyman, Wyo..... 91
near Urie, Wyo..... 90
Blacks Fork ranger station, Utah, Blacks Fork above..... 88
Blacks Fork at..... 89
Blancett ditch. See Kello-Blancett ditch.
Blanco, N. Mex., San Juan River near... 118
Bloomfield, N. Mex.. Bloomfield-Porter ditch at..... 123
Bloomfield-Porter ditch wasteway near 124
Citizens ditch wasteway 1 near..... 126
Bloomfield-Hill drain, N. Mex., discharge measurement of..... 275
Bloomfield-Porter ditch at Bloomfield, N. Mex..... 123
discharge measurements of..... 275
wasteway of, near Bloomfield. N. Mex. 124
Blue River at Dillon, Colo..... 47
below Green Mountain Reservoir, near Kremmling, Colo..... 48
Bluff, Utah, San Juan River near..... 121
Bond-Palmer drain, N. Mex., discharge measurement of..... 275
Boulder, Wyo., New Fork near..... 83
Boulder Dam, Ariz.-Nev., Lake Mead at.. 22
Bright Angel Creek near Grand Canyon, Ariz..... 227
Buena Vista canal, Ariz., discharge measurements of..... 279
Burnt Fork at Burntfork, Wyo..... 93
Buzzard Creek near Collbran, Colo..... 58
near Heiberger, Colo..... 57

Caineville canal, Utah, discharge measurement of..... 275

Page

Calva, Ariz., Gila River at..... 237
Cameo, Colo., Colorado River near..... 15
Plateau Creek near..... 56
Camp Verde, Ariz., Verde River near.... 266
Cascade Creek near Tacoma, Colo..... 196
Cebolla Creek at Powderhorn. Colo..... 66
Cedar Hill. N. Mex., Animas River near. 158
Aztec ditch near..... 161
Cedar Hill ditch near..... 164
Inca ditch at..... 180
Inca ditch wasteway at..... 181
Miller Arroyo near..... 185
Ralston ditch near..... 187
Sargent ditch near..... 188
Stacey ditch at..... 189
Stacey ditch wasteway near..... 190
Twin Rock ditch near..... 193
Cedar Hill ditch, discharge measurement of..... 276
near Cedar Hill, N. Mex..... 164
Cedaredge, Colo., Leroux Creek near.... 70
Surface Creek at..... 71
Charleston, Ariz., San Pedro River at.. 250
Cherry Creek near Red Mesa, Colo..... 213
Chevelon Fork near Winslow, Ariz..... 224
Chevelon Irrigation Co.'s canal, Ariz., discharge measurements of..... 278
Chromo, Colo., Little Navajo River at.. 147
Navajo River near.....141,142
Chrysotile, Ariz., Salt River near....259-261
Cisco, Utah, Colorado River near..... 16
Citizens ditch, discharge measurements of..... 275
near Turley, N. Mex..... 125
waste from, discharge measurements of 275
wasteway 1 of, near Bloomfield, N. Mex..... 126
Citizens ditch extension, N. Mex., waste from, discharge measurement of..... 275
Clark, Colo., Elk River at..... 96
Clear Creek, Ariz., discharge measurements of..... 278
near Winslow, Ariz..... 225
Clear Creek canal, Ariz., discharge measurements of..... 278
Clifton, Ariz., Gila River near..... 235
San Francisco River at..... 245
Collbran, Colo., Buzzard Creek near.... 58
Plateau Creek near..... 55
Collier drain. See Kennedy-Collier drain.
Colona, Colo., Uncompahgre River at.... 72
Colorado River at Bright Angel Creek, near Grand Canyon, Ariz..... 21
at Glenwood Springs, Colo..... 14
at Hot Sulphur Springs, Colo..... 13
at Lees Ferry. Ariz..... 17-20
at Yuma, Ariz..... 28-29
below Parker Dam, Calif..... 26
near Cameo. Colo..... 15
near Cisco, Utah..... 16
near Granby, Colo..... 12
near Grand Lake, Colo..... 11
near Picacho, Calif..... 27
near Topock, Ariz..... 24
near Willow Beach, Ariz..... 23
Computations, results of, accuracy of.. 3
Control, definition of..... 1
Coolidge Dam, Ariz., Gila River at..... 239
San Carlos Reservoir at..... 238
Cooperation, record of..... 9
Cottonwood Creek near Orangeville, Utah 114
Crystal River near Redstone, Colo..... 53
Cunningham ditch near La Plata, N. Mex. 202
Currant Creek near Fruitland, Utah..... 107

