Peter Frenzel

1974

Water Resources Data for New Mexico

Part 1. Surface Water Records

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Prepared in cooperation with the State of New Mexico and with other agencies

CALENDAR FOR 1974

JANUARY 1974

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

FEBRUARY 1974

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

MARCH 1974

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

APRIL 1974

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

MAY 1974

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

JUNE 1974

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

JULY 1974

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

AUGUST 1974

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

SEPTEMBER 1974

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

OCTOBER 1974

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

NOVEMBER 1974

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

DECEMBER 1974

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

1974

Water Resources Data for New Mexico

Part 1. Surface Water Records

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Prepared in cooperation with the State of New Mexico
and with other agencies

Prepared in cooperation with

Office of the State Engineer
Interstate Stream Commission
Pecos River Commission
State Highway Department
Costilla Creek Compact Commission
Albuquerque Metropolitan Arroyo Flood Control Authority
Bureau of Reclamation, U.S. Department of the Interior
Corps of Engineers, U. S. Army
White Sands Missile Range, Department of the Army
Federal Highways Administration, U.S. Department of Transportation
Bureau of Indian Affairs, U.S. Department of the Interior
Soil Conservation Service, U.S. Department of Agriculture

Water resources records, 1974, for New Mexico are in the following reports of the U.S. Geological Survey:

1. Water Resources Data for New Mexico
   Part 1: Surface Water Records

2. Water Resources Data for New Mexico
   Part 2: Water Quality Records

Copies of this report may be obtained from
District Chief, Water Resources Division
U.S. Geological Survey
P.O. Box 4369
Albuquerque, New Mexico 87106

1975

CONTENTS

	Page
List of gaging stations, in downstream order, for which records are published	IV
Introduction	1
Cooperation	1
Definition of terms	3
Special networks and programs	4
Downstream order and station numbers	4
Explanation of surface-water data	4
Collection and computation of data	4
Accuracy of data	8
Publications	8
Other data available	9
Hydrologic conditions	10
Records of discharge collected by agencies other than the Geological Survey	10
Selected references	10
Gaging-station records	13
Discharge at partial-record stations and miscellaneous sites	216
Low-flow partial-record stations	216
Crest-stage partial-record stations	217
Discharge measurements at miscellaneous sites	229
Seepage Investigations	232
Index	235

ILLUSTRATIONS

Figure 1.	Map of New Mexico showing location of active gaging stations	12
Figure 2.	Map of New Mexico showing location of partial-record stations	215

TABLE

Table 1.	Factors for conversion of English units to International System (SI) Units	11

GAGING STATIONS, IN DOWNSTREAM ORDER,
FOR WHICH RECORDS ARE PUBLISHED

LOWER MISSISSIPPI RIVER BASIN
Mississippi River: Page
ARKANSAS RIVER BASIN
Arkansas River:
Cimarron River near Kenton, Okla..... 13
Canadian River near Hebron..... 14
Vermejo River near Dawson..... 15
Moreno Creek (head of Cimarron River) at Eagle Nest 16
Eagle Nest Lake:
Cieneguilla Creek near Eagle Nest..... 17
Sixmile Creek near Eagle Nest..... 18
Eagle Nest Lake near Eagle Nest..... 19
Cimarron River below Eagle Nest Dam..... 20
Cimarron River near Cimarron..... 21
Ponil Creek near Cimarron..... 22
Rayado Creek at Sauble Ranch, near Cimarron..... 23
Cimarron River at Springer..... 24
Canadian River near Taylor Springs..... 25
Mora River at La Cueva..... 26
Mora River near Golondrinas..... 27
Coyote Creek near Golondrinas..... 28
Sapello River:
Lake Isabel feeder canal near Sapello..... 29
Mora River near Shoemaker..... 30
Canadian River near Sanchez..... 31
Conchas Lake:
Conchas River at Variadero..... 32
Bell Ranch Canal below Conchas Dam..... 33
Conchas Canal below Conchas Dam..... 33
Conchas Lake at Conchas Dam..... 34
Ute Reservoir:
Ute Creek near Logan..... 35
Ute Reservoir near Logan..... 36
Canadian River at Logan..... 37
Revuelto Creek near Logan..... 38
WESTERN GULF OF MEXICO BASINS
RIO GRANDE BASIN
Rio Grande near Lobatos, Colo..... 39
Rio Grande at Colorado-New Mexico State line..... 40
Costilla Creek above Costilla Dam..... 41
Costilla Reservoir:
Casias Creek near Costilla..... 42
Santistevan Creek near Costilla..... 43
Costilla Reservoir near Costilla..... 44
Costilla Creek below Costilla Dam..... 45
Costilla Creek near Amalia..... 46
Costilla Creek near Costilla..... 47
Costilla Creek below diversion dam, at Costilla..... 48
Costilla Creek at Garcia, Colo..... 49
Principal diversions from Costilla Creek..... 50

WESTERN GULF OF MEXICO BASINS--Continued Page
RIO GRANDE BASIN--Continued
Rio Grande near Cerro..... 51
Red River near Questa..... 52
Cabresto Creek near Questa..... 53
Red River at mouth, near Questa..... 54
Rio Hondo near Valdez..... 55
Arroyo Hondo at Arroyo Hondo..... 56
Rio Grande near Arroyo Hondo..... 57
Rio Pueblo de Taos near Taos..... 58
Rio Lucero near Arroyo Seco..... 59
Rio Fernando de Taos near Taos..... 60
Rio Pueblo de Taos near Ranchito..... 61
Rio Grande del Rancho near Talpa..... 62
Rio Chiquito near Talpa..... 63
Rio Pueblo de Taos below Los Cordovas..... 64
Rio Grande below Taos Junction Bridge, near Taos..... 65
Embudo Creek at Dixon..... 66
Rio Grande at Embudo..... 67
Rio Grande above San Juan Pueblo..... 68
Rio Chama near La Puente..... 69
Azotea Creek:
Azotea tunnel at outlet, near Chama..... 70
Willow Creek above Heron Reservoir, near Park View.... 71
Heron Reservoir:
Horse Lake Creek above Heron Reservoir, near Park View 72
Heron Reservoir near Park View..... 73
Willow Creek below Heron Dam..... 74
El Vado Reservoir near Tierra Amarilla..... 75
Rio Chama below El Vado Dam..... 76
Rio Chama above Abiquiu Reservoir..... 77
Abiquiu Reservoir near Abiquiu..... 78
Rio Chama below Abiquiu Dam..... 79
Rio Ojo Caliente at La Madera..... 80
Rio Chama near Chamita..... 81
Diversions from Rio Chama.....82,83
Santa Cruz River at Cundiyo..... 84
Rio Nambe at Nambe Falls, (head of Pojoaque Creek or River) near Nambe..... 85
North Fork Tesuque Creek (head of Tesuque Creek):
North Fork Tesuque Creek tributary near Santa Fe.... 86
Pojoaque River at San Ildefonso Pueblo..... 87
Rio Grande at Otowi Bridge, near San Ildefonso..... 88
Cochiti Lake:
Santa Fe River:
McClure Reservoir near Santa Fe..... 89
Santa Fe River near Santa Fe..... 90
Nichols Reservoir near Santa Fe..... 91
Santa Fe River above Cochiti Lake..... 92
Cochiti Lake near Cochiti Pueblo..... 93

WESTERN GULF OF MEXICO BASINS--Continued Page
RIO GRANDE BASIN--Continued
Rio Grande below Cochiti Dam..... 94
Galisteo Creek above Galisteo Reservoir..... 95
Galisteo Reservoir near Cerrillos..... 96
Galisteo Creek below Galisteo Dam..... 97
Rio Grande at San Felipe..... 98
Jemez River below East Fork, near Jemez Springs..... 99
Rio Guadalupe at Box Canyon, near Jemez..... 100
Jemez River near Jemez..... 101
Jemez Canyon Reservoir near Bernalillo..... 102
Jemez River below Jemez Canyon Dam..... 103
Bernalillo floodwater retarding reservoir No. 1 (Piedra Lisa Arroyo) near Bernalillo..... 104
North Floodway Channel near Alameda..... 105
Rio Grande at Albuquerque..... 106
Rio Grande conveyance channel near Bernardo..... 107
Rio Grande floodway near Bernardo..... 108
Lower San Juan Riverside drain near Bernardo..... 109
Bernardo interior drain near Bernardo..... 110
Rio Puerco above Arroyo Chico, near Guadalupe..... 111
Arroyo Chico near Guadalupe..... 112
Bluewater Creek (head of Rio San Jose):
Bluewater Lake near Bluewater..... 113
Rio San Jose at Grants..... 114
Grants Canyon at Grants..... 115
Rio San Jose near Grants..... 116
Rio San Jose near Laguna.....117,118
Rio San Jose at Correo..... 119
Rio Puerco at Rio Puerco..... 120
Rio Puerco near Bernardo..... 121
Rio Salado near San Acacia..... 122
Socorro main canal north at San Acacia..... 123
Rio Grande conveyance channel at San Acacia..... 124
Rio Grande floodway at San Acacia..... 125
Arroyo de la Matanza near Socorro..... 126
Rio Grande conveyance channel at San Marcial..... 127
Rio Grande floodway at San Marcial..... 128
Milligan Gulch near San Marcial..... -
Elephant Butte Reservoir at Elephant Butte..... 129
Rio Grande below Elephant Butte Dam..... 130
Caballo Reservoir near Arrey..... 131
Rio Grande below Caballo Dam..... 132
Tortugas Arroyo near Las Cruces..... 133
Rio Grande at Vinton Bridge near Anthony..... 134
Rio Grande at El Paso, Tex..... 135
Pecos River:
Rio Mora near Terrero..... 136
Pecos River near Pecos..... 137
Pecos River near Anton Chico..... 138
Gallinas Creek near Montezuma..... 139
Gallinas River near Colonias..... 140

WESTERN GULF OF MEXICO BASINS--Continued Page
RIO GRANDE BASIN--Continued
Pecos River near Colonias..... 141
Pecos River above Los Esteros damsite, near Santa Rosa.. 142
Pecos River at Santa Rosa..... 143
Pecos River near Puerto de Luna..... 144
Alamogordo Reservoir near Fort Sumner.....145,146
Pecos River below Alamogordo Dam..... 147
Fort Sumner main canal near Fort Sumner..... 148
Pecos River near Acme..... 149
Rio Ruidoso (head of Rio Hondo):
F. Herrera ditch S. at Hollywood..... 150
Rio Ruidoso at Hollywood..... 151
Eagle Creek below South Fork, near Alto..... 152
Eagle Creek near Alto..... 153
Rio Hondo at Diamond A Ranch, near Roswell..... 154
Two Rivers Reservoir near Roswell..... 155
Rio Hondo below Diamond A Dam, near Roswell..... 156
Rocky Arroyo above Two Rivers Reservoir..... 157
Rocky Arroyo below Rocky Dam, near Roswell..... 158
North Spring River at Roswell..... 159
Pecos River near Hagerman..... 160
Rio Felix at old highway bridge, near Hagerman..... 161
Pecos River near Lake Arthur..... 162
Pecos River near Artesia..... 163
Rio Penasco at Dayton..... 164
Pecos River (Kaiser Channel) near Lakewood..... 165
Lake McMillan:
Fourmile Draw near Lakewood..... 166
Lake McMillan near Lakewood.....167,168
Pecos River below McMillan Dam..... 169
Pecos River above Seven Rivers, near Lakewood..... 170
South Seven Rivers near Lakewood..... 171
Pecos River below Major Johnson Springs, near Carlsbad.. 172
Rocky Arroyo at highway bridge, near Carlsbad..... 173
Pecos River at damsite 3, near Carlsbad..... 174
Lake Avalon:
Carlsbad main canal at head, near Carlsbad..... 175
Lake Avalon near Carlsbad.....176,177
Pecos River below Avalon Dam..... 178
Dark Canyon at Carlsbad..... 179
Pecos River below Dark Canyon, at Carlsbad..... 180
Black River above Malaga..... 181
Pecos River near Malaga..... 182
Pecos River at Pierce Canyon Crossing, near Malaga..... 183
Pecos River at Red Bluff..... 184
Delaware River near Red Bluff..... 185
Red Bluff Reservoir near Orla, Tex..... 186
Pecos River near Orla, Tex..... 187

WESTERN GULF OF MEXICO BASINS--Continued Page
MIMBRES RIVER BASIN
Mimbres River near Mimbres..... 188
TULAROSA VALLEY
Rio Tularosa near Bent..... 189
Tularosa Valley tributary near White Sands..... 190
Tularosa Valley tributary at White Sands..... 191
COLORADO RIVER BASIN
SAN JUAN RIVER BASIN
San Juan River near Carracas, Colo..... 192
Navajo Reservoir:
Piedra River near Arboles, Colo..... 193
Los Pinos River at La Boca, Colo..... 194
Spring Creek at La Boca, Colo..... 195
Navajo Reservoir near Archuleta..... 196
San Juan River near Archuleta..... 197
Animas River near Cedar Hill..... 198
Animas River at Farmington..... 199
San Juan River at Farmington..... 200
La Plata River at Colorado-New Mexico State line..... 201
La Plata River near Farmington..... 202
Schumway Arroyo near Fruitland..... -
San Juan River at Shiprock..... 203
San Juan River near Bluff, Utah..... 204
LITTLE COLORADO RIVER BASIN
Zuni River:
Rio Nutria near Ramah..... 205
Zuni River above Zuni Reservoir..... 206
GILA RIVER BASIN
Gila River near Gila..... 207
Mogollon Creek near Cliff..... 208
Gila River near Red rock..... 209
Gila River below Blue Creek, near Virden..... 210
San Francisco River:
San Francisco River near Reserve..... 211
Tularosa River above Aragon..... 212
San Francisco River near Alma..... 213
San Francisco River near Glenwood..... 214

WATER RESOURCES DATA FOR NEW MEXICO, 1974

PART 1. SURFACE-WATER RECORDS

INTRODUCTION

Surface-water records for the 1974 calendar year for New Mexico, including records of streamflow or reservoir storage at gaging stations, partial-record stations, and miscellaneous sites, are given in this report and their locations shown in figures 1, 2. Records for a few pertinent gaging stations in bordering States also are included. The records were collected and computed by the Water Resources Division of the U.S. Geological Survey under the direction of W. E. Hale, district chief. These data represent that portion of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in New Mexico.

Records of discharge and stage of streams, and contents and stage of lakes and reservoirs are published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series, and since then, are in a 5-year series. More information is given under heading, "Publications" on page 8.

Beginning with the 1961 water year, surface-water records have been released by the Geological Survey in annual reports on a State-boundary basis. Distribution of these reports is limited; they are designed primarily for rapid release of data shortly after the end of the water year to meet local needs. Beginning with the 1971 calendar year, surface water records have been released on a calendar year basis.

COOPERATION

The first gaging station established by the Geological Survey in the United States was on the Rio Grande at Embudo on Jan. 1, 1889. Cooperation with the Territory of New Mexico began about 1907, and Terriroty or State cooperation in varying amounts continued until 1915, the work being directed from the Denver office. From 1916 to 1930 the State conducted its own stream-gaging program. In 1931 a new State cooperative program was begun and a Geological Survey district office established in Santa Fe. Agreements have also existed with county, municipal, and private organizations, and with other Federal agencies. Organizations that supplied data are acknowledged in station descriptions.

Organizations that assisted in collecting data through cooperative agreements with the Survey in 1974 are:

Office of the State Engineer, S. E. Reynolds.

Interstate Stream Commission, S. E. Reynolds, secretary.

Pecos River Commission, H. M. Babcock, federal representative and chairman, J. B. Walker, commissioner for New Mexico, R. B. McGowen, Jr., commissioner for Texas.

State Highway Department, L. G. Boles, State Highway engineer.

Costilla Creek Compact Commission, S. E. Reynolds, commissioner for New Mexico, C. J. Kuiper, commissioner for Colorado.

Albuquerque Metropolitan Arroyo Flood Control Authority, J. B. Robert, executive engineer.

Assistance in the form of funds or services was furnished by following Federal Agencies:

Corps of Engineers, U.S. Army in the operation of 27 gaging stations.

White Sands Missile Range, Department of the Army in the operation of 2 gaging stations.

Bureau of Reclamation, U.S. Department of the Interior in the operation of 7 gaging stations.

Federal Highway Administration, U.S. Department of Transportation for research study on small drainage areas.

Bureau of Indian Affairs, U.S. Department of the Interior in the operation of 5 gaging stations.

Soil Conservation Service, U.S. Department of Agriculture in the operation of 2 gaging stations.

Assistance in the form of funds or services was also given by the following organizations:

National Oceanic and Atmospheric Administration, U.S. Deptment of Commerce; the city of Ruidoso; Carlsbad Irrigation District; Public Service Company of New Mexico; State Department of Game and Fish.

DEFINITION OF TERMS

Terms related to streamflow and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System of units (SI) on page 11.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons.

Ft^3/s-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.9835 acre-feet, or 646,000 gallons, and represents a runoff of 0.0372 inch from 1 square mile.

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

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

Cubic foot per second (ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second, and is equivalent to 7.48 gallons per second or 448.8 gallons per minute.

Discharge is the volume of water (or more broadly, total fluids), that passes a given point within a given period of time.

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

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

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

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

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

WRD is used as an abbreviation for "Water-Resources Data" in the summary REVISIONS paragraph to refer to previously published State annual basic-data reports.

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

SPECIAL NETWORKS AND PROGRAMS

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

DOWNSTREAM ORDER AND STATION NUMBERS

Records are listed in a downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream. Stations on tributaries entering above all mainstream stations are listed before the first mainstream station. Stations on tributaries to tributaries are listed in a similar manner. In the list of gaging stations in the front of this report the rank of tributaries is indicated by indention, each indention representing one rank.

As an added means of identification, each gaging station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and continuous-record gaging stations; therefore, the station number for a partial-record station indicates downstream order position in a list made up of both types of stations. Gaps are left in the numbers to allow for new stations that may be established; hence the numbers are not consecutive. The complete 8-digit number for each station, such as 08314500, which appears just to the left of the station name includes the part number "08" and a 6-digit station number. In this report, the records are listed in downstream order by parts. All records for a drainage basin encompassing more than one State could be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

EXPLANATION OF SURFACE-WATER DATA

Collection and Computation of Data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from a water-stage recorder that gives a continuous graph of the fluctuations (for digital recorders, a tape punched at 15-, 30-, or 60-minute intervals) or from direct readings on a nonrecording gage. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in standard text-books on the measurement of stream discharge. (See also SELECTED REFERENCES.) Surface areas of lakes or reservoirs are determined from instrument surveys using standard methods. The configuration of the reservoir bottom is determined by sounding at many points.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves defined by discharge measurements. If extensions to the rating curves are necessary to define the extremes of discharge, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and the yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

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

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table given the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accululation of sediment.

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

The data in this report generally comprise a description of the station and tabulations of daily and monthly figure . For gaging stations on streams or canals a table showing the daily dischare and/or monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily gage heights or elevations at, 0800 hours, are included for some reservoir stations. A calendar for the current year is shown on the reverse side of the front cover to facilitate finding the day of the week for any date.

The description of the gaging station gives the location, drainage area, period of record, type and history of gages, average discharge, extremes of discharge or contents, general remarks and notations of revisions of previously published records. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD." The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey, unless otherwise qualified. The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. The maximum discharge (or contents) and the maximum gage height, the minimum discharge if there is little or no regulation (or the minimum contents), and the minimum gage height if it is significant are given under "EXTREMES." The minimum daily discharge is given if there is extensive regulation. In the first paragraph headed "Current year": the data given are for the complete current calendar year unless otherwise specified. In the second paragraph usually headed "Period of record": the data given are for the period of record given in the PERIOD OF RECORD paragraph. Otherwise the data given are for a shorter period and the heading shows the period for which extremes are available. Reliable information concerning major floods that occurred outside the period of record is given in the third or last paragraph under "EXTREMES." Unless otherwise qualified, the maximum discharge (or contents) corresponds to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur at the same time as the maximum discharge or contents, it is given separately. Information pertaining to the accuracy of the discharge records, to conditions that affect the natural flow at the gaging station, and availability of Water Quality records, is given under "REMARKS"; for reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir, is also given under "REMARKS."

Previously published records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISIONS (WATER YEARS)" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1933 stands for the water year October 1, 1932 to September 30, 1933. If no daily, monthly, or annual figures of discharge were revised, that fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given.

Skeleton capacity tables are published for all reservoirs for which records of contents are published on a daily basis, except those reservoirs for which a table of daily elevations (or gage heights) is published.

The daily tables for stream-gaging stations give the discharge corresponding to the daily mean gage height unless there are large or rapid changes in the discharge during a day. For days having large or rapid changes, discharge for the day is computed by averaging the mean discharge for several parts of a day. For digital recorders, the daily mean discharge is always the average of the discharges at each punched reading.

The daily tables for reservoir stations give the contents corresponding to the water-surface elevation at a given time, usually at 2400 each day. For some reservoirs the elevation at a given time is given in the daily table.

The monthly summary is given below the daily table. For stream-gaging stations the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month is expressed in acre-feet (line headed "AC-FT").

For reservoir stations the monthly summary gives the elevation (or gage height) at the end of the month and the change in contents during the month, except for those stations for which a table of daily elevations (or gage heights) is published.

In the yearly summary below the monthly summary, the figures following MAX are the maximum daily discharges for the calendar and water years; likewise, those following MIN are the minimum daily discharges.

For reservoir stations the yearly summary gives the change in contents for the calendar year and for the water year.

Peak discharges and their times of occurrence and corresponding gage heights for many stations are listed below the yearly summary. All independent peaks above the selected base are given. The base discharge, which is given in parentheses, is selected so that an average of about three peaks a year can be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030 and 1:30 p.m. is 1330.

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

Accuracy of Data

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

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

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft^3/s; to tenths between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures above 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations and miscellaneous sites.

Discharge of some stations, as indicated by the monthly mean, may vary widely from natural runoff, due to the effects of diversions, consumptive use, regulation by storage, increases or decreases in evaporation due to artificial causes or other factors. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents.

Publications

In each water-supply paper entitled, "Surface Water Supply of the United States" there is a list of numbers of preceding water-supply papers containing streamflow information for the area covered by that report. In addition, there is a list of numbers of water-supply papers containing detailed information on major floods in the area. Records for stations in New Mexico for the period October 1960 to September 1965 are in Water-Supply Papers 1920, 1923, 1925, and 1926; those for period October 1965 to September 1970 are in Water-Supply Papers 2121, 2123, 2125, and 2126.

Two series of summary reports entitled, "Compilation of Records of Surface Waters of the United States" have been published; the first series covers the entire period of record through September 1950 and the second series covers the period October 1950 to September 1960. These reports contain summaries of monthly and annual discharge and monthend storage for all previously published records, as well as some records not contained in the annual series of water-supply papers. All records were reexamined and revised where warranted. Estimates of discharge were made to fill short gaps whenever practical. The yearly summary table for each gaging station lists the numbers of the water-supply papers in which daily records were published for that station. Records for stations in New Mexico are compiled in Water-Supply Papers 1311, 1312, and 1313 through September 1950, and in 1731, 1732, and 1733 for October 1950 to September 1960.

Special reports on major floods or droughts or of other hydrologic studies for the area have been issued in publications other than water-supply papers. Information relative to these reports may be obtained from the district office.

Other Data Available

Data collected at partial-record stations and at miscellaneous sites are given in three tables at the end of the surface-water records in this report. The first is a table of discharge measurements at low-flow partial-record stations, the second is a table of annual maximum stage and discharge at crest-stage stations, and the third is a table of discharge measurements at miscellaneous sites.

Seepage investigations are presented following measurements at miscellaneous sites. These consist of text and tabulations summarizing data derived primarily from associated series of discharge measurements and observations made within a short time period along a given reach of channel, preferably during a period of relatively stable conditions.

Information of a more detailed nature than that published for most of the gaging stations, such as discharge measurements, gage-height records, and rating tables, is on file in the district office. Many gaging-station records in New Mexico through 1968 have been analyzed to give several statistical summaries: (1) the number of days in each year that the daily discharge was between selected limits (duration tables); (2) the lowest mean discharge for selected numbers of consecutive days in each year; and (3) the highest mean discharge for selected numbers of consecutive days in each year.

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

HYDROLOGIC CONDITIONS

As is common in New Mexico, streamflow varied greatly in the 1974 calendar year. This holds true with respect to both time and geographic location. The variations are related to differences in precipitation, temperature, topography and geology. The mean discharge for the calendar year at key gaging stations varied from a low of 36 percent of median values in Pecos River basin to a high of 76 percent of median in Gila River basin. The yearly means were generally in the lowest 25 percent of record in the Rio Grande and Pecos River valleys and below median in remainder of State. During the snow-melt period streamflow was deficient in all streams that receive runoff from this source.

RECORDS OF DISCHARGE COLLECTED BY AGENCIES OTHER THAN THE GEOLOGICAL SURVEY

Records of discharge not published by the Geological Survey were collected as 77 sites in New Mexico during the current year by the following agencies: Records at 76 sites (in Pecos River basin) were collected by the office of the State Engineer; and at 1 site by the Bureau of Reclamation, U.S. Department of Interior. The Office of Water Data Coordination, Water Resources Division, U.S. Geological Survey, Reston, Va., 22092, maintains an index of these sites. Information on records at specific sites can be obtained from that office upon request.

SELECTED REFERENCES

Carter, R. W., and Davidian, Jacob, 1968, General procedure for gaging streams: U.S. Geol. Survey Techniques Water-Resources Inv., book 3, chap. A6, 13 p.

Corbett, D. M., and others, 1943, Stream-gaging procedure, a manual describing methods and practices of the Geological Survey: U.S. Geol. Survey Water-Supply Paper 888, 245 p.

Langbein, W. B., and Iseri, K. T., 1960, General introduction and hydrologic definitions: U.S. Geol. Survey Water-Supply Paper 1541-A, 29 p.

Table 1.--Factors for conversion of English units to International System (SI) Units

[The following factors may be used to convert the English units published herein to the International System of Units (SI)]

Multiply English units	By	To obtain SI units
feet (ft)	0.3048	metres (m)
miles (mi)	1.609	kilometres (km)
acres	4047	square metres (m^2)
	.4047	square hectometre (hm^2)
	.004047	square kilometre (km^2)
square miles (mi^2)	2.590	square kilometres (km^2)
gallons (gal)	3.785×10^{-3}	cubic metres (m^3)
million gallons (10^6 gal)	3785	cubic metres (m^3)
	3.785×10^{-3}	cubic hectometres (hm^3)
cubic feet (ft^3)	.02832	cubic metres (m^3)
cfs-day (ft^3/s-day)	2447	cubic metres (m^3)
	2.447×10^{-3}	cubic hectometres (hm^3)
acre-feet (acre-ft)	1233	cubic metres (m^3)
	1.233×10^{-3}	cubic hectometres (hm^3)
	1.233×10^{-6}	cubic kilometres (km^3)
cubic feet per second (ft^3/s)	.02832	cubic metres per second (m^3/s)

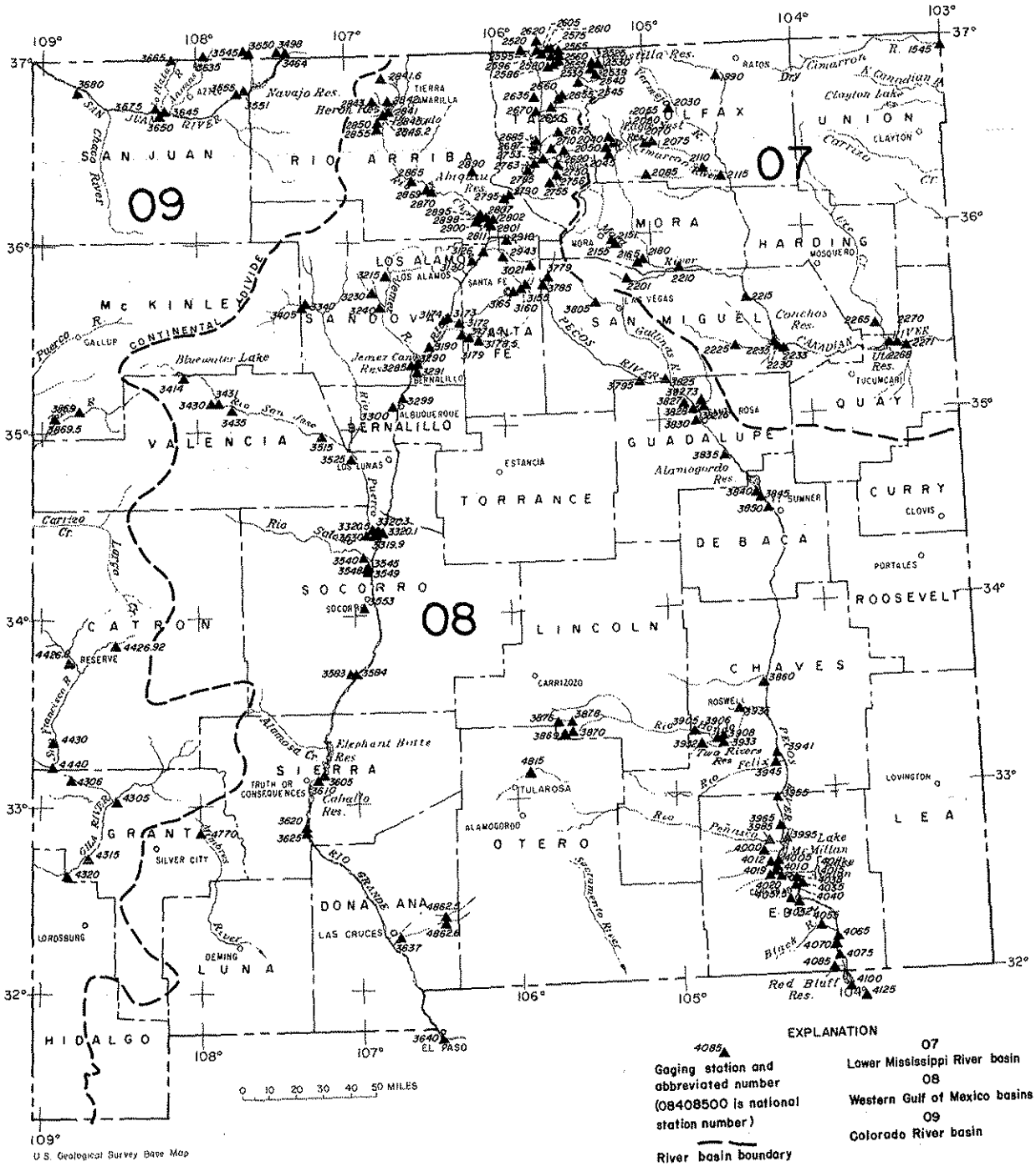

Figure 1.—Map of New Mexico showing location of active gaging stations.

07154500 CIMARRON RIVER NEAR KENTON, OKLA.

LOCATION.--Lat 36°55'36", long 102°57'31", in SE¼ sec.4, T.5 N., R.1 E., Cimarron County, near right bank on downstream side of pier of county road bridge, 1.5 mi (2.4 km) upstream from North Carrizo Creek, 1.7 mi (2.7 km) northeast of Kenton, 2.2 mi (3.5 km) downstream from Carrizozo Creek, and at mile 594.0 (955.7 km).

DRAINAGE AREA.--1,106 mi² (2,865 km²), of which 68 mi² (176 km²) is probably noncontributing.

PERIOD OF RECORD.--April 1904 to July 1905 (gage heights only), October 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,262.08 ft (1,299.082 m) above mean sea level (levels by State Highway Department). April 1904 to July 1905, nonrecording gage at site 0.9 mi (1.4 km) upstream at different datum. Oct. 1, 1950 to Sept. 19, 1967, water-stage recorder at same site and at datum 5.00 ft (1.524 m) higher.

AVERAGE DISCHARGE.--24 calendar years (1951-74), 22.9 ft³/s (0.649 m³/s), 16,590 acre-ft/yr (20.5 hm³/yr); 20 calendar years (1955-74), 22.9 ft³/s (0.649 m³/s), 16,590 acre-ft/yr (20.5 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 4,180 ft³/s (118 m³/s) July 31 (gage height 12.87 ft or 3.923 m); no flow at times. Period of record: Maximum discharge, 43,400 ft³/s (1,230 m³/s) Oct. 17, 1965 (gage height, 22.32 ft or 6.803 m, present datum), from rating curve extended above 7,000 ft³/s (198 m³/s) on basis of contracted-opening measurement of peak flow; no flow at times in most years.

REMARKS.--Records fair. Extensive diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1711: 1956(M).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	.50	.48	.35	.19	.10	0	0	1.8	.50	0	.17	.15
2	.45	.42	.33	.11	.12	0	0	.43	.30	0	.17	.12
3	.38	.28	.32	.16	.10	0	0	.10	.15	0	.17	.10
4	.25	.27	.25	.17	.10	0	0	0	.10	0	.17	.08
5	.29	.27	.23	.17	.10	0	0	0	.07	0	.19	.09
6	.27	.33	.24	.18	.09	0	0	0	.04	0	.21	.10
7	.33	.32	.31	.15	.08	.05	0	0	.05	0	.21	.09
8	.38	.42	.31	.16	.09	.44	0	151	.04	0	.21	.10
9	.33	.62	.53	.20	.09	.20	0	521	.02	0	.21	.09
10	.38	.46	1.3	.20	.09	.15	0	487	0	0	.21	.16
11	.32	.28	1.6	.18	.05	.08	0	49	0	0	.21	.12
12	.58	.25	1.2	.19	.05	.05	0	109	0	.49	.21	.07
13	1.0	.22	1.2	.19	.06	.07	0	16	0	3.6	.21	.16
14	1.5	.19	.89	.17	.02	.03	0	7.5	.02	.16	.21	.06
15	1.8	.21	.81	.18	.03	0	0	2.5	.07	.13	.21	.07
16	2.2	.21	.94	.18	.05	0	0	35	.08	.13	.21	.08
17	1.8	.25	.89	.14	.06	0	0	17	.03	.13	.21	.07
18	1.2	.26	.99	.16	.03	0	0	6.7	0	.13	.21	.07
19	.85	.22	.74	.11	.01	0	0	1.3	0	.13	.21	.05
20	.59	.28	.70	.13	.01	0	0	.30	0	.14	.21	.06
21	.36	.38	.53	.12	.01	0	0	.10	0	.15	.21	.08
22	.18	.24	.53	.11	.01	0	0	0	0	.15	.21	.08
23	.19	.23	.45	.10	.02	0	69	0	0	.15	.21	.08
24	.20	.21	.45	.10	.06	56	48	0	0	.16	.21	.26
25	.23	.31	.42	.11	.13	.67	2.3	0	0	.16	.21	.08
26	.38	.34	.38	.14	.10	0	0	0	0	.16	.25	.04
27	.41	.40	.38	.10	.09	0	0	0	0	.16	.25	.03
28	.49	.38	.38	.10	.08	0	0	0	0	.16	.25	.02
29	.51	------	.25	.10	.05	0	0	137	0	.13	.25	.02
30	.54	------	.23	.10	.01	0	0	39	0	.15	.21	.02
31	.57	------	.23	------	0	------	213	2.5	------	.17	------	.10
TOTAL	19.46	8.76	18.34	4.40	1.86	57.74	932.3	1,484.23	1.47	6.74	6.28	2.70
MEAN	.63	.31	.59	.15	.060	1.92	10.7	44.7	.049	.22	.21	.087
MAX	2.2	.62	1.6	.20	.13	56	213	487	.50	3.6	.25	.26
MIN	.18	.19	.23	.10	0	0	0	0	0	0	.17	.02
AC-FT	39	17	36	8.7	3.7	115	659	2,750	2.9	13	12	5.4

CAL YR 1974 TOTAL 1,844.22 MEAN 5.05 MAX 487 MIN 0 AC-FT 3,660
WTR YR 1974 TOTAL 1,896.72 MEAN 5.20 MAX 487 MIN 0 AC-FT 3,760

PEAK DISCHARGE (BASE, 2,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
7-31	1900	12.87	4,180	8- 9	2300	12.07	3,170

07199000 CANADIAN RIVER NEAR HEBRON, N. MEX.

LOCATION.--Lat 36°47'14", long 104°27'42", Colfax County, in Maxwell Grant, near right bank at downstream end of bridge pier on U.S. Highways 64 and 85, 3.1 mi (5.0 km) north of Hebron, 5.0 mi (8.0 km) upstream from Chicorica Creek, 8.0 mi (12.9 km) south of Raton, and at mile 888.1 (1,429.0 km).

DRAINAGE AREA.--229 mi^2 (593 km^2).

PERIOD OF RECORD.--June 1946 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,248 ft (1,904 m) from topographic map. See WSP 1921 for history of changes prior to Aug. 18, 1965.

AVERAGE DISCHARGE.--28 calendar years, 7.89 ft^3/s (0.223 m^3/s), 5,720 acre-ft/yr (7.05 hm^3/yr); 20 calendar years (1955-74), 9.92 ft^3/s (0.281 m^3/s), 7,190 acre-ft/yr (8.87 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,500 ft^3/s (42.5 m^3/s) Aug. 22 (gage height, 5.00 ft or 1.524 m), from rating curve extended above 250 ft^3/s (7.08 m^3/s) as explained below; no flow Sept. 9.
Period of record: Maximum discharge, 62,400 ft^3/s (1,770 m^3/s) June 17, 1965 (gage height, 28.2 ft or 8.60 m, from floodmarks, present datum), from rating curve extended above 1,300 ft^3/s (36.8 m^3/s) on basis of slope-area measurement of peak flow; no flow for many days most years.
Flood in 1942 reached a stage of about 28 ft (8.5 m), present datum, at site 150 ft (46 m) upstream, from information by local residents.

REMARKS.--Records poor. Diversions above station for irrigation of a few hundred acres. Part or all of low flow can be diverted to left bank 1.6 mi (2.6 km), above station for stock water, off-channel storage and irrigation. Water quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1281: 1946, 1947-48(P), 1949. WSP 1921: 1960(M).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	.70	.70	1.7	.13	.13	.02	.03	.01	.02	.01	.06	1.4
2	.60	.54	1.6	.10	.10	.02	.03	9.5	.02	.01	.08	1.5
3	.40	.42	1.5	.13	.10	.02	.02	13	.02	.01	.11	1.8
4	.50	.54	1.5	.25	.10	.02	.03	.08	.02	.01	.11	1.8
5	.70	.52	2.0	.29	.10	.02	.03	.04	.02	.01	.08	2.2
6	.80	.50	1.3	.17	.10	.02	.02	4.9	.01	.01	.08	2.5
7	.80	.35	.49	.13	.10	.03	.04	1.6	.01	.02	.06	1.2
8	.85	.40	.44	.17	.10	.63	.05	.21	.01	.02	.08	.60
9	.90	.45	.34	.17	.13	.21	.05	.14	0	.02	.21	.70
10	.90	.60	.44	.17	.10	.13	.08	.11	.01	.11	.42	.70
11	.90	.54	.49	.21	.10	.10	.03	.06	.02	.07	1.4	.70
12	.90	.40	.39	.21	.08	.10	.02	.04	.02	6.0	1.7	.70
13	.95	.20	.29	.17	.08	.08	.02	.03	.03	.26	1.7	.60
14	.95	.03	.25	.25	.08	.05	.02	.02	.03	.14	1.9	.56
15	1.0	.05	.25	.21	.08	.05	.02	.08	.04	.08	.96	.52
16	1.0	.20	.21	.17	.08	.05	.01	.06	.04	.06	.17	.52
17	.95	1.5	.17	.17	.08	.05	.01	.04	.03	.04	.81	.54
18	.70	1.3	.17	.13	.08	.05	.02	.03	.03	.03	.76	.58
19	.80	1.2	.17	.10	.08	.05	.01	.01	.02	.03	.17	.60
20	.80	1.4	.17	.13	.05	.05	.01	.01	5.4	.03	.14	.64
21	.80	1.8	.25	.13	.05	.05	.02	.01	.26	.08	.14	.62
22	.75	2.2	.21	.13	.05	.05	.02	53	.17	.06	.81	.60
23	.70	2.8	.21	.13	.05	.05	.05	.52	.17	.08	.98	.60
24	.70	2.5	.21	.13	.08	.05	.05	.21	.11	.06	1.7	.58
25	.75	3.0	.21	.10	.08	.05	.12	.11	.06	.06	1.2	.56
26	.80	2.5	.21	.10	.06	.05	.02	.06	.03	.06	1.1	.54
27	.70	2.2	.17	.10	.03	.03	.02	.04	.02	.06	1.5	.52
28	.70	2.5	.13	.10	.03	.05	.61	.03	.02	.06	2.0	.52
29	.75	------	.13	.13	.03	.05	3.0	.02	.01	.08	1.7	.50
30	.78	------	.10	.13	.03	.03	.46	.02	.01	.08	1.3	.50
31	.80	------	.10	------	.05	------	.01	.02	------	.06	------	.45
TOTAL	24.33	30.94	15.70	4.64	2.36	2.21	4.93	83.71	6.66	7.71	25.43	26.55
MEAN	.78	1.11	.51	.15	.076	.074	.16	2.70	.22	.25	.78	.85
MAX	1.0	3.0	2.0	.29	.13	.63	3.0	53	5.4	6.0	2.0	2.5
MIN	.40	.03	.10	.10	.03	.02	.01	.01	0	.01	.06	.45
AC-FT	48	61	31	9.2	4.7	4.4	9.8	166	13	15	46	52

CAL YR 1974 TOTAL 232.97 MEAN .64 MAX 53 MIN 0 AC-FT 462
WTR YR 1974 TOTAL 311.26 MEAN .85 MAX 53 MIN 0 AC-FT 617

PEAK DISCHARGE (BASE, 1,000 FT^3/S)

DATE	TIME	G. H.	DISCHARGE
8-22	1600	5.00	1,500

07203000 VERMEJO RIVER NEAR DAWSON, N. MEX.

LOCATION.--Lat 36°40'50", long 104°47'08", Colfax County, in Maxwell Grant, on left bank 1.3 mi (2.1 km) north of Dawson, 2.3 mi (3.7 km) upstream from Rail Canyon, and at mile 22.5 (36.2 km).