Daniel, Wyo., Green River near..... 78
Horse Creek near..... 82

Page
Data, accuracy of..... 3
explanation of..... 1-2
Deep Creek, Colo., discharge measurements of..... 274
Dickey lateral near Farmington, N. Mex. 164
Dillon, Colo., Blue River at..... 47
Snake River at..... 49
Tenmile Creek at..... 50
Dixon, Wyo., Little Snake River near... 97
Dolores River at Dolores, Colo..... 74-75
at Gateway, Colo..... 76-77
Dome, Ariz., Gila River near..... 243
Douglas, Ariz., Whitewater Draw near... 273
Drain wasteway at Farmington, N. Mex... 165
Duchesne, Utah, Duchesne River at..... 103
Strawberry River at..... 106
Duchesne River at Duchesne, Utah..... 103
at Myton, Utah..... 104
at Provo River Trail, near Hanna, Utah..... 101
Lake Fork of, discharge measurements of..... 274
near Tabiona, Utah..... 102
Duncan, Ariz., Gila River near..... 234
Durango, Colo., Animas River at..... 157
Florida River near..... 198
Lightner Creek near..... 197

East Mancos River near Mancos, Colo.... 218
East Muddy Creek near Bardine, Colo.... 69
East River at Almont, Colo..... 62
Echo and Allen ditches, wasteway of, near Farmington, N. Mex..... 166
Echo ditch near Farmington, N. Mex..... 167
Edith, Colo., Navajo River at..... 143
Eledge-Mill and Farmers ditches, N. Mex., waste from, discharge measurement of..... 276
Eledge-Mill and Halford-Independent ditches, wasteway of, at Flora Vista, N. Mex..... 168
Eledge-Mill ditch near Aztec, N. Mex... 169
Elk River at Clark, Colo..... 96
Enterprise canal at Gillespie Dam, Ariz..... 272
Enterprise ditch, N. Mex., discharge measurements of.....277-278
Etta Crame ditch near Farmington, N. Mex..... 203

Farmers ditch at end, at Flora Vista, N. Mex..... 170
at head, near Aztec, N. Mex..... 171
waste from, discharge measurements of..... 276
wasteway of, near Flora Vista, N. Mex..... 172
See also Eledge-Mill and Farmers ditches.
Farmers Mutual ditch at end, near Waterflow, N. Mex..... 173
at head, near Kirtland, N. Mex..... 174
wasteway 10 of, discharge measurements of..... 277
wasteway 11 of, at Kirtland, N. Mex. 175
wasteway 12 of, at Fruitland, N. Mex..... 176
wasteway 13 of, near Waterflow, N. Mex..... 177
wasteway 14 of, discharge measurements of..... 277
Farmington, N. Mex., Allen ditch near. 160
Animas River at..... 159
Barrett lateral near..... 163
Dickey lateral near..... 164
drain wasteway at..... 165
Echo and Allen ditch wasteway near.. 166
Echo ditch near..... 167
Etta Crame ditch near..... 203
Farmington drain at..... 177
Glade Arroyo at..... 178
La Plata River near..... 201
North Farmington and Wright-Leggett ditch near..... 185
North Farmington ditch wasteway at.. 186
Peninsula wasteway near..... 186
Pickering ditch near..... 212

Page
Farmington, N. Mex., San Juan lateral wasteway 1 near..... 134
San Juan lateral wasteway 2 near..... 135
San Juan River at..... 119
Starr ditch near..... 191
Wright-Leggett ditch wasteway near... 194
Farmington drain at Farmington, N. Mex. 177
Feldman, Ariz., Aravaipa Creek near.... 253
Ferron Creek, Utah, discharge measurements of..... 274
Fish Creek, Utah, discharge measurements of..... 274
Flora Vista, N. Mex., Eledge-Mill and Halford-Independent ditches, wasteway of, at..... 168
Farmers ditch at..... 170
Farmers ditch wasteway near..... 172
Halford-Independent ditch near..... 179
Kello-Blancett ditch at..... 181
Tarrell ditch at..... 192
Florence, Ariz., Gila River near..... 241
Florida River near Durango, Colo..... 198
Fontenelle Creek near Fontenelle, Wyo.. 87
Fort West ditch, N. Mex., discharge measurement of..... 278
Foutz drain, N. Mex., discharge measurement of..... 275
Fraser, Colo., Ranch Creek near..... 36,37
Ranch Creek, Middle Fork of, near.... 40
North Fork of, near..... 39
St. Louis Creek near..... 35
Fraser River at Granby, Colo..... 33
near West Portal, Colo..... 32
Fremont River, Utah, discharge measurements of..... 274
near Bicknell, Utah..... 115
Fruitland drain, N. Mex., discharge measurement of..... 275
Fruitland, N. Mex., Farmers Mutual ditch wasteway 12 at..... 176
Fruitland, Utah, Currant Creek near.... 107

Garcia ditch 1 near Lumberton, N. Mex.. 144
Garcia ditch 2 near Lumberton, N. Mex.. 145
Gateview, Colo., Lake Fork at..... 67
Gateway, Colo., Dolores River at..... 76-77
Gila, N. Mex., Gila River rear..... 232
Gila Farm ditch, N. Mex., discharge measurement of..... 278
Gila River at Ashurst-Hayden Dam, near Florence, Ariz..... 241
at Calva, Ariz..... 237
at Coolidge Dam, Ariz..... 239
at Fuller ranch, near Duncan, Ariz... 234
at Gillespie Dam, Ariz..... 242
at Kelvin, Ariz..... 240
below Bonita Creek, near Solomonsville, Ariz..... 236
discharge measurement of..... 278
near Clifton, Ariz..... 235
near Dome, Ariz..... 243
near Gila, N. Mex..... 232
near Red Rock, N. Mex..... 233
Gila River Basin, Ariz.-N. Mex., gaging-station records in.....232-272
Gillespie canal at Gillespie Dam, Ariz..... 271
Gillespie Dam, Ariz., Enterprise canal at..... 272
Gila River at..... 242
Gillespie canal at..... 271
Glade Arroyo at Farmington, N. Mex..... 178
Glenwood, N. Mex., San Francisco River near..... 244
Glenwood Springs, Colo., Colorado River at..... 14
Roaring Fork at..... 52
Gomez ditch near Lumberton, N. Mex..... 146
Gooseberry Creek, Utah, discharge measurements of..... 274
Granby, Colo., Colorado River near..... 12
Fraser River at..... 33
Strawberry Creek near..... 43
Willow Creek near..... 31
Grand Canyon, Ariz., Bright Angel Creek near..... 227
Colorado River near..... 21

Page

Grand Falls, Ariz., Little Colorado River at..... 222
Grand Junction, Colo., Gunnison River near..... 61
Grand Lake, Colo., Colorado River near. 11
Granite Creek near Prescott, Ariz..... 269
Green River at Green River, Utah..... 81
at Green River, Wyo..... 79
at Warren Bridge, near Daniel, Wyo... 78
Green River, Blacks Fork of. See Blacks Fork.
near Linwood, Utah..... 80
Green River Basin, Utah-Wyo., gaging-station records in.....78-114
Greenhorn ditch near La Plata, N. Mex.. 203
Gunnison, Colo., Tomichi Creek at..... 64
Gunnison River at Iola, Colo..... 60
near Grand Junction, Colo..... 61
Gunnison River, Lake Fork of, at Gateview, Colo..... 67
North Fork of, near Somerset, Colo... 68