DRAINAGE AREA.--301 mi² (780 km²).

PERIOD OF RECORD.--October 1915 to July 1918, April 1919 to May 1921, January 1927 to current year. Monthly discharge only for some periods, published in WSP 1311.

GAGE.--Water-stage recorder. Altitude of gage is 6,365 ft (1,940 m) from topographic map. See WSP 1311 or 1731 for history of changes prior to Sept. 24, 1953.

AVERAGE DISCHARGE.--51 calendar years (1916-17, 1920, 1927-74), 18.4 ft³/s (0.521 m³/s), 13,330 acre-ft/yr (16.4 hm³/yr); 20 calendar years (1955-74), 16.1 ft³/s (0.456 m³/s), 11,660 acre-ft/yr (14.4 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 768 ft³/s (21.7 m³/s) Aug. 5 (gage height, 5.29 ft or 1.612 m), from rating curve extended above 95 ft³/s (2.69 m³/s) as explained below; minimum, 0.30 ft³/s (0.008 m³/s) Dec. 24, but may have been less during periods of ice effect.
1927-74: Maximum discharge, 12,600 ft³/s (357 m³/s) June 17, 1965 (gage height, 15.25 ft or 4.648 m), from rating curve extended above 400 ft³/s (11.3 m³/s) on basis of slope-area measurement of peak flow; no flow at times.
A major flood occurred Aug. 2, 1921, when discharge probably exceeded 10,000 ft³/s (283 m³/s).

REMARKS.--Records poor. Diversions for irrigation of small acreage and mountain meadows above station. Water quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1117: 1947, drainage area. WSP 1281: 1932(M), 1934(M), 1936-38(M), 1941-42(P), 1944-46(M).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	4.0	6.5	7.6	2.4	1.5	8.0	2.9	7.8	1.9	1.2	2.6	1.0
2	4.0	6.6	5.8	2.9	1.1	5.0	2.6	18	1.5	1.0	2.6	1.0
3	4.0	5.4	5.8	2.6	1.0	3.8	1.8	25	1.8	.91	2.9	.91
4	2.5	6.4	5.4	3.1	.91	2.4	1.6	37	1.6	.74	2.9	1.1
5	3.0	5.8	3.3	3.0	2.1	1.3	1.3	119	1.1	.74	2.6	1.3
6	4.0	5.4	2.9	3.6	3.6	1.0	1.1	15	.82	.74	2.1	1.1
7	4.5	2.6	3.7	4.4	4.1	.91	1.0	6.2	.66	1.1	1.3	1.0
8	4.5	2.9	4.0	3.8	4.7	6.2	1.2	3.6	.66	1.1	1.6	1.2
9	4.5	3.3	4.4	3.6	5.1	7.0	9.1	2.6	.66	1.0	2.1	1.0
10	4.5	5.4	4.0	2.9	5.8	5.4	5.9	2.9	.66	1.0	3.3	.74
11	4.5	5.4	3.5	2.1	5.8	3.3	3.7	3.3	.66	1.0	2.6	.74
12	4.0	6.0	4.0	1.8	6.2	1.9	1.8	3.1	.66	16	2.1	.74
13	5.0	6.5	4.7	1.5	6.2	1.8	1.0	2.1	.66	7.0	2.6	.66
14	5.5	6.0	4.2	1.5	5.8	1.8	.82	1.5	.66	5.8	3.3	.59
15	5.5	5.5	5.0	1.8	5.4	1.7	1.2	.74	.66	4.7	3.1	.59
16	6.0	4.5	5.6	1.5	5.0	1.5	.82	.82	12	3.8	2.9	.52
17	6.5	4.5	6.0	1.1	5.0	8.6	.66	.66	13	3.1	2.3	.46
18	6.0	5.0	5.8	1.1	5.0	3.6	.66	1.3	5.4	2.9	2.6	.46
19	5.5	4.5	5.4	.91	5.0	2.1	.52	1.2	3.3	2.6	2.6	.40
20	5.8	4.0	5.0	.91	5.4	1.5	.52	.91	17	2.4	2.4	.46
21	5.5	4.5	4.4	.82	5.0	1.5	.52	.66	15	2.4	1.8	.40
22	5.4	5.0	4.1	1.0	5.0	1.1	.46	1.0	5.4	2.3	2.3	.35
23	4.0	6.0	3.8	.91	4.4	3.3	.52	2.4	4.7	2.3	3.1	.35
24	3.7	4.8	4.4	.91	3.8	6.2	.46	1.5	3.1	2.6	2.3	.40
25	4.0	5.5	4.7	.91	3.8	3.8	.74	1.3	2.3	2.6	1.9	.35
26	4.5	7.8	4.1	.74	3.6	3.1	.59	1.2	1.9	2.4	2.3	.35
27	4.5	7.4	3.1	.59	3.1	2.6	.59	1.0	1.8	2.6	1.9	.40
28	4.5	6.9	2.9	.59	2.3	2.8	6.7	.74	1.3	2.9	1.2	.40
29	5.5	------	2.4	1.9	1.1	3.6	7.2	.66	1.3	3.1	1.3	.46
30	6.9	------	2.3	2.1	.74	2.4	15	4.6	1.5	3.1	1.2	.40
31	6.9	------	2.1	------	4.5	------	6.2	2.9	------	2.6	------	.35
TOTAL	149.2	150.1	134.4	56.49	122.05	99.21	79.18	270.69	103.66	87.73	69.2	20.18
MEAN	4.81	5.36	4.34	1.88	3.94	3.31	2.55	8.73	3.46	2.83	2.31	.65
MAX	6.9	7.8	7.6	4.4	6.2	8.6	15	119	17	16	3.3	1.3
MIN	2.5	2.6	2.1	.59	.74	.91	.46	.66	.66	.74	1.2	.35
AC-FT	296	298	267	112	242	197	157	537	206	174	137	40

CAL YR 1974 TOTAL 1,642.09 MEAN 3.68 MAX 119 MIN .35 AC-FT 2,660
WTR YR 1974 TOTAL 1,530.58 MEAN 4.19 MAX 119 MIN .46 AC-FT 3,040

PEAK DISCHARGE (BASE, 800 FT³/S).--No peak above base.

07204000 MORENO CREEK AT EAGLE NEST, N. MEX.

LOCATION.--Lat 36°33'12", long 105°16'03", Colfax County, in Maxwell Grant, on left upstream wingwall of a multi-barrel culvert under U.S. Highway 64, 200 ft (61 m) west of intersection of U.S. Highway 64 and State Highway 38, about 800 ft (240 m) upstream from high-water line of Eagle Nest Lake and 1,000 ft (300 m) west of Eagle Nest.

DRAINAGE AREA.--73.8 mi^2 (191.1 km^2).

PERIOD OF RECORD.--April 1928 to October 1955, June 1964 to current year. No winter records except 1931-32. Monthly discharge only for some periods, published in WSP 1311. Records for December 1930 to March 1931, published in WSP 732, are unreliable and should not be used. Published as "near Therma" 1928-34.

GAGE.--Water-stage recorder. Concrete control since Oct. 3, 1952. Datum of gage is 8,195.98 ft (2,498.135 m) above mean sea level. See WSP 1921 for history of changes prior to Oct. 26, 1955.

EXTREMES.--Current year: Maximum discharge, 31 ft^3/s (0.88 m^3/s) June 8 (gage height, 2.54 ft or 0.774 m); minimum determined, 0.09 ft^3/s (0.003 m^3/s) Sept. 10.
Period of record: Maximum discharge, 240 ft^3/s (6.80 m^3/s) Sept. 1, 1946 (gage height, 3.10 ft or 0.945 m, site and datum then in use); maximum gage height, 3.55 ft (1.082 m) May 12, 1973; no flow at times.

REMARKS.--Records poor. Diversions for irrigation of about 1,200 acres (4.86 km^2) above station.

REVISIONS (WATER YEARS).--WSP 1281: 1931(M), 1932, 1935(M), 1939-41(M), 1946-47(M). WSP 1921: Drainage area. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			-	2.1	1.5	1.4	.44	.25	.32	.14	.98	
2			-	2.0	1.4	1.6	.36	.58	.22	.14	.98	
3			-	1.9	1.3	1.4	.25	2.2	.19	.12	1.0	
4			-	2.1	1.3	1.2	.32	2.0	.16	.12	1.1	
5			-	2.2	1.2	1.2	.36	1.2	.14	.10	1.1	
6			-	2.6	1.1	1.0	.25	.92	.14	.14	1.1	
7			-	2.4	1.0	1.2	.25	.76	.12	.36	1.1	
8			-	2.1	1.0	23	.52	.72	.12	.44	1.2	
9			-	2.1	.94	14	.36	.76	.10	.40	1.4	
10			-	2.0	.90	8.4	.22	2.1	.10	.49	1.4	
11			-	2.0	.94	5.6	.16	1.4	.09	.67	1.2	
12			-	1.9	1.0	4.3	.16	.98	.10	.92	1.2	
13			-	1.9	1.0	3.3	.25	.80	.10	1.3	-	
14			-	1.9	1.1	2.8	.25	.67	.10	1.1	-	
15			-	2.1	1.6	2.6	.28	.54	.16	.92	-	
16			-	2.5	1.9	2.4	.28	.49	.32	.62	-	
17			-	2.4	2.1	2.1	.28	.44	.40	.62	-	
18			-	2.3	2.0	1.8	.32	.32	.40	.54	-	
19			-	2.0	2.0	1.3	.32	.28	.40	.49	-	
20			-	1.9	1.8	.80	.28	.36	.36	.49	-	
21			4.4	1.8	1.8	.76	.28	.32	.36	.49	-	
22			4.5	1.7	1.9	.62	.28	.32	.36	.49	-	
23			4.0	1.6	1.8	.67	.28	.22	.36	.54	-	
24			3.8	1.6	1.8	.67	.32	.22	.36	.54	-	
25			3.6	1.5	2.2	.58	.22	.22	.32	.54	-	
26			3.8	1.6	2.0	.58	.25	.22	.22	.62	-	
27			3.8	1.5	1.8	.58	.22	.32	.16	.72	-	
28			2.9	1.5	1.6	.54	.22	.85	.14	.85	-	
29		------	2.8	1.4	1.4	.58	.22	.58	.14	.85	-	
30		------	2.9	1.5	1.3	.49	.22	.54	.14	1.2	-	
31		------	3.3	------	1.2	------	.19	.40	------	1.1	------	
TOTAL	-	-	-	58.1	45.88	87.47	8.61	21.98	6.60	18.06	-	-
MEAN	-	-	-	1.94	1.48	2.92	.28	.71	.22	.58	-	-
MAX	-	-	-	2.6	2.2	23	.52	2.2	.40	1.3	-	-
MIN	-	-	-	1.4	.90	.49	.16	.22	.09	.10	-	-
AC-FT	-	-	-	115	91	173	17	44	13	36	-	-

PEAK DISCHARGE (BASE, 35 FT^3/S).--No peak above base.

07204500 CIENEGUILLA CREEK NEAR EAGLE NEST, N. MEX.

LOCATION.--Lat 36°29'07", long 105°15'54", Colfax County, in Maxwell Grant, on right bank 0.1 mi (0.2 km) downstream from Schoolhouse Draw, 0.4 mi (0.6 km) upstream from high-water line of Eagle Nest Lake, 0.5 mi (0.8 km) east of U.S. Highway 64, and 4.7 mi (7.6 km) south of Eagle Nest.

DRAINAGE AREA.--56 mi^2 (145 km^2).

PERIOD OF RECORD.--April 1928 to September 1955, June 1964 to current year. No winter records except in water years 1932, 1948, 1951. Monthly discharge only for some periods, published in WSP 1311 and 1731. Records for December 1930 to March 1931, published in WSP 732, are unreliable and should not be used. Published as "near Therma" 1928-34.

GAGE.--Water-stage recorder. Concrete control since Sept. 25, 1947. Altitude of gage is 8,195 ft (2,498 m) from topographic map. Prior to May 8, 1928, nonrecording gage, and May 8, 1928 to Sept. 1, 1934, water-stage recorder at site 0.2 mi (0.3 km) downstream at different datums.

EXTREMES.--Current year: Maximum discharge, 27 ft^3/s (0.76 m^3/s) Aug. 3 (gage height, 3.31 ft or 1.009 m); no flow July 7, 8, 10, 11.
Period of record: Maximum discharge, 505 ft^3/s (14.3 m^3/s) June 16, 1965 (gage height, 5.61 ft or 1.710 m), from rating curve extended above 110 ft^3/s (3.12 m^3/s); no flow at times.

REMARKS.--Records good except those for July, which are poor. Diversions for irrigation of about 1,000 acres (4.05 km^2) above station.

REVISIONS (WATER YEARS).--WSP 957: 1941. WSP 1281: Drainage area. WSP 1311: 1932(M), 1935(M), 1937(M). See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			-	11	13	1.8	.12	2.2	.57	.39	2.3	
2			-	10	11	2.2	.05	6.9	.44	.39	2.2	
3			-	9.5	9.5	1.9	.02	23	.41	.36	2.2	
4			-	10	9.5	1.6	.02	15	.36	.44	2.4	
5			-	11	9.2	1.4	.04	6.8	.23	.41	2.2	
6			-	10	8.6	1.1	.02	5.0	.25	.50	2.5	
7			-	8.8	8.3	1.2	0	3.9	.25	1.4	2.7	
8			-	8.1	7.4	9.2	0	3.3	.15	1.3	3.0	
9			-	8.3	7.2	7.4	.01	3.2	.12	1.0	3.2	
10			-	9.0	6.8	3.8	0	3.4	.11	1.1	3.2	
11			-	9.0	5.7	3.8	0	2.3	.10	1.8	2.6	
12			-	8.3	4.7	2.4	1.1	1.8	.09	2.5	2.0	
13			-	8.1	4.1	2.1	.33	1.4	.08	3.0	-	
14			-	7.9	3.9	1.9	.06	1.0	.10	2.6	-	
15			-	8.1	3.4	1.9	.04	.71	.59	2.2	-	
16			-	8.6	3.3	1.8	.21	.60	1.1	1.8	-	
17			-	9.7	3.0	1.5	.27	.47	1.1	1.6	-	
18			-	11	2.7	1.2	.17	.39	1.1	1.4	-	
19			-	12	2.3	.99	.15	.39	1.0	1.4	-	
20			-	11	1.9	.99	.17	.60	.85	1.3	-	
21			15	12	2.0	.71	.33	.91	1.1	1.4	-	
22			15	12	2.5	.60	.14	.80	.99	1.4	-	
23			14	12	2.5	.90	.08	.53	.90	1.3	-	
24			14	12	2.5	.71	.29	.57	.65	1.3	-	
25			13	13	2.7	.71	.27	.60	.80	1.5	-	
26			14	14	2.6	.53	.15	.60	.71	1.8	-	
27			14	13	2.4	.47	.12	.82	.60	1.8	-	
28			12	13	2.1	.63	.11	1.4	.50	1.9	-	
29		------	13	12	2.0	.60	.21	1.2	.47	1.8	-	
30		------	14	13	1.5	.27	.57	1.1	.44	3.0	-	
31		------	15	------	.90	------	.58	.80	------	2.6	------	
TOTAL	-	-	-	315.4	149.20	56.31	5.63	91.69	16.36	46.69	-	-
MEAN	-	-	-	10.5	4.81	1.88	.16	2.96	.55	1.51	-	-
MAX	-	-	-	14	13	9.2	1.1	23	1.1	3.0	-	-
MIN	-	-	-	7.9	.90	.27	0	.39	.08	.36	-	-
AC-FT	-	-	-	626	296	112	11	182	32	93	-	-

PEAK DISCHARGE (BASE, 70 FT^3/S).--No peak above base.

07205000 SIXMILE CREEK NEAR EAGLE NEST, N. MEX.

LOCATION.--Lat 36°31'07", long 105°16'29", Colfax County, in Maxwell Grant, on left upstream wingwall of concrete control, 250 ft (76 m) downstream from concrete box culvert on U.S. Highway 64, and 2.6 mi (4.2 km) southwest of Eagle Nest.

DRAINAGE AREA.--10.5 mi² (27.2 km²).

PERIOD OF RECORD.--April 1928 to September 1955 (no winter records in water years 1928-31, 1933-55), July 1958 to current year. Prior to October 1930 monthly discharge only, published in WSP 1311. Records for December 1930 to March 1931, published in WSP 732, are unreliable and should not be used. Published as near "near Therma" 1928-34.

GAGE.--Water-stage recorder. Concrete control Sept. 11, 1931 to May 1933, and since Sept. 13, 1934. Datum of gage is 8,195.16 ft (2,497.885 m) above mean sea level. Prior to May 18, 1928, nonrecording gage at site 88 ft (27 m) upstream at datum 0.98 ft (0.299 m) higher. May 18, 1928 to Sept. 11, 1938, water-stage recorder at site 88 ft (27 m) upstream at datum 0.43 ft (0.131 m) higher.

AVERAGE DISCHARGE.--16 calendar years (1959-74), 2.44 ft³/s (0.0691 m³/s), 1,770 acre-ft/yr (2.18 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 9.9 ft³/s (0.28 m³/s) Apr. 27 (gage height, 1.10 ft or 0.335 m); minimum, 0.04 ft³/s (0.001 m³/s) Nov. 17, result of freezeup.
1930-55, 1958-74: Maximum discharge, 128 ft³/s (3.62 m³/s) Aug. 5, 1969 (gage height, 2.86 ft or 0.871 m), from rating curve extended above 32 ft³/s (0.906 m³/s); maximum gage height recorded, 3.38 ft (1.030 m) Apr. 2, 1937 (ice jam), site and datum then in use; no flow at times.

REMARKS.--Records good except those for January, November, and December, which are poor. Diversions for irrigation of about 300 acres (1.21 km²) above station.

REVISIONS (WATER YEARS).--WSP 1311: 1932-33(M), 1935(M), 1943(M). WSP 1681: 1937(M). WSP 1921: Drainage area. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1.2	1.6	1.9	2.9	5.2	2.5	1.8	1.7	.26	.24	.30	.37
2	1.2	1.6	2.3	2.6	4.2	2.4	1.7	2.1	.26	.24	.36	.40
3	1.1	1.6	2.5	2.5	4.4	2.2	1.6	2.8	.25	.24	.38	.39
4	1.1	1.6	2.1	2.5	4.2	2.2	1.7	1.1	.21	.25	.38	.42
5	1.2	1.6	1.7	3.0	4.1	2.1	1.7	.99	.20	.26	.38	.42
6	1.3	1.6	2.3	2.9	3.7	2.1	1.6	1.7	.18	.35	.41	.39
7	1.4	1.6	2.2	2.4	3.4	2.6	1.6	1.6	.17	.46	.38	.38
8	1.5	1.6	2.4	2.2	2.9	6.6	1.7	1.5	.15	.37	.29	.39
9	1.6	1.6	2.2	2.1	2.7	4.0	1.8	1.6	.15	.54	.38	.40
10	1.7	1.6	2.1	2.2	2.6	3.3	1.6	1.7	.12	.38	.38	.42
11	1.6	1.7	1.6	2.0	2.4	3.0	1.4	1.4	.10	.51	.26	.44
12	1.6	1.7	2.5	2.0	2.6	2.7	1.6	1.4	.12	.57	.29	.43
13	1.7	1.7	2.7	2.0	2.1	2.5	2.0	1.3	.12	.55	.32	.45
14	1.8	1.7	2.9	1.8	2.1	2.5	1.7	1.3	.13	.56	.35	.43
15	1.9	1.7	3.5	1.8	2.4	2.3	1.7	1.3	.19	.42	.35	.41
16	2.1	1.8	3.9	1.7	2.5	.96	1.6	1.3	.31	.39	.42	.43
17	2.2	1.8	4.5	1.8	2.6	.88	1.5	.95	.30	.32	.38	.45
18	2.1	1.8	4.2	2.0	2.3	.89	1.6	.57	.26	.24	.41	.42
19	2.0	1.9	4.3	2.3	2.5	.85	1.5	.57	.24	.24	.41	.45
20	2.1	1.9	4.3	2.6	2.9	.73	1.4	.45	.23	.24	.29	.47
21	2.0	1.8	4.0	2.9	3.0	.69	1.6	.48	.30	.23	.32	.45
22	2.1	1.8	3.6	4.0	3.0	.67	1.4	.49	.30	.26	.35	.48
23	1.8	1.9	3.4	4.5	2.9	.67	1.5	.60	.28	.27	.38	.45
24	2.1	1.7	3.7	5.1	2.8	.66	1.6	.53	.25	.28	.29	.43
25	2.0	1.8	3.4	7.1	2.8	.64	1.4	.39	.25	.31	.35	.39
26	2.0	1.7	3.0	9.1	2.7	1.3	1.4	.35	.25	.38	.35	.43
27	1.9	1.6	2.0	9.5	2.5	1.8	1.5	.46	.25	.37	.35	.46
28	1.8	1.6	2.5	8.0	2.5	1.8	1.3	.48	.26	.37	.40	.50
29	1.8	------	2.9	6.6	2.4	1.8	1.4	.56	.26	.39	.37	.49
30	1.6	------	3.0	5.9	2.4	1.8	1.6	.55	.25	.46	.35	.50
31	1.9	------	3.0	------	2.4	------	1.8	.29	------	.36	------	.48
TOTAL	53.6	47.6	90.6	107.7	90.6	59.14	49.5	31.71	6.60	10.85	10.63	13.42
MEAN	1.73	1.70	2.92	3.59	2.92	1.97	1.60	1.02	.22	.35	.35	.43
MAX	2.2	1.9	4.5	9.5	5.2	6.6	2.0	2.8	.31	.57	.42	.50
MIN	1.1	1.6	1.6	1.7	2.1	.64	1.3	.29	.10	.23	.26	.37
AC-FT	106	94	180	214	180	117	98	63	13	22	21	27

CAL YR 1974 TOTAL 571.95 MEAN 1.57 MAX 9.5 MIN .10 AC-FT 1,130
WTR YR 1974 TOTAL 661.55 MEAN 1.81 MAX 9.5 MIN .10 AC-FT 1,310

PEAK DISCHARGE (BASE, 15 FT³/S).--No peak above base.

07205500 EAGLE NEST LAKE NEAR EAGLE NEST, N. MEX.

LOCATION.--Lat 36°31'53", long 105°13'44", Colfax County, in Maxwell Grant, at upstream face of Eagle Nest Dam on Cimarron River, 2.5 mi (4.0 km) southeast of Eagle Nest, 6.7 mi (10.8 km) west of Ute Park, and at mile 48.7 (78.4 km).

DRAINAGE AREA.--167 mi² (433 km²).

PERIOD OF RECORD.--December 1927 to December 1944 (monthend contents only, published in WSP 1311), May 1950 to September 1965 (monthend contents only), October 1965 to current year. Prior to January 1972 published as Eagle Nest Reservoir.

GAGE.--Nonrecording gage read one to six times a month at random intervals. Datum of gage is 8,056.8 ft (2,455.71 m) above mean sea level. Prior to October 1964 gage heights were raised by addition of 8,000 ft (2,438.4 m) and called elevations.

EXTREMES.--Current year: Maximum contents observed, 30,300 acre-ft (37.4 hm³) Apr. 1 (gage height, 111.05 ft or 33.848 m); minimum observed, 19,020 acre-ft (23.5 km³) Nov. 4 (gage height, 101.25 ft or 30.861 m).
Period of record: Maximum contents observed, 78,800 acre-ft (97.2 hm³) May 31, 1942 (gage height, 136.9 ft or 41.73 m); minimum observed, 635 acre-ft (783,000 m³) Dec. 14, 1954 (gage height, 61.33 ft or 18.693 m).

REMARKS.--Lake is formed by concrete dam with spillway cut in natural rock, completed June 30, 1918; storage began in June 1917. Capacity, 79,120 acre-ft (97.6 hm³) between gage heights 35.0 ft (10.67 m) sill of outlet gate, and 137.0 ft (41.76 m), crest of ungated spillway. Dead storage negligible. Records given herein represent usable contents. Water released is used for irrigation. Lake is recreational area. Diversions for irrigation of about 2,500 acres (10.1 km²) above reservoir.

COOPERATION.--Supplemental gage readings furnished by employee of Springer Land and Cattle Co. and by Cimarron River watermaster.

REVISIONS.--WSP 1281: Drainage area.

Capacity table (gage height, in feet, and contents, in acre-feet)

101.0	18,780	108.0	26,350
104.0	21,770	112.0	31,600

CONTENTS, IN ACRE-FEET, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	27,990	28,640	-	30,300	-	-	-	-	-	19,940	-	-
2	-	-	-	-	-	-	23,470	-	21,000	-	-	19,120
3	-	-				24,670						
4	-	-	-	-	-	-	-	-	-	-	19,020	19,110
5	-	-	29,030	-	-	-	-	21,570	-	-	-	-
6	-	-	-	-	28,900	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	19,690	-	-
8	-	-	-	29,970	-	-	22,910	-	-	-	-	-
9	-	-	-	-	-	-	-	-	20,740	-	-	19,120
10	-	-	-	-	-	24,500	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	29,300	-	-	-	-	21,360	-	-	19,100	-
13	-	-	-	-	28,250	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	19,640	-	-
15	-	28,640	-	29,700	-	-	22,420	-	-	-	-	-
16	-	-	-	-	-	-	-	-	20,490	-	-	-
17	-	-	-	-	-	24,210	22,200	-	-	-	-	-
18	-	-	29,700	-	-	-	-	-	-	-	19,070	-
19	-	-	-	-	-	-	-	21,200	-	-	-	-
20	-	-	-	-	27,350	-	-	-	-	-	-	-
21	-	-	29,840	-	-	-	-	-	-	19,350	-	-
22	-	-	-	29,500	-	-	21,880	-	20,120	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	23,920	-	-	-	-	-	-
25	-	-	30,100	-	-	-	-	-	-	-	19,120	-
26	-	-	-	-	-	-	-	21,100	-	-	-	-
27	-	-	-	-	25,860	-	-	-	-	-	-	-
28	-	28,900	-	-	-	-	-	21,120	-	19,120	-	-
29	-	------	-	29,170	-	-	21,460	-	-	-	-	-
30	-	------	-	29,100	-	23,600	-	-	20,000	-	19,100	-
31	28,600	------	30,300	------	25,100	------	21,500	21,000	------	19,100	------	19,160
(†)	-	-	-	-	-	-	-	-	-	-	-	101.4
(‡)	+610	+300	+1,400	-1,200	-4,000	-1,500	-2,100	-500	-1,000	-900	0	+60

CAL YR 1974..... ‡ -8,830
WTR YR 1974..... ‡ -8,640

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.
NOTE.--Monthend contents interpolated or estimated on basis of inflow and releases from Lake except Dec. 31.

07206000 CIMARRON RIVER BELOW EAGLE NEST DAM, N. MEX.

LOCATION.--Lat 36°31'55", long 105°13'43", Colfax County, in Maxwell Grant, on left bank 300 ft (91 m) downstream from Eagle Nest Dam, 2.5 mi (4.0 km) southeast of Eagle Nest, 6.7 mi (10.8 km) west of Ute Park, and at mile 48.6 (78.2 km).

DRAINAGE AREA.--167 mi² (433 km²).

PERIOD OF RECORD.--May 1950 to current year. Published as Cimarron Creek below Eagle Nest Dam October 1952 to September 1965.

GAGE.--Water-stage recorder. Parshall flume since May 15, 1951. Altitude of gage is 8,080 ft (2,463 m) from topographic map. Prior to May 15, 1951, at datum 0.81 ft (0.247 m) higher.

AVERAGE DISCHARGE.--24 calendar years, 13.3 ft³/s (0.377 m³/s), 9,640 acre-ft/yr (11.9 hm³/yr); 20 calendar years (1955-74), 13.1 ft³/s (0.371 m³/s), 9,490 acre-ft/yr (11.7 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 142 ft³/s (4.02 m³/s) May 23 (gage height, 2.26 ft or 0.689 m); minimum determined, 0.05 ft³/s (0.001 m³/s) Mar. 10-14.
Period of record: Maximum discharge, 205 ft³/s (5.81 m³/s) June 14, 1955 (gage height, 2.79 ft or 0.850 m); no flow at times most years.

REMARKS.--Records good except those below 2 ft³/s (0.057 m³/s), which are poor. Flow regulated by Eagle Nest Lake (see sta 07205500). Diversions for irrigation of about 2,500 acres (10.1 km²) above station.

REVISIONS.--WSP 1281: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	.20	.20	.20	25	36	102	36	19	9.2	13	8.4	.25
2	.20	.20	.15	25	67	51	30	13	9.2	13	9.2	.25
3	.20	.20	.15	28	56	31	25	7.0	9.6	14	5.4	.25
4	.20	.20	.15	30	34	27	24	4.5	8.1	11	5.5	.25
5	.20	.20	.15	30	40	24	24	4.5	7.0	7.0	5.4	.25
6	.20	.20	.10	30	42	23	24	13	6.6	7.0	7.7	.25
7	.20	.20	.10	30	43	23	34	21	6.6	5.8	7.7	.25
8	.20	.20	.10	31	43	23	42	22	12	4.5	7.7	.25
9	.20	.20	.10	32	45	18	44	22	14	8.4	8.1	.25
10	.20	.20	.05	31	47	15	44	21	18	8.8	8.1	.25
11	.20	.20	.05	31	47	23	43	21	21	8.8	8.1	.25
12	.20	.20	.05	31	51	30	36	21	23	15	8.1	.25
13	.20	.20	.05	31	52	30	36	12	23	22	8.1	.25
14	.20	.20	.05	32	60	30	33	4.8	23	22	8.4	.25
15	.20	.20	.10	28	70	30	33	4.8	23	26	8.4	.25
16	.20	.20	.37	25	72	30	33	4.5	23	27	8.4	.25
17	.20	.20	.50	25	72	36	33	4.5	23	27	8.4	.25
18	.20	.20	.17	25	72	33	34	9.8	23	27	8.4	.25
19	.20	.20	.10	25	72	29	36	15	21	27	4.6	.25
20	.20	.20	.10	25	84	30	36	12	18	27	.66	.25
21	.20	.20	.10	25	87	30	36	8.1	17	27	.66	.25
22	.20	.20	.10	25	106	30	36	5.1	17	24	.66	.25
23	.20	.20	.10	33	139	30	35	5.1	17	22	.66	.25
24	.20	.20	.10	43	139	29	31	4.5	18	16	.66	.25
25	.20	.20	4.1	43	134	31	30	6.6	18	1.6	.66	.25
26	.20	.20	8.1	43	134	35	29	6.2	18	3.2	.66	.25
27	.20	.20	7.7	43	134	35	27	7.3	18	3.2	.66	.25
28	.20	.20	15	44	116	36	27	9.2	17	5.8	.66	.25
29	.20	------	14	44	102	36	25	9.2	16	7.7	.66	.25
30	.20	------	14	41	102	36	21	9.2	14	8.4	.66	.25
31	.20	------	18	------	102	------	21	9.2	------	8.4	------	.25
TOTAL	6.20	5.60	84.09	954	2,347	966	998	336.1	491.3	448.6	149.36	7.75
MEAN	.20	.20	2.71	31.8	75.7	32.2	32.2	10.8	16.4	14.5	4.98	.25
MAX	.20	.20	18	44	139	102	44	22	23	27	9.2	.25
MIN	.20	.20	.05	25	34	15	21	4.5	6.6	1.6	.66	.25
AC-FT	12	11	167	1,890	4,660	1,920	1,980	667	974	890	296	15

CAL YR 1974 TOTAL 6,794.00 MEAN 18.6 MAX 139 MIN .05 AC-FT 13,480
WTR YR 1974 TOTAL 6,814.56 MEAN 18.7 MAX 139 MIN 0 AC-FT 13,520

NOTE.--No gage-height record Jan. 1 to Mar. 13, Nov. 26 to Dec. 31.

07207000 CIMARRON RIVER NEAR CIMARRON, N. MEX.

LOCATION.--Lat 36°31'11", long 104°58'42', Colfax County, in Maxwell Grant, on right bank 1,200 ft (370 m) downstream from Turkey Creek Canyon, 3.6 mi (5.8 km) west of Cimarron, and at mile 31.6 (50.8 km).

DRAINAGE AREA.—294 mi² (761 km²).

PERIOD OF RECORD.--May 1950 to current year. Published as Cimarron Creek near Cimarron, October 1952 to September 1965.

GAGE.--Water-stage recorder. Concrete control since Nov. 6, 1963. Datum of gage is 6,599.58 ft (2,011.552 m) above mean sea level.

AVERAGE DISCHARGE. --24 calendar years, 20.0 ft³/s (0.566 m³/s), 14,490 acre-ft/yr (17.9 hm³/yr); 20 calendar years (1955-74), 20.1 ft³/s (0.569 m³/s), 14,560 acre-ft/yr (18.0 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 410 ft³/s (11.6 m³/s) May 31 (gage height, 3.26 ft or 0.994 m); minimum, 0.74 ft³/s (0.021 m³/s) Dec. 14, result of freezeup.
Period of record: Maximum discharge, 15,500 ft³/s (439 m³/s) June 17, 1965 (gage height, 12.42 ft or 3.786 m, from floodmark), from rating cuve extended above 800 ft³/s (22.7 m³/s) on basis of slope-area measurements at gage heights 4.88 ft (1.487 m) and 12.42 ft (3.786 m); no flow at times.

REMARKS.--Records good except those for winter periods, which are poor. Flow regulated by Eagle Nest Lake (see sta 07205500). Diversions above station for irrigation of about 3,500 acres (14.2 km²), part of which is below station. Philmont ditch (formerly known as Cimarroncito ditch) diverts from left bank 1.5 mi (2.3 km) above station, flumes under river 0.9 mi (1.4 km) above and bypasses station for off-channel storage and irrigation below; see tabulation below for monthly diversions.

REVISIONS.--WSP 1281: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	2.0	4.8	4.6	24	45	96	37	17	9.6	11	11	3.8
2	1.7	4.6	4.7	28	42	75	37	15	9.6	11	11	3.7
3	1.6	4.3	4.6	30	41	43	30	9.0	10	11	12	3.7
4	1.4	4.5	4.2	34	40	43	27	6.0	9.5	10	8.1	3.6
5	1.5	4.8	5.4	34	42	34	26	5.6	7.8	9.7	6.7	3.5
6	1.6	4.6	4.1	35	46	31	25	5.6	6.6	9.4	7.7	3.4
7	1.7	4.2	4.5	35	47	29	26	16	6.7	10	8.9	3.4
8	1.8	4.0	4.3	34	47	37	35	23	6.4	7.9	9.1	3.4
9	1.9	4.4	4.1	36	48	35	35	23	11	7.4	9.8	3.5
10	2.0	4.7	4.2	31	51	26	37	24	13	9.8	9.8	3.6
11	2.4	5.0	5.2	31	52	22	37	23	17	11	9.5	3.7
12	3.4	4.8	5.7	31	54	21	33	23	16	16	9.4	3.8
13	4.3	4.6	5.2	31	57	26	32	22	15	23	9.7	3.8
14	4.1	5.0	5.0	33	60	28	30	11	16	25	9.7	3.9
15	4.3	4.8	4.6	32	69	25	29	7.8	16	24	9.9	4.0
16	4.3	5.0	4.5	28	74	23	29	6.9	17	28	9.9	4.0
17	4.8	4.8	4.6	27	76	27	28	6.2	17	28	9.6	3.8
18	5.0	4.5	4.8	26	75	36	27	5.5	17	29	9.7	3.6
19	5.5	5.0	4.8	27	75	31	33	11	17	29	9.5	3.5
20	5.8	4.8	4.7	28	79	32	28	14	15	29	7.6	3.2
21	4.9	5.2	4.4	28	87	32	28	11	16	30	4.9	3.0
22	4.4	4.4	4.6	27	90	31	26	9.4	15	29	4.4	2.8
23	5.0	4.8	4.9	28	119	32	29	7.3	14	25	4.3	2.5
24	3.3	4.4	4.6	41	124	34	28	6.4	14	25	4.6	1.8
25	4.0	4.4	5.0	45	123	31	24	6.2	14	15	4.6	2.4
26	4.5	4.6	6.8	48	120	35	25	7.7	14	8.9	4.0	2.8
27	4.8	4.8	9.0	49	120	36	23	19	14	8.3	4.0	3.0
28	5.6	4.3	11	50	117	37	22	11	14	7.6	3.9	3.2
29	4.2	------	16	51	101	38	22	11	14	9.7	3.8	3.1
30	4.5	------	16	50	98	38	21	10	12	11	3.7	3.0
31	5.0	------	17	------	107	------	17	10	------	11	------	2.8
TOTAL	105.5	130.7	187.1	1,029	2,326	1,062	886	383.6	394.2	519.7	230.8	103.3
MEAN	3.34	4.67	6.04	34.3	75.0	35.4	28.6	12.4	13.1	16.8	7.69	3.33
MAX	5.8	5.2	17	51	124	96	37	24	17	30	12	4.0
MIN	1.4	4.0	3.2	24	40	21	17	5.5	6.4	7.4	3.7	1.8
AC-FT	205	259	371	2,040	4,610	2,110	1,760	761	782	1,030	458	205
(†)	0	0	0	220	310	40	300	20	209	59	0	0

CAL YR 1974 TOTAL 7,357.9 MEAN 20.2 MAX 124 MIN 1.4 AC-FT 14,590 † 1,160
WTR YR 1974 TOTAL 7,404.1 MEAN 20.3 MAX 124 MIN 1.4 AC-FT 14,690 † 1,100

† Diversion, in acre-feet, by Philmont ditch; data furnished by Cimarron River Watermaster.

07207500 PONIL CREEK NEAR CIMARRON, N. MEX.

LOCATION.--Lat 36°34'25", long 104°56'46", Colfax County, in Maxwell Grant, on left bank 1.6 mi (2.6 km) downstream from confluence of North and South Ponil Creeks, and 4.7 mi (7.6 km) northwest of Cimarron.

DRAINAGE AREA.--171 mi² (443 km²).

PERIOD OF RECORD.--November 1915 to June 1919, August 1919 to July 1925, September 1925, September 1927 to July 1929, May 1950 to current year. Prior to May 1950 monthly discharge only, published in WSP 1311.

GAGE.--Water-stage recorder. Altitude of gage is 6,630 ft (2,021 m) from topographic map. Prior to May 8, 1922, at site 0.1 mi (0.2 km) downstream at different datum. May 8, 1922 to Aug. 8, 1929, at site 0.4 mi (0.6 km) upstream at different datum.

AVERAGE DISCHARGE.--34 calendar years (1916-24, 1928, 1951-74), 11.6 ft³/s (0.329 m³/s), 8,400 acre-ft/yr (10.4 hm³/yr); 20 calendar years (1955-74), 9.54 ft³/s (0.270 m³/s), 6,910 acre-ft/yr (8.52 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 425 ft³/s (12.0 m³/s) May 31 (gage height, 3.75 ft or 1.143 m); no flow many days.
Period of record: Maximum discharge, 5,630 ft³/s (159 m³/s) June 17, 1965 (gage height, 11.13 ft or 3.392 m), from rating curve extended above 110 ft³/s (3.12 m³/s) on basis of slope-area measurements at gage heights 4.55 ft (1.387 m), 5.80 ft (1.768 m), 7.15 ft (2.179 m), and 11.13 ft (3.392 m); no flow many days most years.
Discharge for flood of Aug. 8, 1929, which destroyed gage, was estimated as 5,200 ft³/s (150 m³/s) by State Engineer.

REMARKS.--Records good except those for winter periods, which are poor. Diversions for irrigation of about 250 acres (1.0 km²) above station. Diversions 1,000 ft (300 m) below station for irrigation of about 300 acres (1.2 km²).

REVISIONS.--WSP 1281: Drainage area. WSP 1731: 1920.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	.40	.50	1.1	4.2	7.0	5.2	.01	0	0	0	.90	.50
2	.38	.50	1.0	4.0	6.2	2.7	0	0	0	0	.90	.46
3	.36	.50	1.4	3.8	5.6	1.4	0	.04	0	0	.90	.45
4	.34	.50	1.1	4.0	5.6	.81	0	.05	0	0	.90	.50
5	.36	.48	.81	3.3	5.6	.58	0	3.2	0	0	.90	.56
6	.38	.46	.81	4.8	5.6	.39	0	.22	.48	0	.81	.45
7	.40	.44	.81	4.0	5.6	.34	0	4.3	.17	0	.90	.47
8	.40	.42	.90	3.6	4.8	10	0	.90	.01	0	1.0	.40
9	.40	.45	1.0	3.6	4.5	9.4	0	.34	0	0	1.0	.42
10	.40	.48	1.4	3.6	4.5	5.6	0	.26	0	.02	1.0	.44
11	.42	.52	1.5	3.8	4.2	4.0	0	.08	0	.26	1.0	.45
12	.44	.54	1.2	3.6	4.0	2.9	0	.05	0	.10	1.0	.46
13	.46	.56	2.1	3.1	3.6	2.3	0	.04	0	.08	.90	.48
14	.48	.58	2.1	3.1	3.3	1.8	0	.03	0	.06	.81	.45
15	.50	.62	2.1	3.1	3.1	1.2	0	.01	0	.04	.90	.42
16	.50	.66	2.3	2.9	2.9	1.2	0	0	.37	.03	.73	.43
17	.50	.70	2.5	2.9	2.5	.90	0	0	.04	.02	.73	.44
18	.50	.72	2.9	3.1	2.3	.65	0	0	.02	.01	.65	.45
19	.50	.73	3.6	3.6	2.1	.45	0	0	.01	.02	.51	.47
20	.50	.76	3.6	4.0	1.8	.34	0	0	.01	.02	.51	.49
21	.50	.80	3.3	4.0	1.6	.22	0	0	.05	.08	.45	.49
22	.50	.80	3.1	4.0	1.5	.15	0	0	.03	.15	.45	.47
23	.50	.80	3.3	4.2	1.4	.08	0	0	.02	.18	.34	.45
24	.50	.90	2.7	4.8	1.4	.06	0	0	.02	.22	.34	.44
25	.50	.90	2.9	5.2	1.2	.04	.01	0	.01	.45	.34	.44
26	.50	1.0	2.7	6.2	1.1	.02	0	0	0	.51	.26	.42
27	.50	1.1	2.9	7.0	.90	.01	0	.13	0	.58	.30	.40
28	.50	.90	3.1	7.0	.65	0	0	.04	0	.73	.27	.39
29	.50	------	3.1	6.6	.51	0	.37	.01	0	.81	.25	.37
30	.50	------	3.3	6.6	.30	0	.08	0	0	.81	.23	.34
31	.50	------	4.0	------	55	------	0	0	------	.81	------	.30
TOTAL	14.12	18.32	68.63	127.7	150.36	52.74	.47	9.70	1.24	5.99	20.18	13.40
MEAN	.46	.65	2.21	4.26	4.85	1.76	.015	.31	.041	.19	.67	.43
MAX	.50	1.1	4.0	7.0	55	10	.37	4.3	.48	.81	1.0	.56
MIN	.34	.42	.81	2.9	.30	0	0	0	0	0	.23	.30
AC-FT	28	36	136	253	298	105	.9	19	2.5	12	40	27

CAL YR 1974 TOTAL 482.85 MEAN 1.32 MAX 55 MIN 0 AC-FT 958
WTR YR 1974 TOTAL 503.90 MEAN 1.38 MAX 55 MIN 0 AC-FT 999

PEAK DISCHARGE (BASE, 200 FT³/S)

DATE	TIME	G. H.	DISCHARGE
5-31	0200	3.75	425

07208500 RAYADO CREEK AT SAUBLE RANCH, NEAR CIMARRON, N. MEX.

LOCATION.--Lat 36°22'20", long 104°58'10", Colfax County, in Maxwell Grant, on right bank at Sauble Ranch (Carson-Maxwell Base Camp of Philmont Scout Ranch), 2.5 mi (4.0 km) upstream from State Highway 21, 4.0 mi (6.4 km) downstream from Bonito Creek, and 9.8 mi (15.8 km) southwest of Cimarron.

DRAINAGE AREA.--65 mi² (168 km²).

PERIOD OF RECORD.--January 1909 to February 1910, June to August 1910, May 1911 to May 1913, July 1913 to February 1915, October 1915 to September 1918, March 1919 to September 1920, June 1923 to September 1924, March to May 1927, August 1927 to current year. Monthly discharge only for some periods, published in WSP 1311. Records for April and May 1910, published in WSP 287, are unreliable and should not be used. Published as Rayado River "at," "near," or "above" Abreu's Ranch near Cimarron prior to October 1925 and as Rayado River at Sauble Ranch, near Cimarron, October 1925 to September 1952.

GAGE.--Water-stage recorder. Altitude of gage is 6,720 ft (2,048 m) from topographic map. See WSP 1921 for history of changes prior to Oct. 1, 1954. Oct. 1, 1954 to June 16, 1965, at site 270 ft (82 m) downstream at datum 2.79 ft (0.850 m) lower.

AVERAGE DISCHARGE.--55 calendar years (1909, 1912, 1914, 1916-20, 1928-74), 13.8 ft³/s (0.391 m³/s), 10,000 acre-ft/yr (12.3 hm³/yr); 20 calendar years (1955-74), 13.3 ft³/s (0.377 m³/s), 9,640 acre-ft/yr (11.9 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 35 ft³/s (0.99 m³/s) Aug. 6 (gage height, 2.04 ft or 0.622 m); maximum gage height, 3.50 ft or 1.067 m Dec. 31 (backwater from ice); minimum discharge, 0.43 ft³/s (0.012 m³/s) Nov. 27, result of freezeup.
1909-12, 1913-74: Maximum discharge, 9,000 ft³/s (250 m³/s) June 17, 1965 (gage height, 11.5 ft or 3.505 m, from floodmarks), from rating curve extended above 70 ft³/s (1.98 m³/s) on basis of field estimate of peak flow; minimum, 0.03 ft³/s (0.001 m³/s) Dec. 3, 1950, but may have been less during periods of ice effect.
The major flood of June 10, 1913, destroyed the gage (stage and discharge not determined). Another major flood probably occurred Sept. 29 or 30, 1904.

REMARKS.--Records good except those for January, February, and September to December, which are poor. No diversion above station.

REVISIONS (WATER YEARS).--WSP 1281: 1914, 1934-35(M), 1937(M), 1941(P), 1942(M), 1944(M), drainage area. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	3.0	3.8	3.7	10	17	6.8	3.6	5.5	4.3	2.9	4.3	2.9
2	3.0	3.8	4.6	11	16	6.6	3.4	6.8	4.1	3.7	4.3	3.4
3	2.7	3.7	5.0	9.8	16	6.2	3.0	20	5.0	5.0	4.1	3.4
4	2.5	3.5	4.8	9.5	16	5.7	3.2	16	3.9	6.6	4.1	3.4
5	2.6	3.2	4.8	9.0	16	5.5	3.6	11	3.4	5.9	3.7	3.2
6	2.8	2.8	4.4	10	16	5.0	3.4	12	3.2	5.7	3.9	3.2
7	3.0	2.7	5.0	9.8	16	5.5	3.0	17	4.6	7.1	3.7	2.5
8	3.1	2.7	4.8	9.3	15	16	3.0	12	3.2	5.7	3.6	3.6
9	3.3	2.8	5.5	9.5	15	10	3.9	9.3	2.6	5.7	3.6	3.4
10	3.4	2.9	4.6	10	15	7.3	3.6	7.9	2.3	5.2	3.6	4.1
11	3.5	3.1	4.1	9.8	14	6.2	2.9	6.4	2.0	7.1	3.2	3.9
12	3.5	3.3	5.5	9.0	14	5.7	3.6	5.9	2.0	8.4	3.0	3.7
13	3.7	3.5	5.7	8.7	14	5.5	6.2	5.2	2.2	4.8	3.2	3.6
14	3.6	3.6	5.5	8.4	13	4.8	6.9	5.0	2.3	4.3	2.9	3.2
15	3.6	3.6	5.9	9.8	12	4.6	4.6	4.6	3.2	4.1	3.0	2.5
16	3.6	3.6	7.3	9.5	12	4.6	4.1	4.5	3.7	3.9	2.9	3.0
17	3.7	3.7	8.4	9.5	12	4.6	3.7	4.5	5.9	3.9	2.6	3.7
18	4.1	3.6	8.1	11	11	4.5	3.4	4.1	4.3	3.7	3.4	3.6
19	3.7	3.7	7.1	12	10	4.1	3.6	3.9	3.6	3.6	3.4	3.6
20	3.7	3.4	7.6	12	9.5	4.1	4.1	4.3	3.2	3.6	2.4	3.6
21	4.3	3.3	6.3	12	9.0	3.7	3.4	3.6	9.8	3.6	3.2	3.4
22	4.0	3.2	7.1	12	8.4	3.9	4.5	3.9	6.8	3.6	3.4	3.6
23	4.0	3.2	7.4	14	7.9	4.5	4.1	4.6	5.0	3.6	3.4	3.6
24	3.9	3.2	7.1	14	7.9	4.8	3.7	3.6	4.1	3.6	2.2	3.0
25	3.8	3.3	7.3	16	8.1	4.1	3.7	3.4	3.4	3.9	3.2	2.5
26	3.9	3.4	8.1	18	7.3	3.9	4.1	3.4	2.9	4.6	2.7	3.0
27	4.0	3.5	9.3	20	7.1	4.8	4.9	4.4	2.6	4.5	1.9	2.5
28	3.8	3.6	8.7	19	6.4	4.1	3.9	13	2.9	4.3	2.6	3.0
29	3.6	------	9.5	18	5.9	4.1	5.2	8.4	2.7	4.5	2.5	3.5
30	3.7	------	11	18	5.7	3.7	8.3	7.6	2.7	5.5	2.0	3.0
31	3.8	------	12	------	5.6	------	4.6	5.9	------	4.6	------	3.0
TOTAL	108.9	93.7	205.4	357.8	361.0	165.1	127.2	227.7	113.9	147.2	96.0	101.6
MEAN	3.51	3.35	6.63	11.9	11.6	5.50	4.10	7.35	3.80	4.75	3.20	3.28
MAX	4.3	3.8	12	20	17	16	6.3	20	9.8	8.4	4.3	4.1
MIN	2.5	2.7	3.7	8.4	5.7	3.7	2.9	3.4	2.0	2.9	1.9	2.5
AC-FT	216	186	407	710	716	327	252	452	226	292	190	202

CAL YR 1974 TOTAL 2,105.5 MEAN 5.77 MAX 20 MIN 1.9 AC-FT 4,180
WTR YR 1974 TOTAL 2,106.8 MEAN 5.77 MAX 20 MIN 1.8 AC-FT 4,180

PEAK DISCHARGE (BASE, 100 FT³/S).--No peak above base.

07211000 CIMARRON RIVER AT SPRINGER, N. MEX.

LOCATION.--Lat 36°21'37", long 104°35'53", Colfax County, in Maxwell Grant, on left bank at Springer, 400 ft (120 m) downstream from bridge on State Highway 199, 0.3 mi (0.5 km) upstream from Salado Creek, and at mile 8.2 (13.2 km),revised.

DRAINAGE AREA.--1,032 mi² (2,673 km²).

PERIOD OF RECORD.--August 1907 to December 1909, January 1921 to February 1922, October 1924 to January 1926, September 1926 to current year. Monthly discharge only for some periods, published in WSP 1311. Published as Cimarron Creek at Springer, October 1952 to September 1965.

GAGE.--Water-stage recorder. Concrete control since Nov. 5, 1954. Altitude of gage is 5,770 ft (1,759 m) from topographic map. See WSP 1311 or 1731 for history of changes prior to July 17, 1942.

AVERAGE DISCHARGE.--50 calendar years (1921, 1925, 1927-74), 17.5 ft³/s (0.496 m³/s), 12,680 acre-ft/yr (15.6 hm³/yr); 20 calendar years (1955-74), 16.0 ft³/s (0.453 m³/s), 11,590 acre-ft/yr (14.3 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 503 ft³/s (14.2 m³/s) Aug. 6 (gage height, 4.99 ft or 1.521 m); minimum, 0.08 ft³/s (0.002 m³/s) July 17, 19, 20, 21.

1930-74: Maximum discharge, 29,500 ft³/s (835 m³/s) June 18, 1965 (gage height, 19.96 ft or 6.084 m, from floodmarks), from rating curve extended above 1,800 ft³/s (51.0 m³/s) on basis of contracted-opening measurement of peak flow; no flow at times in 1954, 1956-57.

Maximum stage, about 22 ft (6.7 m) Sept. 29, 1904 (backwater from debris on railroad bridge). Another major flood occurred June 11, 1913. Maximum discharge of these floods probably exceeded 10,000 ft³/s (280 m³/s), but probably were less than the 1965 flood.

REMARKS.--Records good except those for winter periods, which are fair. Flow partly regulated by Eagle Nest Lake (see sta 07205500). Diversions for irrigation of about 23,000 acres (93.1 km²) above station and a few hundred acres between station and mouth.

REVISIONS (WATER YEARS).--WSP 827: 1934-36(M). WSP 1281: 1942, 1945-46(M).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	2.8	2.9	2.2	1.7	4.8	8.6	1.3	.50	.83	.46	1.4	2.0
2	2.5	2.7	2.1	1.8	4.8	6.3	1.0	.92	.65	.43	1.4	2.0
3	2.0	2.8	1.8	1.6	5.6	4.8	.67	2.4	.70	.42	1.7	2.0
4	1.8	2.7	1.8	2.1	5.1	3.9	.50	1.5	.61	.38	1.5	2.1
5	2.1	2.7	1.8	2.3	4.0	3.3	.40	10	.43	.35	1.1	2.2
6	2.1	2.2	1.8	2.4	5.6	3.2	.31	50	.19	.37	1.1	2.3
7	1.9	2.3	1.8	2.0	5.3	3.6	.56	35	.17	.76	1.4	2.2
8	1.9	2.4	1.8	1.7	4.5	5.2	.95	6.8	.16	.67	1.5	2.2
9	1.8	2.5	1.9	1.8	4.3	6.3	.67	4.3	.14	.53	1.8	2.1
10	1.8	2.5	2.9	1.8	4.7	6.3	.55	3.3	.33	.89	2.7	2.2
11	1.7	2.6	3.3	1.8	4.8	4.7	.37	2.3	.35	.90	2.8	2.2
12	1.8	2.7	3.0	1.6	3.5	3.2	.28	1.9	.29	2.6	1.7	2.0
13	2.8	2.7	2.7	1.8	3.0	3.0	.20	1.7	.33	2.1	1.7	1.9
14	3.6	2.9	2.3	1.9	3.0	2.8	.13	1.5	.47	2.2	1.7	1.7
15	3.4	3.1	2.2	2.0	3.2	2.8	.13	1.2	.78	1.8	1.7	2.0
16	3.4	3.2	2.1	1.9	2.6	3.0	.12	1.2	.79	1.4	1.7	1.9
17	3.4	3.2	2.0	1.9	3.8	3.6	.10	1.0	.67	1.1	1.7	2.0
18	4.2	3.1	1.9	1.9	2.8	4.2	.11	.88	.55	.91	1.7	1.8
19	5.1	3.2	2.0	1.8	1.9	4.1	.10	1.1	.57	.72	1.8	1.9
20	4.2	3.4	1.8	1.8	1.7	3.7	.09	.48	.87	.76	1.7	1.9
21	3.6	2.6	1.9	1.7	1.6	2.8	.09	.57	2.6	1.2	1.8	2.0
22	2.9	2.9	2.1	1.6	1.9	2.5	.12	.94	1.3	2.6	1.8	2.2
23	2.8	2.7	2.6	1.8	2.2	2.3	.17	2.5	.92	1.6	1.8	1.9
24	2.7	2.5	2.4	1.8	2.3	1.9	.19	2.3	.78	1.5	1.5	1.8
25	2.7	2.5	2.3	2.4	2.3	1.5	.24	2.3	.68	1.4	1.7	1.8
26	2.6	2.6	2.2	2.7	2.0	1.5	.24	2.3	.57	1.3	1.9	1.8
27	2.6	2.6	2.1	2.8	2.2	2.1	.18	2.3	.55	1.2	1.7	1.8
28	2.3	2.2	2.1	2.9	1.9	2.3	.53	2.2	.47	1.3	1.8	2.0
29	2.6	------	1.9	3.6	1.7	1.9	.69	1.7	.44	1.9	1.9	1.7
30	2.6	------	1.8	4.2	1.3	1.7	.59	1.4	.45	1.7	2.0	2.1
31	2.7	------	1.9	------	12	------	.37	1.1	------	1.5	------	2.1
TOTAL	84.4	76.4	66.5	63.3	105.6	107.1	11.97	147.59	18.64	36.95	50.9	61.8
MEAN	2.72	2.73	2.15	2.11	3.41	3.57	.39	4.76	.62	1.19	1.70	1.99
MAX	5.1	3.4	3.3	4.2	12	8.6	1.3	50	2.6	2.6	2.7	2.3
MIN	1.7	2.2	1.8	1.6	1.3	1.5	.09	.30	.14	.35	1.1	1.7
AC-FT	167	152	132	126	209	212	24	292	37	73	101	123

CAL YR 1974 TOTAL 830.95 MEAN 2.28 MAX 50 MIN .09 AC-FT 1,650
WTR YR 1974 TOTAL 946.76 MEAN 2.59 MAX 50 MIN .09 AC-FT 1,880

PEAK DISCHARGE (BASE, 280 FT³/S)

DATE	TIME	G. H.	DISCHARGE
8- 6	2015	4.99	503

07211500 CANADIAN RIVER NEAR TAYLOR SPRINGS, N. MEX.

LOCATION.--Lat 36°17'49", long 104°29'36", in NW¼SE¼ sec. 21, T.24 N., R.23 E., Colfax County, on left bank at head of gorge, 2.0 mi (3.2 km) south of Taylor Springs, 2.3 mi (3.7 km) downstream from Cimarron River, 2.4 mi (3.9 km) upstream from Chico Creek, 7.1 mi (11.4 km) southeast of Springer, and at mile 850.4 (1,368.3 km).

DRAINAGE AREA.--2,850 mi² (7,380 km²).

PERIOD OF RECORD.--January 1940 to September 1958, annual maximum, water years 1959-63, June 1964 to current year. Water-year estimate for 1940, published in WSP 1311.

GAGE.--Water-stage recorder. Altitude of gage is 5,635 ft (1,718 m) from topographic map. Prior to June 10, 1964, water-stage recorder at site 1.7 mi (2.7 km) downstream at different datum; operated as crest-stage gage at that site and datum during water years 1959-64.

AVERAGE DISCHARGE.--28 calendar years (1940-57, 1965-74), 89.8 ft³/s (2.543 m³/s), 65,060 acre-ft/yr (80.2 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 3,760 ft³/s (106 m³/s) Aug. 6 (gage height, 5.57 ft or 1.698 m); no flow at times.
Period of record: Maximum discharge, 162,000 ft³/s (4,590 m³/s) June 18, 1965 (gage height, 47.4 ft or 14.448 m, from floodmarks), from rating curve extended above 7,000 ft³/s (198 m³/s) on basis of slope-area measurement of peak flow; no flow at times some years.
Maximum flood prior to 1965 occurred Sept. 29, 1904 (discharge published as 91,100 ft³/s or 2,580 m³/s in WSP 842, 847).

REMARKS.--Records fair except those for January, February, and December, which are poor. Diversions for irrigation for about 30,000 acres (121 km²) above station. Water quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1177: Drainage area. WSP 1281: 1941-42(P), 1945-47(M), 1948-50(P).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	7.6	24	14	7.6	9.0	9.4	1.8	3.0	5.9	2.3	7.6	4.7
2	7.0	21	15	8.7	8.7	7.5	1.6	2.0	4.0	2.0	6.6	5.2
3	6.4	20	12	6.4	7.3	6.2	1.5	26	3.2	1.7	6.2	5.4
4	6.0	20	11	8.0	5.9	5.2	1.3	15	3.0	1.6	6.6	5.8
5	6.0	18	9.9	8.7	5.7	4.5	.97	166	2.4	1.4	6.2	6.0
6	8.2	14	10	8.0	6.2	3.5	.90	294	2.4	1.4	6.2	5.6
7	8.8	10	11	6.6	7.0	3.5	.83	632	2.6	2.8	6.2	5.4
8	9.4	12	11	5.4	6.6	7.0	.83	104	2.0	2.8	6.2	5.0
9	10	14	10	4.9	5.9	7.3	1.9	31	2.2	2.6	6.2	5.4
10	9.6	15	13	5.2	6.6	8.7	2.1	13	2.4	2.9	11	5.5
11	9.8	17	15	5.4	5.7	6.2	4.9	7.6	2.4	6.6	9.4	5.2
12	9.0	18	18	5.4	5.4	4.9	1.6	4.7	2.0	59	8.0	5.0
13	11	17	17	5.2	4.7	4.0	.64	3.0	1.4	25	7.3	4.8
14	12	16	14	4.9	4.2	3.4	.09	2.2	1.5	19	6.6	4.7
15	14	15	12	5.4	4.2	3.2	.04	1.6	11	12	7.0	4.8
16	17	14	12	5.9	4.2	3.2	.04	1.2	68	8.7	7.6	4.9
17	23	14	11	5.4	5.7	3.0	0	.97	41	7.0	7.3	5.0
18	25	14	9.9	4.9	4.2	3.2	0	.83	14	5.9	6.6	5.0
19	22	14	9.4	4.5	5.5	3.5	0	.64	7.0	5.4	5.9	5.2
20	23	13	8.4	4.5	5.0	3.4	0	.58	6.0	4.7	5.2	5.4
21	21	12	7.6	4.5	2.8	3.0	0	32	253	4.2	5.4	6.0
22	19	10	8.4	5.9	2.8	2.8	0	12	40	7.7	5.7	6.6
23	18	9.0	7.6	5.7	2.6	2.6	0	16	17	27	5.4	7.0
24	16	10	7.6	5.7	3.2	7.0	.28	16	10	19	5.2	5.6
25	15	11	8.0	5.9	5.7	4.5	1.5	9.4	7.3	9.9	4.9	4.8
26	17	12	8.0	6.6	4.8	2.8	.83	6.6	5.4	8.0	4.9	4.8
27	16	12	8.0	6.2	4.5	1.9	2.9	4.2	4.2	7.0	4.8	4.8
28	19	13	8.8	5.9	4.5	2.0	3.7	3.5	3.4	56	4.7	4.7
29	21	------	9.0	5.7	4.8	2.3	5.6	14	3.2	26	4.6	5.4
30	22	------	8.4	7.3	2.8	2.2	5.1	49	2.8	14	4.5	4.6
31	23	------	8.4	------	4.1	------	7.1	12	------	9.4	------	4.0
TOTAL	455.0	409.0	329.6	182.4	150.9	131.7	48.85	1,484.02	560.7	343.0	190.8	161.5
MEAN	14.7	14.6	10.6	6.08	4.87	4.39	1.55	47.9	17.7	11.1	6.35	5.21
MAX	25	24	18	8.7	9.0	9.4	7.1	632	253	56	11	7.0
MIN	6.0	9.0	7.6	4.5	2.8	1.9	0	.58	1.4	1.4	4.5	4.0
AC-FT	902	811	654	362	299	261	95	2,940	1,050	680	377	320

CAL YR 1974 TOTAL 4,415.87 MEAN 12.1 MAX 632 MIN 0 AC-FT 8,760
WTR YR 1974 TOTAL 4,624.37 MEAN 12.7 MAX 632 MIN 0 AC-FT 9,170

PEAK DISCHARGE (BASE, 3,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE
8- 6	2330	5.57	3,760

07215500 MORA RIVER AT LA CUEVA, N. MEX.

LOCATION.--Lat 35°56'27", long 105°14'59", Mora County, in Mora Grant, on left bank 45 ft (14 m) upstream from bridge on State Highway 3 at La Cueva, 0.3 mi (0.5 km) downstream from La Cueva damsite, and at mile 86.8 (139.7 km). Prior to Mar. 14 at site 700 ft (210 m) downstream.

DRAINAGE AREA.--173 mi² (448 km²).

PERIOD OF RECORD.--August 1903 to April 1905 (gage heights and discharge measurements only), May to December 1905, May 1906 to July 1911, April 1931 to current year. Monthly discharge only for some periods, published in WSP 1311. Records for February to April 1905, published in WSP 173, are unreliable and should not be used.

GAGE.--Water-stage recorder. Altitude of gage is 7,000 ft (2,134 m) from topographic map. Prior to Apr. 15, 1931, nonrecording gage, and Apr. 15, 1931 to Apr. 18, 1962, water-stage recorder near present site at different datums. Apr. 19, 1962 to Mar. 13, 1974, water-stage recorder at site 700 ft (210 m) downstream at different datum.

AVERAGE DISCHARGE.--47 calendar years (1907-10, 1932-74), 27.7 ft³/s (0.784 m³/s), 20,070 acre-ft/yr (24.7 hm³/yr); 20 calendar years (1955-74), 28.1 ft³/s (0.796 m³/s), 20,360 acre-ft/yr (25.1 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 560 ft³/s (15.9 m³/s) Aug. 6 (gage height, 5.75 ft or 1.753 m, from floodmarks); minimum, 1.0 ft³/s (0.028 m³/s) May 10.
1931-74: Maximum discharge, 1,530 ft³/s (43.3 m³/s) Sept. 23, 1941, from rating curve extended above 400 ft³/s (11.3 m³/s); maximum gage height, 9.00 ft (2.743 m) Aug. 5, 1966; no flow at times.
Flood of Sept. 29, 1904, may have exceeded 20,000 ft³/s (566 m³/s); another major flood occurred June 11, 1913, but is believed less than that of 1904.

REMARKS.--Records good except those for winter periods, which are poor. Diversions above station for irrigation of about 7,000 acres (28.3 km²), part of which is below station. See tabulation below for monthly and yearly diversion of La Cueva Canal, which bypasses gage on left bank.

REVISIONS (WATER YEARS).--WSP 857: 1937. WSP 1281: 1931(M), 1932. WSP 1511: Drainage area. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	7.6	3.8	5.4	3.8	5.0	3.6	4.6	11	9.1	5.6	5.5	5.4
2	7.0	3.8	5.4	4.0	4.4	3.4	4.4	10	8.9	5.6	5.8	2.5
3	6.0	4.2	5.5	4.3	4.5	4.0	2.9	13	9.6	5.4	6.7	2.3
4	6.4	4.1	5.3	4.4	4.5	4.2	2.9	12	9.7	5.2	5.6	2.2
5	7.0	3.8	5.5	4.9	4.2	4.1	4.0	11	9.4	5.2	5.7	2.2
6	6.8	3.6	5.2	5.3	4.4	4.2	4.1	40	8.8	5.4	5.7	2.0
7	7.0	3.5	5.3	5.0	4.2	4.4	3.9	14	9.7	5.9	6.2	2.9
8	7.2	3.7	5.3	5.1	4.0	4.5	4.3	12	8.7	4.7	5.2	3.4
9	7.4	4.4	5.5	5.9	4.3	5.5	4.2	11	8.7	5.5	4.2	3.4
10	7.6	5.2	5.9	5.9	4.5	5.3	4.0	11	8.8	5.8	4.0	3.3
11	7.0	5.8	4.9	5.7	4.3	3.4	3.7	11	8.4	4.2	4.1	3.3
12	7.4	5.4	6.3	6.1	4.7	4.0	3.7	9.4	8.0	11	4.0	3.3
13	7.8	5.1	6.8	6.5	4.2	3.6	3.3	8.8	7.8	6.3	4.0	3.5
14	7.6	4.9	6.0	6.3	4.1	3.7	2.8	8.6	8.0	5.8	3.6	3.5
15	7.0	5.4	5.6	6.2	4.2	4.3	3.9	8.6	8.7	5.5	3.2	3.5
16	6.8	5.4	6.3	6.2	4.6	5.0	4.9	8.5	8.1	4.6	3.9	3.3
17	6.7	5.2	11	6.5	4.7	4.8	4.6	8.0	8.4	3.9	3.7	3.1
18	6.6	5.3	10	6.1	4.8	4.9	2.8	7.1	11	3.5	3.3	3.5
19	6.4	5.4	9.0	5.8	5.3	5.1	2.5	6.6	9.4	3.7	3.8	3.5
20	6.3	5.6	9.5	4.5	5.6	5.5	2.9	7.2	8.5	3.9	4.2	3.3
21	6.8	4.9	11	4.3	5.5	5.3	2.9	7.0	8.6	3.8	4.0	4.0
22	6.8	5.2	10	4.9	4.7	4.6	2.6	7.9	7.5	3.9	3.8	4.2
23	6.6	4.9	11	4.9	5.5	4.7	5.4	6.9	7.3	4.3	4.0	4.4
24	6.1	4.6	11	5.3	5.8	4.5	7.1	7.4	7.1	4.4	4.3	5.0
25	5.4	4.9	11	5.5	6.0	4.5	3.9	7.8	6.3	4.7	4.3	7.5
26	5.6	5.2	10	5.4	5.1	4.6	4.0	7.0	6.2	4.8	4.5	8.5
27	5.4	5.9	7.7	4.6	5.3	4.5	4.6	6.1	6.3	6.1	4.1	7.8
28	5.4	6.0	6.0	4.3	4.2	4.5	7.8	6.9	6.3	5.5	3.4	8.5
29	5.0	------	5.8	4.0	2.3	4.5	11	9.3	6.3	5.0	3.3	9.2
30	4.7	------	4.4	4.4	2.7	4.5	11	8.8	6.3	6.0	3.7	8.5
31	4.3	------	3.9	------	3.5	------	10	9.3	------	3.9	------	7.2
TOTAL	201.7	135.2	224.5	155.3	136.6	133.9	144.3	315.2	245.1	156.8	133.5	136.2
MEAN	6.51	4.83	7.21	5.18	4.41	4.46	4.65	10.2	8.17	5.06	4.45	4.39
MAX	7.8	6.0	11	6.5	6.0	5.5	11	40	11	11	6.7	9.2
MIN	4.3	3.5	3.9	3.8	2.3	3.4	2.5	6.1	6.2	3.5	3.2	2.0
AC-FT	400	268	445	308	271	266	286	625	486	311	265	270
(†)	254	91	198	66	23	221	315	164	172	305	479	512

CAL YR 1974 TOTAL 2,117.3 MEAN 5.80 MAX 40 MIN 2.0 AC-FT 4,200 † 2,800
WTR YR 1974 TOTAL 2,608.2 MEAN 7.15 MAX 40 MIN 2.3 AC-FT 5,170 † 2,940

PEAK DISCHARGE (BASE, 300 FT³/S) † Diversion, in acre-feet, by La Cueva Canal.

DATE	TIME	G. H.	DISCHARGE
8- 6	1830	5.75	560

07216500 MORA RIVER NEAR GOLONDRINAS, N. MEX.

LOCATION.--Lat 35°53'27", long 105°09'47", Mora County, in Mora Grant, on right bank, 0.7 mi (1.1 km) upstream from bridge on State Highway 160, 1.2 mi (1.9 km) east of Golondrinas, 1.9 mi (3.1 km) upstream from Coyote Creek, 4.7 mi (7.6 km) downstream from Rito Cebolla, and at mile 75.8 (122.0 km).

DRAINAGE AREA.--267 mi² (692 km²).

PERIOD OF RECORD.--March 1915 to May 1921, October 1921 to March 1922, May, August, September 1922, July 1923 to July 1924, December 1924 to current year. Monthly discharge only 1915-30, published in WSP 1311.

GAGE.--Water-stage recorder. Altitude of gage is 6,750 ft (2,057 m) from topographic map. Mar. 10, 1915 to June 4, 1921, water-stage recorder at site 2.8 mi (4.5 km) upstream at different datum. July 6, 1921 to Jan. 5, 1929, nonrecording gage or water-stage recorder at site 0.7 mi (1.1 km) downstream at datum about 14 ft (4.3 m) lower and Jan. 6, 1929 to Apr. 1, 1972, water-stage recorder at site 0.7 mi (1.1 km) downstream at datum about 15 ft (4.6 m) lower.

AVERAGE DISCHARGE.--56 calendar years (1916-20, 1924-74), 34.6 ft³/s (0.980 m³/s), 25,070 acre-ft/yr (30.9 hm³/yr); 20 calendar years (1955-74), 32.1 ft³/s (0.909 m³/s), 23,260 acre-ft/yr (28.7 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,150 ft³/s (32.6 m³/s) Aug. 6 (gage height, 4.20 ft or 1.280 m), from rating curve extended above 370 ft³/s (10.5 m³/s); minimum, 0.91 ft³/s (0.026 m³/s) Dec. 14, result of freezeup.
Period of record: Maximum discharge, 14,000 ft³/s (396 m³/s) Aug. 22, 1952 (gage height, 14.4 ft or 4.39 m), from rating curve extended above 660 ft³/s (18.7 m³/s) on basis of slope-area measurement of peak flow; no flow at times.
Floods of Sept. 29, 1904, and June 11, 1913, probably exceeded 25,000 ft³/s (708 m³/s).

REMARKS.--Records good except those for winter periods and those for April, which are poor. Diversions for irrigation of about 12,000 acres (48.6 km²) above station. Off-channel lakes make it possible to divert and store water during non-irrigation season.

REVISIONS (WATER YEARS).--WSP 1281: 1951(M). WSP 1311: 1935(M), 1937-38(M), 1940-42(M), 1949(M). WSP 1511: Drainage area. WSP 1731: 1958(M).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	10	6.7	6.5	6.0	2.2	2.1	1.6	5.9	8.1	4.3	2.8	2.8
2	9.0	7.0	6.1	6.2	2.2	2.2	1.7	5.0	7.6	4.0	2.7	2.7
3	8.0	5.8	6.2	6.4	2.2	2.2	1.6	10	8.9	4.3	6.5	2.7
4	7.0	6.1	6.2	7.7	2.2	2.2	1.6	13	9.7	4.5	5.0	2.7
5	8.0	5.8	5.5	8.0	2.3	2.1	1.6	14	8.7	4.9	5.0	2.7
6	8.0	5.5	5.7	8.6	2.6	2.0	17	140	7.8	5.9	4.9	2.6
7	8.0	5.0	5.5	8.5	3.0	2.0	2.4	79	7.6	9.1	6.3	2.5
8	8.5	5.5	5.9	7.7	3.5	2.0	1.7	15	5.6	7.0	5.8	2.5
9	8.5	7.0	6.3	8.2	2.9	1.9	1.7	12	5.2	39	3.3	2.6
10	8.5	9.0	7.9	8.8	2.6	1.9	2.5	10	5.3	12	3.3	2.7
11	8.0	11	7.0	8.9	2.3	1.9	1.5	9.6	5.0	7.6	2.7	2.7
12	7.5	8.2	7.9	8.9	2.3	1.9	1.5	8.9	5.2	32	3.0	2.7
13	7.5	7.0	11	9.9	2.0	1.9	1.5	7.9	5.4	17	3.3	2.5
14	7.5	7.6	9.8	9.4	1.9	1.9	1.4	7.8	5.9	12	3.3	3.0
15	7.5	6.4	7.5	9.6	2.0	2.1	1.5	7.7	6.5	8.9	2.8	3.4
16	9.0	7.0	7.1	7.8	1.9	1.8	1.6	7.7	9.1	7.6	3.2	3.1
17	12	7.0	9.3	6.3	1.9	1.5	1.6	6.7	8.8	5.1	7.2	3.2
18	12	7.3	9.3	4.1	2.0	1.4	1.6	5.7	9.4	4.1	3.8	3.1
19	9.4	6.7	8.6	4.1	2.1	1.4	1.6	4.6	9.5	3.9	2.8	3.4
20	9.4	7.6	7.1	3.3	2.2	1.5	1.6	4.1	6.7	3.6	3.1	3.7
21	10	6.7	7.5	2.9	2.5	1.5	1.6	5.6	9.6	2.9	3.3	4.2
22	10	6.4	7.9	2.8	2.7	1.7	1.6	13	6.9	2.6	3.2	4.9
23	8.2	6.7	8.1	2.7	2.2	2.7	1.7	7.7	5.6	2.8	2.8	4.1
24	6.4	4.9	8.2	2.7	2.2	1.6	1.9	4.7	5.6	3.0	2.9	4.3
25	6.7	5.2	8.7	2.7	2.0	1.5	1.8	3.8	4.9	2.7	3.2	4.2
26	7.6	6.4	9.1	2.7	1.9	1.5	1.6	3.4	4.7	3.4	3.2	5.5
27	7.6	7.0	6.9	2.3	2.0	1.4	1.7	2.7	4.5	4.6	3.2	7.3
28	5.5	6.4	5.9	2.2	2.0	1.4	2.4	3.9	3.9	4.6	3.0	7.1
29	6.4	------	5.0	2.2	2.1	1.4	2.8	6.3	4.0	3.7	2.6	8.6
30	6.7	------	5.4	2.3	2.0	1.4	8.2	6.7	4.2	3.4	2.6	7.8
31	7.0	------	5.4	------	2.1	------	5.4	8.4	------	4.3	------	6.8
TOTAL	255.4	188.6	224.5	173.9	70.0	54.0	79.5	440.8	199.8	234.8	110.8	122.1
MEAN	8.24	6.74	7.24	5.80	2.26	1.80	2.56	14.2	6.66	7.57	3.69	3.94
MAX	12	11	11	9.9	3.5	2.7	17	140	9.7	39	7.2	8.6
MIN	5.5	4.9	5.0	2.2	1.9	1.4	1.4	2.7	3.9	2.6	2.6	2.5
AC-FT	507	374	445	345	139	107	158	874	396	466	220	242

CAL YR 1974 TOTAL 2,154.2 MEAN 5.90 MAX 140 MIN 1.4 AC-FT 4,270
WTR YR 1974 TOTAL 2,624.0 MEAN 7.19 MAX 140 MIN 1.4 AC-FT 5,200

PEAK DISCHARGE (BASE, 400 FT³/S)

DATE	TIME	G. H.	DISCHARGE
8- 6	2045	4.20	1,150

07218000 COYOTE CREEK NEAR GOLONDRINAS, N. MEX.

LOCATION.--Lat 35°55'00", long 105°09'49", Mora County, in Mora Grant, on left bank 0.5 mi (0.8 km) downstream from Coyote Creek damsite, 2.3 mi (3.7 km) northeast of Golondrinas, and at mile 2.7 (4.3 km).

DRAINAGE AREA.--215 mi² (557 km²).

PERIOD OF RECORD.--April 1928 to September 1930 (monthly discharge only, published in WSP 1311), October 1930 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,785 ft (2,068 m) from topographic map. Prior to Apr. 26, 1938, at site 0.4 mi (0.6 km) downstream at different datum (nonrecording gage prior to Apr. 20, 1929). Apr. 26, 1938 to Sept. 25, 1946, at site 139 ft (42 m) downstream at same datum.

AVERAGE DISCHARGE.--46 calendar years, 11.8 ft³/s (0.334 m³/s), 8,550 acre-ft/yr (10.5 hm³/yr); 20 calendar years (1955-74), 12.0 ft³/s (0.340 m³/s), 8,690 acre-ft/yr (10.7 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,340 ft³/s (37.9 m³/s) Aug. 6 (gage height, 6.18 ft or 1.884 m), from rating curve extended above 210 ft³/s (5.95 m³/s) as explained below; minimum, 0.30 ft³/s (0.008 m³/s) May 18.
Period of record: Maximum discharge, 4,050 ft³/s (115 m³/s) Aug. 17, 1961 (gage height, 9.60 ft or 2.926 m), from rating curve extended above 250 ft³/s (7.08 m³/s) on basis of slope-area measurements at gage heights 5.54 ft (1.689 m), 7.74 ft (2.359 m), and 9.60 ft (2.926 m); maximum gage height, 10.1 ft (3.08 m) Aug. 30, 1936 (site and datum then in use); no flow Aug. 4, 1945, Apr. 10, May 9, 10, 1956.

REMARKS.--Records fair except those for winter periods, which are poor. Diversions (including off-channel storage) for irrigation of about 4,000 acres (16.2 km²) above station.

REVISIONS (WATER YEARS).--WSP 1281: 1939-40(M), 1941-42, 1945-47. WSP 1511: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	8.8	5.8	7.4	4.6	1.2	.46	.84	5.0	2.6	1.3	2.8	2.2
2	8.4	5.6	7.0	4.6	1.7	.46	.84	4.5	2.5	1.3	3.1	2.2
3	8.0	5.4	7.0	4.3	2.4	.38	1.1	3.9	2.6	1.3	2.6	2.6
4	8.4	5.3	6.5	4.3	2.5	.38	1.1	8.6	2.6	1.1	2.6	2.5
5	8.8	5.2	7.0	3.7	2.4	.46	1.1	6.3	1.9	1.1	2.8	2.8
6	8.6	4.2	7.0	3.1	1.8	.55	1.4	85	1.2	1.1	2.5	2.6
7	8.4	3.5	7.0	3.1	1.2	.55	1.4	27	1.2	1.4	2.5	2.4
8	8.4	4.0	7.5	2.6	1.1	.55	1.3	5.4	1.1	1.2	2.2	2.2
9	8.4	4.6	8.0	2.5	.95	.55	1.2	3.6	1.1	1.4	2.2	2.5
10	8.8	5.0	10	2.4	.95	.55	1.1	3.1	1.1	1.6	2.1	3.0
11	9.2	5.2	9.0	2.2	.84	.55	1.1	3.0	1.1	2.2	1.8	3.0
12	10	5.0	13	1.9	.84	.55	.95	3.0	1.2	5.0	1.9	3.0
13	9.2	4.8	10	1.7	.74	.64	.95	2.8	1.2	6.3	1.8	2.8
14	9.2	4.5	11	1.8	.64	.64	.95	2.6	1.3	4.6	1.7	3.0
15	10	5.2	9.7	1.7	.55	.74	.95	2.5	6.9	4.5	1.7	3.5
16	10	5.4	10	1.6	.46	.84	.84	2.6	3.1	4.3	1.7	3.5
17	10	5.2	11	1.7	.38	.95	.84	2.1	12	4.3	1.6	4.0
18	12	5.4	11	1.7	.38	.95	.84	1.1	4.1	3.6	1.6	4.5
19	10	4.8	11	1.7	.55	1.2	.84	1.1	3.0	2.1	1.4	4.5
20	10	5.2	11	1.6	.64	1.2	.95	1.1	2.8	2.2	1.6	4.5
21	10	5.0	10	1.6	.64	1.2	1.2	1.3	3.3	2.3	1.6	4.3
22	11	4.7	9.6	1.6	.84	.84	1.2	1.4	3.4	2.3	1.6	4.3
23	9.0	4.6	9.0	1.4	.95	.74	1.2	2.4	3.4	2.4	1.7	4.0
24	8.6	4.4	8.4	1.3	1.1	.74	1.6	2.5	3.3	2.4	1.8	4.5
25	8.4	4.8	7.8	1.3	.95	.74	1.3	2.8	3.1	2.4	1.8	5.0
26	8.0	5.6	7.2	1.3	.84	.74	.84	2.2	2.4	2.5	1.9	6.0
27	7.2	6.6	6.6	1.1	.74	.84	.74	1.7	1.7	3.1	2.2	7.0
28	6.8	7.4	6.2	1.1	.64	.84	1.1	3.2	1.7	2.6	1.9	8.0
29	6.4	------	5.6	1.1	.46	.84	.95	3.1	1.4	2.5	2.1	9.0
30	6.2	------	5.2	1.2	.46	.84	7.4	2.8	1.3	2.6	2.1	8.5
31	6.0	------	4.9	------	.46	------	2.6	2.6	------	3.0	------	8.0
TOTAL	272.2	142.4	261.6	65.8	30.30	21.51	40.72	200.3	79.6	80.0	60.9	129.9
MEAN	8.78	5.09	8.44	2.19	.98	.72	1.31	6.46	2.65	2.58	2.03	4.19
MAX	12	7.4	13	4.6	2.5	1.2	7.4	85	12	6.3	3.1	9.0
MIN	6.0	3.5	4.9	1.1	.38	.38	.74	1.1	1.1	1.1	1.4	2.2
AC-FT	540	282	519	131	60	43	81	397	158	159	121	258

CAL YR 1974 TOTAL 1,385.23 MEAN 3.80 MAX 85 MIN .38 AC-FT 2,750
WTR YR 1974 TOTAL 1,785.03 MEAN 4.89 MAX 85 MIN .38 AC-FT 3,540

PEAK DISCHARGE (BASE, 180 FT³/S)

DATE	TIME	G. H.	DISCHARGE
8- 6	2130	6.18	1,340

07220100 LAKE ISABEL FEEDER CANAL NEAR SAPELLO, N. MEX.

LOCATION.--Lat 35°44'42", long 105°09'25", San Miguel County, in Mora Grant, on right bank 20 ft (6.1 m) upstream from concrete crossing, 1.0 mi (1.6 km) northwest of Los Alamos, 2.0 mi (3.2 km) downstream from canal heading, and 5.7 mi (9.2 km) southeast of Sapello.