Halford-Independent and Starr ditches, N. Mex., waste from, discharge measurements of..... 277
Halford-Independent ditch near Flora Vista, N. Mex..... 179
waste from, discharge measurements of.....276-277
See also Eledge-Mill and Halford-Independent ditches.
Hanksville South canal, Utah, discharge measurement of..... 275
Hanna, Utah, Duchesne River near..... 101
Hassayampa River at Box dam site, near Wickenburg, Ariz..... 270
discharge measurements of..... 279
Heath-Horner ditch, Miller lateral from, near Rosa, N. Mex..... 131
Heiberger, Colo., Buzzard Creek near... 57
Heiner, Utah, Price River near..... 112
Helton ditch near La Plata, N. Mex..... 206
Henrys Fork at Linwood, Utah..... 92
Hesperus, Colo., La Plata River at..... 199
Highland Park ditch near La Plata, N. Mex..... 204
Hightower Creek, Colo., discharge measurements of..... 274
Hill drain. See Bloomfield-Hill drain.
Hillside-Thomas ditch near La Plata, N. Mex..... 205
Hirsh lateral from U. S. Indian canal, near La Boca, N. Mex..... 154
Horner ditch. See Heath-Horner ditch.
Horse Creek near Daniel, Wyo..... 82
Hot Sulphur Springs, Colo., Colorado River at..... 13
Howardsville, Colo., Animas River at... 156
Huntington Creek near Huntington, Utah. 113

Ignacio, Colo., Los Pinos River at..... 153
Inca ditch at head, at Cedar Hill, N. Mex..... 180
waste from, discharge measurements of 276
wasteway of, at Cedar Hill, N. Mex... 181
Independent ditch. See Halford-Independent ditch; Eledge-Mill and Halford-Independent ditches.
Iola, Colo., Gunnison River at..... 60
Ivins canal, Utah, discharge measurements of..... 278

Jackson ditch near La Plata, N. Mex.... 207
Jewett ditch at end, near Waterflow, N. Mex..... 126
at head, at Waterflow, N. Mex..... 127
wasteway of, near Waterflow, N. Mex.. 128

Kahnah Creek near Whitewater, Colo..... 73
Kello-Blancett ditch at end, at Flora Vista, N. Mex..... 181
at head, near Aztec, N. Mex..... 182
Kelvin, Ariz., Gila River at..... 240
Kennedy-Collier drain, N. Mex., discharge measurement of..... 275
Kirtland, N. Mex., Farmers Mutual ditch near..... 174
Farmers Mutual ditch wasteway 11 at.. 175
Kremmling, Colo., Blue River near..... 48