PERIOD OF RECORD.--September 1956 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,790 ft (2,070 m) from topographic map. Prior to Aug. 10, 1967, at site 650 ft (200 m) upstream at datum 2.93 ft (0.893 m) higher.

EXTREMES.--Period of record: Maximum daily discharge, 322 ft^3/s (9.12 m^3/s) Aug. 2, 1965; no flow at times.

REMARKS.--Records good. Canal diverts water from left bank of Sapello River to fill Lake Isabel which stores water for irrigation.

MONTHLY DIVERSION, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

Month	Maximum	Minimum	Mean	Diversion in acre-feet
January	0	0	0	0
February	0	0	0	0
March	0	0	0	0
April	0	0	0	0
May	0	0	0	0
June	0	0	0	0
July	1.3	0	.042	2.6
August	.12	0	.005	.3
September	0	0	0	0
WTR YR 1974	1.3	0	.004	2.9
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
CAL YR 1974	1.3	0	.004	2.9

NOTE.--The diversion dam on Sapello River washed out during flood of Aug. 8, 1972.

07221000 MORA RIVER NEAR SHOEMAKER, N. MEX.

LOCATION.--Lat 35°48'01", long 104°46'58", Mora County, in Mora Grant, on left bank 5.5 mi (8.8 km) east of Shoemaker, 12.3 mi (19.8 km) upstream from Pedroso Creek, and at mile 39.4 (63.4 km).

DRAINAGE AREA.--1,104 mi² (2,859 km²), of which 71 mi² (184 km²) is probably noncontributing.

PERIOD OF RECORD.--October 1914 to July 1915, October 1915 to August 1918, May 1919 to July 1924, September to November 1924, March to July 1925, June 1927 to current year. Prior to October 1930 monthly discharge only, published in WSP 1311.

GAGE.--Water-stage recorder. Altitude of gage is 6,145 ft (1,873 m) from topographic map. Prior to Oct. 10, 1934, at site 2,000 ft (610 m) upstream at different datum.

AVERAGE DISCHARGE.--55 calendar years (1915-17, 1920-24, 1928-74), 59.4 ft³/s (1.682 m³/s), 43,040 acre-ft/yr (53.1 hm³/yr); 20 calendar years (1955-74), 54.5 ft³/s (1.543 m³/s), 39,490 acre-ft/yr (48.7 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,590 ft³/s (45.0 m³/s) Aug. 7 (gage height, 5.02 ft or 1.530 m); minimum, 0.12 ft³/s (0.003 m³/s) July 20, 22.
Period of record: Maximum discharge, 15,200 ft³/s (430 m³/s) June 3, 1948 (gage height, 12.79 ft or 3.898 m), from rating curve extended above 2,800 ft³/s (79.3 m³/s) on basis of slope-area measurements at gage heights 10.09 ft (3.075 m) and 12.79 ft (3.898 m); no flow at times.
Floods of Sept. 29, 1904, and June 11, 1913, probably exceeded 30,000 ft³/s (850 m³/s).

REMARKS.--Records good except those for January, which are poor. Diversions for irrigation of about 26,000 acres (105 km²) above station. Off-channel lakes make it possible to divert and store water during non-irrigation season.

REVISIONS (WATER YEARS).--WSP 1117: Drainage area. WSP 1281: 1931(M), 1933-34(M), 1937(M), 1938(P), 1939-40(M), 1941-42(P). WSP 1731: 1921, 1928, 1951(M).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	26	32	30	3.9	4.2	1.7	.64	.40	.71	1.6	2.3	3.2
2	19	34	28	4.2	3.9	1.5	.45	.71	.71	1.5	2.5	3.0
3	21	29	24	4.2	3.2	1.7	.35	1.3	.71	1.4	3.0	3.2
4	24	27	21	5.2	3.2	1.9	.30	1.2	1.0	1.3	3.7	3.0
5	26	28	19	4.7	3.9	1.5	.30	123	.87	1.2	3.0	3.0
6	27	25	18	4.2	4.2	1.5	.30	12	.87	1.4	3.0	3.0
7	28	20	20	4.7	3.5	1.5	.26	322	.96	2.5	3.5	3.5
8	28	22	19	4.9	3.2	1.4	.26	70	.64	2.1	3.2	3.5
9	28	24	9.2	4.2	3.2	1.2	.30	25	.45	1.7	3.5	3.2
10	26	30	8.3	3.7	3.2	.96	.57	14	.35	1.6	3.9	3.7
11	27	32	19	3.5	2.7	1.3	.35	8.0	.35	4.2	3.7	3.7
12	28	28	9.2	3.2	2.7	1.2	.26	5.2	.35	4.7	3.5	3.7
13	29	34	6.6	2.7	2.3	1.2	.26	3.5	.35	3.2	3.2	3.7
14	30	31	5.9	4.2	2.1	1.2	.26	2.7	.64	4.9	3.5	3.2
15	30	30	5.9	4.2	2.3	1.2	.22	1.9	.79	3.5	3.2	3.4
16	31	29	6.3	3.5	2.3	1.5	.22	1.5	1.7	2.5	3.2	3.6
17	33	29	6.9	3.7	2.3	1.4	.18	1.3	2.1	2.3	3.5	3.8
18	35	29	6.9	3.5	2.5	1.3	.18	1.5	1.9	2.7	3.5	4.0
19	36	31	5.9	3.5	2.1	.96	.15	.96	1.9	2.5	3.2	4.1
20	37	29	5.6	3.5	2.1	.87	.15	.64	1.6	2.3	3.0	4.2
21	38	25	5.6	3.5	2.7	.79	.15	.64	1.7	2.3	3.0	4.2
22	38	22	5.6	3.0	2.1	.71	.15	1.0	3.0	2.3	3.0	4.5
23	34	20	6.6	3.0	1.9	.71	.22	2.1	3.2	2.7	3.7	4.7
24	29	24	6.6	3.0	1.9	.79	.22	1.2	3.0	2.5	3.7	3.9
25	27	25	6.6	2.5	2.1	.79	.30	1.2	2.5	2.3	3.5	3.5
26	24	28	5.9	2.3	1.9	.71	.35	1.2	2.1	2.3	3.2	3.8
27	22	31	5.2	2.5	1.7	.57	.26	1.5	1.7	2.7	3.5	3.8
28	24	34	4.9	3.0	1.6	.57	.35	1.9	1.6	2.7	3.2	3.8
29	26	------	3.9	3.7	1.4	.57	.40	1.2	1.6	2.7	3.2	3.7
30	29	------	3.9	3.9	1.4	.79	.40	.96	1.6	2.5	3.5	3.5
31	31	------	3.9	------	1.3	------	.35	1.0	------	2.3	------	3.0
TOTAL	891	782	333.4	109.8	79.1	33.99	9.11	610.71	40.95	76.4	98.6	112.1
MEAN	28.7	27.9	10.8	3.66	2.55	1.13	.29	19.7	1.37	2.46	3.29	3.62
MAX	38	34	30	5.2	4.2	1.9	.64	322	3.2	4.9	3.9	4.7
MIN	19	20	3.9	2.3	1.3	.57	.15	.40	.35	1.2	2.3	3.0
AC-FT	1,770	1,550	661	218	157	67	18	1,210	81	152	196	222

CAL YR 1974 TOTAL 3,177.16 MEAN 8.70 MAX 322 MIN .15 AC-FT 6,300
WTR YR 1974 TOTAL 4,594.56 MEAN 12.6 MAX 322 MIN .15 AC-FT 9,110

PEAK DISCHARGE (BASE, 800 FT³/S)

DATE	TIME	G. H.	DISCHARGE
8- 7	0600	5.02	1,590

07221500 CANADIAN RIVER NEAR SANCHEZ, N. MEX.

LOCATION.--Lat 35°39'08", long 104°22'39", in SW¼ sec.34, T.17 N., R.24 E., San Miguel County, on right bank 1,000 ft (300 m) downstream from bridge on State Highway 65, 0.9 mi (1.4 km) upstream from Lagartija Creek, 3.2 mi (5.1 km) northeast of Sanchez, 10 mi (16 km) downstream from Mora River, 25 mi (40 km) southwest of Mosquero, and at mile 777.0 (1,250.2 km).

DRAINAGE AREA.--6,015 mi² (15,579 km²), of which 303 mi² (785 km²) is probably noncontributing.

PERIOD OF RECORD.--May 1912 to December 1914, October 1935 to current year. Monthly discharge only for some periods, published in WSP 1311.

GAGE.--Water-stage recorder. Altitude of gage is 4,495 ft (1,370 m) from topographic map. May 15, 1912 to Dec. 31, 1914, at two sites within 100 ft (30 m) about 3 mi (4.8 km) upstream at different datums. October 1935 to June 1965 at site 1,000 ft (300 m) upstream at datum 7.32 ft (2.231 m) higher prior to October 1963 and 5.32 ft (1.622 m) higher thereafter. June 1965 to October 1966 at site 0.6 mi (1.0 km) upstream at datum about 20 ft (6.1 m) higher. Supplemental water-stage recorder at site 0.6 mi (1.0 km) upstream used at various times since 1966.

AVERAGE DISCHARGE.--41 calendar years (1913-14, 1936-74), 207 ft³/s (5.862 m³/s), 150,000 acre-ft/yr (185 hm³/yr); 20 calendar years (1955-74), 158 ft³/s (4.475 m³/s), 114,500 acre-ft/yr (141 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,270 ft³/s (36.0 m³/s) Aug. 8; no flow May 22 to July 28.
Period of record: Maximum discharge, 145,000 ft³/s (4,110 m³/s) June 18, 1965 (gage height, about 38.1 ft or 11.61 m, from floodmarks, present site and datum), from rating curve extended above 91,000 ft³/s (2,580 m³/s) on basis of slope-area measurement of peak flow; no flow at times.
The flood of Sept. 29 or 30, 1904 probably exceeded 100,000 ft³/s (2,830 m³/s), but is believed to have been less than the peak of June 18, 1965.

REMARKS.--Records good except those for August, which are fair. Diversions for irrigation of about 56,000 acres (227 km²) above station.

REVISIONS (WATER YEARS).--WSP 1177: Drainage area. WSP 1281: 1939, 1940(P), 1942, 1946. WSP 1731: 1956-57(M). The revised figures of discharge for September 1942, as published in WSP 1281, supersede those published in WSP 1311.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	40	45	41	11	5.0		0	13	16	12	27	13
2	38	49	43	11	5.2		0	4.5	12	9.9	28	9.9
3	37	49	44	10	3.1		0	7.4	15	8.7	24	11
4	35	47	40	12	2.6		0	7.4	17	8.0	21	10
5	40	49	36	12	2.3		0	3.1	13	6.4	19	9.9
6	43	44	33	12	2.4		0	3.1	10	6.0	17	9.4
7	45	46	30	10	2.4		0	40	8.0	7.4	16	9.4
8	50	27	29	9.0	2.0		0	792	5.5	8.3	14	9.9
9	60	32	26	9.4	4.0		0	379	4.3	7.4	13	9.5
10	69	41	32	10	3.5		0	200	4.3	7.0	13	11
11	64	36	34	10	3.1		0	132	2.9	7.4	13	12
12	55	35	32	9.9	2.0		0	92	2.0	20	13	13
13	55	40	27	8.7	1.4		0	71	1.9	31	13	12
14	58	47	26	7.7	1.1		0	57	2.1	26	13	11
15	56	50	28	7.4	.79		0	45	2.9	37	12	11
16	59	50	27	6.0	.54		0	39	9.9	35	15	11
17	61	61	27	5.5	.50		0	29	28	33	16	12
18	59	61	25	5.2	.38		0	22	11	28	14	11
19	86	49	25	5.0	.25		0	16	8.0	24	14	10
20	90	46	20	4.3	.17		0	7.4	16	19	13	10
21	84	46	20	3.5	.02		0	6.1	29	17	12	9.9
22	83	45	18	3.6	0		0	3.8	22	16	12	12
23	69	40	17	2.9	0		0	4.5	95	14	12	13
24	69	37	16	2.9	0		0	7.4	72	13	13	13
25	62	37	16	2.9	0		0	51	45	12	13	12
26	49	37	15	2.8	0		0	55	32	11	13	13
27	46	35	14	2.9	0		0	42	23	11	13	13
28	47	37	14	2.5	0		0	77	19	12	12	15
29	40	------	14	3.3	0		.06	35	16	19	12	18
30	46	------	14	3.8	0		33	34	13	17	12	17
31	41	------	13	------	0	------	44	23	------	16	------	16
TOTAL	1,736	1,218	794	207.0	42.75	0	77.06	2,298.7	550.8	499.5	452	367.9
MEAN	56.0	43.5	25.6	6.90	1.38	0	2.49	74.2	18.4	16.1	15.1	11.9
MAX	90	61	44	12	5.2	0	44	792	95	37	28	18
MIN	35	27	13	2.5	0	0	0	3.1	1.9	6.0	12	9.4
AC-FT	3,440	2,420	1,570	411	85	0	153	4,560	1,090	991	897	730

CAL YR 1974 TOTAL 8,243.71 MEAN 22.6 MAX 792 MIN 0 AC-FT 16,350
WTR YR 1974 TOTAL 9,713.31 MEAN 26.6 MAX 792 MIN 0 AC-FT 19,270

PEAK DISCHARGE (BASE, 3,500 FT³/S).--NO PEAK ABOVE BASE.

NOTE.--Supplemental gage used July 30 to Aug. 28, Sept. 23-25.

07222500 CONCHAS RIVER AT VARIADERO, N. MEX.

LOCATION.--Lat 35°24'10", long 104°26'35", in NE¼NE¼ sec.36, T.14 N., R.23 E., San Miguel County, on left bank 1.5 mi (2.4 km) northeast of Variadero, 14 mi (23 km) west of Conchas Dam, and at mile 15.0 (24.1 km).

DRAINAGE AREA.--523 mi² (1,355 km²), of which 130 mi² (337 km²) is probably noncontributing.

PERIOD OF RECORD.--October 1936 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,430 ft (1,350 m) from topographic map. Prior to Mar. 30, 1942, at site 1.5 mi (2.4 km) upstream at different datum. Mar. 30, 1942 to May 18, 1950, at present site at datum 0.5 ft (0.15 m) higher.

AVERAGE DISCHARGE.--38 calendar years, 16.3 ft³/s (0.462 m³/s), 11,810 acre-ft/yr (14.6 hm³/yr); 20 calendar years (1955-74), 10.4 ft³/s (0.295 m³/s), 7,530 acre-ft/yr (9.28 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 510 ft³/s (14.4 m³/s) Aug. 25 (gage height, 2.95 ft or 0.899 m); no flow many days.
Period of record: Maximum discharge, 44,000 ft³/s (1,250 m³/s) Sept. 1, 1942 (gage height, 19.96 ft or 6.084 m, present datum), from rating curve extended above 760 ft³/s (21.5 m³/s) on basis of slope-area measurements at gage heights 10.5 ft (3.20 m) and 19.96 ft (6.084 m), present datum; no flow many days.

REMARKS.--Records fair. Diversions for irrigation of about 300 acres (1.21 km²) above station.

REVISIONS (WATER YEARS).--WSP 1281: 1937-39, 1941-47.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	.20	.16	.10	.02	.10		0	6.7	1.5	0	.03	.04
2	.29	.16	.13	.02	.08		0	3.3	.45	0	.03	.04
3	.29	.16	.10	.08	.06		0	.53	.02	0	.03	.04
4	.29	.16	.10	.10	.04		0	.13	0	0	.04	.04
5	.25	.13	.08	.16	.02		0	.06	0	0	.04	.04
6	.19	.13	.08	.10	.01		0	.01	0	0	.04	.04
7	.10	.13	.10	.06	.01		0	4.7	0	0	.04	.04
8	.29	.15	.08	.04	.01		0	17	0	0	.04	.06
9	.29	.22	.10	.04	0		0	4.9	0	0	.04	.06
10	.33	.19	.29	.02	0		22	1.6	0	0	.04	.06
11	.25	.19	.41	.04	0		6.7	1.5	0	0	.06	.06
12	.25	.16	.25	.04	0		1.6	.70	0	.67	.06	.06
13	.22	.16	.16	.04	0		.25	.10	0	4.2	.04	.06
14	.19	.19	.10	.08	0		.06	.04	0	3.9	.04	.06
15	.19	.22	.08	.06	0		0	0	.45	1.8	.04	.06
16	.19	.22	.08	.04	0		0	0	54	1.9	.06	.06
17	.19	.22	.08	.03	0		0	0	9.7	.71	.06	.08
18	.82	.16	.04	.03	0		0	0	3.8	.03	.04	.08
19	.77	.16	.04	.03	0		0	0	1.9	.04	.04	.06
20	.37	.13	.02	.02	0		0	0	.71	.04	.02	.06
21	.29	.13	.04	.02	0		0	0	.07	.03	.02	.06
22	.25	.12	.04	.02	0		0	0	2.1	.03	.04	.06
23	.22	.14	.04	.01	0		0	0	1.5	.10	.06	.04
24	.22	.16	.06	.01	0		0	.04	.71	.03	.06	.02
25	.25	.16	.06	.01	0		0	31	.22	.03	.06	.04
26	.19	.13	.06	.01	0		0	6.1	.01	.02	.06	.06
27	.19	.13	.06	.01	0		0	1.4	0	.26	.02	.10
28	.22	.10	.06	.01	0		0	112	0	.02	.02	.10
29	.22	------	.06	.02	0		0	24	0	.02	.01	.08
30	.22	------	.04	.06	0		0	7.1	0	.02	.02	.06
31	.16	------	.04	------	0	------	0	3.1	------	.02	------	.04
TOTAL	8.39	4.47	2.98	1.23	.33	0	58.61	226.11	77.14	13.57	1.20	1.76
MEAN	.27	.16	.096	.041	.011	0	.99	7.29	2.57	.44	.040	.057
MAX	.82	.22	.41	.16	.10	0	22	112	54	4.2	.06	.10
MIN	.10	.10	.02	.01	0	0	0	0	0	0	.01	.02
AC-FT	17	8.9	5.9	2.4	.7	0	61	448	153	27	2.4	3.5

CAL YR 1974 TOTAL 367.79 MEAN 1.01 MAX 112 MIN 0 AC-FT 730
WTR YR 1974 TOTAL 354.45 MEAN .97 MAX 112 MIN 0 AC-FT 703

PEAK DISCHARGE (BASE, 1,500 FT³/S).--NO PEAK ABOVE BASE.

07223000 BELL RANCH CANAL BELOW CONCHAS DAM, N. MEX.

LOCATION.--Lat 35°24'10", long 104°11'07", San Miguel County, in Pablo Montoya Grant, on left bank, 1,270 ft (390 m) downstream from Conchas Dam and 23.5 mi (37.8 km) north of Newkirk.

PERIOD OF RECORD.--October 1942 to current year. Prior to October 1965, published as "near Conchas Dam."

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 4,150 ft (1,265 m) from headgate elevations.

EXTREMES.--Period of record: Maximum daily discharge, 21 ft^3/s (0.595 m^3/s) July 10-13, Sept. 7-10, 1948, June 27, Aug. 7, 1951; no flow many days each year.

REMARKS.--Records good. Canal diverts from Conchas Lake (see sta 07223500) for irrigation of about 700 acres (2.83 km^2) on Bell Ranch.

MONTHLY DIVERSION, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

Month	Maximum	Minimum	Mean	Diversion in acre-feet
January	0	0	0	0
February	0	0	0	0
March	0	0	0	0
April	5.7	0	2.67	159
May	11	4.5	7.79	479
June	8.1	0	4.20	250
July	10	0	5.93	365
August	11	0	4.70	289
September	9.9	0	3.80	226
WTR YR 1974	11	0	2.71	1,960
October	2.3	0	.19	12
November	0	0	0	0
December	5.7	0	1.32	81
CAL YR 1974	11	0	2.57	1,860

07223300 CONCHAS CANAL BELOW CONCHAS DAM, N. MEX.

LOCATION.--Lat 35°22'51", long 104°10'58", San Miguel County, in Pablo Montoya Grant, in Conchas Canal operations building below Conchas Dam, and 21.5 mi (34.6 km) north of Newkirk. Prior to Dec. 31, 1973, at site 1.0 mi (1.6 km) downstream.

PERIOD OF RECORD.--September 1945 to June 1949, April 1954 to June 1955, September 1961 to current year.

GAGE.--Flowmeters in each of two 90-in diameter steel diversion conduits. Prior to Nov. 19, 1948, water-stage recorder at site 0.2 mi (0.3 km) downstream. Nov. 20, 1948 to Dec. 31, 1973, water-stage recorder at site 1.0 mi (1.6 km) downstream.

EXTREMES.--Period of record: Maximum daily discharge, 751 ft^3/s (21.3 m^3/s) Aug. 31, 1961; no flow many days each year.

REMARKS.--Records good. Water is diverted from Conchas Lake for irrigation of about 35,000 acres (142 km^2) on Tucumcari Project (1966 conditions). Water quality records for the current year are published in Part 2 of this report.

MONTHLY DIVERSION, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

Month	Mean	Diversion in acre-feet
January	0	0
February	119	6,630
March	0	0
April	398	23,660
May	345	21,210
June	315	18,720
July	323	19,850
August	232	14,250
September	138	8,200
WTR YR 1974	166	120,400
October	65.8	4,050
November	0	0
December	0	0
CAL YR 1974	161	116,600

07223500 CONCHAS LAKE AT CONCHAS DAM, N. MEX.

LOCATION.--Lat 35°24'10", long 104°11'25", San Miguel County, in Pablo Montoya Grant, stilling well within concrete portion of Conchas Dam on Canadian River, 24 mi (39 km) north of Newkirk, and at mile 746.0 (1,200.3 km).

DRAINAGE AREA.--7,409 mi² (19,189 km²), of which 433 mi² (1,121 km²) is probably noncontributing.

PERIOD OF RECORD.--December 1938 to September 1965, (monthend contents only), October 1965 to current year. Prior to October 1965, published as Conchas Reservoir near Conchas Dam.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum contents, 256,700 acre-ft (317 hm³) Feb. 13 (elevation, 4,192.59 ft or 1,277.901 m); minimum, 129,000 acre-ft (159 hm³) Dec. 22 (elevation, 4,170.89 ft or 1,271.287 m).
Period of record: Maximum contents, 479,600 acre-ft (591 hm³) Apr. 24, 1942 (elevation, 4,208.41 ft or 1,282.723 m); minimum after initial filling, 82,840 acre-ft (102 hm³) Sept. 12, 13, 1964 (elevation, 4,156.05 ft or 1,266.764 m); minimum elevation, 4,155.80 ft (1,266.688 m) Sept. 24, 1954.

REMARKS.--Lake is formed by dam consisting of concrete main section and earthfill wings, completed Sept. 15, 1939; storage began Dec. 29, 1938. Capacity, 330,100 acre-ft (407 hm³) between elevations 4,060.0 ft (1,237.49 m) and 4,201.0 (1,280.46 m), crest of 300-ft (91.4-m) ungated service spillway. Inactive storage, 70,490 acre-ft (86.9 hm³) at elevation 4,155.0 ft (1,266.44 m). Lake usually not drawn below elevation, 4,157.35 ft (1,267.160 m), sill of irrigation outlet (capacity, 77,790 acre-ft or 95.9 hm³) except for minor sluicing and operation of small powerplant; during 1954-55, 1964 there was some pumping into Conchas Canal. Capacity of 198,800 acre-ft (245 hm³) between elevations 4,201.0 ft (1,280.46 m), crest of 300-ft (91.4-m) ungated service spillway, and 4,218.0 ft (1,285.65 m), crest of 3,000-ft (914-m) ungated emergency spillway, acts as detention storage in the control of floods. Figures given herein represent total contents. Lake is used for irrigation, flood control, and recreation. Diversion above station for irrigation of about 57,000 acres (231 km²). Direct diversions through Conchas Dam to Bell Ranch Canal and Conchas Canal (see sta 07223000, 07223300) irrigate about 36,000 acres (146 km²) near Tucumcari, and on Bell Ranch.

COOPERATION.--Records furnished by Corps of Engineers.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Corps of Engineers in 1970)

4,170	125,100	4,190	237,100
4,180	173,900	4,200	320,500

CONTENTS, IN ACRE-FEET, AT 2400, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	253,900	256,200	250,500	249,700	222,400	197,500	176,500	154,400	142,800	134,300	130,700	129,700
2	254,000	256,200	250,500	248,500	221,500	196,900	175,700	154,100	142,500	133,900	130,600	129,700
3	254,200	256,300	250,500	248,000	220,700	196,300	175,000	153,600	142,100	133,400	130,600	129,700
4	254,300	256,300	250,400	247,500	219,900	195,700	174,300	153,300	141,800	132,900	130,600	129,700
5	254,300	256,300	250,400	246,900	219,100	194,900	173,600	153,000	141,500	132,500	130,600	129,700
6	254,300	256,300	250,300	246,200	218,300	194,200	172,900	152,700	140,900	132,100	130,600	129,700
7	254,300	256,400	250,300	245,400	217,500	193,600	172,100	152,400	140,400	131,600	130,600	129,600
8	254,300	256,400	250,300	244,600	216,800	192,500	171,200	152,500	139,900	131,200	130,600	129,600
9	254,300	256,400	250,300	243,700	216,000	191,800	170,700	153,100	139,400	130,800	130,600	129,500
10	254,500	256,400	250,600	242,900	215,100	191,000	170,000	153,100	138,700	130,600	130,500	129,500
11	254,500	256,400	250,600	241,800	214,300	189,900	169,300	153,000	138,000	130,400	130,500	129,500
12	254,500	256,500	250,600	241,000	213,500	189,200	168,600	152,600	137,200	130,600	130,500	129,400
13	254,600	256,500	250,600	239,700	212,600	188,400	167,800	152,100	136,600	130,600	130,500	129,400
14	254,700	256,400	250,600	238,700	211,600	187,600	167,100	151,500	136,100	130,600	130,400	129,400
15	254,700	256,100	250,600	237,700	210,700	186,900	166,300	150,800	136,100	130,600	130,400	129,400
16	254,800	255,700	250,500	236,800	209,600	186,300	165,500	150,200	136,100	130,700	130,400	129,300
17	255,000	255,300	250,500	235,900	208,800	185,600	164,700	149,400	136,100	130,700	130,400	129,300
18	255,200	254,800	250,500	234,800	207,800	184,900	163,900	148,500	136,000	130,800	130,300	129,300
19	255,400	254,300	250,500	233,600	206,900	184,300	163,000	147,600	135,900	130,800	130,200	129,300
20	255,400	253,900	250,400	232,600	205,900	183,600	162,200	146,900	135,800	130,800	130,100	129,300
21	255,600	253,100	250,400	231,600	205,000	182,800	161,400	146,200	135,700	130,700	130,100	129,300
22	255,700	252,500	250,200	230,600	204,200	182,100	160,600	145,500	135,600	130,700	130,100	129,200
23	255,800	251,800	250,100	229,600	203,400	181,500	159,800	144,600	135,500	130,600	130,100	129,100
24	256,000	251,200	250,000	228,500	202,700	180,900	159,100	144,500	135,500	130,800	130,000	129,000
25	256,000	250,600	250,000	227,700	202,100	180,300	158,200	144,200	135,500	130,700	130,000	129,100
26	256,100	250,500	250,000	226,800	201,500	179,700	157,500	143,900	135,400	130,700	129,900	129,100
27	256,100	250,500	249,900	225,900	200,800	179,000	156,800	143,600	135,300	130,800	129,800	129,100
28	256,100	250,400	249,800	224,900	200,100	178,400	156,100	143,800	135,100	130,800	129,800	129,100
29	256,200	------	249,700	223,900	199,500	177,800	155,700	143,700	134,900	130,800	129,800	129,100
30	256,200	------	249,600	223,100	198,700	177,100	155,300	143,500	134,700	130,700	129,700	129,300
31	256,200	------	249,400	------	198,100	------	154,800	143,200	------	130,700	------	129,300
MAX	256,200	256,500	250,600	249,700	222,400	197,500	176,500	154,400	142,800	134,300	130,700	129,700
MIN	253,900	250,400	249,400	223,100	198,100	177,100	154,800	143,200	134,700	130,400	129,700	129,000
(†)	4,192.53	4,191.78	4,191.65	4,188.02	4,184.16	4,180.58	4,176.38	4,173.99	4,172.16	4,171.28	4,171.06	4,170.96
(‡)	+2,300	-5,800	-1,000	-26,300	-25,000	-21,000	-22,300	-11,600	-8,500	-4,000	-1,000	-400

CAL YR 1974 MAX 256,500 MIN 129,000 ‡ -124,600
WTR YR 1974 MAX 265,400 MIN 134,700 ‡ -131,400

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

07226500 UTE CREEK NEAR LOGAN, N. MEX.

LOCATION.--Lat 35°26'18", long 103°31'31", in NW¼SE¼ sec.15, T.14 N., R.32 E., Harding County, on right bank 1.9 mi (3.1 km) downstream from Alamosa Creek, 4.5 mi (7.2 km) upstream from State Road 155, 4.7 mi (7.6 km) upstream from high-water line of Ute Reservoir, 8.2 mi (13.2 km) northwest of Logan, and at mile 10.0 (16.1 km).

DRAINAGE AREA.--2,060 mi² (5,335 km²), of which 617 mi² (1,598 km²) is probably noncontributing.

PERIOD OF RECORD.--January 1912 to May 1914 (gage heights and discharge measurements only), January 1942 to current year. Records of discharge for August 1904 to June 1906, April 1909 to December 1911, published in WSP 307, are unreliable and should not be used.

GAGE.--Water-stage recorder. Altitude of gage is 3,815 ft (1,163 m) from topographic map. Prior to May 24, 1914, at site 4.2 mi (6.8 km) downstream at different datum. Jan. 13, 1942 to Dec. 15, 1955, at site 4.8 mi (7.7 km) downstream at datum of 3,758.50 ft (1,145.591 m) above mean sea level. Dec. 16, 1955 to Sept. 30, 1964, at site 4.8 mi (7.7 km) downstream at datum of 3,757.50 ft (1,145.286 m) above mean sea level.

AVERAGE DISCHARGE.--33 calendar years, 27.6 ft³/s (0.782 m³/s), 20,000 acre-ft/yr (24.7 hm³/yr); 20 calendar years (1955-74), 24.2 ft³/s (0.685 m³/s), 17,530 acre-ft/yr (21.6 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 60 ft³/s (1.70 m³/s) Aug. 8 (gage height, 1.98 ft or 0.604 m); no flow most of time.
1942-74: Maximum discharge, 24,500 ft³/s (694 m³/s) May 28, 1946, July 12, 1951 (gage height, 8.4 ft or 2.56 m, site and datum then in use), from rating curve extended above 7,700 ft³/s (218 m³/s) on basis of slope-area measurements at gage heights 5.2 ft (1.58 m) and 7.2 ft (2.19 m); maximum gage height, 8.76 ft (2.670 m) July 17, 1972; no flow most of time.
Flood of May 1, 1914, reached a stage of 22.95 ft (6.995 m) site and datum then in use. Another major flood reached a stage of 16.0 ft (4.88 m), 1942 datum, sometime in 1941, from information furnished by Bureau of Reclamation (discharge, about 70,000 ft³/s or 1,980 m³/s).

REMARKS.--Records poor. Diversions for irrigation of a few hundred acres above station.

REVISIONS (WATER YEARS).--WSP 1281: 1942-48, 1950, 1951(P). See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1								.02	0	0	1.5	
2								4.6	0	0	.60	
3								3.2	0	0	.27	
4								2.0	0	0	.05	
5								.22	0	0	.01	
6								0	0	0	0	
7								0	0	0	0	
8								16	0	0	0	
9								.41	0	0	0	
10								0	0	1.8	0	
11								0	0	.16	0	
12								0	0	6.9	0	
13								0	0	2.6	0	
14								0	0	.17	0	
15								0	0	0	0	
16								0	.01	0	0	
17								0	4.1	0	0	
18								0	.05	0	0	
19								0	0	0	0	
20								0	0	0	0	
21								0	0	0	0	
22								0	0	0	0	
23								0	0	4.1	0	
24								0	0	.60	0	
25								0	0	0	0	
26								0	0	0	0	
27								0	0	4.4	0	
28								0	0	8.3	0	
29		------						0	0	5.6	0	
30		------						0	0	6.4	0	
31		------		------		------		0	------	4.4	------	
TOTAL	0	0	0	0	0	0	0	26.45	4.16	46.43	2.43	0
MEAN	0	0	0	0	0	0	0	.85	.14	1.40	.081	0
MAX	0	0	0	0	0	0	0	16	4.1	8.3	1.5	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	52	8.3	86	4.8	0

CAL YR 1974 TOTAL 76.47 MEAN .21 MAX 16 MIN 0 AC-FT 152
WTR YR 1974 TOTAL 30.61 MEAN .084 MAX 16 MIN 0 AC-FT 61

PEAK DISCHARGE (BASE, 3,700 FT³/S).--NO PEAK ABOVE BASE.

07226800 UTE RESERVOIR NEAR LOGAN, N. MEX.

LOCATION.--Lat 35°20'35", long 103°26'37", in NW¼ sec.21, T.13 N., R.33 E., Quay County, on face of Ute Dam on Canadian River, 2.5 mi (4.0 km) southwest of Logan, 3.5 mi (5.6 km) downstream from Ute Creek, and at mile 673.1 (1,083.0 km).

DRAINAGE AREA.--11,140 mi² (28,853 km²), of which 1,110 mi² (2,875 km²) is probably noncontributing.

PERIOD OF RECORD.--May 1963 to September 1965 (monthend contents only), October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Interstate Stream Commission). Prior to Feb. 25, 1974, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents observed, 94,970 acre-ft (117 hm³) Jan. 14-21 (elevation, 3,756.3 ft or 1,144.92 m); minimum, 84,640 acre-ft (104 hm³) Aug. 23-24 (elevation, 3,753.46 ft or 1,144.055 m).
Period of record: Maximum contents observed, 119,900 acre-ft (148 hm³) June 17, 1969 (elevation, 3,762.4 ft or 1,146.78 m); minimum observed, 22,230 acre-ft (27.4 hm³) Aug. 7, 1964 (elevation, 3,726.2 ft or 1,135.75 m).

REMARKS.--Reservoir is formed by earthfill dam 121 ft (37 m) high above streambed, 2,050 ft (620 m) long; an earth-dike section on north (left) bank of Canadian River is 2,860 ft (870 m) long and has a maximum height of 27 ft (8 m); a concrete spillway section 840 ft (260 m) long is constructed between main embankment and the dike. Construction completed in May 1963; storage began Dec. 13, 1962. Capacity, 109,600 acre-ft (135 hm³) at elevation 3,760.0 ft (1,146.05 m), crest of 840-ft (260-m) ungated service spillway. Top of dam is at elevation 3,801.0 ft (1,158.54 m). Maximum design capacity of 307,000 acre-ft (379 hm³) at elevation 3,791.0 ft (1,155.50 m), 31.0 ft (9.4 m) above crest of spillway, allows 197,400 acre-ft (243 hm³) of capacity for protection of the structure. Dead storage, 20,710 acre-ft (25.5 hm³) at elevation 3,725.0 ft (1,135.38 m), sill of outlet gate; inactive pool of 49,870 acre-ft (61.5 hm³) below elevation 3,741.6 ft (1,140.44 m) is maintained for fish and wildlife. Figures given herein represent total contents. Reservoir is planned to furnish water for municipal and industrial uses and for recreational purposes; some incidental flood control. Diversions above station for irrigation of about 90,000 acres (364 km²). Water quality records for the current year are published in Part 2 of this report.

COOPERATION.--Records furnished by New Mexico Interstate Stream Commission prior to Feb. 25, 1974.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by New Mexico Interstate Stream Commission in 1963)

3,752	79,640	3,756	93,840
3,754	86,550	3,758	101,500

CONTENTS, IN ACRE-FEET, AT 2400, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	93,840	94,590	93,910	92,790	91,430	89,560	87,120	85,490	86,050	87,690	90,880	89,560
2	93,840	94,590	93,910	92,720	91,390	89,530	87,010	85,490	85,980	87,620	90,840	89,560
3	93,840	94,590	93,910	92,480	91,350	89,530	86,870	85,490	85,940	87,580	90,840	89,560
4	93,840	94,590	93,860	92,460	91,350	89,490	86,790	85,490	85,870	87,440	90,840	89,560
5	93,840	94,590	93,760	92,420	91,350	89,380	86,720	85,490	85,840	87,370	90,840	89,560
6	93,840	94,590	93,730	92,420	91,350	89,200	86,900	85,490	85,730	87,260	90,840	89,490
7	94,030	94,590	93,650	92,390	91,350	89,020	86,900	85,560	85,700	87,370	90,840	89,450
8	94,210	94,590	93,650	92,390	91,350	88,910	86,900	85,660	85,660	87,440	90,660	89,450
9	94,210	94,590	93,610	92,390	91,620	88,770	87,040	85,660	85,630	87,440	90,580	89,450
10	94,590	94,590	93,610	92,240	91,280	88,730	87,010	85,660	85,590	87,900	90,580	89,420
11	94,780	94,590	93,610	92,240	91,170	88,510	86,940	85,660	85,450	88,120	90,510	89,380
12	94,780	94,590	93,610	92,160	91,100	88,510	86,830	85,560	85,270	89,090	90,470	89,380
13	94,780	94,210	93,610	91,910	90,840	88,510	86,720	85,560	85,200	89,780	90,400	89,380
14	94,970	94,210	93,610	91,910	90,800	88,400	86,620	85,560	85,420	89,780	90,400	89,340
15	94,970	94,210	93,580	91,910	90,730	88,330	86,620	85,380	85,490	89,780	90,360	89,310
16	94,970	94,210	93,540	91,910	90,690	88,330	86,550	85,350	86,090	89,780	90,330	89,310
17	94,970	94,210	93,540	91,790	90,470	88,330	86,440	85,310	87,440	89,780	90,330	89,270
18	94,970	94,210	93,500	91,790	90,400	88,230	86,330	85,240	87,650	89,780	90,250	89,240
19	94,970	94,210	93,430	91,790	90,360	88,230	86,260	85,100	87,870	89,780	90,140	89,200
20	94,970	94,210	93,350	91,650	90,180	88,150	86,190	84,920	87,870	89,780	90,140	89,200
21	94,970	94,210	93,320	91,570	90,140	87,970	86,090	84,780	87,870	89,780	90,110	89,160
22	94,780	94,210	93,240	91,540	90,030	87,790	86,020	84,710	87,870	89,780	90,070	89,130
23	94,780	94,210	93,200	91,540	90,000	87,790	85,910	84,640	87,870	90,000	89,960	89,090
24	94,780	94,210	93,170	91,500	90,000	87,720	85,840	84,960	87,870	90,000	89,930	89,090
25	94,780	93,950	93,170	91,500	90,000	87,650	85,730	84,850	87,870	90,000	89,850	89,050
26	94,780	93,950	93,170	91,500	90,000	87,580	85,660	84,820	87,870	90,000	89,780	89,050
27	94,780	93,910	93,090	91,500	90,000	87,470	85,560	85,560	87,790	90,620	89,740	89,090
28	94,590	93,910	93,050	91,500	89,890	87,400	85,490	86,050	87,720	90,800	89,560	89,090
29	94,590	------	92,940	91,460	89,780	87,260	85,450	86,190	87,720	90,880	89,560	89,090
30	94,590	------	92,940	91,430	89,630	87,220	85,420	86,300	87,690	90,990	89,560	89,200
31	94,590	------	92,910	------	89,560	------	85,420	86,300	------	90,950	------	89,200
MAX	94,970	94,590	93,910	92,790	91,430	89,560	87,120	86,300	87,870	90,990	90,880	89,560
MIN	93,840	93,910	92,910	91,430	89,560	87,220	85,420	84,640	85,200	87,260	89,560	89,050
(†)	3,756.20	3,756.02	3,755.75	3,755.35	3,754.84	3,754.19	3,753.68	3,753.93	3,754.32	3,755.22	3,754.84	3,754.74
(‡)	+750	-680	-1,000	-1,480	-1,870	-2,340	-1,800	+880	+1,390	+3,260	-1,390	-360

CAL YR 1974 MAX 94,970 MIN 84,640 ‡ -4,640
WTR YR 1974 MAX 98,400 MIN 84,640 ‡ -10,710

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.
NOTE.--Prior to Feb. 25, 1974, observations of contents are at 0800 hours.