Page

La Boca, N. Mex., Hirsh lateral from U. S. Indian canal near..... 154
La Plata, N. Mex., Cunningham ditch near..... 202
Greenhorn ditch near..... 203
Helton ditch near..... 206
Highland Park ditch near..... 204
Hillside-Thomas ditch near..... 205
Jackson ditch near..... 207
La Plata Indian ditch near..... 208
Larkin-Reynolds ditch at..... 209
Left Hand ditch at..... 210
McDermott ditch at..... 211
La Plata Indian ditch near La Plata, N. Mex..... 208
La Plata River at Colorado-New Mexico State line..... 200
at Hesperus, Colo..... 199
discharge measurements of..... 277
diversions from.....202-212
near Farmington, N. Mex..... 201
La Pumpa wasteway near Turley, N. Mex. 129
Labarge Creek near Labarge, Wyo..... 86
Lake Fork (tributary to Duchesne River), Utah, discharge measurements of..... 274
Lake Fork (tributary to Gunnison River) at Gateview, Colo..... 67
Lake Mead at Boulder Dam, Ariz.-Nev... 22
Larkin-Reynolds ditch at La Plata, N. Mex..... 209
Leal, Colo., Williams River near..... 45
Lees Ferry, Ariz., Colorado River at.. 17-20
Paria River at..... 219
Left Hand ditch at La Plata, N. Mex... 210
Leggett ditch. See Wright-Leggett ditch.
Leroux Creek near Cedaredge, Colo..... 70
Lightner Creek near Durango, Colo..... 197
Lily, Colo., Little Snake River near.. 98
Linwood, Utah, Green River near..... 80
Henrys Fork at..... 92
Little Colorado River at Grand Falls, Ariz..... 222
at St. Johns, Ariz..... 220
Chevelon Fork of, near Winslow, Ariz..... 224
near Woodruff, Ariz..... 221
Little Colorado River Basin, Ariz., gaging-station records in.....220-226
Little Navajo River at Chromo, Colo... 147
Little Snake River near Dixon, Wyo.... 97
near Lily, Colo..... 98
Slater Fork of, near Slater, Colo... 99
Littlefield, Ariz., Virgin River at... 229
Los Pinos River at Ignacio, Colo..... 153
below Snowslide Canyon, near Weminuche Pass, Colo..... 151
diversions from.....154-155
near Bayfield, Colo..... 152
Lower Animas ditch near Aztec, N. Mex. 183
waste from, discharge measurements of..... 276
wasteway of, at Aztec, N. Mex..... 184
See also Aztec and Lower Animas ditches.
Lower Animas drain near Aztec, N. Mex. 184
Lower Martinez ditch near Turley, N. Mex..... 130
Lumberton, N. Mex., Garcia ditch 1 near..... 144
Garcia ditch 2 near..... 145
Gomez ditch near..... 146
Lyman, Wyo., Blacks Fork near..... 91

McCarthy drain, N. Mex., discharge measurement of..... 278
McDermott ditch at La Plata, N. Mex... 211
McDowell, Ariz., Verde River near..... 268
McMillan-Sleighbock ditch, N. Mex., discharge measurement of..... 278
Maldonodo ditch, N. Mex., discharge measurement of..... 278
Mammoth, Ariz., San Pedro River near.. 251
Mancos, Colo., East Mancos River near. 218
Mancos River near..... 215
Middle Mancos River near..... 217
West Mancos River near..... 214
Mancos River near Mancos, Colo..... 215

Page
Mancos River near Towaoc, Colo..... 216
Martinez ditch. See Old Martinez ditch
Martin-Valencia ditch, N. Mex., discharge measurements of..... 275
Mason, Wyo., North Piney Creek near.... 85
Maybell, Colo., Yampa River near..... 95
Meadow Creek near Tabernash, Colo..... 42
Meeker, Colo., White River near..... 110
Middle Mancos River near Mancos, Colo.. 217
Mill ditch. See Eledge-Mill ditch.
Miller Arroyo near Cedar Hill, N. Mex.. 185
Miller lateral from Heath-Horner ditch near Rosa, N. Mex..... 131
Mineral Creek (Gila River Basin), Ariz., discharge measurements of. 278
Mineral Creek (San Juan River Basin), near Silverton, Colo..... 195
Moenkopi Wash near Tuba, Ariz..... 226
Monarch Lake, Colo., Arapaho Creek below..... 30
Mountain Home, Utah, Rock Creek near... 105
Muddy River, Utah, discharge measurements of..... 275
Murphy Arroyo, N. Mex., discharge measurements of..... 278
Myton, Utah, Duchesne River at..... 104

Navajo River at Banded Peak ranch, near Chromo, Colo..... 141
at Edith, Colo..... 143
diversions from.....144-146
near Chromo, Colo..... 142
Neola, Utah, Uinta River near..... 108
New Fork (Green River Basin) near Boulder, Wyo..... 83
New Mexico Public Service Co.'s power ditch, N. Mex., discharge measurement of.....276,277
waste from, discharge measurements of..... 277
Nogales, Ariz., Santa Cruz River near. 254
North Farmington and Wright-Leggett ditch near Farmington, N. Mex... 185
North Farmington ditch, wasteway of, at Farmington, N. Mex..... 186
North Piney Creek near Mason, Wyo..... 85