07227000 CANADIAN RIVER AT LOGAN, N. MEX.

LOCATION.--Lat 35°21'25", long 103°25'03", in NE¼NE¼ sec.15, T.13 N., R.33 E., Quay County, on left bank 1,100 ft (340 m) upstream from bridge on U.S. Highway 54, 0.7 mi (1.1 km) south of Logan, 1.4 mi (2.3 km) upstream from Chicago, Rock Island & Pacific Railroad Co. bridge, 2.0 mi (3.2 km) downstream from Ute Dam, 4.3 mi (6.9 km) upstream from Revuelto Creek, and at mile 672.0 (1,081.2 km).

DRAINAGE AREA.--11,141 mi² (28,855 km²), of which 1,110 mi² (2,875 km²) is probably noncontributing.

PERIOD OF RECORD.--June 1904 to November 1905 (gage heights and discharge measurements only), December 1908 to September 1909, February 1910, April to July 1910, August 1910 to September 1911 (gage heights and discharge measurements only), October 1911 to May 1914, January to May 1924, September 1924 to July 1925, January 1927 to April 1934, August 1934 to current year. Monthly discharge only for some periods, published in WSP 1311. Records for December 1909, January 1910, and May to July 1934, published in WSP 267, 287, and 762 are unreliable and should not be used. Published as South Canadian River, June to September 1904.

GAGE.--Water-stage recorder. Datum of gage is 3,668.1 ft (1,118.04 m) above mean sea level. See WSP 1311 or 1731 for history of changes prior to Oct. 1, 1934.

AVERAGE DISCHARGE.--14 calendar years (1912-13, 1927-38), 338 ft³/s (10.99 m³/s), 281,100 acre-ft/yr (347 hm³/yr), prior to completion of Conchas Dam; 24 calendar years (1939-62), 254 ft³/s (7.193 m³/s), 184,000 acre-ft/yr (227 hm³/yr), prior to completion of Ute Dam; 12 calendar years (1963-74), 37.3 ft³/s (1.056 m³/s), 27,020 acre-ft/yr (33.3 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 285 ft³/s (8.07 m³/s) Nov. 8 (gage height, 3.18 ft or 0.969 m); minimum, 1.0 ft³/s (0.028 m³/s) Aug. 13.
1930-74: Maximum discharge, 219,000 ft³/s (6,200 m³/s) Sept. 22, 1941 (gage height, 29.3 ft or 8.93 m, from floodmarks), from rating curve extended above 75,000 ft³/s (2,120 m³/s); no flow at times prior to completion of Ute Dam.
Maximum discharge, 278,000 ft³/s (7,870 m³/s) Sept. 30, 1904 (gage height, about 36.5 ft or 11.13 m, site and datum used in 1909), from rating curve extended above 14,000 ft³/s (396 m³/s), from Ninth Biennial Report of State Engineer.

REMARKS.--Records fair. Flow regulated by Conchas Lake, 45 mi (72 km) upstream (see sta 07223500) and Ute Reservoir, 2 mi (3 km) upstream (see sta 07226800). Diversions for irrigation of about 90,000 acres (364 km²) above station.

REVISIONS (WATER YEARS).--WSP 1087: 1935-36. WSP 1117: Drainage area. WSP 1281: 1912, 1932(M), 1934, 1945-47, 1949-50. WSP 1311: 1931(M). See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	2.3	2.1	2.4	1.8	2.3	2.3	1.8	1.8	1.6	2.0	2.4	2.4
2	2.3	2.1	2.6	2.1	2.3	2.3	1.8	2.0	1.6	2.0	2.4	2.3
3	2.3	2.1	2.4	2.1	2.3	2.3	2.9	2.0	1.7	2.0	2.6	2.3
4	2.3	2.3	2.3	2.2	15	2.1	3.8	2.0	1.7	2.0	2.6	2.3
5	2.4	2.1	2.3	2.3	3.2	2.1	2.3	1.8	1.7	2.0	2.4	2.3
6	2.4	2.1	2.3	2.3	2.1	2.0	3.3	1.7	1.7	2.0	2.4	2.3
7	2.3	2.1	2.3	2.1	2.0	2.1	3.0	1.7	1.7	2.3	23	2.3
8	2.0	2.0	2.4	2.1	2.0	2.1	2.6	1.8	1.7	2.1	73	2.3
9	2.1	2.0	2.6	2.1	1.8	2.0	2.4	1.7	1.7	2.1	4.3	2.3
10	2.1	2.0	2.6	2.1	1.8	2.0	2.6	1.7	1.8	4.7	3.0	2.4
11	2.1	2.0	2.6	2.1	1.8	2.0	2.3	1.6	1.8	2.9	2.4	2.4
12	2.1	2.0	2.4	2.1	1.8	2.1	2.3	1.6	1.7	3.6	2.4	2.4
13	2.1	2.1	2.6	2.0	1.8	2.3	2.3	1.6	1.8	2.4	2.4	2.4
14	2.1	2.1	2.4	2.0	1.8	2.1	2.3	1.6	2.4	2.1	2.4	2.3
15	2.1	2.1	2.4	2.1	1.8	2.1	2.3	1.6	2.1	2.1	2.4	2.3
16	2.1	2.1	2.4	2.1	1.8	2.1	2.1	1.6	2.1	2.1	2.4	2.3
17	2.1	2.1	2.4	2.1	1.8	2.1	2.1	1.6	7.4	2.1	2.4	2.4
18	2.1	2.1	2.4	2.1	2.0	2.0	2.0	1.6	2.9	2.1	2.4	2.3
19	2.3	2.1	2.4	2.1	1.8	2.0	2.0	1.4	2.3	2.1	2.4	2.3
20	2.3	2.1	2.3	2.1	1.8	1.8	2.0	1.6	2.3	2.1	2.4	2.1
21	2.3	2.1	2.4	1.8	2.0	2.1	1.8	1.6	2.0	2.3	2.4	2.3
22	2.1	2.1	2.3	2.1	2.0	2.0	1.8	1.7	2.0	2.3	2.4	2.1
23	2.1	2.1	2.1	2.0	2.1	3.2	1.6	1.7	2.0	6.1	2.4	2.1
24	2.3	2.1	2.3	2.0	2.4	2.3	1.8	1.8	2.0	2.4	2.4	2.1
25	2.3	2.1	2.3	2.1	2.3	2.0	1.7	2.1	2.0	2.3	2.4	2.3
26	2.1	2.3	2.3	2.4	2.0	1.8	1.7	1.7	2.0	2.3	2.4	2.3
27	2.1	2.3	2.1	2.0	2.0	1.7	1.7	2.0	2.0	4.3	2.6	2.3
28	2.1	2.4	2.0	2.1	1.8	1.7	1.7	1.8	2.0	3.0	2.3	2.3
29	2.1	------	2.0	2.0	1.8	1.8	2.0	1.7	2.0	2.6	2.4	2.3
30	2.1	------	2.0	2.3	1.8	1.8	1.8	1.7	2.0	2.6	2.4	2.4
31	2.1	------	2.0	------	2.0	------	2.0	1.6	------	2.4	------	2.4
TOTAL	67.6	59.2	72.3	62.8	75.2	62.3	68.0	53.4	66.7	76.4	166.2	71.3
MEAN	2.18	2.11	2.33	2.09	2.43	2.08	2.19	1.72	2.12	2.46	5.54	2.30
MAX	2.4	2.4	2.6	2.4	15	3.2	3.8	2.1	7.4	4.7	73	2.4
MIN	2.0	2.0	2.0	1.8	1.8	1.7	1.7	1.4	1.6	2.0	2.3	2.1
AC-FT	134	117	143	125	149	124	135	106	126	152	330	141

CAL YR 1974 TOTAL 898.4 MEAN 2.46 MAX 73 MIN 1.4 AC-FT 1,780
WTR YR 1974 TOTAL 796.3 MEAN 2.18 MAX 15 MIN 1.4 AC-FT 1,580

07227100 REVUELTO CREEK NEAR LOGAN, N. MEX.

LOCATION.--Lat 35°20'28", long 103°23'40", in SW¼NW¼ sec.24, T.13 N., R.33 E., Quay County, on right bank 0.3 mi (0.5 km) upstream from bridge on State Highway 39, 1.9 mi (3.1 km) southeast of Logan, and at mile 2.3 (3.7 km).

DRAINAGE AREA.--786 mi² (2,036 km²).

PERIOD OF RECORD.--August 1959 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,665 ft (1,117 m) from topographic map.

AVERAGE DISCHARGE.--15 calendar years, 52.7 ft³/s (1.492 m³/s), 38,180 acre-ft/yr (47.1 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 3,120 ft³/s (88.4 m³/s) Sept. 17 (gage height, 5.46 ft or 1.664 m); no flow at times.
Period of record: Maximum discharge, 26,700 ft³/s (756 m³/s) July 9, 1960 (gage height, 14.3 ft or 4.36 m); no flow at times, 1941-47: Maximum discharge determined, about 13,400 ft³/s (379 m³/s) Sept. 18, 1946 (gage height, 9.04 ft or 2.755 m), at site 500 ft (150 m) downstream at different datum, from unpublished records collected by Bureau of Reclamation.
A peak of 26,100 ft³/s (739 m³/s) date unknown (gage height, 12.9 ft or 3.93 m), was measured by slope-area method in May 1957.

REMARKS.--Records poor. Low flows supplemented by surface and ground water return from irrigation in vicinity of Tucumcari. Water quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1.6	2.1	21	0	46	6.5	1.6	53	18	13	40	5.0
2	1.8	2.1	12	0	36	10	3.7	26	11	11	26	7.1
3	1.7	1.6	6.0	0	28	8.9	9.6	16	8.9	10	20	8.2
4	1.7	1.4	2.6	0	51	10	17	16	10	17	41	7.6
5	2.0	1.2	1.6	0	41	8.2	5.0	16	8.9	20	22	6.0
6	2.5	1.0	1.6	0	35	12	5.5	11	6.5	28	18	4.5
7	2.5	.60	.60	10	27	5.0	7.1	4.5	3.7	40	18	3.7
8	2.0	.89	.46	15	22	10	7.1	2.6	2.6	47	14	3.3
9	2.2	1.6	1.6	14	20	10	18	2.3	1.8	191	11	3.0
10	2.5	5.0	7.6	9.5	15	7.6	79	3.0	1.6	452	9.5	4.1
11	3.5	5.0	8.9	7.6	15	7.1	68	.89	1.6	1,460	8.9	5.5
12	5.0	3.5	6.5	16	15	8.2	20	.33	2.1	1,120	7.6	4.5
13	7.0	2.1	4.5	17	13	28	7.1	.33	3.3	603	7.1	3.7
14	8.2	1.6	3.0	24	13	16	3.0	1.0	116	126	5.5	4.1
15	6.0	1.6	2.1	26	16	7.1	3.7	2.3	63	52	5.5	3.0
16	5.5	2.1	1.8	27	15	8.2	4.1	.33	44	34	6.5	3.3
17	5.0	2.1	1.0	27	15	13	7.6	1.0	872	26	6.5	4.5
18	5.0	1.6	.46	27	14	13	5.5	2.6	553	21	5.0	5.5
19	24	1.2	.20	28	13	12	4.5	17	156	18	4.1	5.0
20	18	25	.20	19	12	7.1	2.6	32	210	15	3.3	3.3
21	10	19	.20	26	12	2.6	1.4	24	145	11	3.3	3.3
22	5.5	17	.08	36	14	.89	1.4	84	47	13	3.0	4.1
23	4.1	15	.08	40	13	4.6	1.2	94	42	199	3.0	2.6
24	3.7	16	.20	34	12	9.5	1.0	52	41	143	3.3	2.1
25	3.7	21	.08	42	12	15	.89	143	36	60	3.7	2.3
26	3.0	25	.12	47	8.9	7.1	58	71	32	42	3.0	3.0
27	3.0	28	.03	38	5.5	3.7	22	157	22	66	3.3	8.2
28	3.3	28	0	30	4.1	1.0	16	133	18	211	3.3	8.9
29	3.7	------	0	36	7.1	.46	27	114	17	128	3.3	8.9
30	3.3	------	0	44	6.0	1.0	41	56	15	60	4.1	8.2
31	2.6	------	0	------	5.5	------	28	32	------	58	------	9.5
TOTAL	156.6	232.09	84.51	638.1	562.1	253.75	477.59	1,168.18	2,507.0	5,295	302.8	156.0
MEAN	4.95	8.29	2.73	21.3	18.1	8.46	15.4	37.7	83.6	171	10.1	5.03
MAX	24	28	21	47	51	28	79	157	872	1,460	40	9.5
MIN	1.6	.60	0	0	4.1	.46	.89	.33	1.6	10	3.0	2.1
AC-FT	305	460	168	1,270	1,110	503	947	2,320	4,970	10,500	601	309

CAL YR 1974 TOTAL 11,830.72 MEAN 32.4 MAX 1,460 MIN 0 AC-FT 23,470
WTR YR 1974 TOTAL 6,771.71 MEAN 18.6 MAX 872 MIN 0 AC-FT 13,430

PEAK DISCHARGE (BASE, 3,500 FT³/S).--No peak above base.

RIO GRANDE BASIN

08251500 RIO GRANDE NEAR LOBATOS, COLO.

LOCATION.--Lat 37°04'42", long 105°45'22", in sec.22, T.33 N., R.11 E., Conejos County, on right bank at highway bridge, 6 mi (10 km) north of Colorado-New Mexico State line, 7 mi (11 km) downstream from Culebra Creek, 10 mi (16 km) east of Lobatos, 14 mi (23 km) east of Antonito and at mile 1,722.1 (2,770.9 km).

DRAINAGE AREA.--7,700 mi² (19,900 km²) approximately, including 2,940 mi² (7,610 km²) in closed basin in northern part of San Luis Valley, Colo.

PERIOD OF RECORD.--June 1889 to current year. Monthly discharge only for some periods, published in WSP 1312. Published as "at Cenicero" 1899-1901, and as "near Cenicero" 1902-04.

GAGE.--Water-stage recorder. Datum of gage is 7,427.63 ft (2,263.942 m) above mean sea level. Prior to Nov. 8, 1910, nonrecording gages at same site and datum.

AVERAGE DISCHARGE.--75 calendar years, 590 ft³/s (16.71 m³/s), 427,500 acre-ft/yr (527 hm³/yr); 20 calendar years (1955-74), 334 ft³/s (9.459 m³/s), 242,000 acre-ft/yr (298 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 784 ft³/s (22.2 m³/s) Apr. 1 (gage height, 2.38 ft or 0.725 m); minimum daily, 12 ft³/s (0.34 m³/s) Sept. 26, 28.
Period of record: Maximum discharge observed, 13,200 ft³/s (374 m³/s) June 8, 1905 (gage height, 9.1 ft or 2.77 m), from rating curve extended above 8,000 ft³/s (230 m³/s); no flow at times in 1950-51, 1956.
Maximum stage since at least 1828, that of June 8, 1905.

REMARKS.--Records good except those for winter periods, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Water quality records for the current year are published in Part 2 of this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

REVISIONS (WATER YEARS).--WSP 210: Drainage area. WSP 1312: 1907 (monthly runoff).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	260	265	300	760	262	58	23	14	18	15	58	170
2	250	270	330	744	220	110	22	26	17	16	69	160
3	240	270	350	580	220	139	19	28	18	16	92	160
4	235	270	355	400	286	139	16	29	18	16	90	170
5	230	275	365	330	290	139	15	27	18	17	82	195
6	235	275	375	302	265	128	15	23	18	23	80	210
7	240	265	400	274	245	160	16	19	18	29	80	210
8	255	260	440	270	184	164	20	20	17	32	92	160
9	270	255	490	270	154	167	23	24	16	34	98	170
10	270	250	490	266	223	170	19	27	15	53	98	160
11	275	250	520	242	350	164	18	31	14	60	95	170
12	280	260	510	230	306	125	23	24	16	62	90	175
13	285	270	560	223	320	92	25	24	16	67	90	170
14	280	270	629	206	220	78	26	23	16	73	90	170
15	285	265	657	206	174	67	29	22	19	67	90	170
16	285	270	608	198	136	62	31	23	21	67	82	170
17	290	270	643	181	136	56	31	24	19	69	85	160
18	290	280	650	184	120	58	29	24	19	65	98	160
19	290	280	685	174	139	55	24	24	17	58	95	165
20	295	285	728	157	136	48	26	24	16	56	85	160
21	300	275	736	174	100	44	26	21	16	51	110	165
22	300	280	706	157	88	38	26	19	16	51	125	165
23	295	280	671	130	92	36	25	18	16	50	120	160
24	290	275	643	133	108	34	27	18	16	50	142	155
25	285	280	622	128	102	37	21	19	13	50	160	155
26	280	290	615	198	133	32	20	19	12	51	190	140
27	275	295	615	298	133	31	18	20	13	51	165	140
28	270	295	636	360	92	29	16	18	12	53	140	145
29	260	------	657	320	69	26	16	20	13	58	100	140
30	265	------	692	282	56	25	16	19	13	60	110	140
31	265	------	720	------	55	------	15	18	------	60	------	140
TOTAL	8,425	7,625	17,398	8,377	5,414	2,511	676	689	486	1,480	3,101	5,080
MEAN	272	272	561	279	175	83.7	21.8	22.2	16.2	47.7	103	164
MAX	300	295	736	760	350	170	31	31	21	73	190	210
MIN	230	250	300	128	55	25	15	14	12	15	58	140
AC-FT	16,710	15,120	34,510	16,620	10,740	4,980	1,340	1,370	964	2,940	6,150	10,080

CAL YR 1974 TOTAL 61,262 MEAN 168 MAX 760 MIN 12 AC-FT 121,500
WTR YR 1974 TOTAL 84,478 MEAN 231 MAX 760 MIN 12 AC-FT 167,600

08252000 RIO GRANDE AT COLORADO-NEW MEXICO STATE LINE

LOCATION.--Lat 37°00'03", long 105°43'19", Costilla County, in Sangre de Cristo Grant, on left bank 0.6 mi (1.0 km) upstream from Colorado-New Mexico State line, 1.7 mi (2.7 km) upstream from Costilla Creek, 5.5 mi (8.8 km) west of Jaroso and at mile 1,713.3 (2,756.7 km).

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,390 ft (2,252 m) from topographic map.

AVERAGE DISCHARGE.--21 calendar years, 320 ft^3/s (9.062 m^3/s), 231,800 acre-ft/yr (286 hm^3/yr); 20 calendar years (1955-74), 331 ft^3/s (9.374 m^3/s) 239,800 acre-ft/yr (296 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 800 ft^3/s (22.7 m^3/s) Apr. 1 (gage height, 3.54 ft or 1.079 m); maximum gage height, 4.16 ft (1.268 m) Mar. 4 (backwater from ice); minimum daily discharge, 12 ft^3/s (0.34 m^3/s) Sept. 12, 13, 26-29.
Period of record: Maximum discharge, 4,150 ft^3/s (118 m^3/s) May 29, 1958 (gage height, 7.07 ft or 2.155 m); no flow at times in 1956.
Flood of June 8, 1905 (daily discharge, 13,100 ft^3/s or 371 m^3/s at station near Lobatos 5.8 mi or 9.3 km upstream), was probably the greatest since at least 1828.

REMARKS.--Records good except those for winter periods, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

REVISIONS (WATER YEARS).--WSP 1732: 1954(M).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	270	265	300	780	277	63	25	14	18	14	55	150
2	255	270	320	766	234	90	24	15	17	15	64	165
3	245	270	345	653	219	138	23	37	18	16	90	160
4	235	270	355	442	289	146	22	24	18	16	95	165
5	230	275	360	356	311	138	19	33	19	16	88	190
6	235	275	370	317	280	125	18	24	18	18	86	205
7	240	270	390	292	255	155	17	21	18	25	84	210
8	250	260	430	289	207	160	20	21	18	31	97	180
9	265	255	480	274	163	166	24	23	17	33	108	165
10	270	250	500	277	201	178	23	27	15	41	106	165
11	275	250	510	264	372	169	20	29	14	59	103	165
12	280	255	520	246	317	138	21	24	12	61	99	170
13	285	265	540	240	340	95	25	23	12	63	97	175
14	280	270	600	225	246	82	27	20	13	68	97	170
15	285	265	653	219	186	68	28	20	16	66	92	170
16	285	270	607	210	146	64	29	21	20	64	88	170
17	290	270	635	195	135	57	29	22	19	66	88	165
18	290	275	635	195	128	54	29	23	18	64	92	160
19	290	280	671	183	132	55	27	22	16	59	95	160
20	295	285	712	160	143	47	24	23	15	55	86	165
21	300	280	730	178	110	42	24	23	15	54	90	160
22	300	280	707	172	97	40	27	22	13	54	118	165
23	295	280	676	138	86	35	23	21	13	54	120	165
24	290	275	658	128	115	34	27	20	14	52	128	160
25	285	280	640	128	112	35	25	21	13	52	157	155
26	280	285	635	160	128	34	20	21	12	50	175	145
27	275	295	631	286	146	31	19	21	12	52	170	140
28	270	295	658	375	101	31	17	22	12	54	160	140
29	265	------	680	349	76	29	16	21	12	54	108	145
30	265	------	707	295	64	27	17	21	13	59	105	140
31	265	------	730	------	63	------	15	20	------	55	------	140
TOTAL	8,440	7,615	17,385	8,792	5,679	2,526	704	699	460	1,440	3,141	5,080
MEAN	272	272	561	293	183	84.2	22.7	22.5	15.3	46.5	105	164
MAX	300	295	730	780	372	178	29	37	20	68	175	210
MIN	230	250	300	128	63	27	15	14	12	14	55	140
AC-FT	16,740	15,100	34,480	17,440	11,260	5,010	1,400	1,390	912	2,860	6,230	10,080

CAL YR 1974 TOTAL 61,961 MEAN 170 MAX 780 MIN 12 AC-FT 122,900
WTR YR 1974 TOTAL 85,511 MEAN 234 MAX 780 MIN 12 AC-FT 169,600

08252500 COSTILLA CREEK ABOVE COSTILLA DAM, N. MEX.

LOCATION.--Lat 36°53'52", long 105°15'16", Taos County, in Sangre de Cristo Grant, on left bank 1,900 ft (580 m) upstream from normal high-water line of Costilla Reservoir, 2.1 mi (3.4 km) northeast of Costilla Dam, 16 mi (26 km) southeast of Costilla, and at mile 36.9 (59.4 km).

DRAINAGE AREA.--25.1 mi² (65.0 km²).

PERIOD OF RECORD.--April 1937 to current year (no winter records). Monthly discharge only for some periods, published in WSP 1312 and 1732. Prior to October 1951, published as "above reservoir, near Costilla."

GAGE.--Water-stage recorder. Concrete control since Sept. 17, 1965. Altitude of gage is 9,429 ft (2,874 m) from topographic map. See WSP 1923 for history of changes prior to Sept. 17, 1965.

EXTREMES.--Current year: Maximum discharge, 15 ft³/s (0.42 m³/s) June 8 (gage height, 2.20 ft or 0.671 m); minimum not determined.
Period of record: Maximum discharge, 3,870 ft³/s (110 m³/s) July 22, 1954 (gage height, 6.3 ft or 1.92 m, from floodmarks, present site and datum), on basis of slope-area measurement of peak flow; minimum not determined.
The flood in 1954 destroyed the gaging station and is highest known since about 1909, from information by local range rider. A portion of this flow may have originated in Casias Creek basin (see REMARKS).

REMARKS.--Records good. Natural flow may be augmented by transbasin diversions or irrigation returns from about 1,300 acres (5.26 km²) irrigated from Casias Creek (see sta 08253000).

REVISIONS (WATER YEARS).--WSP 878: 1937. WSP 1923: 1937-50, drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					5.0	5.2	2.3	4.1	1.6	1.4		
2					5.0	4.7	2.4	3.7	1.6	1.4		
3					5.5	4.1	1.9	6.3	1.8	1.6		
4					6.0	3.8	2.1	4.0	1.6	2.0		
5					6.0	3.5	2.3	2.5	1.4	1.7		
6					6.5	4.1	2.1	2.2	1.4	1.8		
7					7.0	5.1	2.8	2.1	1.4	2.0		
8					7.9	10	2.2	2.6	1.2	-		
9					9.0	6.5	2.1	3.1	1.2	-		
10					9.0	5.6	2.0	4.5	1.2	-		
11					8.7	4.7	1.7	2.6	1.2	-		
12					8.4	4.0	2.0	2.2	1.2	-		
13					8.4	3.7	2.5	2.1	1.2	-		
14					7.9	3.8	2.1	1.8	1.4	-		
15					7.2	4.1	2.6	1.8	3.0	-		
16					7.2	3.8	2.8	1.8	4.1	-		
17					6.7	3.7	2.5	1.8	2.9	-		
18					6.5	3.5	2.0	1.8	2.2	-		
19					6.5	3.4	2.1	1.8	1.9	-		
20					6.5	3.1	2.9	1.9	2.9	-		
21					5.8	2.9	3.3	1.8	2.8	-		
22					5.4	2.8	3.5	2.1	2.0	-		
23					5.2	2.8	2.4	2.4	2.0	-		
24					5.4	2.8	2.0	2.1	1.9	-		
25					5.8	2.8	2.0	2.0	1.8	-		
26					5.2	2.6	2.8	1.8	1.8	-		
27					4.9	2.5	2.3	2.0	1.9	-		
28					4.9	2.3	2.1	2.6	1.7	-		
29		------			4.5	2.5	3.2	2.1	1.4	-		
30		------			4.3	2.4	2.5	1.8	1.4	-		
31		------		------	4.7	------	4.3	1.6	------	-	------	
TOTAL	-	-	-	-	197.0	116.8	75.8	77.0	55.1	-	-	-
MEAN	-	-	-	-	6.35	3.89	2.45	2.48	1.84	-	-	-
MAX	-	-	-	-	9.0	10	4.3	6.3	4.1	-	-	-
MIN	-	-	-	-	4.3	2.3	1.7	1.6	1.2	-	-	-
AC-FT	-	-	-	-	391	232	150	153	109	-	-	-

PEAK DISCHARGE (BASE, 40 FT³/S).--No peak above base.

08253000 CASIAS CREEK NEAR COSTILLA, N. MEX.

LOCATION.--Lat 36°53'48", long 105°15'35", Taos County, in Sangre de Cristo Grant, on left bank 200 ft (61 m) downstream from road crossing, 900 ft (270 m) upstream from normal high-water line of Costilla Reservoir, 1.8 mi (2.9 km) northeast of Costilla Dam, and 16 mi (26 km) southeast of Costilla.

DRAINAGE AREA.--16.6 mi² (43.0 km²).

PERIOD OF RECORD.--April 1937 to current year (no winter records). Monthly discharge only for some periods, published in WSP 1312 and 1732. Figures of daily discharge for Nov. 1-7, 1947 and Nov. 1-16, 1948, published in WSP 1118 and 1148, respectively, are unreliable and should not be used.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 9,404 ft (2,866 m) from topographic map. Prior to July 18, 1940, water-stage recorder and wooden control 100 ft (30 m) downstream at datum 1.56 ft (0.475 m) lower.

EXTREMES.--Current year: Maximum discharge, 39 ft³/s (1.10 m³/s) June 8 (gage height, 1.07 ft or 0.326 m); minimum not determined. Period of record: Maximum discharge, 181 ft³/s (5.13 m³/s) July 20, 1971 (gage height, 2.07 ft or 0.631 m), from rating curve extended above 85 ft³/s (2.41 m³/s); minimum not determined.

REMARKS.--Records good. Diversion 3.5 mi (5.6 km) upstream for irrigation of about 1,300 acres (5.26 km²), part of which is in Costilla Creek basin.

REVISIONS (WATER YEARS).--WSP 1282: 1948-51. WSP 1923: Drainage area. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1				-	6.5	15	12	6.9	3.7	3.7		
2				-	6.5	14	11	8.0	4.0	3.4		
3				-	7.3	13	9.8	12	4.2	3.4		
4				-	7.7	13	9.3	8.8	4.0	4.0		
5				-	7.7	12	9.8	6.9	3.7	3.7		
6				-	8.0	13	9.8	6.5	3.7	3.7		
7				-	8.0	15	10	6.1	3.7	3.7		
8				-	8.8	22	9.3	7.3	3.4	-		
9				-	11	15	8.8	8.0	3.4	-		
10				-	15	13	8.4	9.8	3.2	-		
11				-	14	12	8.0	7.3	2.9	-		
12				-	15	11	7.3	6.5	2.7	-		
13				-	15	11	8.8	6.1	2.7	-		
14				-	14	12	7.3	6.1	2.9	-		
15				-	13	13	7.3	6.1	5.1	-		
16				-	13	13	7.3	5.4	6.8	-		
17				-	13	15	6.9	5.0	5.0	-		
18				-	12	15	6.5	5.0	4.2	-		
19				-	12	15	6.5	5.4	4.0	-		
20				-	12	15	7.3	5.4	5.7	-		
21				-	11	15	7.3	5.0	5.0	-		
22				-	11	15	6.9	5.0	4.2	-		
23				-	11	14	6.5	5.8	4.0	-		
24				-	11	14	6.1	5.4	3.7	-		
25				-	11	13	5.8	4.7	3.4	-		
26				-	11	13	7.3	4.5	3.4	-		
27				7.3	12	12	6.5	4.7	3.4	-		
28				7.3	13	13	6.5	5.0	3.7	-		
29		------		6.9	13	12	8.0	4.7	3.7	-		
30		------		6.5	13	12	6.9	4.2	3.7	-		
31		------		------	15	------	7.3	4.0	------	-	------	
TOTAL	-	-	-	-	349.5	410	246.5	191.6	116.9	-	-	-
MEAN	-	-	-	-	11.3	13.7	7.95	6.18	3.90	-	-	-
MAX	-	-	-	-	15	22	12	12	6.8	-	-	-
MIN	-	-	-	-	6.5	11	5.8	4.0	2.7	-	-	-
AC-FT	-	-	-	-	693	813	489	380	232	-	-	-

PEAK DISCHARGE (BASE, 35 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
6- 8	0530	1.07	39				

08253500 SANTISTEVAN CREEK NEAR COSTILLA, N. MEX.

LOCATION.--Lat 36°53'03", long 105°16'50", Taos County, in Sangre de Cristo Grant, on left bank 200 ft (61 m) upstream from road crossing, 1,300 ft (400 m) upstream from normal high-water line of Costilla Reservoir, 0.6 mi (1.0 km) north of Costilla Dam, and 16 mi (26 km) southeast of Costilla.

DRAINAGE AREA.--2.15 mi² (5.57 km²).

PERIOD OF RECORD.--April 1937 to current year (no winter records). Monthly discharge only for some periods, published in WSP 1312 and 1732.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 9,487 ft (2,892 m) from topographic map. Prior to June 27, 1940, water-stage recorder and wooden control at datum 0.99 ft (0.302 m) lower.

EXTREMES.--Current year: Maximum discharge 3.2 ft³/s (0.091 m³/s) July 28 (gage height, 0.49 ft or 0.149 m); minimum not determined.
Period of record: Maximum discharge, 18 ft³/s (0.510 m³/s) Aug. 11, 1941, July 12, 1957; maximum gage height 1.73 ft (0.527 m) Aug. 11, 1941; minimum not determined.

REMARKS.--Records fair. No diversions above or below station.

REVISIONS.--WSP 1923: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1				-	.82	1.4	1.4	1.0	.77	.61		
2				-	.88	1.5	1.4	1.2	.82	.61		
3				-	.93	1.6	1.3	1.5	.82	.61		
4				-	.93	1.6	1.3	1.2	.77	.61		
5				-	.93	1.6	1.3	1.0	.77	.61		
6				-	.99	1.6	1.4	.99	.71	.61		
7				-	.99	1.9	1.4	.99	.71	.61		
8				-	1.1	2.2	1.3	1.2	.66	-		
9				-	1.1	2.1	1.2	1.3	.66	-		
10				-	1.2	1.9	1.2	1.4	.61	-		
11				-	1.2	1.8	1.2	1.0	.61	-		
12				-	1.2	1.7	1.3	.99	.61	-		
13				-	1.2	1.7	1.3	.99	.61	-		
14				-	1.1	1.7	1.2	.93	.66	-		
15				-	1.1	1.7	1.3	.93	.77	-		
16				.71	.99	1.6	1.2	.88	.93	-		
17				.61	.99	1.6	1.2	.82	.77	-		
18				.77	.99	1.6	1.1	.82	.71	-		
19				.71	.99	1.6	1.0	.82	.66	-		
20				.71	.99	1.6	1.2	.82	.77	-		
21				.71	.93	1.6	1.0	.82	.77	-		
22				.71	.93	1.6	1.0	.82	.71	-		
23				.77	.99	1.6	1.1	.99	.71	-		
24				.82	1.0	1.4	.99	.99	.66	-		
25				.88	1.1	1.5	.99	.88	.66	-		
26				.88	1.1	1.5	.99	.82	.66	-		
27				.88	1.2	1.4	.99	.88	.66	-		
28				.82	1.2	1.4	1.3	.88	.66	-		
29		------		.82	1.2	1.4	1.3	.82	.66	-		
30		------		.82	1.3	1.4	1.1	.77	.66	-		
31		------		------	1.4	------	1.0	.77	------		------	
TOTAL	-	-	-	-	32.97	48.8	36.96	30.22	21.21	-	-	-
MEAN	-	-	-	-	1.06	1.63	1.19	.97	.71	-	-	-
MAX	-	-	-	-	1.4	2.2	1.4	1.5	.93	-	-	-
MIN	-	-	-	-	.82	1.4	.99	.77	.61	-	-	-
AC-FT	-	-	-	-	65	97	73	60	42	-	-	-

PEAK DISCHARGE (BASE, 6.0 FT³/S).--No peak above base.

08253900 COSTILLA RESERVOIR NEAR COSTILLA, N. MEX.

LOCATION.--Lat 36°52'32", long 105°16'45", Taos County, in Sangre de Cristo Grant, on face of Costilla Dam on Costilla Creek, 16 mi (26 km) southeast of Costilla, and at mile 34.8 (56.0 km).

DRAINAGE AREA.--54.6 mi² (141.4 km²).

PERIOD OF RECORD.--May 1922 to September 1965 (monthend contents only), October 1965 to current year. Records prior to October 1960 published in WSP 1732. Prior to October 1966, published as Costilla Lake near Costilla.

GAGE.--Inclined staff gage painted on base of railroad rail on left side of control tower of Dam. Altitude of gage is -107 ft (-33 m) from topographic map.

EXTREMES.--Current year: Maximum contents observed, 8,160 acre-ft (10.1 hm³) May 5 (gage height, 9,491.3 ft or 2,892.95 m); minimum observed, 80 acre-ft (98,600 m³) Sept. 9 (gage height, 9,419.5 ft or 2,871.06 m).
Period of record: Maximum contents observed, 15,130 acre-ft (18.7 hm³) June 13, 1938, June 20-23, 1941 (gage height, 9,511.5 ft or 2,899.11 m); no contents October 1925 to February 1926, September 1956, Aug. 22 to Sept. 24, 1972.

REMARKS.--Reservoir is formed by earthfill dam faced with broken stone. Storage began in 1920. Capacity 15,740 acre-ft (19.4 hm³) between gage heights 9,405.0 ft (2,866.64 m), sill of outlet, and 9,513.0 ft (2,899.56 m), crest of ungated spillway cut in natural rock. By order of New Mexico State Engineer storage is limited to 14,540 acre-ft (17.9 hm³) maximum, and 10,880 acre-ft (13.4 hm³) for not to exceed 60 days. Diversions for irrigation of about 1,300 acres (5.26 km²) above Reservoir.

COOPERATION.--Gage readings collected in cooperation with New Mexico Interstate Stream Commission.

REVISIONS.--WSP 1923: Drainage area.

Capacity table (gage height, in feet, and contents, in acre-ft)
(Based on original survey, furnished by New Mexico Interstate Stream Commission)

9,419	74	9,440	556	9,480	5,270
9,421	100	9,450	959	9,490	7,790
9,425	165	9,460	1,760	9,500	10,880
9,430	270	9,470	3,260		

CONTENTS, IN ACRE-FEET, FOR STATISTIC 00011, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	-	-	-	-	-	-	2,800	324	-	-	-	-
2	-	-	-	-	-	-	2,570	297	92	-	-	-
3	-	-	-	-	-	5,690	2,370	-	93	-	-	-
4	-	-	-	-	-	5,520	2,210	-	-	-	-	-
5	-	-	-	-	8,160	5,410	2,070	312	-	-	-	-
6	-	-	-	-	-	5,290	-	243	-	-	-	-
7	-	-	-	-	8,050	5,140	-	175	-	447	-	-
8	-	-	-	-	8,020	-	1,990	146	-	-	-	-
9	-	-	-	-	7,960	-	1,880	108	80	-	-	-
10	-	-	-	-	7,930	4,940	1,760	-	-	-	-	-
11	-	-	-	-	-	4,830	1,660	-	-	-	-	-
12	-	-	-	-	-	4,700	1,520	-	-	-	-	-
13	-	-	-	-	7,960	4,600	-	118	-	-	-	-
14	-	-	-	-	7,880	4,490	-	-	-	-	-	-
15	-	-	6,720	-	7,760	-	1,440	-	-	-	-	-
16	-	-	-	7,680	7,630	-	1,340	100	-	-	-	-
17	-	-	-	-	7,520	4,370	1,190	-	126	-	-	-
18	-	-	-	-	-	4,210	1,080	-	144	-	-	-
19	-	-	-	-	-	4,030	989	-	-	-	1,120	-
20	-	-	-	-	7,410	3,970	-	93	-	-	-	-
21	-	-	-	-	7,110	3,720	-	93	-	-	-	-
22	-	-	-	-	6,930	-	920	-	-	-	-	-
23	-	-	-	-	6,720	-	851	-	-	-	-	-
24	-	-	-	-	6,510	3,590	726	-	-	-	-	-
25	-	-	-	-	-	3,400	590	-	-	-	-	-
26	-	-	-	7,930	-	3,210	513	103	-	-	-	-
27	-	-	-	-	6,360	3,020	-	-	-	-	-	-
28	-	6,600	-	-	6,190	2,860	-	-	-	-	-	-
29	-	------	-	-	6,020	-	484	-	-	-	-	-
30	-	------	-	8,050	5,850	2,800	421	104	350	-	1,300	-
31	6,350	------	7,100	------	5,690	------	370	100	------	900	------	1,600
(†)	-	-	-	-	9,481.8	-	9,433.9	-	-	-	-	-
(‡)	+250	+250	+500	+950	-2,360	-2,890	-2,430	-270	+250	+550	+400	+300

CAL YR 1974..... ‡ -4,500
WTR YR 1974..... ‡ -4,350

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.
NOTE.--Contents interpolated at end of month except May 31 and July 31.

08254000 COSTILLA CREEK BELOW COSTILLA DAM, N. MEX.

LOCATION.--Lat 36°52'26", long 105°16'47", Taos County, in Sangre de Cristo Grant, on left bank 125 ft (38 m) downstream from Costilla Dam, 16 mi (26 km) southeast of Costilla, and at mile 34.7 (55.8 km).

DRAINAGE AREA.--54.6 mi² (141.4 km²).

PERIOD OF RECORD.--April 1937 to current year (no winter records 1937-44, 1947-49). Monthly discharge only for some periods, published in WSP 1312. Prior to October 1951, published as "below reservoir, near Costilla."

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 9,290 ft (2,832 m) from topographic map.

AVERAGE DISCHARGE.--27 calendar years (1945-46, 1950-74), 16.6 ft³/s (0.470 m³/s), 12,030 acre-ft/yr (14.8 hm³/yr); 20 calendar years (1955-74), 17.0 ft³/s (0.481 m³/s), 12,320 acre-ft/yr (15.2 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 138 ft³/s (3.91 m³/s) May 20-21 (gage height, 2.01 ft or 0.613 m); minimum not determined.
Period of record: Maximum discharge, 286 ft³/s (8.10 m³/s) May 9, 10, 1942 (gage height, 2.65 ft or 0.808 m); no flow at times.

REMARKS.--Records good except those below 1.0 ft³/s (0.028 m³/s), which are poor. Flow regulated by Costilla Reservoir (see sta 08253900). Diversions for irrigation of about 1,300 acres (5.26 km²) above Reservoir.