Ohio, Colo., Quartz Creek near..... 65
Old Martinez ditch near Turley, N. Mex 132
Orangeville, Utah, Cottonwood Creek near..... 114

Pagosa Springs, Colo., Piedra River near..... 148
Rio Blanco near..... 139
Rito Blanco near..... 140
San Juan River at..... 116
Turkey Creek near..... 138
Weminuche Creek near..... 150
West Fork of San Juan River near.... 137
Williams Creek near..... 149
Palmer drain. See Bond-Palmer drain.
Palominas, Ariz., San Pedro River at.. 249
Paria River at Lees Ferry, Ariz..... 219
Parker Dam, Calif., Colorado River below..... 26
Parker Reservoir near..... 25
Parshall, Colo., Williams River near.. 46
Patagonia, Ariz., Sonoita Creek near.. 256
Peninsula wasteway near Farmington, N. Mex..... 186
Peridot, Ariz., San Carlos River near. 248
Picacho, Calif., Colorado River near.. 27
Pickering ditch near Farmington, N. Mex..... 212
Piedra River at Bridge ranger station, near Pagosa Springs, Colo..... 148
discharge measurements of..... 276
Pine, Ariz., Verde River near..... 267
Pine Creek (Fremont River Basin), Utah, discharge measurements of. 275
Pine Creek (Green River Basin) at Pinedale, Wyo..... 84
Pine River. See Los Pinos River.
Pine River canal, South lateral from, near Allison, Colo..... 155
Pinedale, Wyo., Pine Creek at..... 84
Pioneer ditch, N. Mex., discharge measurements of..... 278

Page
Planet, Ariz., Williams River at..... 231
Plateau Creek near Cameo, Colo..... 56
near Collbran, Colo..... 55
Porter Creek, Colo., discharge measurements of..... 274
Porter ditch. See Bloomfield-Porter ditch.
Powderhorn, Colo., Cebolla Creek at.... 66
Prescott, Ariz., Granite Creek near.... 269
Price River near Heiner, Utah..... 112
Publications on stream flow by Geological Survey..... 3-7
by State agencies..... 7-8
information concerning..... 3-9

Quartz Creek near Ohio, Colo..... 65
Quitchupah Creek, Utah, discharge measurement of..... 275

Ralston ditch near Cedar Hill, N. Mex.. 187
waste from, discharge measurements of 276
Ranch Creek above forks, near Fraser, Colo..... 36
Middle Fork of, near Fraser, Colo.... 40
near Fraser, Colo..... 37
near Tabernash, Colo..... 38
North Fork of, near Fraser, Colo..... 39
South Fork of, near West Portal, Colo. 41
Raven, Colo., Willow Creek near..... 54
Red Mesa, Colo., Cherry Creek near..... 213
Red Rock, N. Mex., Gila River near..... 233
Redstone, Colo., Crystal River near.... 53
Reynolds ditch. See Larkin-Reynolds ditch.
Rillito Creek near Tucson, Ariz..... 257
Rio Blanco near Pagosa Springs, Colo... 139
Rito Blanco near Pagosa Springs, Colo.. 140
Road Creek, Utah, discharge measurements of..... 274
Roaring Fork at Aspen, Colo..... 51
at Glenwood Springs, Colo..... 52
Rock Creek near Mountain Home, Utah.... 105
South Fork of, discharge measurements of..... 274
Rockville canal, Utah, discharge measurement of..... 278
Roosevelt, Ariz., Salt River near..... 262
Tonto Creek near..... 265
Roosevelt Dam, Ariz., reservoir system on Salt River, at and below..... 263
Rosa, N. Mex., Miller lateral from Heath-Horner ditch near..... 131
Rosa Community ditch at..... 133
San Juan River at..... 117
Rosa Community ditch at Rosa, N. Mex... 133
Run-off in inches, definition of..... 1