REVISIONS.--WSP 1923: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	.02	.02	.03	.03	.05	19	102	31	8.5	.03	.03	.03
2	.02	.02	.03	.03	.05	19	101	19	7.9	.03	.03	.03
3	.02	.02	.03	.03	.05	61	94	10	7.3	.03	.03	.03
4	.02	.02	.03	.03	.05	83	88	18	7.3	.03	.03	.03
5	.02	.02	.03	.03	18	83	44	36	7.0	.03	.03	.03
6	.02	.02	.03	.03	39	82	13	33	7.0	.03	.03	.03
7	.02	.02	.03	.03	39	82	26	32	7.0	.03	.03	.03
8	.02	.02	.03	.03	39	58	72	30	7.0	.03	.03	.03
9	.02	.02	.03	.03	39	46	72	18	6.3	.03	.03	.03
10	.02	.03	.03	.03	16	78	70	12	5.0	.03	.03	.03
11	.02	.03	.03	.03	.07	76	64	12	4.7	.03	.03	.03
12	.02	.03	.03	.03	21	73	31	12	4.7	.03	.03	.03
13	.02	.03	.03	.03	65	73	8.9	12	4.7	.03	.03	.03
14	.02	.03	.03	.05	72	39	25	12	4.7	.03	.03	.03
15	.02	.03	.03	.05	79	14	66	12	5.0	.03	.03	.03
16	.02	.03	.03	.05	78	40	70	9.7	5.2	.03	.03	.03
17	.02	.03	.03	.05	44	106	67	8.9	3.1	.03	.03	.03
18	.02	.03	.03	.05	19	102	60	8.9	.03	.03	.03	.03
19	.02	.03	.03	.05	44	95	32	8.9	.03	.03	.03	.03
20	.02	.03	.03	.05	128	95	12	8.5	.03	.03	.03	.03
21	.02	.03	.03	.05	128	48	25	7.9	.03	.03	.03	.03
22	.02	.03	.03	.05	120	16	53	7.9	.03	.03	.03	.03
23	.02	.03	.03	.05	118	42	54	7.9	.03	.03	.03	.03
24	.02	.03	.03	.05	59	110	57	8.2	.03	.03	.03	.03
25	.02	.03	.03	.05	18	108	55	8.2	.03	.03	.03	.03
26	.02	.03	.03	.05	42	108	29	8.2	.03	.03	.03	.03
27	.02	.03	.03	.05	108	105	10	8.2	.03	.03	.03	.03
28	.02	.03	.03	.05	108	54	17	8.5	.03	.03	.03	.03
29	.02	------	.03	.05	108	16	36	8.5	.03	.03	.03	.03
30	.02	------	.03	.05	106	36	35	8.5	.03	.03	.03	.03
31	.02	------	.03	------	58	------	32	8.5	------	.03	------	.03
TOTAL	.62	.75	.93	1.24	1,713.27	1,967	1,520.9	434.4	102.79	.93	.90	.93
MEAN	.020	.027	.030	.041	55.3	65.6	49.1	14.0	3.43	.030	.030	.030
MAX	.02	.03	.03	.05	128	110	102	36	8.5	.03	.04	.03
MIN	.02	.02	.03	.03	.05	14	8.9	7.9	.03	.03	.03	.03
AC-FT	1.2	1.5	1.8	2.5	3,400	3,900	3,020	862	204	1.8	1.8	1.8

CAL YR 1974 TOTAL 5,744.66 MEAN 15.7 MAX 128 MIN .02 AC-FT 11,390
WTR YR 1974 TOTAL 5,744.11 MEAN 15.7 MAX 128 MIN .02 AC-FT 11,390

NOTE.--No gage-height record Jan. 1 to Mar. 23, Oct. 31 to Dec. 31.

08254500 COSTILLA CREEK NEAR AMALIA, N. MEX.

LOCATION.--Lat 36°52'33", long 105°23'22", Taos County, in Sangre de Cristo Grant, on right bank 0.5 mi (0.8 km) upstream from second bridge upstream from Amalia, 2.4 mi (3.9 km) downstream from Latir Creek, 5.8 mi (9.3 km) southeast of Amalia, 10.5 mi (16.9 km) southeast of Costilla, and at mile 25.4 (40.9 km).

DRAINAGE AREA.--152 mi^2 (394 km^2).

PERIOD OF RECORD.--May 1949 to September 1959 and April 1961 to current year (no winter records). Monthly discharge only for some periods, published in WSP 1732.

GAGE.--Water-stage recorder. Concrete control since Sept. 27, 1965. Altitude of gage is 8,521 ft (2,597 m) from topographic map. May 1949 to May 2, 1956, at site 40 ft (12 m) upstream at datum 0.81 ft (0.247 m) lower. May 3, 1956 to Sept. 27, 1965, at site 10 ft (3 m) downstream at datum 1.81 ft (0.552 m) lower.

EXTREMES.--Current year: Maximum discharge, 180 ft^3/s (5.10 m^3/s) June 8 (gage height, 2.47 ft or 0.753 m); minimum not determined. Period of record: Maximum discharge, 689 ft^3/s (19.5 m^3/s) Apr. 25, 1958 (gage height, 3.70 ft or 1.128 m, site and datum then in use); maximum gage height, 3.11 ft (0.948 m) July 27, 1966; minimum discharge not determined.

REMARKS.--Records good. Flow regulated by Costilla Reservoir (see sta 08253900) about 10 mi (16 km) upstream. Diversions for irrigation of about 1,300 acres (5.26 km^2) above Costilla Reservoir.

REVISIONS (WATER YEARS).--WSP 1732: 1956(M). WSP 1923: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1				-	19	35	101	36	13	4.0		
2				-	20	33	102	31	13	4.0		
3				-	21	60	98	26	12	4.0		
4				-	22	92	92	25	12	4.2		
5				-	29	92	67	41	11	4.0		
6				-	59	94	23	39	11	4.0		
7				-	60	95	23	38	11	4.2		
8				-	62	123	74	38	10	4.4		
9				-	62	65	77	36	10	-		
10				-	51	95	74	31	8.7	-		
11				-	26	94	67	23	8.4	-		
12				-	29	91	50	21	8.1	-		
13				-	89	89	19	20	8.1	-		
14				-	92	69	20	19	8.7	-		
15				-	98	32	69	18	13	-		
16				10	102	36	75	17	16	-		
17				12	77	117	73	16	13	-		
18				14	39	119	66	15	8.4	-		
19				15	44	110	50	15	6.2	-		
20				13	133	109	21	15	6.0	-		
21				12	139	77	22	15	7.8	-		
22				13	128	30	57	15	6.2	-		
23				15	126	37	58	16	5.7	-		
24				18	93	112	62	17	4.9	-		
25				22	36	114	60	15	4.4	-		
26				25	41	112	44	15	4.2	-		
27				26	116	109	19	14	4.2	-		
28				22	117	75	19	15	4.0	-		
29		------		21	117	27	44	15	4.0	-		
30		------		20	114	28	42	14	4.0	-		
31		------		------	84	------	37	14	------	-	------	
TOTAL	-	-	-	-	2,245	2,371	1,705	685	257.0	-	-	-
MEAN	-	-	-	-	72.4	79.0	55.0	22.1	8.57	-	-	-
MAX	-	-	-	-	139	123	102	41	16	-	-	-
MIN	-	-	-	-	19	27	19	14	4.0	-	-	-
AC-FT	-	-	-	-	4,450	4,700	3,380	1,360	510	-	-	-

08255500 COSTILLA CREEK NEAR COSTILLA, N. MEX.

LOCATION.--Lat 36°58'01", long 105°30'23", Taos County, in Sangre de Cristo Grant, on right bank 70 ft (21 m) downstream from bridge on State Highway 196, 0.5 mi (0.8 km) upstream from diversion dam, 1.6 mi (2.6 km) southeast of Costilla, and at mile 15.9 (25.6 km).

DRAINAGE AREA.--195 mi² (505 km²).

PERIOD OF RECORD.--March 1936 to current year (no winter records 1936-43). Monthly discharge for March 1943 and calendar-year estimates for 1942-43, published in WSP 1312.

GAGE.--Water-stage recorder. Concrete control since October 13, 1952. Altitude of gage is 7,900 ft (2,408 m) from topographic map. Prior to June 18, 1944, at site 200 ft (61 m) downstream at different datum. June 18, 1944 to Sept. 30, 1964, at site 0.4 mi (0.6 km) upstream at different datum.

AVERAGE DISCHARGE.--33 calendar years (1942-74), 41.5 ft³/s (1.175 m³/s), 30,070 acre-ft/yr (37.1 hm³/yr); 20 calendar years (1955-74), 36.9 ft³/s (1.045 m³/s), 26,730 acre-ft/yr (33.0 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 178 ft³/s (5.04 m³/s) June 8 (gage height, 3.12 ft or 0.951 m); maximum gage height, 3.24 ft (0.988 m) Dec. 19 (backwater from ice); minimum discharge, 1.8 ft³/s (0.051 m³/s) Nov. 27, result of freezeup.
Period of record: Maximum discharge, 1,150 ft³/s (32.6 m³/s) May 11, 1942 (gage height, 5.37 ft or 1.637 m, site and datum then in use); minimum, 0.34 ft³/s (0.010 m³/s) Mar. 15, 1969, result of freezeup.
A major flood occurred in 1886, from information by local residents.

REMARKS.--Records good except those for January, February, May, and December, which are fair. Regulation by Costilla Reservoir (see sta 08253900) 19 mi (31 km) upstream. Diversions for irrigation of about 2,000 acres (8.09 km²) above station. Water quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1312: 1937-39(M).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	9.0	9.0	12	19	24	45	79	39	12	5.7	7.2	5.5
2	9.0	9.0	12	19	24	41	92	38	12	5.3	9.0	5.5
3	7.0	8.0	12	15	25	46	91	30	11	5.1	8.9	6.0
4	5.0	8.0	11	14	26	81	88	30	11	5.3	7.7	7.0
5	6.0	8.0	10	14	26	82	80	39	9.8	5.1	7.0	8.0
6	7.0	7.0	11	17	60	84	34	40	9.6	5.5	7.5	7.0
7	7.0	7.0	12	17	64	86	30	38	9.2	5.7	8.2	6.0
8	8.0	6.0	12	15	64	133	62	39	8.4	5.8	7.2	5.5
9	8.0	6.5	12	17	66	73	73	42	7.8	5.6	9.8	4.5
10	8.0	7.0	10	18	62	90	74	38	7.6	6.8	9.8	4.5
11	7.0	7.0	10	14	35	88	68	27	6.9	8.4	7.5	5.0
12	6.0	7.5	11	14	30	85	62	24	6.4	7.9	7.2	5.5
13	6.0	8.0	12	13	71	83	29	22	6.1	8.7	8.1	5.5
14	6.0	8.0	12	13	81	74	25	20	6.7	8.3	8.1	4.5
15	6.0	8.0	13	14	89	38	63	19	9.2	7.9	7.8	5.0
16	6.5	8.5	14	13	90	35	77	18	13	7.5	8.2	5.5
17	7.5	9.0	16	15	81	93	77	16	12	7.2	6.4	5.5
18	8.5	9.0	17	16	45	105	71	15	9.0	7.0	7.5	6.0
19	7.5	9.0	19	18	38	100	64	15	6.5	6.7	8.3	6.5
20	6.5	10	19	18	107	99	30	15	5.7	6.2	5.6	5.0
21	9.0	8.0	16	15	135	86	28	14	6.3	6.3	6.3	5.0
22	7.0	8.0	17	16	126	37	53	14	5.9	6.5	7.1	5.5
23	6.0	9.0	17	18	124	32	61	13	6.1	6.8	8.5	5.5
24	6.0	8.0	15	19	107	86	67	14	6.0	6.9	6.1	5.0
25	6.0	9.0	15	24	45	96	64	13	5.9	6.7	6.6	4.0
26	7.0	9.5	16	28	37	98	56	13	5.5	6.8	7.3	4.5
27	8.0	10	18	30	98	100	26	14	5.4	7.6	5.5	4.5
28	6.0	11	18	26	110	86	22	14	5.9	7.7	6.4	5.0
29	6.0	------	19	25	108	37	44	14	5.5	8.0	6.0	5.5
30	7.0	------	20	25	112	33	48	14	5.5	9.8	5.0	4.5
31	8.0	------	26	------	99	------	42	13	------	8.2	------	4.0
TOTAL	217.5	232.0	454	539	2,209	2,252	1,780	714	237.9	213.0	221.8	166.5
MEAN	7.02	8.29	14.6	18.0	71.3	75.1	57.4	23.0	7.93	6.87	7.39	5.37
MAX	9.0	11	26	30	135	133	92	42	13	9.8	9.8	8.0
MIN	5.0	6.0	10	13	24	32	22	13	5.4	5.1	5.0	4.0
AC-FT	431	460	901	1,070	4,380	4,470	3,530	1,420	472	422	440	330

CAL YR 1974 TOTAL 9,236.7 MEAN 25.3 MAX 135 MIN 4.0 AC-FT 18,320
WTR YR 1974 TOTAL 9,345.8 MEAN 25.6 MAX 135 MIN 3.5 AC-FT 18,540

PEAK DISCHARGE (BASE, 175 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
6- 8	1015	3.12	178				

08260500 COSTILLA CREEK BELOW DIVERSION DAM, AT COSTILLA, N. MEX.

LOCATION.--Lat 36°58'03", long 105°31'00", Taos County, in Sangre de Cristo Grant, on right bank 650 ft (200 m) downstream from diversion dam, 1.1 mi (1.8 km) southeast of Costilla, and at mile 15.3 (24.6 km).

DRAINAGE AREA.--197 mi² (510 km²).

PERIOD OF RECORD.--April 1952 to current year (no winter records).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 7,861 ft (2,396 m) from topographic map.

EXTREMES.--Current year: Maximum discharge, 100 ft³/s (2.83 m³/s) May 24 (gage height, 2.30 ft or 0.701 m); minimum not determined.

Period of record: Maximum discharge, 525 ft³/s (14.9 m³/s) July 22, 1954 (gage height, 4.03 ft or 1.228 m); maximum gage height, 5.05 ft (1.539 m) July 24, 1957 (backwater from debris); no flow Oct. 14, 1963.

A major flood occurred in 1886, from information by local residents. Flood of May 11, 1942, probably exceeded 1,000 ft³/s (28.3 m³/s), based on records for upstream station (see sta 8255500).

REMARKS.--Records good. Flow partly regulated by Costilla Reservoir (see sta 08253900) 20 mi (32 km) upstream, and by canal headgates or sluice gates at diversion dam. Diversions above station for irrigation of about 5,000 acres (20.2 km²), 3,000 acres (12.1 km²) of which are below station.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1				-	.61	.15	.93	.27	.12	.06		
2				-	.61	.14	1.2	6.0	.12	.06		
3				-	.67	.14	1.1	6.5	.12	.06		
4				-	.66	.16	.87	.55	.12	.08		
5				-	.61	.28	.73	.86	.14	.08		
6				-	.83	.45	.43	.92	.14	.08		
7				-	.82	.35	.47	.78	.14	.08		
8				-	.78	7.1	.69	.73	.14	.08		
9				-	.73	3.5	.73	1.0	.12	-		
10				-	12	7.9	.73	.78	.12	-		
11				-	26	3.8	.68	.51	.31	-		
12				-	9.5	2.1	10	.39	.78	-		
13				-	7.7	.98	12	.29	.24	-		
14				-	2.6	5.8	2.2	.21	.12	-		
15				2.4	2.3	.93	2.9	.21	.11	-		
16				2.5	2.1	.85	2.6	.19	.10	-		
17				2.7	1.9	2.6	2.2	.17	.13	-		
18				2.7	1.4	.83	2.1	.16	.10	-		
19				2.7	1.4	.66	2.0	.16	.09	-		
20				2.7	3.8	.67	1.6	.16	.08	-		
21				2.7	5.2	.59	1.6	.12	.08	-		
22				2.7	1.8	.46	1.6	.12	.08	-		
23				2.7	1.2	.38	1.7	.12	.06	-		
24				2.8	7.6	.71	1.8	.12	.06	-		
25				2.5	.49	1.6	1.8	.12	.06	-		
26				.78	.40	2.1	1.7	.12	.06	-		
27				1.0	3.4	2.0	1.4	.12	.05	-		
28				.87	.27	6.1	1.4	.12	.05	-		
29		------		.91	.26	.74	1.4	.12	.05	-		
30		------		.76	.21	.44	1.1	.12	.05	-		
31		------		------	.22	------	.32	.12	------		------	
TOTAL	-	-	-	-	98.07	54.51	61.98	22.16	3.94	-	-	-
MEAN	-	-	-	-	3.16	1.82	2.00	.71	.13	-	-	-
MAX	-	-	-	-	26	7.9	12	6.5	.78	-	-	-
MIN	-	-	-	-	.21	.14	.32	.12	.05	-	-	-
AC-FT	-	-	-	-	195	108	123	44	7.8	-	-	-

08261000 COSTILLA CREEK AT GARCIA, COLO.

LOCATION.--Lat 36°59'21", long 105°31'54", Taos County, in Sangre de Cristo Grant, on left bank 0.4 mi (0.6 km) downstream from old State Highway 3, 0.5 mi (0.8 km) upstream from New Mexico-Colorado State line, 0.9 mi (1.4 km) south of Garcia, and at mile 13.3 (21.4 km).

DRAINAGE AREA.--200 mi² (520 km²), approximately.

PERIOD OF RECORD.--June 1944 to current year (no winter records).

GAGE.--Water-stage recorder. Concrete control since Oct. 9, 1956. Altitude of gage is 7,758 ft (2,365 m) from topographic map. Prior to Apr. 20, 1950, at site 0.4 mi (0.6 km) downstream at different datum.

EXTREMES.--Current year: Maximum discharge, 54 ft³/s (1.53 m³/s) May 24 (gage height, 3.20 ft or 0.975 m); no flow for many days.
Period of record: Maximum discharge, 460 ft³/s (13.0 m³/s) July 24, 1957 (gage height, 4.76 ft or 1.451 m); no flow for many days most years.
A major flood occurred in 1886, from information by local residents. Flood of May 11, 1942, probably reached a discharge of 1,000 ft³/s (28.3 m³/s).

REMARKS.--Records fair. Flow partly regulated by Costilla Reservoir (see sta 08253900) 22 mi (35 km) upstream. Diversions above station for irrigation of about 5,500 acres, (22.3 km²), 2,000 acres (8.09 km²) of which are below station.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1				-	0	0	0	0		0		
2				-	0	0	0	.69		0		
3				-	0	0	0	2.4		0		
4				-	0	0	0	0		0		
5				-	0	0	0	0		0		
6				-	0	0	0	0		0		
7				-	0	0	0	0		0		
8				-	0	3.4	0	0		0		
9				-	0	.72	0	0		-		
10				-	6.3	2.8	0	0		-		
11				-	18	.38	0	0		-		
12				-	3.9	0	4.3	0		-		
13				-	3.5	0	7.5	0		-		
14				-	.35	4.3	0	0		-		
15				.28	0	.08	0	0		-		
16				.34	0	0	0	0		-		
17				.28	0	1.3	0	0		-		
18				.22	0	0	0	0		-		
19				.22	0	0	0	0		-		
20				.51	.52	0	0	0		-		
21				.16	1.3	0	0	0		-		
22				.19	.01	0	0	0		-		
23				.12	0	0	0	0		-		
24				.14	4.3	0	0	0		-		
25				.15	.05	0	0	0		-		
26				0	0	0	0	0		-		
27				.10	1.9	0	0	0		-		
28				.34	0	2.3	0	0		-		
29		------		.28	0	0	0	0		-		
30		------		0	0	0	0	0		-		
31		------		------	0	------	0	0	------	-	------	
TOTAL	-	-	-	-	40.13	15.28	11.8	3.09	0	-	-	-
MEAN	-	-	-	-	1.29	.51	.38	.10	0	-	-	-
MAX	-	-	-	-	18	4.3	7.5	2.4	0	-	-	-
MIN	-	-	-	-	0	0	0	0	0	-	-	-
AC-FT	-	-	-	-	80	30	23	6.1	0	-	-	-

PRINCIPAL DIVERSIONS FROM COSTILLA CREEK, NEW MEXICO-COLORADO

Records of discharge are collected at 8 gaging stations on 3 diversions from Costilla Creek. Each of these stations is equipped with a water-stage recorder and a Parshall flume. Water diverted is used for irrigation in the Sangre de Cristo Grant in New Mexico and Colorado below the gaging station on Costilla Creek near Costilla, N. Mex. Records collected during irrigation season only except for sta 08262000.

08256000 ACEQUIA MADRE AT COSTILLA, N. MEX.--Lat 36°58'03", long 105°30'57", Taos County, 275 ft (84 m) downstream from diversion dam. Period of record May 1944 to current year. Acequia diverts from right bank of Costilla Creek.

08256500 MESA DITCH NEAR GARCIA, COLO.--Lat 36°59'50", long 105°30'49", Costilla County, 429 ft (130 m) north of milepost No. 136 + 54 on New Mexico-Colorado State line. Period of record, June 1944 to September 1965, May 1969 to current year. Ditch diverts from right bank of Acequia Madre for irrigation in Colorado.

08257500 CORDILLERA DITCH AT GARCIA, COLO.--Lat 36°59'41", long 105°31'39", Taos County, 570 ft (170 m) south of New Mexico-Colorado State line. Period of record, June 1944 to current year. Ditch diverts from left bank of Acequia Madre for irrigation in Colorado.

08258000 CERRO CANAL AT COSTILLA, N. MEX.--Lat 36°57'56", long 105°31'07", Taos County, 1,400 ft (430 m) downstream from diversion dam. Period of record, April 1944 to current year. Canal diverts from left bank of Costilla Creek.

08258600 CERRO CANAL BELOW ASSOCIATION DITCH AT COSTILLA, N. MEX.-- Lat 36°57'41", long 105°32'05", Taos County, 220 ft (67 m) downstream from head of Association ditch. Period of record, May 1972 to current year.

08259500 NEW MEXICO BRANCH CERRO CANAL NEAR JAROSO, COLO.--Lat 36°59'37", long 105°34'28", Taos County, 45 ft (14 m) downstream from headgate. Period of record, June 1944 to current year. Canal diverts from left bank of Cerro Canal for irrigation in New Mexico.

08259600 CERRO CANAL AT STATE LINE NEAR JAROSO, COLO.--Lat 36°59'41", long 105°34'36", Taos County, 780 ft (240 m) downstream from head of N. Mex. branch Cerro Canal. Period of record, April to October 1973. Flow measured is delivered to Colorado.

08262000 EASTDALE NO. 1 INTAKE CANAL NEAR JAROSO, COLO.--Lat 37°02'25", long 105°36'15", Costilla County, 750 ft (230 m) downstream from headgate. Period of record, June 1944 to current year. Canal diverts from right bank of Costilla Creek to Eastdale Reservoir No. 1 for irrigation in Colorado.

MONTHLY DIVERSIONS, IN ACRE-FEET, CALENDAR YEAR 1974

	Acequia Madre	Mesa ditch	Cordillera ditch	Cerro Canal at Costilla	Cerro Canal below Association ditch	New Mexico branch Cerro Canal	Cerro Canal at State line nr Jaroso	Eastdale No. 1 intake canal
January	-	-	-	-	-	-	-	0
February	-	-	-	-	-	-	-	0
March	-	-	-	-	-	-	-	121
April	-	-	-	-	-	-	-	610
May	584	0	11	3,580	1,910	175	1,640	385
June	751	0	17	3,610	1,180	124	1,020	0
July	682	0	12	2,680	1,110	121	946	.02
August	455	0	9.3	934	522	11	452	0
September	193	0	9.0	266	104	16	52	0
WTR YR 1974	-	-	-	-	-	-	-	1,130
October	-	-	-	-	-	-	-	0
November	-	-	-	-	-	-	-	13
December	-	-	-	-	-	-	-	0
CAL YR 1974	-	-	-	-	-	-	-	1,130

08263500 RIO GRANDE NEAR CERRO, N. MEX.

LOCATION.-- 36°44'24", long 105°40'59", in NW¼NE¼ sec.20, T.29 N., R.12 E., Taos County, on left bank 4 mi (6 km) southwest of Cerro, 5.5 mi (8.8 km) northwest of Questa, and 7.4 mi (11.9 km) upstream from Red River, and at mile 1,693.1 (2,724.2 km).

DRAINAGE AREA.--8,440 mi² (21,860 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, Colo.

PERIOD OF RECORD.--May 1948 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,110 ft (2,167 m) from topographic map.

AVERAGE DISCHARGE.--26 calendar years, 372 ft³/s (10.54 m³/s), 269,500 acre-ft/yr (332 hm³/yr); 20 calendar years (1955-74), 371 ft³/s (10.51 m³/s), 268,800 acre-ft/yr (331 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 829 ft³/s (23.5 m³/s) Mar. 16, Apr. 1 (gage height, 5.66 ft or 1.725 m); minimum, 48 ft³/s (1.36 m³/s) Sept. 14.
Period of record: Maximum discharge, 9,740 ft³/s (276 m³/s) June 22, 1949 (gage height, 15.78 ft or 4.810 m); minimum, 43 ft³/s (1.22 m³/s) Sept. 22, 1956.

REMARKS.--Records good. Diversions above station for irrigation of about 620,000 acres (2,510 km²) in Colorado and 7,000 acres (28.3 km²) in New Mexico.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	294	299	326	791	313	108	63	52	55	50	94	144
2	279	306	333	816	289	112	62	52	54	51	94	208
3	268	309	385	765	243	143	61	54	53	52	103	197
4	267	308	382	572	253	173	58	72	52	52	125	197
5	260	309	385	421	324	178	57	62	52	52	126	206
6	256	304	404	371	323	170	56	67	52	52	122	234
7	260	308	448	335	289	162	54	62	52	53	118	245
8	272	290	480	316	272	191	56	60	52	58	119	242
9	287	280	527	314	216	190	56	58	52	68	129	194
10	299	280	550	309	190	198	57	59	52	70	135	205
11	297	280	538	302	282	198	58	62	51	77	133	192
12	304	280	575	287	362	188	56	66	50	98	130	203
13	318	282	631	275	346	156	54	62	49	100	125	210
14	318	292	643	267	321	126	58	60	49	100	122	206
15	314	296	716	253	240	116	60	58	51	106	124	208
16	316	292	712	248	200	106	62	56	52	105	122	205
17	318	299	662	237	170	105	65	56	58	104	118	202
18	321	299	682	227	167	99	65	57	58	105	116	196
19	328	311	694	226	155	95	67	57	56	104	123	194
20	324	313	729	205	163	95	66	58	55	98	124	196
21	335	319	768	196	164	90	62	57	54	95	116	194
22	338	308	760	213	145	85	62	57	53	93	130	198
23	333	319	726	198	130	81	62	57	52	91	150	198
24	330	316	706	175	125	77	62	56	52	92	144	197
25	318	308	686	180	140	75	62	56	52	90	159	192
26	311	321	679	180	138	74	65	55	52	90	182	191
27	311	321	667	242	159	73	57	55	52	91	219	170
28	308	323	679	351	157	69	56	55	51	92	170	169
29	292	------	704	398	128	69	55	94	50	93	178	176
30	290	------	732	346	114	66	54	59	50	96	122	170
31	301	------	750	------	108	------	53	56	------	96	------	170
TOTAL	9,367	8,472	18,659	10,006	6,626	3,668	1,841	1,847	1,573	2,574	3,972	6,109
MEAN	302	303	602	334	214	122	59.4	59.6	52.4	83.0	132	197
MAX	338	323	768	816	362	198	67	94	58	106	219	245
MIN	256	280	326	175	108	66	53	52	49	50	94	144
AC-FT	18,580	16,800	37,010	19,850	13,140	7,280	3,650	3,660	3,120	5,110	7,880	12,120

CAL YR 1974 TOTAL 74,714 MEAN 205 MAX 816 MIN 49 AC-FT 148,200
WTR YR 1974 TOTAL 97,558 MEAN 267 MAX 816 MIN 49 AC-FT 193,500

PEAK DISCHARGE (BASE, 1,000 FT³/S).--No peak above base.

08265000 RED RIVER NEAR QUESTA, N. MEX.

LOCATION.--Lat 36°42'12", long 105°34'04", in NE¼SE¼ sec.32, T.29 N., R.13 E. (projected), Taos County, in Carson National Forest, on left bank 1.3 mi (2.1 km) upstream from Cabresto Creek, 1.5 mi (2.4 km) east of Questa, and at mile 9.0 (14.5 km).

DRAINAGE AREA.--113 mi² (293 km²).

PERIOD OF RECORD.--April to October 1910 and January to September 1911 (gage heights and discharge measurements only), October 1912 to March 1924, May 1924 to September 1925, January to March 1926, September 1926 to current year. Monthly discharge only for some periods, published in WSP 1312. Published as Rio Colorado above Questa 1910-11, 1926-30, and as Rio Colorado near Questa 1912-25, 1930-48.

GAGE.--Water-stage recorder. Wood or concrete control since Mar. 20, 1936. Datum of gage is 7,451.92 ft (2,271.345 m) above mean sea level. See WSP 1923 for history of changes prior to Oct. 4, 1938.

AVERAGE DISCHARGE.--60 calendar years (1913-24, 1927-74), 52.2 ft³/s (1.478 m³/s), 37,820 acre-ft/yr (46.6 hm³/yr); 20 calendar years (1955-74), 36.1 ft³/s (1.022 m³/s), 26,150 acre-ft/yr (32.2 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 182 ft³/s (5.15 m³/s) June 8 (gage height, 3.60 ft or 1.097 m); minimum, 2.6 ft³/s (0.074 m³/s) Feb. 5, but may have been less during periods of ice effect.
1930-74: Maximum discharge, 886 ft³/s (25.1 m³/s) May 25, 1942, from rating curve extended above 450 ft³/s (12.7 m³/s); maximum gage height, 4.47 ft or 1.362 m June 14, 1973; minimum discharge, 1.5 ft³/s (0.042 m³/s) Nov. 23, 1957.
The peak of June 15, 1921, may have equaled or exceeded the peak of May 25, 1942.

REMARKS.--Records good except those for winter periods, which are poor. Diversions for irrigation of a few hundred acres above station. Figures of discharge do not include flow in South ditch which diverts from left bank 1,500 ft (460 m) upstream and bypasses gage for irrigation and stock water below.
Tailings pipelines from Molybdenum Corp. of America (Molycorp) refinery 5.5 mi (8.8 km) upstream also bypass gage on left bank and discharge into settling pond 3 mi (5 km) downstream. Effluent from this pond enters Red River as surface water and is included in discharge at Red River at mouth near Questa (see sta 08267000). See tabulation below for monthly discharge through tailings pipelines (records furnished by Molycorp).

REVISIONS (WATER YEARS).--WSP 808: 1935. WSP 1392: 1913, 1932, 1941, 1947-48. WSP 1712: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	6.3	8.0	10	11	22	42	33	20	14	10	13	4.0
2	7.1	7.5	10	12	22	39	30	28	13	11	12	4.4
3	6.3	6.5	9.2	11	24	36	29	49	13	9.9	12	4.0
4	6.0	6.0	6.8	9.1	26	35	28	46	14	10	12	4.2
5	6.5	6.0	9.3	9.0	28	33	28	37	13	9.3	9.8	4.5
6	7.0	6.0	10	11	29	32	29	31	12	9.8	10	4.7
7	8.0	5.5	10	10	29	34	30	28	12	11	11	4.4
8	9.0	5.0	9.6	9.6	29	122	28	31	12	11	11	3.9
9	9.6	5.5	9.1	11	31	84	29	38	11	9.9	11	3.5
10	9.4	6.5	8.3	11	35	77	26	41	11	11	11	3.6
11	8.0	8.0	8.9	11	41	71	24	31	10	13	10	3.7
12	9.6	9.0	8.0	10	44	69	23	28	11	15	10	3.9
13	11	10	8.4	9.6	50	69	26	26	11	12	10	4.0
14	10	9.5	9.1	9.6	49	69	24	23	11	13	9.5	3.7
15	9.5	9.0	9.5	10	48	66	26	22	12	12	9.9	3.9
16	10	9.0	9.8	9.9	49	64	24	20	15	11	9.6	4.0
17	10	9.0	9.4	11	46	66	22	19	16	11	8.4	4.0
18	11	8.5	9.5	11	45	65	21	18	14	11	8.6	3.9
19	10	8.0	9.5	13	46	62	21	17	14	12	9.1	3.8
20	11	8.5	9.7	15	44	57	20	18	13	11	7.0	3.7
21	11	7.0	9.4	14	42	54	19	18	12	11	8.4	4.0
22	10	6.5	10	14	39	51	19	18	12	12	9.4	3.8
23	5.7	7.5	11	16	37	51	19	18	13	12	8.7	3.6
24	5.5	6.5	9.9	16	38	50	18	20	11	12	7.8	3.4
25	5.5	7.0	9.9	18	38	47	18	19	11	12	8.2	3.3
26	6.0	7.5	10	23	37	44	20	18	11	13	9.4	3.6
27	7.0	8.0	10	23	39	41	27	17	11	13	6.4	3.7
28	6.5	8.5	9.9	24	45	38	22	16	11	13	5.5	3.9
29	7.0	------	9.6	22	43	36	22	14	11	14	4.4	3.7
30	7.5	------	10	23	43	34	22	15	10	15	3.5	3.7
31	7.5	------	12	------	42	------	20	14	------	13	------	3.7
TOTAL	254.5	209.5	295.8	407.8	1,180	1,638	747	758	365	363.9	276.6	120.2
MEAN	8.21	7.48	9.54	13.6	38.1	54.6	24.1	24.5	12.2	11.7	9.22	3.88
MAX	11	10	12	24	50	122	33	49	16	15	13	4.7
MIN	5.5	5.0	6.8	9.0	22	32	18	14	10	9.3	3.5	3.3
AC-FT	505	416	587	809	2,340	3,250	1,480	1,500	724	722	549	238
(†)	606	575	621	574	583	584	711	711	710	694	638	611

CAL YR 1974 TOTAL 6,616.3 MEAN 18.1 MAX 122 MIN 3.3 AC-FT 13,120 † 7,620
WTR YR 1974 TOTAL 6,970.5 MEAN 19.1 MAX 122 MIN 4.2 AC-FT 13,830 † 7,620

PEAK DISCHARGE (BASE, 160 FT³/S)

DATE	TIME	G. H.	DISCHARGE
6- 8	0545	3.60	182

† Diversion, in acre-ft, through Molycorp tailings pipelines.

08266000 CABRESTO CREEK NEAR QUESTA, N. MEX.

LOCATION.--Lat 36°43'50", long 105°33'12", in SE¼SE¼ sec.21, T.29 N., R.13 E., Taos County, in Carson National Forest, on right bank 900 ft (270 m) downstream from Llano ditch heading, 2.6 mi (4.2 km) downstream from Lake Fork, 3 mi (5 km) northeast of Questa, and at mile 3.5 (5.6 km).

DRAINAGE AREA.--36.7 mi^2 (95.1 km^2).

PERIOD OF RECORD.--September 1943 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 7,845 ft (2,391 m) above mean sea level (river-profile survey).

AVERAGE DISCHARGE.--31 calendar years, 9.48 ft^3/s (0.268 m^3/s), 6,870 acre-ft/yr (8.47 hm^3/yr); 20 calendar years (1955-74), 9.03 ft^3/s (0.256 m^3/s), 6,540 acre-ft/yr (8.06 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 23 ft^3/s (0.65 m^3/s) Apr. 26 (gage height, 1.64 ft or 0.500 m); minimum, 1.2 ft^3/s (0.034 m^3/s) Dec. 9, 25, result of freezeup.
Period of record: Maximum discharge, 176 ft^3/s (4.98 m^3/s) June 8, 1957 (gage height, 4.44 ft or 1.353 m); minimum, 0.44 ft^3/s (0.012 m^3/s) Dec. 2, 1950, result of freezeup.
The flood of May 25, 1942, may have exceeded the maximum of record.

REMARKS.--Records good. Llano ditch, the only diversion above station, diverts from right bank 900 ft (270 m) above gage for irrigation of about 800 acres (3.24 km^2) below. See tabulation below for monthly diversion of Llano ditch (records of daily discharge available in District files). Flow regulated by Cabresto Reservoir (capacity, 732 acre-feet or 903,000 m^3, after reconstruction in 1928) on Lake Fork 1 mi (2 km) above mouth.

REVISIONS.--WSP 1712: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	4.4	5.0	4.6	6.5	11	9.6	12	6.9	4.8	2.6	4.0	2.9
2	4.7	4.9	4.7	6.9	12	9.7	12	7.7	4.7	2.6	4.1	3.7
3	3.4	4.5	4.5	6.3	11	9.3	11	9.7	4.8	2.6	4.2	3.6
4	3.1	4.4	4.5	4.7	10	9.1	11	9.7	4.6	2.6	4.1	3.7
5	4.3	4.9	4.2	5.5	10	9.0	11	6.7	4.4	2.7	3.7	3.6
6	5.0	3.8	4.6	6.7	10	8.9	12	8.3	4.2	2.7	4.0	3.4
7	5.4	4.3	4.7	6.6	10	9.1	10	7.9	4.0	2.8	3.9	3.4
8	5.1	3.7	4.7	6.2	10	17	8.9	8.2	3.9	2.9	3.8	3.3
9	5.1	4.0	4.9	6.6	12	15	9.5	8.4	3.7	2.8	4.2	2.1
10	5.0	4.5	4.8	6.9	12	14	8.8	10	3.6	3.0	4.1	2.4
11	4.6	4.8	4.6	6.6	12	11	8.4	9.0	3.5	3.2	3.8	3.1
12	4.9	4.9	4.7	6.2	13	11	8.4	8.2	3.3	3.4	3.7	3.3
13	5.1	4.7	4.8	5.9	13	10	8.2	7.7	3.5	3.4	3.8	3.5
14	4.9	4.4	4.9	5.7	13	10	8.1	7.3	3.7	3.4	4.1	2.8
15	4.9	4.3	5.1	6.0	12	10	8.4	6.9	4.6	3.4	4.0	3.0
16	4.9	4.4	5.3	6.0	12	9.8	8.1	6.7	5.1	3.4	4.0	3.3
17	5.0	4.4	5.5	6.1	12	9.7	7.6	6.5	5.3	3.3	3.7	3.2
18	4.9	4.4	5.7	6.6	12	9.6	7.4	6.2	4.5	3.3	4.0	3.2
19	4.9	4.4	5.9	7.4	12	9.4	8.0	6.1	3.2	3.3	3.9	3.1
20	4.8	4.4	5.9	7.4	12	9.4	8.5	6.3	3.0	3.3	3.5	2.8
21	5.0	4.1	5.6	6.9	12	9.3	8.9	6.0	3.0	3.4	3.3	2.9
22	4.7	4.1	5.8	7.2	12	9.2	8.6	5.9	2.9	3.5	3.6	2.8
23	2.5	4.6	6.1	8.3	12	9.1	8.2	6.1	2.8	3.6	3.7	2.7
24	3.2	3.7	5.9	9.4	12	9.0	8.1	6.3	2.7	3.5	3.4	2.6
25	3.3	4.5	5.9	15	12	8.8	7.8	6.0	2.6	3.5	3.3	2.2
26	4.3	4.7	6.0	18	11	8.7	7.5	5.7	2.6	3.5	3.5	3.1
27	5.1	4.6	6.3	18	11	8.5	7.5	5.5	2.6	3.9	3.2	2.9
28	4.4	4.5	6.3	14	10	8.5	7.5	5.5	2.7	3.8	3.3	2.8
29	4.9	------	6.5	11	9.9	8.3	7.6	5.3	2.7	4.0	3.0	3.0
30	4.6	------	6.6	12	9.7	9.6	7.5	5.1	2.7	4.1	2.3	3.0
31	5.1	------	7.3	------	9.5	------	7.0	5.0	------	4.1	------	3.0
TOTAL	141.5	123.9	166.9	246.6	352.1	299.6	273.5	218.8	109.7	101.6	111.2	94.4
MEAN	4.56	4.43	5.38	8.22	11.4	9.99	8.82	7.06	3.66	3.28	3.71	3.05
MAX	5.4	5.0	7.3	18	13	17	12	10	5.3	4.1	4.2	3.7
MIN	2.5	3.7	4.2	4.7	9.5	8.3	7.0	5.0	2.6	2.6	2.3	2.1
AC-FT	281	246	331	489	698	594	542	434	218	202	221	187
(†)	-	-	-	-	76	8.8	63	0	0	0	-	-

CAL YR 1974 TOTAL 2,239.8 MEAN 6.14 MAX 18 MIN 2.1 AC-FT 4,440
WTR YR 1974 TOTAL 2,410.8 MEAN 6.60 MAX 18 MIN 2.5 AC-FT 4,780

† Diversion, in acre-ft, by Llano ditch.

08267000 RED RIVER AT MOUTH, NEAR QUESTA, N. MEX.

LOCATION.--Lat 36°38'53", long 105°41'34", in SW¼NW¼ sec.20, T.28 N., R.12 E., Taos County, in Carson National Forest, on left bank 250 ft (76 m) upstream from Rio Grande, and 6.5 mi (10.5 km) southwest of Questa.

DRAINAGE AREA.--190 mi² (492 km²).

PERIOD OF RECORD.--October 1950 to current year. Monthly discharge only for October and November 1950, published in WSP 1732.

GAGE.--Water-stage recorder. Altitude of gage is 6,600 ft (2,012 m) from topographic map.

AVERAGE DISCHARGE.--24 calendar years, 76.7 ft³/s (2.172 m³/s), 55,570 acre-ft/yr (68.5 hm³/yr); 20 calendar years (1955-74), 75.6 ft³/s (2.141 m³/s), 54,770 acre-ft/yr (67.5 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 221 ft³/s (6.26 m³/s) June 8 (gage height, 3.53 ft or 1.076 m); minimum, 34 ft³/s (0.96 m³/s) Feb 24, Dec 2.
Period of record: Maximum discharge, 730 ft³/s (20.7 m³/s) Aug. 12, 1964 (gage height, 6.05 ft or 1.844 m); minimum 29 ft³/s (0.82 m³/s) Feb. 13, 1965.