Sabina Creek near Tucson, Ariz..... 258
St. Johns, Ariz., Little Colorado River at..... 220
St. Louis Creek near Fraser, Colo..... 35
Salt River at Stewart Mountain Dam, Ariz..... 264
near Chrysotile, Ariz.....259-261
near Roosevelt, Ariz..... 262
reservoir system on, below Roosevelt Dam..... 263
San Brecito Arroyo, N. Mex., discharge measurement of..... 275
San Carlos Reservoir at Coolidge Dam, Ariz..... 238
San Carlos River near Peridot, Ariz.... 248
San Francisco River at Clifton, Ariz... 245
near Glenwood, N. Mex..... 244
San Juan lateral, wasteway 1 of, near Farmington, N. Mex..... 134
wasteway 2 of, near Farmington, N. Mex..... 135
San Juan River at Farmington, N. Mex... 119
at Pagosa Springs, Colo..... 116
at Rosa, N. Mex..... 117
at Ship Rock, N. Mex..... 120
diversions from.....122-136
near Blanco, N. Mex..... 118
near Bluff, Utah..... 121
West Fork of, above Borns Lake, near Pagosa Springs, Colo..... 137
discharge measurements of..... 276
San Juan River Basin, Colo.-N. Mex.-Utah, gaging-station records in.116-218

Page
San Pedro River at Charleston, Ariz.... 250
at Palominas, Ariz..... 249
at Winkelman, Ariz..... 252
near Mammoth, Ariz..... 251
San Simon Creek near San Simon, Ariz... 246
near Solomonsville, Ariz..... 247
Santa Clara River, Utah, discharge measurements of..... 278
Santa Cruz River at Tucson, Ariz..... 255
near Nogales, Ariz..... 254
Sargent ditch near Cedar Hill, N. Mex.. 188
Sargents, Colo., Tomichi Creek at..... 63
Second-feet per square mile, definition of..... 1
Second-foot, definition of..... 1
Second-foot-day, definition of..... 1
Ship Rock, N. Mex., San Juan River at.. 120
Silver Creek near Woodruff, Ariz..... 223
Silverton, Colo., Mineral Creek near... 195
Slater Fork near Slater, Colo..... 99
Sleighbock ditch. See McMillan-Sleighbock ditch.
Snake River at Dillon, Colo..... 49
Solomonsville, Ariz., Gila River near.. 236
San Simon Creek near..... 247
Somerset, Colo., North Fork of Gunnison River near..... 68
Sonoita Creek near Patagonia, Ariz..... 256
South lateral from Pine River canal, near Allison, Colo..... 155
Spring Creek, Colo., discharge measurements of..... 274
Springdale, Utah, North Fork of Virgin River near..... 230
Stacey ditch at Cedar Hill, N. Mex..... 189
waste from, discharge measurements of 276
wasteway of, near Cedar Hill, N. Mex. 190
Stage-discharge relation, definition of 1
Starr ditch near Farmington, N. Mex.... 191
waste from, discharge measurements of 277
See also Halford-Independent and Starr ditches.
Steamboat Springs, Colo., Yampa River at..... 94
Steelman Creek, Colo., Williams River below..... 44
Stewart Mountain Dam, Ariz., Salt River at..... 264
Strawberry Creek near Granby, Colo..... 43
Strawberry River at Duchesne, Utah..... 106
Sulphur Spring Valley, gaging-station records in..... 273
Surface Creek at Cedaredge, Colo..... 71

Tabernash, Colo., Meadow Creek near.... 42
Ranch Creek near..... 38
Tabiona, Utah, Duchesne River near..... 102
Tacoma, Colo., Cascade Creek near..... 196
Tarrell ditch at Flora Vista, N. Mex... 192
Taylor River at Almont, Colo..... 59
Tenmile Creek at Dillon, Colo..... 50
Terms, definition of..... 1
Thomas ditch. See Hillside-Thomas ditch.
Tomichi Creek at Gunnison, Colo..... 64
at Sargents, Colo..... 63
Tonto Creek near Roosevelt, Ariz..... 265
Topock, Ariz., Colorado River near..... 24
Towaoc, Colo., Mancos River near..... 216
Tuba, Ariz., Moenkopi Wash near..... 226
Tucson, Ariz., Rillito Creek near..... 257
Sabino Creek near..... 258
Santa Cruz River at..... 255
Turkey Creek near Pagosa Springs, Colo. 138
Turley, N. Mex., Archuleta ditch near.. 122
Citizens ditch near..... 125
La Pumpa wasteway near..... 129
Lower Martinez ditch near..... 130
Old Martinez ditch near..... 132
Turley ditch near..... 136
Twin Rock ditch, N. Mex., discharge measurement of..... 276
near Cedar Hill, N. Mex..... 193

Uinta River near Neola, Utah..... 108

Page
Uncompahgre River at Colona, Colo..... 72
United States Indian canal, Hirsh lateral from, near La Boca, N. Mex..... 154
Upper Gila ditch, N. Mex., discharge measurement of..... 278
Urie, Wyo., Blacks Fork near..... 90
Utah Power & Light Co.'s canal, Utah, discharge measurement of..... 274

Valencia ditch. See Martir-Valencia ditch.
Vasquez Creek near West Portal, Colo... 34
Verde River above Camp Creek, near McDowell, Ariz..... 268
below East Verde River, near Pine, Ariz..... 267
near Camp Verde, Ariz..... 266
Vernal, Utah, Ashley Creek near..... 100
Virgin, Utah, Virgin River at..... 228
Virgin River at Littlefield, Ariz..... 229
at Virgin, Utah..... 228
discharge measurement of..... 278
North Fork of, near Springdale, Utah. 230
Virgin River Basin, Ariz.-Utah, gaging-station records in.....228-230

Waterflow, N. Mex., Farmers Mutual ditch near..... 173
Farmers Mutual ditch wasteway 13 near 177
Jewett ditch at..... 127
Jewett ditch near..... 126
wasteway of, near..... 128
Watson, Utah, White River near..... 111
Weminuche Creek near Bridge ranger station, near Pagosa Springs, Colo.. 150
Weminuche Pass, Colo., Los Pinos River near..... 151
West Mancos River near Mancos, Colo.... 214
West Portal, Colo., Fraser River near.. 32
Ranch Creek, South Fork of, near..... 41
Vasquez Creek near..... 34
White River near Meeker, Colo..... 110
near Watson, Utah..... 111
Whiterock River near Whiterocks, Utah.. 109
Whitewater, Colo., Kahnah Creek near... 73
Whitewater Draw near Douglas, Ariz..... 273
Wickenburg, Ariz., Hassayampa River near..... 270
Williams Creek near Bridge ranger station, near Pagosa Springs, Colo.. 149
Williams River (tributary above Green River) below Steelman Creek, Colo. 44
near Leal, Colo..... 45
near Parshall, Colo..... 46
Williams River (tributary below Green River) at Planet, Ariz..... 231
Willow Beach, Ariz., Colorado River near..... 23
Willow Creek (directly tributary to Colorado River) near Granby, Colo. 31
Willow Creek (tributary to Granite Creek), Ariz., discharge measurements of..... 279
Willow Creek (tributary to West Divide Creek) near Raven, Colo..... 54
Winkelman, Ariz., San Pedro River at... 252
Winslow, Ariz., Chevelon Fork near..... 224
Clear Creek near..... 225
Woodruff, Ariz., Little Colorado River near..... 221
Silver Creek near..... 223
Woodruff canal, Ariz., discharge measurements of..... 278
Work, division of..... 9-10
scope of..... 1
Wright-Leggett ditch, wasteway of, near Farmington, N. Mex..... 194
See also North Farmington and Wright-Leggett ditches.

Yampa River at Steamboat Springs, Colo. 94
near Maybell, Colo..... 95
Yuma, Ariz., Colorado River at..... 28-29