REMARKS.--Records good. Diversions for irrigation of about 3,000 acres (12.1 km²) above station.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	52	58	52	45	61	78	64	50	49	47	54	35
2	47	54	54	46	59	78	64	56	49	46	54	36
3	49	46	53	48	58	76	64	78	49	44	55	35
4	46	49	52	51	58	75	62	82	47	44	54	36
5	46	51	49	51	60	74	62	75	49	44	52	38
6	46	46	52	49	59	69	64	74	51	44	51	40
7	48	45	52	50	58	67	66	70	48	46	51	42
8	52	43	52	51	57	154	66	72	48	46	50	43
9	52	44	52	52	61	119	61	78	48	46	49	41
10	51	46	52	49	64	112	59	83	44	49	48	41
11	47	49	52	52	70	107	58	74	41	49	47	41
12	46	52	49	52	73	105	57	70	41	55	47	41
13	53	57	45	50	76	102	59	66	40	54	48	43
14	54	56	46	50	74	99	58	62	41	54	48	41
15	52	53	50	51	71	98	59	60	42	53	48	41
16	48	50	50	50	72	95	58	59	47	52	48	42
17	49	51	49	52	70	95	56	58	51	52	46	42
18	51	49	49	51	70	95	55	57	49	52	47	41
19	48	44	49	52	72	88	55	55	49	52	47	41
20	46	44	50	49	71	85	55	54	48	52	44	40
21	52	44	48	49	69	94	55	54	47	52	44	40
22	57	42	46	52	67	90	55	53	47	52	44	40
23	49	45	47	54	65	90	53	53	49	52	45	39
24	44	40	48	52	67	90	52	55	47	52	42	39
25	44	41	50	53	69	83	52	56	46	52	41	37
26	47	45	51	58	72	77	51	54	45	52	41	39
27	52	51	51	61	74	66	56	53	46	54	39	39
28	47	52	44	60	76	63	52	53	46	53	37	39
29	51	------	43	60	76	62	52	52	47	55	37	41
30	54	------	44	60	77	62	52	52	46	58	36	40
31	53	------	45	------	77	------	51	51	------	55	------	39
TOTAL	1,533	1,347	1,526	1,560	2,103	2,648	1,783	1,919	1,397	1,568	1,394	1,232
MEAN	49.5	48.1	49.2	52.0	67.8	88.3	57.5	61.9	46.6	50.6	46.5	39.7
MAX	57	58	54	61	77	154	66	83	51	58	55	43
MIN	44	40	43	45	57	62	51	50	40	44	36	35
AC-FT	3,040	2,670	3,030	3,090	4,170	5,250	3,540	3,810	2,770	3,110	2,760	2,440

CAL YR 1974 TOTAL 20,010 MEAN 54.8 MAX 154 MIN 35 AC-FT 39,690
WTR YR 1974 TOTAL 20,727 MEAN 56.8 MAX 154 MIN 40 AC-FT 41,110

PEAK DISCHARGE (BASE, 175 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
6- 8	0700	3.53	221				

08267500 RIO HONDO NEAR VALDEZ, N. MEX.

LOCATION.--Lat 36°32'30", long 105°33'21", Taos County, in Carson National Forest, on right bank 500 ft (150 m) upstream from first diversion, 1.6 mi (2.6 km) east of Valdez, 3.8 mi (6.1 km) downstream from South Fork, and at mile 9.2 (14.8 km).

DRAINAGE AREA.--36.2 mi² (93.8 km²).

PERIOD OF RECORD.--August 1934 to current year.

GAGE.--Water-stage recorder. Concrete control since Oct. 28, 1938. Altitude of gage is 7,650 ft (2,332 m) from topographic map. Prior to Oct. 28, 1938, at datum 1.92 ft (0.585 m) lower.

AVERAGE DISCHARGE.--40 calendar years, 35.0 ft³/s (0.991 m³/s), 25,360 acre-ft/yr (31.3 hm³/yr); 20 calendar years (1955-74), 30.7 ft³/s (0.869 m³/s), 22,240 acre-ft/yr (27.4 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 119 ft³/s (3.37 m³/s) June 8 (gage height, 2.84 ft or 0.866 m); maximum gage height, 3.81 ft (1.161 m) Dec. 17 (ice jam); minimum discharge, 6.8 ft³/s (0.19 m³/s) Feb. 24, Dec. 23, but may have been less during periods of ice effect.
Period of record: Maximum discharge, 541 ft³/s (15.3 m³/s) May 13, 1941; maximum gage height, 4.81 ft (1.466 m) Jan. 5, 1970 (ice jam); minimum discharge, about 1 ft³/s (0.03 m³/s) Jan. 27, 1942, result of freezeup.

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

REVISIONS (WATER YEARS).--WSP 1342: 1935. WSP 1712: Drainage area. WSP 1732: 1942(M).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	9.5	10	9.5	14	19	46	30	17	14	11	11	9.0
2	9.5	10	9.5	13	19	44	28	20	14	11	12	9.7
3	9.0	9.5	9.5	12	21	43	27	33	14	10	12	9.5
4	8.5	9.5	9.0	12	22	42	26	27	14	10	12	9.3
5	9.0	9.5	9.0	11	24	41	25	23	13	11	11	9.2
6	10	9.0	9.5	12	23	41	24	21	13	11	11	9.2
7	10	8.5	9.3	12	24	42	26	21	13	12	11	9.1
8	9.8	8.0	9.2	12	25	80	24	22	13	11	11	9.0
9	9.9	8.5	9.2	12	28	55	23	23	12	11	11	8.0
10	9.7	9.0	9.2	13	31	50	22	24	13	11	11	8.5
11	9.5	9.0	9.1	13	37	49	20	24	12	12	11	9.0
12	9.0	9.0	9.1	12	40	50	24	24	12	12	11	9.5
13	9.6	9.0	9.2	12	44	50	23	24	12	12	11	9.5
14	9.5	9.0	9.4	11	45	49	20	23	13	11	11	9.0
15	9.8	9.0	9.3	12	45	49	20	22	13	11	11	8.0
16	9.8	9.0	11	12	48	48	19	21	14	10	11	8.5
17	9.9	9.0	13	13	47	48	18	21	13	10	10	8.5
18	9.8	9.0	14	16	48	47	18	20	13	11	11	8.5
19	10	9.1	13	17	51	45	18	19	12	11	10	8.4
20	10	9.2	13	17	51	45	17	20	12	11	9.9	8.0
21	10	9.0	12	15	49	44	17	19	12	11	10	7.5
22	10	9.0	12	14	47	45	16	18	12	11	10	7.5
23	9.0	9.0	11	16	46	44	16	19	12	12	10	7.4
24	9.0	8.5	11	17	49	42	16	19	12	11	9.8	7.2
25	9.0	9.0	11	20	48	40	16	17	11	11	9.7	7.0
26	9.5	9.0	11	23	47	38	17	17	11	12	9.7	7.5
27	10	9.0	12	23	47	37	17	16	11	13	8.9	8.0
28	9.5	9.0	12	22	48	35	16	16	11	12	9.4	7.5
29	9.5	------	13	20	48	34	16	15	11	12	9.0	8.0
30	9.5	------	14	20	47	32	16	15	11	13	8.5	8.0
31	10	------	15	------	46	------	15	15	------	12	------	7.5
TOTAL	296.8	253.3	337.0	448	1,214	1,355	630	635	373	350	314.9	260.5
MEAN	9.57	9.05	10.9	14.9	39.2	45.2	20.3	20.5	12.4	11.3	10.5	8.40
MAX	10	10	15	23	51	80	30	33	14	13	12	9.7
MIN	8.5	8.0	9.0	11	19	32	15	15	11	10	8.5	7.0
AC-FT	589	502	668	889	2,410	2,690	1,250	1,260	740	694	625	517

CAL YR 1974 TOTAL 6,467.5 MEAN 17.7 MAX 80 MIN 7.0 AC-FT 12,830
WTR YR 1974 TOTAL 6,691.6 MEAN 18.3 MAX 80 MIN 8.0 AC-FT 13,270

PEAK DISCHARGE (BASE, 80 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
6- 8	0515	2.84	119				

08268500 ARROYO HONDO AT ARROYO HONDO, N. MEX.

LOCATION.--Lat 36°31'56", long 105°41'06", Taos County, in Arroyo Hondo Grant, on left bank 0.9 mi (1.4 km) downstream from Arroyo Hondo, and at mile 1.4 (2.3 km).

DRAINAGE AREA.--65.6 mi² (169.9 km²).

PERIOD OF RECORD.--April 1910 to June 1912 (discharge measurements and fragmentary gage-height record), July 1912 to December 1928 (fragmentary), and January 1932 to current year. Monthly discharge only for some periods, published in WSP 1312. Published as Rio Hondo near Arroyo Hondo prior to 1928, and as Rio Hondo at Arroyo Hondo 1928-65.

GAGE.--Water-stage recorder. Altitude of gage is 6,670 ft (2,033 m) from topographic map. See WSP 1923 for history of changes prior to Sept. 11, 1963. Sept. 11, 1963 to Apr. 2, 1969, at site 25 ft (8 m) downstream on right bank at same datum.

AVERAGE DISCHARGE.--59 calendar years (1913-28, 1932-74), 27.3 ft³/s (0.773 m³/s), 19,780 acre-ft/yr (24.4 hm³/yr); 20 calendar years (1955-74), 19.5 ft³/s (0.552 m³/s), 14,130 acre-ft/yr (17.4 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 68 ft³/s (1.93 m³/s) June 8 (gage height, 3.21 ft or 0.978 m); minimum, 3.9 ft³/s (0.11 m³/s) part of each day May 8-16, Sept. 14.

1938-74: Maximum discharge, 1,060 ft³/s (30.0 m³/s) July 19, 1948 (gage height, 3.75 ft or 1.143 m), from rating curve extended above 200 ft³/s (5.66 m³/s); maximum gage height, 3.90 ft (1.189 m) June 15, 1973; minimum discharge, 3.8 ft³/s (0.11 m³/s) Aug. 1, 6, 1963.

Maximum gage height observed, 5.45 ft (1.661 m), site and datum then in use, Aug. 23, 1935; discharge uncertain, but probably exceeded 1,200 ft³/s (34.0 m³/s). A minimum daily discharge of 3 ft³/s (0.08 m³/s) occurred Oct. 19, 1912 (statement in WSP 328 that there was no flow in January and much of February 1912 is believed erroneous). Discharge not determined for the major floods of Oct. 6, 1911, Sept. 1, 1932, and July 22, 1934.

REMARKS.--Records good. Diversions above station for irrigation of about 2,500 acres (10.1 km²).

REVISIONS (WATER YEARS).--WSP 1342: 1915, 1932(M), 1934-38(M). WSP 1712: Drainage area. WSP 1732: 1926.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	14	17	18	9.0	5.5	7.3	5.8	6.8	6.0	5.8	7.6	11
2	15	16	18	9.5	5.0	7.8	6.2	8.9	6.2	5.9	7.6	14
3	12	15	17	9.0	4.6	7.6	6.1	8.6	6.1	5.0	8.0	18
4	10	15	17	9.5	5.0	7.9	6.0	7.4	6.1	5.0	7.4	16
5	14	15	16	9.0	5.2	8.0	5.9	6.4	5.9	5.0	7.2	16
6	16	11	17	8.2	5.0	7.5	5.9	5.4	5.7	5.4	6.9	15
7	16	12	17	5.4	5.1	8.7	6.2	5.0	5.4	6.4	6.8	15
8	16	11	16	5.4	4.6	40	7.2	7.2	5.4	5.9	6.9	15
9	17	12	16	6.4	4.6	23	6.6	6.6	5.6	6.4	7.4	13
10	17	14	16	6.8	4.6	19	6.2	6.3	5.6	7.2	7.1	14
11	16	16	15	6.8	4.2	14	5.9	6.0	5.6	6.8	7.3	15
12	15	16	15	5.9	4.2	12	6.2	5.9	5.0	8.2	7.6	16
13	17	16	15	5.4	4.2	11	6.2	5.9	5.3	6.8	7.6	16
14	16	16	15	5.4	4.6	9.0	5.6	5.8	5.4	6.4	7.7	13
15	16	15	14	5.9	4.2	8.4	5.7	5.9	5.6	6.4	7.3	13
16	16	16	14	6.4	4.6	8.1	5.4	5.9	5.6	6.8	7.2	14
17	16	16	14	5.9	4.6	8.0	5.4	6.0	5.6	6.8	7.3	14
18	16	16	14	5.9	5.4	7.5	5.9	5.9	5.7	6.8	7.5	16
19	16	16	13	5.5	5.5	7.2	6.0	6.1	5.6	6.4	7.5	16
20	16	16	13	5.5	6.1	7.8	5.4	6.3	5.5	6.4	7.3	13
21	18	14	13	5.6	6.0	6.9	5.0	6.0	5.6	6.4	7.3	15
22	16	13	13	5.4	5.7	9.6	5.0	5.8	5.6	6.4	7.3	16
23	11	14	13	5.0	5.6	7.3	5.0	5.9	5.5	6.8	7.3	16
24	12	10	12	5.0	5.6	6.9	5.0	6.1	5.4	6.8	7.3	13
25	12	13	10	5.0	6.2	6.2	5.4	6.1	5.3	6.8	8.6	9.2
26	16	17	9.0	5.0	6.4	6.0	5.0	6.0	5.0	7.2	11	14
27	17	17	8.6	4.6	5.8	6.4	5.6	6.2	5.0	8.6	9.6	16
28	15	17	8.6	4.6	5.5	5.9	5.9	6.1	5.4	7.7	10	13
29	15	------	9.0	4.6	5.4	6.0	6.2	6.0	5.0	8.6	9.6	14
30	16	------	9.0	5.4	5.8	5.4	6.8	5.9	5.7	8.9	9.2	14
31	16	------	9.0	------	6.3	------	7.0	5.9	------	7.8	------	12
TOTAL	471	412	424.2	187.0	161.1	296.4	181.7	194.3	166.4	207.8	234.4	445.2
MEAN	15.2	14.7	13.7	6.23	5.20	9.88	5.86	6.27	5.55	6.70	7.81	14.4
MAX	18	17	18	9.5	6.4	40	7.2	8.9	6.2	8.9	11	18
MIN	10	10	8.6	4.6	4.2	5.4	5.0	5.0	5.0	5.0	6.8	9.2
AC-FT	934	817	841	371	320	588	360	385	330	412	465	883

CAL YR 1974 TOTAL 3,381.5 MEAN 9.26 MAX 40 MIN 4.2 AC-FT 6,710
WTR YR 1974 TOTAL 3,496.3 MEAN 9.58 MAX 40 MIN 4.2 AC-FT 6,930

PEAK DISCHARGE (BASE, 75 FT³/S).--No peak above base.

08268700 RIO GRANDE NEAR ARROYO HONDO, N. MEX.

LOCATION.--Lat 36°32'04", long 105°42'34", in NW¼ sec.31, T.27 N., R.12 E., Taos County, on right bank 350 ft (110 m) downstream from Arroyo Hondo, 400 ft (120 m) downstream from bridge on county road, 2.2 mi (3.5 km) west of Arroyo Hondo, 11.6 mi (18.7 km) northwest of Taos, and at mile 1,677.4 (2,698.9 km).

DRAINAGE AREA.--8,760 mi² (22,690 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, Colo.

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

GAGE.--Water-stage recorder. Altitude of gage is 6,470 ft (1,972 m) from topographic map.

AVERAGE DISCHARGE.--11 calendar years, 556 ft³/s (15.75 m³/s), 402,800 acre-ft/yr (497 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 945 ft³/s (26.8 m³/s) Mar. 16 (gage height, 2.72 ft or 0.829 m); minimum, 150 ft³/s (4.25 m³/s) Sept. 12, 13, 14, 15, 30.
Period of record: Maximum discharge, 4,400 ft³/s (125 m³/s) June 22, 1965 (gage height, 5.81 ft or 1.771 m); maximum gage height, 5.82 ft (1.774 m) May 23, 1973; minimum discharge, 136 ft³/s (3.85 m³/s) Aug. 2, 1963.

REMARKS.--Records excellent. Diversions above station for irrigation of about 620,000 acres (2,510 km²) in Colorado and 15,000 acres (60.7 km²) in New Mexico.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	416	424	452	877	438	226	185	165	164	154	206	217
2	386	426	457	921	416	227	185	175	162	156	204	311
3	386	422	501	887	371	247	182	193	160	155	212	315
4	365	422	508	752	361	303	178	206	156	157	233	304
5	373	427	502	552	436	311	175	206	160	157	242	310
6	369	415	524	481	451	302	176	196	163	157	233	336
7	369	416	561	441	415	289	177	198	161	159	231	356
8	386	410	581	417	393	438	179	194	161	160	228	359
9	398	402	627	417	351	395	174	199	160	171	238	307
10	411	405	672	399	312	382	173	202	158	179	247	328
11	411	405	648	405	355	377	175	197	155	181	244	299
12	416	404	676	387	919	365	173	195	152	208	242	320
13	442	408	726	370	471	341	172	195	150	214	237	320
14	447	414	743	363	491	295	175	186	150	213	233	318
15	434	414	828	351	391	279	178	181	153	217	235	317
16	429	411	842	344	339	264	178	177	157	216	232	318
17	434	417	771	336	304	254	180	177	169	214	227	314
18	447	421	790	323	295	250	181	176	167	215	225	312
19	442	420	792	326	289	238	180	174	165	216	230	308
20	442	429	828	311	287	236	180	174	163	208	230	304
21	465	429	871	293	295	237	176	173	160	203	225	305
22	470	413	869	310	271	230	176	171	157	201	219	309
23	447	433	838	306	249	226	174	171	159	200	256	308
24	438	420	809	281	237	221	177	170	156	200	256	305
25	427	407	788	266	264	210	173	170	155	197	250	288
26	433	432	778	272	267	205	177	168	155	198	283	280
27	434	444	771	307	277	195	176	167	154	204	316	273
28	422	448	768	440	305	188	169	168	153	202	294	271
29	417	------	790	521	271	189	170	197	153	205	289	281
30	408	------	820	487	244	186	167	178	152	213	225	269
31	420	------	844	------	231	------	165	166	------	209	------	278
TOTAL	12,984	11,738	21,975	13,123	10,596	8,106	5,456	5,665	4,742	5,939	7,222	9,440
MEAN	419	419	709	437	342	270	176	183	158	192	241	305
MAX	470	448	871	921	519	438	185	206	169	217	316	359
MIN	365	402	452	266	231	186	165	165	150	154	204	217
AC-FT	25,750	23,280	43,590	26,030	21,020	16,080	10,820	11,240	9,410	11,780	14,320	18,720

CAL YR 1974 TOTAL 116,986 MEAN 321 MAX 921 MIN 150 AC-FT 232,000
WTR YR 1974 TOTAL 140,013 MEAN 384 MAX 921 MIN 150 AC-FT 277,700

PEAK DISCHARGE (BASE, 1,400 FT³/S).--No peak above base.

08269000 RIO PUEBLO DE TAOS NEAR TAOS, N. MEX.

LOCATION.--Lat 36°26'22", long 105°30'11", in SW¼SE¼ sec.36, T.26 N., R.13 E., Taos County, in Taos Pueblo Grant, on right bank 2.3 mi (3.7 km) east of Taos Pueblo, 4.5 mi (7.2 km) northeast of Taos, 5.8 mi (9.3 km) upstream from Rio Lucero and at mile 15.1 (24.3 km).

DRAINAGE AREA.--66.6 mi² (172.5 km²).

PERIOD OF RECORD.--January 1911 to December 1916, January 1940 to December 1951, annual maximum, water years 1952-62, October 1962 (monthly discharge only), November 1962 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Concrete control since Nov. 20, 1962. Altitude of gage is 7,380 ft (2,249 m) from topographic map. See WSP 1923 for history of changes prior to Nov. 20, 1962.

AVERAGE DISCHARGE.--30 calendar years (1911-16, 1940-51, 1963-74), 27.9 ft³/s (0.790 m³/s), 20,210 acre-ft/yr (24.9 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 141 ft³/s (3.99 m³/s) June 8 (gage height, 1.52 ft or 0.463 m); maximum gage height 1.73 ft (0.527 m) Feb. 9 (backwater from ice); minimum discharge, 2.7 ft³/s (0.076 m³/s) Dec. 21, result of freezeup.
Period of record: Maximum discharge, 970 ft³/s (27.5 m³/s) May 14, 1941 (gage height, 3.90 ft or 1.189 m, from floodmark, site and datum then in use), from rating curve extended above 290 ft³/s (8.21 m³/s); minimum, about 0.9 ft³/s (0.025 m³/s) Jan 9, 1964, result of freezeup.

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

REVISIONS (WATER YEARS).--WSP 1312: 1911-12, 1914. WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	6.0	6.5	6.8	18	33	24	14	9.4	7.4	5.3	6.8	5.2
2	5.5	6.3	7.2	17	34	22	14	14	7.1	5.3	7.0	5.6
3	5.0	6.0	7.4	14	39	20	13	37	7.1	5.2	7.4	5.9
4	4.5	6.5	6.9	13	44	19	12	36	6.9	5.5	7.0	5.7
5	5.0	7.0	6.1	12	46	18	12	26	6.3	5.5	6.1	5.7
6	6.0	6.5	7.3	13	44	18	12	21	5.8	6.1	7.0	5.7
7	6.5	6.0	7.5	12	42	19	12	18	5.5	8.1	7.1	5.5
8	6.8	5.5	7.4	12	41	70	12	17	5.0	6.6	6.8	5.2
9	6.8	5.5	8.0	13	44	40	14	16	5.0	6.1	7.8	4.0
10	7.0	5.8	7.5	14	50	36	11	16	5.0	6.4	7.3	5.0
11	6.5	5.8	7.0	13	56	34	9.9	13	4.8	9.3	6.7	5.5
12	6.5	6.0	7.8	13	53	32	9.8	12	4.5	8.7	6.6	6.0
13	6.5	6.5	9.3	12	54	31	12	12	4.5	8.0	7.0	6.0
14	6.5	6.2	9.8	11	50	30	11	11	4.8	7.4	6.9	5.0
15	6.5	6.2	10	12	46	29	12	10	5.3	6.9	6.6	5.5
16	6.4	6.5	12	13	44	28	11	9.9	5.8	6.5	6.6	5.5
17	6.4	6.5	14	15	41	27	9.6	9.4	5.5	6.3	6.0	5.0
18	6.6	6.9	17	19	39	26	9.4	9.1	5.3	6.2	6.8	5.5
19	6.6	6.5	16	23	39	26	9.3	9.1	5.0	6.2	6.6	5.6
20	6.1	6.5	15	24	36	25	9.1	9.9	5.0	6.2	5.3	5.0
21	7.0	6.0	14	22	33	23	11	9.1	5.3	6.0	5.7	4.5
22	6.6	6.5	13	21	30	22	9.0	8.4	5.3	6.4	6.5	5.1
23	6.5	7.0	13	25	28	21	8.4	9.1	5.3	6.7	6.8	4.9
24	6.0	6.0	12	29	27	20	9.6	9.1	5.0	6.2	5.1	4.5
25	6.0	6.2	12	39	28	19	8.3	8.4	5.3	6.2	5.4	4.0
26	6.5	6.4	13	50	26	18	9.5	8.3	5.0	7.0	5.7	4.5
27	7.0	6.5	14	54	25	17	12	8.2	5.0	7.6	4.7	5.5
28	6.0	6.6	14	46	26	16	9.0	10	5.0	7.9	5.3	5.0
29	6.0	------	15	40	26	15	11	8.7	5.0	7.7	5.3	5.5
30	6.5	------	17	37	25	15	13	8.4	5.3	8.2	5.0	5.2
31	6.5	------	21	------	25	------	9.7	7.9	------	7.2	------	5.0
TOTAL	194.3	176.4	348.0	656	1,174	760	339.6	411.4	163.1	208.9	190.9	161.7
MEAN	6.27	6.30	11.2	21.9	37.9	25.3	11.0	13.3	5.44	6.74	6.36	5.22
MAX	7.0	7.0	21	54	56	70	14	37	7.4	9.3	7.8	6.0
MIN	4.5	5.5	6.1	11	25	15	8.3	7.9	4.5	5.2	4.7	4.0
AC-FT	385	350	690	1,300	2,330	1,510	674	816	324	414	379	321

CAL YR 1974 TOTAL 4,784.3 MEAN 13.1 MAX 70 MIN 4.0 AC-FT 9,490
WTR YR 1974 TOTAL 4,949.2 MEAN 13.6 MAX 70 MIN 4.5 AC-FT 9,820

PEAK DISCHARGE (BASE, 60 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
4-27	0030	1.27	60	6- 8	0730	1.52	141

08271000 RIO LUCERO NEAR ARROYO SECO, N. MEX.

LOCATION.--Lat 36°30'30", long 105°31'49", Taos County, in Tract C Taos Pueblo Grant, on right bank 200 ft (61 m) upstream from diversion dam for Tenorio and Indian ditches, 2.2 mi (3.5 km) east of Arroyo Seco, 7.4 mi (11.9 km) northeast of Taos, and at mile 8.1 (13.0 km).

DRAINAGE AREA.--16.6 mi^2 (43.0 km^2).

PERIOD OF RECORD.--April to December 1910 (discharge measurements and occasional gage heights), January 1911 to September 1915, March to December 1916 (fragmentary), October 1933 to December 1951, annual maximum, water years 1952-62, October 1962 (monthly discharge only), November 1962 to current year. Monthly discharge only for some periods, published in WSP 1312. Fragmentary records for October 1915 to February 1916, published in WSP 438, are unreliable and should not be used. Published as "near Taos," 1910-16.

GAGE.--Water-stage recorder. Concrete control since Nov. 21, 1962. Datum of gage is 8,051.44 ft (2,454.079 m) above mean sea level. See WSP 1923 for history of changes prior to Nov. 21, 1962.

AVERAGE DISCHARGE.--35 calendar years (1911-15, 1934-51, 1963-74), 21.9 ft^3/s (0.620 m^3/s), 15,870 acre-ft/yr (19.6 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 60 ft^3/s (1.70 m^3/s) June 8 (gage height, 1.44 ft or 0.439 m); minimum, 2.8 ft^3/s (0.079 m^3/s) Apr. 13, result of freezeup.

Period of record: Maximum discharge, 326 ft^3/s (9.23 m^3/s) June 14, 1973 (gage height, 2.09 ft or 0.637 m), from rating curve extended above 150 ft^3/s (4.25 m^3/s); maximum gage height, 2.17 ft (0.661 m) June 14, 1973 (backwater from debris); minimum discharge, about 1.4 ft^3/s (0.040 m^3/s) Nov. 2, 1951, result of freezeup.

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

REVISIONS (WATER YEARS).--WSP 1512: 1912, 1916. 1949. WSP 1732: Drainage area. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	4.7	4.7	4.8	9.5	14	27	18	11	10	7.4	6.7	5.3
2	4.7	4.6	4.6	8.8	15	26	17	14	9.8	7.2	7.0	5.5
3	4.5	4.6	4.6	7.9	17	25	16	26	9.8	6.9	6.9	5.6
4	4.3	4.6	4.4	7.4	19	23	16	25	9.6	6.8	6.7	5.4
5	4.5	4.6	4.4	7.3	19	22	15	22	9.4	6.9	6.1	5.4
6	4.8	4.5	4.6	6.5	19	22	15	20	9.3	7.5	6.5	5.4
7	5.0	4.2	4.7	6.3	20	23	15	19	9.0	7.9	6.5	5.4
8	5.0	4.0	4.5	6.3	20	42	16	19	8.9	7.2	6.2	5.3
9	5.1	4.1	4.8	6.6	23	34	16	18	8.7	6.9	6.7	6.1
10	5.1	4.2	4.9	6.9	28	35	14	18	8.8	8.0	6.6	6.5
11	5.0	4.2	5.4	6.8	34	36	13	16	8.6	8.2	6.4	6.8
12	4.8	4.2	5.3	6.7	36	38	14	15	8.2	7.8	6.6	7.0
13	5.0	4.2	5.6	6.5	39	41	14	14	8.3	7.4	6.6	7.0
14	5.0	4.2	5.6	6.3	36	39	13	14	8.5	7.2	6.2	6.4
15	4.9	4.2	5.9	6.4	35	37	13	13	9.0	6.9	6.2	5.6
16	5.0	4.2	6.7	7.0	36	35	13	13	9.3	6.8	6.6	5.9
17	5.1	4.2	7.9	8.1	35	35	12	12	8.7	6.7	6.6	6.6
18	5.0	4.2	8.8	10	34	33	12	12	8.5	6.6	6.3	6.8
19	5.0	4.2	8.5	12	36	32	12	12	8.3	6.5	6.3	6.8
20	5.0	4.2	8.0	12	32	30	11	12	8.4	6.5	5.6	6.5
21	5.1	4.2	7.4	10	29	29	11	11	8.3	6.5	6.4	6.2
22	5.1	4.2	7.2	9.7	27	28	11	12	9.0	6.9	6.5	6.0
23	4.8	4.4	6.9	11	26	27	11	13	8.8	6.7	6.1	5.8
24	4.5	4.3	6.9	12	27	26	10	13	8.2	6.5	5.4	5.6
25	4.5	4.6	7.2	14	27	24	10	12	8.0	6.6	5.7	5.5
26	4.6	4.8	7.2	16	26	23	11	12	8.0	7.3	5.4	5.8
27	4.8	4.6	7.9	16	27	22	11	12	7.9	7.9	5.4	5.8
28	4.7	4.6	8.5	15	29	21	10	12	7.7	7.4	6.0	5.0
29	4.7	------	9.3	14	29	20	12	11	7.6	7.5	5.6	5.2
30	4.6	------	10	14	29	19	11	11	7.5	6.8	5.0	5.3
31	4.6	------	11	------	28	------	11	10	------	6.6	------	5.1
TOTAL	149.5	121.8	203.5	287.0	851	874	404	454	260.1	220.0	186.8	182.6
MEAN	4.82	4.35	6.56	9.57	27.5	29.1	13.0	14.6	8.67	7.10	6.23	5.89
MAX	5.1	4.8	11	16	39	42	16	26	10	8.2	7.0	7.0
MIN	4.3	4.0	4.4	6.3	14	19	10	10	7.5	6.5	5.0	5.0
AC-FT	297	242	404	569	1,690	1,730	801	901	516	436	371	362

CAL YR 1974 TOTAL 4,194.3 MEAN 11.5 MAX 42 MIN 4.0 AC-FT 8,320
WTR YR 1974 TOTAL 4,205.1 MEAN 11.5 MAX 42 MIN 4.0 AC-FT 8,340

PEAK DISCHARGE (BASE, 70 CFS FT^3/S).--No peak above base.

08275000 RIO FERNANDO DE TAOS NEAR TAOS, N. MEX.

LOCATION.--Lat 36°22'32", long 105°32'55", in W½NW¼ sec.27, T.25 N., R.13 E., Taos County, in Carson National Forest, on right bank 175 ft (53 m) upstream from Acequia Madre del Norte del Canon, 2.5 mi (4.0 km) southeast of Taos, and at mile 5.0 (8.0 km).

DRAINAGE AREA.--71.7 mi² (185.7 km²).

PERIOD OF RECORD.--April to September 1910 (gage heights and discharge measurements only), October 1910 to June 1911 (discharge measurements only), October 1912 to September 1917, October 1927 to December 1928, October to November 1962 (monthly discharge only), December 1962 to current year.

GAGE.--Water-stage recorder. Concrete control since Dec. 13, 1962. Altitude of gage is 7,140 ft (2,176 m) from topographic map. See WSP 1923 for history of changes prior to Dec. 13, 1962.

AVERAGE DISCHARGE.--17 calendar years (1913-16, 1928, 1963-74), 6.36 ft³/s (0.180 m³/s), 4,610 acre-ft/yr (5.68 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 10 ft³/s (0.28 m³/s) Apr. 27 (gage height, 0.83 ft or 0.253 m); minimum 0.14 ft³/s (0.004 m³/s) Sept. 12.
1962-74: Maximum discharge, 219 ft³/s (6.20 m³/s) May 13, 1973 (gage height, 2.38 ft or 0.725 m); minimum 0.02 ft³/s (0.001 m³/s) Jan. 14-18, 1967, Sept. 15, 16-17, 18-19, 1972.
A flood of undetermined magnitude occurred July 21, 1921.

REMARKS.--Records good. A few very small diversions above station for irrigation.

REVISIONS (WATER YEARS).--WSP 1512: 1914-15. WSP 1923: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	2.2	2.9	3.1	7.0	8.9	2.6	.41	.72	.60	.29	1.4	1.0
2	2.6	2.9	3.2	7.0	8.5	2.5	.35	1.5	.60	.29	1.3	1.3
3	2.5	2.7	3.3	6.2	8.1	2.4	.29	5.5	.60	.26	1.4	1.4
4	2.5	2.7	3.2	6.5	8.1	2.2	.25	4.8	.56	.26	1.6	1.4
5	2.9	2.9	3.2	5.7	8.1	2.0	.26	3.1	.47	.28	1.5	1.4
6	2.8	2.5	3.3	6.8	8.1	2.0	.23	2.6	.39	.35	1.4	1.4
7	2.8	2.9	3.5	6.3	7.3	2.2	.25	2.8	.31	.51	1.4	1.4
8	2.7	2.4	3.4	5.7	7.3	6.2	.26	2.6	.26	.55	1.4	1.3
9	2.7	2.4	3.5	5.9	7.0	4.4	.35	2.9	.22	.49	1.5	.91
10	2.7	2.4	3.5	5.9	6.8	3.1	.45	2.4	.22	.57	1.4	1.2
11	2.6	2.4	3.4	5.6	6.4	2.6	.37	2.0	.19	.85	1.4	1.0
12	2.5	2.3	3.4	5.6	6.0	2.3	.26	1.7	.17	.91	1.4	1.2
13	2.6	2.3	3.7	5.3	5.5	2.1	.32	1.4	.18	1.3	1.4	1.2
14	2.5	2.3	3.8	5.0	5.2	1.9	.44	1.3	.20	1.1	1.4	1.0
15	2.5	2.3	4.0	5.2	4.9	1.9	.72	1.1	.26	1.2	1.4	1.1
16	2.6	2.4	4.2	4.9	4.7	1.7	.72	.99	.35	.91	1.4	1.0
17	2.6	2.5	4.6	5.2	4.5	1.6	.57	.84	.40	.91	1.4	.99
18	2.7	2.5	4.8	5.4	4.2	1.5	.57	.73	.34	.88	1.5	.94
19	2.5	2.6	5.2	5.8	4.0	1.3	.64	.68	.28	.82	1.4	.87
20	2.5	2.7	5.5	6.2	3.9	1.2	.50	.75	.25	.82	1.3	.79
21	2.9	2.6	5.5	6.5	3.9	1.0	.44	.76	.24	.86	1.4	.82
22	2.7	2.5	5.9	6.7	3.8	.92	.38	.64	.34	1.0	1.6	.73
23	2.2	2.9	6.0	7.0	3.6	.85	.32	.80	.37	1.2	1.7	.59
24	2.4	2.3	5.9	7.4	3.4	.76	.38	.86	.31	1.2	1.5	.52
25	2.4	2.7	5.9	8.0	3.5	.74	.38	.77	.27	1.2	1.4	.59
26	2.9	2.8	6.6	8.9	3.3	.72	.28	.69	.26	1.2	1.4	.76
27	3.0	2.9	7.4	9.7	3.0	.57	.44	.66	.25	1.5	1.3	.73
28	2.8	2.9	7.0	9.3	2.7	.54	.44	.98	.27	1.5	1.3	.70
29	2.9	------	7.3	8.5	2.7	.46	.38	.80	.28	1.5	1.2	.81
30	2.7	------	7.4	8.5	2.4	.41	.57	.70	.29	1.8	.97	.74
31	2.9	------	7.8	------	2.4	------	.57	.65	------	1.6	------	.73
TOTAL	81.8	72.6	148.5	197.7	162.2	54.67	12.79	48.72	9.73	28.11	42.07	30.52
MEAN	2.64	2.59	4.79	6.59	5.23	1.82	.41	1.57	.32	.91	1.40	.98
MAX	3.0	2.9	7.8	9.7	8.9	6.2	.72	5.5	.60	1.8	1.7	1.4
MIN	2.2	2.3	3.1	4.9	2.4	.41	.23	.64	.17	.26	.97	.52
AC-FT	162	144	295	392	322	108	25	97	19	56	83	61

CAL YR 1974 TOTAL 889.41 MEAN 2.44 MAX 9.7 MIN .17 AC-FT 1,760
WTR YR 1974 TOTAL 1,003.41 MEAN 2.75 MAX 9.7 MIN .17 AC-FT 1,990

PEAK DISCHARGE (BASE, 25 FT³/S).--No peak above base.

08275300 RIO PUEBLO DE TAOS NEAR RANCHITO, N. MEX.

LOCATION.--Lat 36°23'38", long 105°37'23", Taos County, in Gijosa Grant, on left bank 1,100 ft (340 m) downstream from Rio Fernando de Taos, 1.6 mi (2.6 km) southwest of Ranchito, and at mile 7.9 (12.7 km).

DRAINAGE AREA.--199 mi^2 (515 km^2).

PERIOD OF RECORD.--March 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,747 ft (2,056 m) from topographic map.

AVERAGE DISCHARGE.--17 calendar years, 26.8 ft^3/s (0.759 m^3/s), 19,420 acre-ft/yr (23.9 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 96 ft^3/s (2.72 m^3/s) June 8 (gage height, 2.53 ft or 0.771 m); maximum gage height, 3.14 ft (0.957 m) Jan. 4 (ice jam); minimum discharge, 1.9 ft^3/s (0.054 m^3/s) July 4, 5, 6.
Period of record: Maximum discharge, 702 ft^3/s (19.9 m^3/s) May 21, 1973 (gage height, 4.24 ft or 1.292 m); maximum gage height 4.35 ft (1.326 m) Dec. 29, 1966 (ice jam); minimum discharge, 0.21 ft^3/s (0.006 m^3/s) Aug. 24, 1972.

REMARKS.--Records fair. Diversions for irrigation of about 9,000 acres (36.4 km^2) above station.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	14	18	39	27	15	5.2	2.9	3.8	4.2	5.2	13	12
2	14	19	31	28	14	4.4	2.4	7.0	4.3	5.3	12	13
3	13	17	28	26	16	4.0	2.2	15	4.3	5.2	13	13
4	12	17	25	26	17	5.9	2.1	13	4.1	5.1	16	13
5	13	19	23	23	19	5.2	2.1	11	3.9	4.8	15	14
6	15	15	24	24	20	4.5	2.2	7.1	3.7	4.4	14	14
7	17	14	25	23	17	5.1	3.0	18	3.7	5.9	13	13
8	17	16	24	20	17	58	2.4	12	3.8	5.0	13	13
9	19	14	24	21	16	37	2.2	9.6	4.1	4.8	15	11
10	19	15	26	21	17	28	2.1	9.0	4.0	6.4	14	12
11	17	15	27	22	19	24	2.0	7.5	3.8	7.9	14	14
12	18	17	25	21	20	24	4.0	7.6	3.7	6.8	13	15
13	19	19	24	20	22	22	4.5	9.4	3.5	6.8	13	16
14	19	20	23	19	21	20	4.0	8.5	3.7	6.5	13	15
15	18	21	24	14	17	17	5.0	7.6	3.9	6.8	13	15
16	19	22	24	11	24	15	4.0	5.1	3.6	7.9	13	16
17	19	22	24	10	26	15	3.0	3.9	3.8	8.2	13	15
18	20	22	23	9.5	21	11	4.0	3.7	4.0	7.9	13	14
19	20	21	21	15	21	8.3	5.0	3.7	3.9	7.9	12	11
20	18	22	21	18	21	7.1	4.5	3.8	4.2	7.9	12	10
21	24	20	20	15	21	6.2	4.0	3.6	4.6	7.6	12	10
22	23	19	19	9.2	17	6.2	3.8	3.5	4.7	7.9	12	12
23	19	20	19	7.0	15	5.5	3.6	3.7	5.2	7.9	12	11
24	19	18	18	10	11	5.5	3.3	4.0	5.0	7.9	12	10
25	19	20	19	19	11	4.7	3.0	4.1	4.6	7.8	12	9.0
26	20	21	20	30	8.0	5.6	4.5	4.1	4.8	7.8	12	10
27	20	27	21	32	6.4	4.3	3.5	4.4	4.3	10	12	12
28	17	33	22	29	5.5	3.8	3.2	5.2	4.6	10	12	14
29	17	------	25	24	5.1	3.3	3.5	5.2	4.9	12	12	13
30	18	------	26	20	5.3	3.1	4.3	5.0	5.0	18	11	12
31	18	------	28	------	4.8	------	4.0	4.6	------	16	------	11
TOTAL	554	543	742	593.7	490.1	368.9	104.3	213.7	125.9	239.6	386	393.0
MEAN	17.9	19.4	23.9	19.8	15.8	12.3	3.36	6.89	4.20	7.73	12.9	12.7
MAX	24	33	39	32	26	58	5.0	18	5.2	18	16	16
MIN	12	14	18	7.0	4.8	3.1	2.0	3.5	3.5	4.4	11	9.0
AC-FT	1,100	1,080	1,470	1,180	972	732	207	424	250	475	766	780

CAL YR 1974 TOTAL 4,754.2 MEAN 13.0 MAX 58 MIN 2.0 AC-FT 9,430
WTR YR 1974 TOTAL 5,096.8 MEAN 14.0 MAX 58 MIN 2.0 AC-FT 10,110

PEAK DISCHARGE (BASE, 100 FT^3/S).--No peak above base.

08275500 RIO GRANDE DEL RANCHO NEAR TALPA, N. MEX.

LOCATION.--Lat 36°17'52", long 105°34'55", Taos County, in Carson National Forest, Rancho del Rio Grande Grant, on left bank 1.4 mi (2.3 km) downstream from Rito de la Olla (locally known as Pot Creek), 3.2 mi (5.1 km) south of Talpa, 4.3 mi (6.9 km) upstream from Rio Chiquito and at mile 6.9 (11.1 km).

DRAINAGE AREA.--83 mi² (210 km²), approximately.

PERIOD OF RECORD.--October 1952 to current year. Prior to October 1955, published as Rio Grande del Rancho near Ranchos de Taos, and October 1955 to September 1960 as Rio Grande de Ranchos near Talpa.

GAGE.--Water-stage recorder. Altitude of gage is 7,238 ft (2,206 m) from topographic map. Prior to Nov. 11, 1952, nonrecording gage at site 1,035 ft (320 m) downstream at lower datum. Nov. 11, 1952 to Nov. 5, 1968, water-stage recorder at site 1,000 ft (300 m) downstream at lower datum.

AVERAGE DISCHARGE.--22 calendar years, 19.3 ft³/s (0.547 m³/s), 13,980 acre-ft/yr (17.2 hm³/yr); 20 calendar years (1955-74), 20.1 ft³/s (0.569 m³/s), 14,560 acre-ft/yr (18.0 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 70 ft³/s (1.98 m³/s) May 13 (gage height, 1.58 ft or 0.482 m); minimum, 1.6 ft³/s (0.045 m³/s) Jan. 24, result of freezeup.
Period of record: Maximum discharge, 497 ft³/s (14.1 m³/s) May 21, 1973 (gage height, 3.87 ft or 1.180 m); maximum gage height, 4.01 ft (1.222 m) Sept. 10, 1964, site and datum then in use; minimum discharge, 0.2 ft³/s (0.01 m³/s) Jan. 5, 1955, result of freezeup.

REMARKS.—Records good. Minor diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	3.9	6.2	6.4	14	34	24	7.5	6.7	4.5	3.8	5.8	4.3
2	3.5	5.8	6.5	14	35	23	7.1	11	4.3	4.1	5.7	5.1
3	4.0	4.8	6.7	13	40	21	6.8	16	4.5	3.7	5.8	5.2
4	5.0	5.8	6.4	13	44	20	6.7	16	4.7	3.7	5.8	4.8
5	7.0	6.0	5.7	11	47	19	7.2	12	4.6	3.7	5.5	4.9
6	6.6	4.9	6.6	13	50	18	6.6	10	4.3	4.0	5.5	4.9
7	6.4	6.1	7.2	13	49	17	6.8	9.5	4.2	5.1	5.6	4.9
8	6.1	6.0	7.5	12	52	25	7.6	9.3	4.1	4.8	5.5	4.8
9	6.0	6.5	8.2	13	55	20	7.0	10	4.0	4.6	6.1	3.5
10	5.9	7.0	8.2	14	58	17	6.6	9.8	4.0	5.4	6.2	4.3
11	4.6	6.5	7.6	14	64	16	6.0	8.6	3.7	6.6	5.9	4.9
12	5.2	6.0	7.6	13	66	15	6.1	7.9	3.7	6.4	5.7	5.1
13	6.3	5.4	8.2	13	68	15	7.7	7.0	3.8	6.7	5.7	4.9
14	5.7	5.3	8.4	12	67	14	9.3	6.7	4.0	6.2	5.7	4.6
15	4.8	5.0	8.6	13	65	14	8.2	6.4	4.2	5.8	5.6	4.7
16	5.8	5.2	9.0	13	62	14	7.6	6.3	4.7	5.4	5.4	4.7
17	5.9	5.3	10	15	58	13	7.4	6.1	4.8	5.2	5.3	5.0
18	6.0	5.6	11	18	54	12	7.9	5.9	4.6	5.2	5.3	4.9
19	5.8	5.4	11	20	51	12	7.6	5.8	4.6	5.1	5.4	5.0
20	5.4	5.8	11	22	48	11	8.5	6.2	4.4	5.2	5.1	4.5
21	7.4	4.8	11	20	44	11	7.5	5.8	4.3	5.2	5.1	4.9
22	6.4	4.7	11	20	39	10	7.0	5.5	4.4	5.4	5.2	4.7
23	3.8	5.4	10	23	35	10	6.4	5.8	4.5	5.4	5.2	4.3
24	3.9	4.1	10	25	32	9.8	6.3	5.8	4.3	5.3	5.1	3.7
25	5.1	6.1	10	29	30	9.3	6.0	5.6	4.2	5.2	5.0	4.1
26	6.8	7.0	10	32	29	9.1	6.1	5.3	3.9	5.4	4.9	5.3
27	6.6	6.2	11	37	28	8.5	6.3	5.4	3.8	5.6	4.5	5.0
28	6.3	6.0	12	37	27	8.3	5.9	6.9	3.8	5.9	4.7	5.0
29	6.3	------	12	36	27	8.1	7.9	5.9	3.9	5.8	4.6	4.7
30	6.0	------	13	37	26	7.7	8.2	5.1	3.9	6.5	3.8	4.5
31	6.2	------	15	------	25	------	6.8	4.7	------	6.1	------	4.5
TOTAL	174.7	158.9	286.8	579	1,409	431.8	220.6	239.0	126.7	162.5	160.7	145.7
MEAN	5.64	5.68	9.25	19.3	45.5	14.4	7.12	7.71	4.22	5.24	5.36	4.70
MAX	7.4	7.0	15	37	68	25	9.3	16	4.8	6.7	6.2	5.3
MIN	3.5	4.1	5.7	11	25	7.7	5.9	4.7	3.7	3.7	3.8	3.5
AC-FT	347	315	569	1,150	2,790	856	438	474	251	322	319	289

CAL YR 1974 TOTAL 4,095.4 MEAN 11.2 MAX 68 MIN 3.5 AC-FT 8,120
WTR YR 1974 TOTAL 4,231.1 MEAN 11.6 MAX 68 MIN 3.5 AC-FT 8,390

PEAK DISCHARGE (BASE, 60 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
5-13	1000	1.58	70				

08275600 RIO CHIQUITO NEAR TALPA, N. MEX.

LOCATION.--Lat 36°19'55", long 105°34'42", Taos County, in Carson National Forest, Rancho del Rio Grande Grant, on right bank 1 mi (2 km) southeast of Talpa, and at mile 2.1 (3.4 km).

DRAINAGE AREA.--37.0 mi² (95.8 km²).

PERIOD OF RECORD.--March 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,223 ft (2,202 m) from topographic map.

AVERAGE DISCHARGE.--17 calendar years, 7.84 ft³/s (0.222 m³/s), 5,680 acre-ft/yr (7.00 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 17 ft³/s (0.48 m³/s) May 5 (gage height, 1.72 ft or 0.524 m); minimum, 0.81 ft³/s (0.023 m³/s) Feb. 6, 24, Dec. 9 (result of freezeup).
Period of record: Maximum discharge, 248 ft³/s (7.02 m³/s) May 21, 1973 (gage height, 2.68 ft or 0.817 m); maximum gage height, * 3.50 ft (1.067 m) May 20, 1973 (backwater from debris); minimum discharge, 0.16 ft³/s (0.005 m³/s) Jan 31, 1972, result of freezeup.

REMARKS.--Records good. No diversions above station.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	2.6	3.3	3.4	6.6	14	5.3	2.3	3.0	2.4	2.0	2.9	1.8
2	2.5	3.1	3.4	6.6	14	5.4	2.2	4.3	2.3	1.9	2.9	2.1
3	2.6	3.1	3.6	5.6	15	5.2	2.1	11	2.3	1.9	3.0	2.2
4	2.8	3.1	3.4	5.6	16	4.9	2.0	11	2.5	1.9	2.8	2.2
5	3.6	3.2	3.1	4.7	16	4.7	2.2	8.0	2.3	2.0	2.8	2.2
6	3.4	2.6	3.7	5.8	16	4.5	2.1	6.7	2.1	2.2	2.9	2.3
7	3.2	3.3	3.7	5.6	16	4.6	2.3	6.0	2.0	2.7	2.8	2.3
8	3.1	3.2	3.8	5.3	16	8.8	2.7	6.1	1.9	2.7	2.7	2.3
9	3.1	3.4	4.1	5.8	16	7.2	2.7	6.0	1.8	2.5	3.1	1.3
10	3.1	3.6	4.1	6.3	16	5.6	2.6	5.5	1.8	2.7	3.1	1.8
11	2.9	3.4	3.9	5.9	16	4.8	2.2	4.8	1.7	3.6	2.9	2.2
12	2.8	3.0	3.8	5.6	16	4.4	2.1	4.3	1.6	3.7	2.8	2.2
13	3.1	2.9	4.0	5.4	16	4.2	2.6	3.9	1.7	4.0	2.8	2.2
14	3.0	2.9	4.1	5.2	15	4.0	3.3	3.6	1.9	3.6	2.9	2.1
15	3.0	2.8	4.2	5.6	14	3.9	2.9	3.3	2.2	3.3	2.8	2.2
16	3.2	2.9	4.4	5.9	13	3.8	2.8	3.2	2.7	3.0	2.8	2.0
17	3.2	3.0	4.8	6.6	12	3.7	2.8	2.9	2.6	2.9	2.6	2.0
18	3.2	3.1	5.1	7.6	11	3.5	2.8	2.8	2.4	2.7	2.8	2.0
19	3.1	3.1	5.1	6.4	11	3.4	2.8	2.7	2.3	2.6	2.8	2.0
20	3.1	3.2	5.1	9.1	10	3.3	3.6	3.0	2.2	2.6	2.4	1.8
21	3.5	3.1	4.7	8.6	9.4	3.1	3.1	3.0	2.2	2.5	2.5	1.9
22	3.3	2.9	4.7	8.6	8.8	3.0	2.9	2.8	2.3	2.6	2.6	1.5
23	2.1	3.3	4.9	9.6	8.2	2.9	2.6	3.4	2.4	2.6	2.6	1.4
24	2.2	2.5	4.7	10	7.6	2.9	2.5	3.1	2.3	2.6	2.4	1.5
25	2.7	3.2	4.7	12	7.5	2.8	2.2	2.9	2.1	2.5	2.4	1.5
26	3.6	3.4	5.0	13	7.0	2.8	2.2	2.8	2.0	2.4	2.4	2.2
27	3.7	3.3	5.5	15	6.5	2.6	2.3	2.8	2.0	2.7	2.1	1.9
28	3.3	3.3	5.5	15	6.0	2.5	2.1	3.8	2.0	2.9	2.2	1.9
29	3.3	------	5.7	14	5.8	2.4	2.4	3.1	2.0	2.9	1.9	1.7
30	3.2	------	6.2	14	5.5	2.3	3.0	2.9	2.0	3.4	1.5	1.6
31	3.3	------	7.1	------	5.4	------	2.5	2.6	------	3.1	------	1.5
TOTAL	94.8	87.2	139.5	243.0	366.7	122.5	78.9	135.3	64.0	84.7	79.2	59.8
MEAN	3.06	3.11	4.50	8.10	11.8	4.08	2.55	4.36	2.13	2.73	2.64	1.93
MAX	3.7	3.6	7.1	15	16	8.8	3.6	11	2.7	4.0	3.1	2.3
MIN	2.1	2.5	3.1	4.7	5.4	2.3	2.0	2.6	1.6	1.9	1.5	1.3
AC-FT	188	173	277	482	727	243	156	268	127	168	157	119

CAL YR 1974 TOTAL 1,555.6 MEAN 4.26 MAX 16 MIN 1.3 AC-FT 3,090
WTR YR 1974 TOTAL 1,658.3 MEAN 4.54 MAX 16 MIN 1.6 AC-FT 3,290

PEAK DISCHARGE (BASE, 25 FT³/S).--No peak above base.

08276300 RIO PUEBLO DE TAOS BELOW LOS CORDOVAS, N. MEX.

LOCATION.--Lat 36°22'39", long 105°40'05", Taos County, in Gijosa Grant, on left bank 1.9 mi (3.1 km) southwest of Los Cordovas, 2.5 mi (4.0 km) downstream from Rio Grande del Rancho, and at mile 5.1 (8.2 km).

DRAINAGE AREA.--380 mi² (984 km²).

PERIOD OF RECORD.--March 1957 to current year.

GAGE.--Water-stage recorder. Concrete control since July 16, 1963. Datum of gage is 6,652 ft (2,028 m) above mean sea level.

AVERAGE DISCHARGE.--17 calendar years, 46.7 ft³/s (1.323 m³/s), 33,830 acre-ft/yr (41.7 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 321 ft³/s (9.09 m³/s) Aug. 7 (gage height, 3.35 ft or 1.021 m), from rating curve extended above 56 ft³/s (1.59 m³/s); minimum, 3.8 ft³/s (0.11 m³/s) July 4.
Period of record: Maximum discharge, 2,380 ft³/s (67.4 m³/s) Aug. 24, 1957 (gage height, 5.80 ft or 1.768 m), from rating curve extended above 900 ft³/s (25.5 m³/s); minimum, 1.9 ft³/s (0.054 m³/s) July 31, Aug. 1, 1972.

REMARKS.--Records good except those for winter periods, which are poor. Diversions for irrigation of about 12,000 acres (48.6 km²) above station.

REVISIONS (WATER YEARS).--WSP 1732: 1957(M). WSP 1923: 1957(P), 1958.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	24	31	69	43	28	12	6.4	6.5	8.1	9.1	21	20
2	18	31	49	44	25	11	5.4	9.6	8.3	8.9	19	21
3	17	27	43	43	25	11	4.5	25	8.3	8.9	21	23
4	15	27	40	44	26	12	4.5	24	8.2	8.9	24	25
5	20	28	38	40	28	11	4.5	17	7.7	8.8	22	26
6	25	23	41	41	32	10	4.5	13	7.1	8.6	21	27
7	28	21	44	40	32	11	5.6	34	7.2	12	21	25
8	30	22	43	38	38	64	5.5	22	7.2	10	20	25
9	35	23	45	39	35	42	6.1	16	7.3	10	23	20
10	35	24	46	40	38	34	5.8	15	7.4	15	21	20
11	33	26	45	41	42	31	5.6	13	7.0	15	21	21
12	30	28	43	39	46	30	7.8	13	6.8	12	20	22
13	31	29	42	37	48	28	8.4	14	6.4	12	20	22
14	32	31	41	33	49	26	8.0	13	6.9	12	20	20
15	31	30	41	30	46	23	8.7	12	7.3	12	20	21
16	32	31	40	29	56	21	7.6	9.8	7.1	13	20	22
17	33	32	38	29	58	20	6.1	8.1	7.4	14	20	22
18	35	33	38	29	53	17	7.0	6.9	7.9	14	20	22
19	33	32	38	33	47	15	8.0	7.1	7.8	14	20	22
20	32	33	37	39	42	13	7.6	7.4	8.8	14	19	20
21	41	29	36	42	39	12	7.3	7.5	7.9	14	20	19
22	39	28	35	27	35	12	6.8	7.1	7.9	14	20	23
23	31	30	35	24	31	12	6.5	7.5	8.9	14	20	23
24	30	25	34	27	25	11	6.4	7.9	8.7	14	20	18
25	30	29	34	33	22	9.3	5.9	8.2	8.1	14	21	15
26	32	33	35	43	18	10	7.5	6.3	8.3	14	21	20
27	36	41	36	47	16	9.3	6.4	8.6	8.0	18	20	22
28	27	56	37	43	13	8.2	6.1	10	8.3	18	20	23
29	26	------	39	34	12	7.0	6.3	9.7	8.7	19	21	21
30	27	------	41	31	12	6.8	7.3	9.4	9.0	27	20	20
31	30	------	44	------	12	------	6.9	8.9	------	23	------	19
TOTAL	918	833	1,267	1,092	1,029	539.6	201.0	379.5	234.0	421.2	616	667
MEAN	29.6	29.8	40.9	36.4	33.2	18.0	6.48	12.2	7.80	13.6	20.5	21.5
MAX	41	56	69	47	58	64	8.7	34	9.0	27	24	27
MIN	15	21	34	24	12	6.8	4.5	6.5	6.4	8.6	19	15
AC-FT	1,820	1,650	2,510	2,170	2,040	1,070	399	753	464	835	1,220	1,320

CAL YR 1974 TOTAL 8,197.3 MEAN 22.5 MAX 69 MIN 4.5 AC-FT 16,260
WTR YR 1974 TOTAL 8,706.1 MEAN 23.9 MAX 69 MIN 4.5 AC-FT 17,270

PEAK DISCHARGE (BASE, 230 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
8- 7	1715	3.35	321				

08276500 RIO GRANDE BELOW TAOS JUNCTION BRIDGE, NEAR TAOS, N. MEX.

LOCATION.--Lat 36°19'12", long 105°45'14", in NW¼NE¼ sec.15, T.24 N., R.11 E., Taos County, on left bank 1.7 mi (2.7 km) downstream from bridge on State Highway 96, 2.0 mi (3.2 km) downstream from Rio Pueblo de Taos, 11.8 mi (19.0 km) southwest of Taos, and at mile 1,657.7 (2,667.2 km).

DRAINAGE AREA.--9,730 mi² (25,200 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, Colo.

PERIOD OF RECORD.--July 1925 to current year. Prior to October 1930 monthly discharge only, published in WSP 1312. Published as "at Taos Junction Bridge, near Taos" prior to 1934.

GAGE.--Water-stage recorder. Datum of gage is 6,050.3 ft (1,844.1 m) above mean sea level. Prior to Apr. 14, 1934, at bridge 1.7 mi (2.7 km) upstream at different datum.

AVERAGE DISCHARGE.--49 calendar years, 720 ft³/s (20.39 m³/s), 521,600 acre-ft/yr (643 hm³/yr); 20 calendar years (1955-74), 596 ft³/s (16.88 m³/s), 431,800 acre-ft/yr (532 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 996 ft³/s (28.2 m³/s) Apr. 2 (gage height, 4.65 ft or 1.417 m); minimum, 171 ft³/s (4.84 m³/s) Sept. 12, 13, 14, 15.
Period of record: Maximum discharge, 9,730 ft³/s (276 m³/s) June 7, 1948 (gage height, 9.18 ft or 2.798 m), and June 22, 1949 (gage height, 9.23 ft or 2.813 m); minimum, 155 ft³/s (4.39 m³/s) Sept. 21, 1956.
Maximum flood since at least 1888, about 14,000 ft³/s (396 m³/s) June 19, 1903, from records for Rio Grande at Embudo and estimated inflow. Other floods exceeding 10,000 ft³/s (283 m³/s) occurred June 9, 1905, May 28, 1920, and June 16, 1921, from comparison of records for stations near Lobatos and at Embudo.

REMARKS.--Records good. Diversions above station for irrigation of about 620,000 acres (2,510 km²) in Colorado and 30,000 acres (121 km²) in New Mexico.

REVISIONS (WATER YEARS).--WSP 788: 1934(M). WSP 828: Drainage area. WSP 1392: 1931-32, 1935, 1937, 1945, 1950.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	479	498	576	931	489	255	200	184	188	175	245	264
2	460	497	551	980	461	254	200	193	188	180	240	340
3	454	485	573	960	423	257	197	225	184	175	245	370
4	420	487	589	800	397	311	190	245	184	180	267	352
5	450	497	577	680	461	327	186	255	180	180	284	357
6	444	481	593	560	496	322	185	225	180	180	275	382
7	445	477	629	520	472	311	186	230	184	184	270	408
8	456	477	655	490	452	471	188	326	180	184	270	411
9	473	465	692	470	417	458	190	240	180	188	275	370
10	482	473	748	450	381	420	184	235	178	206	285	375
11	473	470	731	460	389	414	186	230	175	211	290	353
12	472	477	740	450	568	401	186	225	175	225	285	370
13	499	478	788	430	536	379	188	225	172	240	280	370
14	507	485	812	410	577	336	184	225	172	240	275	370
15	493	482	880	390	475	311	193	211	174	240	280	364
16	488	485	913	370	426	299	193	211	178	245	275	370
17	498	488	845	370	394	285	193	202	188	240	270	366
18	515	496	857	380	370	279	198	198	192	245	270	367
19	510	489	855	370	362	266	202	198	189	250	270	362
20	510	500	889	370	348	260	198	198	186	245	275	358
21	536	490	928	340	353	260	198	198	184	235	273	358
22	544	490	924	330	334	256	193	193	180	235	266	364
23	516	501	901	340	304	250	188	188	180	235	288	364
24	506	484	871	335	288	250	193	193	180	235	298	358
25	492	473	850	324	298	235	188	193	175	230	292	342
26	509	499	835	344	304	230	193	193	175	230	318	340
27	508	519	833	357	297	220	193	188	175	240	342	330
28	483	548	822	476	326	211	184	188	175	240	361	325
29	491	------	846	561	306	206	184	193	175	245	329	348
30	471	------	875	545	277	203	184	206	175	260	289	334
31	487	------	903	------	263	------	184	202	------	255	------	330
TOTAL	15,071	13,691	24,081	14,793	12,244	8,937	5,909	6,616	5,401	6,853	8,482	11,072
MEAN	486	489	777	493	395	298	191	213	180	221	283	357
MAX	544	548	928	980	577	471	202	326	192	260	361	411
MIN	420	465	551	324	263	203	184	184	172	175	240	264
AC-FT	29,890	27,160	47,760	29,340	24,290	17,730	11,720	13,120	10,710	13,590	16,820	21,960

CAL YR 1974 TOTAL 133,150 MEAN 365 MAX 980 MIN 172 AC-FT 264,100
WTR YR 1974 TOTAL 157,157 MEAN 431 MAX 980 MIN 172 AC-FT 311,700

PEAK DISCHARGE (BASE, 1,600 FT³/S).--No peak above base.

08279000 EMBUDO CREEK AT DIXON, N. MEX.

LOCATION.--Lat 36°12'39", long 105°54'47", in NE¼SE¼ sec.19, T.23 N., R.10 E., Rio Arriba County, on right bank 750 ft (230 m) upstream from U.S. Highway 64, 0.5 mi (0.8 km) upstream from mouth, 0.5 mi (0.8 km) east of Embudo Post Office, and 1.7 mi (2.7 km) northwest of Dixon.

DRAINAGE AREA.--305 mi^2 (790 km^2).

PERIOD OF RECORD.--October 1923 to February 1926, October 1926 to September 1955, annual maximum, water years 1956-62, September 1962 to current year. Monthly discharge only for some periods, published in WSP 1312. Figures of daily discharge for July 6-25, 1932, published in WSP 733, and maximum discharges for water years 1931-33, 1935, 1937-38, 1941, are unreliable and should not be used.

GAGE.--Water-stage recorder. Datum of gage is 5,858.60 ft (1,785.701 m) above mean sea level. Prior to Nov. 30, 1938, at site about 1 mi (2 km) upstream at different datums. Nov. 30, 1938 to Aug. 1, 1941, at site about 0.9 mi (1.4 km) upstream at datum about 59.9 ft (18.26 m) higher. Aug. 2, 1941 to Sept. 1, 1971 at site 750 ft (230 m) downstream at datum 9.10 ft (2.774 m) lower. April 1956 to Sept. 21, 1962, crest-stage gage.

AVERAGE DISCHARGE.--42 calendar years (1924-25, 1927-54, 1963-74), 77.6 ft^3/s (2.198 m^3/s), 56,220 acre-ft/yr (69.3 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 220 ft^3/s (6.23 m^3/s) Oct. 10 (gage height, 2.92 ft or 0.890 m); maximum gage height, 3.34 ft (1.018 m), Jan. 4 (backwater from ice); minimum discharge, 5.2 ft^3/s (0.15 m^3/s) Sept. 12, 16.
Period of record: Maximum discharge determined, 2,280 ft^3/s (64.6 m^3/s) Aug. 4, 1967 (gage height, 7.6 ft or 2.32 m), from rating curve extended above 410 ft^3/s (11.6 m^3/s) on basis of slope-area measurement of peak flow; minimum, 0.06 ft^3/s (0.002 m^3/s) June 26, 27, 1950.

REMARKS.--Records good. Diversions above station for irrigation of about 6,500 acres (26.3 km^2), a small part of which is below gage. Water quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1512: 1931-32, 1941, 1947(M). See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	29	34	37	40	69	40	7.9	7.9	6.8	6.1	27	28
2	29	34	39	40	64	41	8.3	9.4	6.4	5.9	26	34
3	20	28	41	37	70	34	8.5	12	6.3	5.8	28	38
4	25	30	39	38	78	30	9.5	15	6.9	5.7	30	36
5	33	32	32	31	91	28	11	14	6.8	5.6	31	41
6	32	28	37	44	90	31	9.6	14	7.0	5.9	30	42
7	32	32	46	40	85	28	7.9	15	6.8	7.2	31	35
8	33	30	49	35	84	52	7.3	15	6.5	8.1	28	33
9	33	33	54	36	83	50	6.9	15	6.1	8.1	34	21
10	33	35	49	38	86	42	7.7	11	5.7	31	31	22
11	25	33	38	36	90	34	7.3	9.7	5.7	40	29	26
12	26	33	40	34	92	29	7.5	8.6	5.5	32	30	28
13	34	33	44	31	95	26	7.4	7.8	6.3	33	31	26
14	32	35	45	27	94	23	7.0	7.6	6.5	28	30	25
15	30	30	47	28	85	19	6.9	7.6	5.7	27	30	25
16	31	32	47	21	82	17	7.2	7.1	5.8	23	29	27
17	33	32	47	22	79	17	7.2	7.1	5.9	22	28	26
18	36	34	47	26	76	15	8.9	6.9	6.3	22	29	30
19	33	28	43	32	77	14	12	6.9	7.2	20	30	28
20	32	31	39	32	79	14	12	7.0	7.3	19	28	27
21	44	24	44	32	70	13	9.0	6.9	7.7	19	25	29
22	40	23	42	31	65	12	8.1	7.1	7.1	19	27	32
23	28	27	40	32	56	12	7.8	6.6	6.8	21	30	35
24	29	25	37	39	54	11	7.3	6.8	6.9	21	27	29
25	36	31	35	56	56	9.5	8.7	6.6	6.6	22	25	20
26	34	34	36	73	47	10	11	6.4	6.5	21	29	26
27	39	33	37	69	41	9.9	14	6.4	6.2	22	28	31
28	31	33	36	84	38	9.8	8.6	6.4	6.0	22	31	29
29	31	------	35	77	37	9.5	7.5	8.1	5.7	22	33	29
30	32	------	35	73	35	8.6	7.7	8.2	5.8	29	27	31
31	35	------	41	------	33	------	7.8	7.8	------	30	------	27
TOTAL	990	867	1,278	1,254	2,181	689.3	265.5	281.9	192.8	603.4	872	916
MEAN	31.9	31.0	41.2	41.8	70.4	23.0	8.56	9.09	6.43	19.5	29.1	29.5
MAX	44	35	54	89	95	52	14	15	7.7	40	34	42
MIN	20	23	32	21	33	8.6	6.9	6.4	5.5	5.6	25	20
AC-FT	1,960	1,720	2,530	2,490	4,330	1,370	527	559	382	1,200	1,730	1,820

CAL YR 1974 TOTAL 10,390.9 MEAN 28.5 MAX 95 MIN 5.5 AC-FT 20,610
WTR YR 1974 TOTAL 10,773.5 MEAN 29.5 MAX 95 MIN 5.5 AC-FT 21,370

PEAK DISCHARGE (BASE, 800 FT^3/S).--No peak above base.

08279500 RIO GRANDE AT EMBUDO, N. MEX.

LOCATION.--Lat 36°12'20", long 105°57'49", in SW¼SW¼ sec.23, T.23 N., R.9 E., Rio Arriba County, on right bank 0.2 mi (0.3 km) downstream from bridge at Embudo, 2.8 mi (4.5 km) downstream from Embudo Creek, and at mile 1,643.1 (2,643.7 km).

DRAINAGE AREA.--10,400 mi² (26,940 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, Colo.

PERIOD OF RECORD.--January 1889 to current year. Monthly discharge only for some periods, published in WSP 1312. Figures of daily discharge for Oct. 4 to Nov. 30, 1896, published in WSP 358, are unreliable and should not be used.

GAGE.--Water-stage recorder. Datum of gage is 5,789.14 ft (1,764.530 m) above mean sea level. Jan. 1 to Feb. 28, 1889, nonrecording gage 1.2 mi (1.9 km) upstream at different datum. March 1889 to December 1903, nonrecording gage 1,300 ft (400 m) upstream at different datum. September 1912 to June 1914, water-stage recorder on downstream end of bridge pier at site 200 ft (61 m) upstream at present datum.

AVERAGE DISCHARGE.--86 calendar years, 998 ft³/s (28.26 m³/s), 723,100 acre-ft/yr (892 hm³/yr); 20 calendar years (1955-74), 664 ft³/s (18.80 m³/s), 481,100 acre-ft/yr (593 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,050 ft³/s (29.7 m³/s) Apr. 2 (gage height, 3.95 ft or 1.204 m); maximum gage height, 6.84 ft (2.085 m) Jan. 5 (backwater from ice); minimum discharge, 178 ft³/s (5.04 m³/s) Sept. 14.
1889-1903, 1912-74: Maximum discharge, 16,200 ft³/s (459 m³/s) June 19, 1903 (gage height, about 15.9 ft or 4.85 m); minimum daily, 130 ft³/s (3.68 m³/s) June 30, 1902.
A flood of about 14,000 ft³/s (396 m³/s) occurred between May 20 and June 10, 1905, from a comparison of records for Lobatos and Otowi Bridge. Another major flood occurred Sept. 29 or 30, 1904.

REMARKS.--Records good. Diversions above station for irrigation of about 620,000 acres (2,510 km²) in Colorado and 40,000 acres (162 km²) in New Mexico.

REVISIONS (WATER YEARS).--WSP 358: 1900-1902. WSP 828: Drainage area. WSP 878: 1915-16. WSP 1512: 1892-99, 1904, 1916, 1931-32, 1939, 1944-45, 1950. WSP 1712: 1903(M). See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	488	512	574	973	574	307	224	187	194	195	271	281
2	467	516	602	1,020	535	308	225	194	191	195	266	326
3	456	497	602	1,000	510	301	216	226	190	195	269	382
4	430	496	630	928	477	336	237	242	189	194	284	366
5	460	507	603	714	531	365	218	240	188	196	305	373
6	500	491	621	624	598	366	212	225	190	199	300	391
7	442	489	665	570	566	356	213	225	188	203	295	413
8	457	491	704	532	539	484	211	323	187	202	291	419
9	472	474	737	524	513	553	211	235	187	203	299	389
10	485	485	796	513	472	483	202	231	189	227	305	359
11	469	481	775	519	465	467	202	224	186	274	305	364
12	462	489	769	502	635	447	204	220	184	254	305	369
13	494	492	818	479	639	428	203	219	183	273	301	372
14	506	505	847	461	665	385	200	216	182	267	296	373
15	493	493	901	449	584	350	206	211	183	265	294	366
16	487	499	955	428	523	332	207	206	189	267	295	372
17	498	502	889	423	492	318	199	200	196	264	289	366
18	526	517	895	416	462	311	208	198	200	262	286	373
19	519	502	895	413	448	297	211	196	201	263	287	365
20	517	519	925	423	434	288	206	199	199	260	289	359
21	556	501	961	397	431	288	203	197	201	254	285	360
22	570	503	967	388	417	281	194	194	196	252	279	369
23	529	506	949	398	375	279	196	194	196	253	299	377
24	506	495	913	390	354	277	196	195	196	252	310	365
25	495	483	889	384	349	266	196	197	191	251	302	337
26	516	506	871	415	358	257	196	195	192	249	325	335
27	528	531	875	437	346	248	203	194	191	257	343	335
28	493	553	861	532	367	240	193	199	188	263	381	330
29	496	------	881	633	364	231	189	199	189	262	345	345
30	481	------	907	635	329	229	192	227	191	286	322	340
31	495	------	943	------	314	------	189	198	------	279	------	335
TOTAL	15,293	14,035	25,220	16,520	14,666	10,078	6,364	6,606	5,727	7,516	9,023	11,206
MEAN	493	501	814	551	473	336	205	213	191	242	301	361
MAX	570	553	967	1,020	665	553	237	323	201	286	381	419
MIN	430	474	574	384	314	229	189	187	182	194	266	281
AC-FT	30,330	27,840	50,020	32,770	29,090	19,990	12,620	13,100	11,360	14,910	17,900	22,230

CAL YR 1974 TOTAL 142,254 MEAN 390 MAX 1,020 MIN 182 AC-FT 282,200
WTR YR 1974 TOTAL 165,870 MEAN 454 MAX 1,020 MIN 182 AC-FT 329,000

PEAK DISCHARGE (BASE, 2,000 FT³/S).--No peak above base.

08281100 RIO GRANDE ABOVE SAN JUAN PUEBLO, N. MEX.

LOCATION.--Lat 36°03'58", long 106°04'34", in NE¼SE¼ sec.10, T.21 N., R.8 E., Rio Arriba County, in San Juan Pueblo Grant, on left bank 0.8 mi (1.3 km) upstream from bridge on State Highway 74, 1.0 mi (1.6 km) northwest of San Juan Pueblo, 1.8 mi (2.9 km) upstream from Rio Chama, 5.1 mi (8.2 km) north of Española, and at mile 1,630.1 (2,622.8 km).

DRAINAGE AREA.--10,550 mi² (27,320 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, Colo.

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

GAGE.--Water-stage recorder. Altitude of gage is 5,630 ft (1,716 m) from topographic map.

AVERAGE DISCHARGE.--11 calendar years, 677 ft³/s (19.17 m³/s), 490,500 acre-ft/yr (605 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,030 ft³/s (29.2 m³/s) Apr. 2 (gage height, 2.34 ft or 0.713 m); minimum, 120 ft³/s 3.40 m³/s) Aug. 1, 2, Sept. 13.
Period of record: Maximum discharge, 6,310 ft³/s (179 m³/s) May 22, 1973 (gage height, 5.86 ft or 1.786 m); minimum, 96 ft³/s (2.72 m³/s) Aug. 1, 1963.
For years of outstanding floods see records for Rio Grande at Embudo (sta 08279500).

REMARKS.--Records good. Diversions above station for irrigation of about 620,000 acres (2,510 km²) in Colorado and 42,000 acres (170 km²) in New Mexico. San Juan lateral and San Juan Pueblo ditch, both on left bank, and Guique ditch, on right bank, bypass gage for irrigation of several hundred acres below station. See tabulation below for monthly and yearly diversion, as furnished by Bureau of Reclamation.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	472	489	565	958	524	248	172	133	161	156	269	294
2	460	497	604	999	484	253	158	133	137	155	273	309
3	429	481	579	999	452	242	193	181	146	147	274	393
4	405	473	607	935	411	252	185	222	149	145	286	380
5	464	481	583	726	446	289	203	206	150	153	303	386
6	490	474	591	600	518	307	170	195	150	177	300	399
7	494	466	631	546	509	311	162	192	147	191	294	422
8	470	478	681	504	481	358	168	293	144	195	291	431
9	476	478	716	491	457	510	158	223	147	190	294	411
10	485	491	786	479	431	419	148	207	139	209	309	365
11	471	465	765	485	404	397	146	201	141	284	315	388
12	458	467	751	473	507	384	145	185	132	263	314	372
13	484	473	794	449	578	371	153	176	127	280	313	383
14	504	486	834	427	608	331	147	169	135	272	311	383
15	494	474	881	405	538	287	149	161	145	270	309	381
16	483	478	946	386	451	273	167	148	156	264	305	381
17	495	478	889	379	434	262	168	154	162	263	294	381
18	516	495	885	388	392	250	178	167	165	258	290	382
19	516	481	886	378	385	247	179	155	167	250	290	378
20	514	497	911	377	364	237	181	152	171	251	291	374
21	544	482	943	355	354	232	177	151	169	253	290	368
22	567	481	961	324	354	230	174	149	169	250	287	380
23	531	478	947	352	319	228	163	150	168	254	297	389
24	494	478	909	336	298	226	164	148	169	251	322	380
25	496	462	882	329	289	218	168	152	162	245	310	370
26	493	476	862	338	302	215	170	152	156	243	323	359
27	515	507	858	360	292	206	176	150	147	255	343	360
28	486	527	837	418	293	197	167	149	144	262	381	363
29	480	------	855	548	299	186	153	152	152	260	353	348
30	467	------	891	580	272	172	143	172	155	280	344	371
31	470	------	924	------	254	------	139	176	------	275	------	339
TOTAL	15,123	13,493	24,754	15,304	12,700	8,338	5,124	5,354	4,562	7,201	9,175	11,620
MEAN	488	482	799	510	410	278	165	173	152	232	306	375
MAX	567	527	961	999	608	510	203	293	171	284	381	431
MIN	405	462	565	324	254	172	139	133	127	145	269	294
AC-FT	30,000	26,760	49,100	30,360	25,190	16,540	10,160	10,620	9,050	14,280	18,200	23,050
(†)	-	-	-	25	91	55	53	196	35	5.7	-	-
(††)	-	-	-	254	417	401	287	369	224	97	-	-
(‡)	-	-	-	-	-	349	124	266	349	142	88	-

CAL YR 1974 TOTAL 132,748 MEAN 364 MAX 999 MIN 127 AC-FT 263,300
WTR YR 1974 TOTAL 154,142 MEAN 422 MAX 999 MIN 127 AC-FT 305,700

PEAK DISCHARGE (BASE, 2,000 FT³/S).--No peak above base.
† Diversion, in acre-ft, by San Juan lateral.
†† Diversion, in acre-ft, by San Juan Pueblo ditch.
‡ Diversion, in acre-ft, by Guique ditch.

08284100 RIO CHAMA NEAR LA PUENTE, N. MEX.

LOCATION.--Lat 36°39'45", long 106°37'57", Rio Arriba County, in Tierra Amarilla Grant, on right bank 0.7 mi (1.1 km) downstream from Rito de Tierra Amarilla, 3.1 mi (5.0 km) southwest of La Puente, 6.7 mi (10.8 km) upstream from flow line of El Vado Reservoir, and at mile 91.4 (147.1 km).

DRAINAGE AREA.--480 mi^2 (1,200 km^2) approximately.

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

GAGE.--Water-stage recorder. Concrete control since Nov. 9, 1965. Altitude of gage is 7,083 ft (2,159 m) from river-profile map.

AVERAGE DISCHARGE.--19 calendar years, 306 ft^3/s (8.666 m^3/s), 221,700 acre-ft/yr (273 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 2,470 ft^3/s (70.0 m^3/s) May 9 (gage height, 4.63 ft or 1.411 m); minimum, 8.0 ft^3/s (0.23 m^3/s) Sept. 11.
Period of record: Maximum discharge, 9,540 ft^3/s (270 m^3/s) May 19, 1973 (gage height, 6.12 ft or 1.865 m); minimum, 4.0 ft^3/s (0.11 m^3/s) Sept. 19, 1956.
A discharge of about 9,000 ft^3/s (255 m^3/s) occurred Apr. 16, 1937, based on flow of Rio Chama at Park View with allowance for tributary inflow. A peak on May 21 or 22, 1926, may have exceeded 10,000 ft^3/s (283 m^3/s).

REMARKS.--Records good except those for winter periods, which are poor. Diversions for irrigation of about 10,300 acres (41.7 km^2) above station (1962 determination).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	37	52	55	229	989	274	20	46	21	20	62	36
2	36	52	60	229	1,370	254	20	59	18	17	69	37
3	35	50	80	187	1,720	233	19	127	16	16	74	40
4	32	48	70	169	1,760	214	19	155	14	16	67	39
5	32	48	60	139	1,600	200	20	121	12	17	61	38
6	34	45	70	172	1,480	180	18	104	14	19	56	37
7	38	40	80	172	1,510	173	17	84	12	19	56	36
8	38	38	90	161	1,740	291	19	79	10	18	53	35
9	39	38	100	179	1,920	240	19	97	11	17	66	36
10	40	40	120	210	1,880	175	18	104	9.8	19	62	35
11	35	40	90	179	1,780	158	14	96	8.8	21	55	34
12	35	41	90	161	1,540	139	14	72	10	23	51	33
13	36	42	95	150	1,370	133	16	58	10	23	54	32
14	37	45	100	150	1,110	126	19	51	10	22	55	30
15	38	43	110	190	989	119	20	45	13	22	55	30
16	38	40	130	198	967	112	21	41	14	21	56	32
17	40	40	169	229	880	106	25	37	14	21	49	35
18	45	42	198	347	809	95	41	36	16	19	53	34
19	45	40	220	490	751	76	47	33	15	20	56	34
20	45	41	229	366	601	49	42	37	16	20	44	34
21	50	40	180	318	523	45	28	36	16	21	37	38
22	50	38	153	360	464	40	32	30	19	28	43	40
23	48	40	153	523	424	38	30	29	21	41	57	38
24	45	38	146	661	417	33	29	30	21	54	46	35
25	46	40	153	1,090	397	28	32	32	22	48	40	30
26	50	41	172	1,600	390	27	29	29	20	43	39	32
27	50	45	198	1,760	403	26	28	27	21	50	36	35
28	50	50	211	1,360	397	24	26	28	21	57	35	40
29	50	------	224	1,310	329	23	29	32	21	63	35	40
30	50	------	259	1,150	302	21	51	30	21	72	35	40
31	50	------	318	------	285	------	62	25	------	66	------	40
TOTAL	1,294	1,197	4,383	14,319	31,097	3,652	824	1,810	467.6	933	1,557	1,105
MEAN	41.7	42.8	141	477	1,003	122	26.6	58.4	15.6	30.1	51.9	35.6
MAX	50	52	318	1,760	1,920	291	62	155	22	72	74	40
MIN	32	38	55	139	285	21	14	25	8.8	16	35	30
AC-FT	2,570	2,370	8,690	28,400	61,680	7,240	1,630	3,590	927	1,850	3,090	2,190

CAL YR 1974 TOTAL 62,638.6 MEAN 172 MAX 1,920 MIN 8.8 AC-FT 124,200
WTR YR 1974 TOTAL 63,504.6 MEAN 174 MAX 1,920 MIN 8.8 AC-FT 126,000

PEAK DISCHARGE (BASE, 2,000 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
4-26	2330	4.57	2,330	5- 9	0030	4.63	2,470

08284160 AZOTEA TUNNEL AT OUTLET, NEAR CHAMA, N. MEX.

LOCATION.--Lat 36°51'12", long 106°40'18", Rio Arriba County, in Tierra Amarilla Grant, on left bank at south portal, 0.2 mi (0.3 km) upstream from Azotea Creek, and 6.2 mi (10.0 km) southwest of Chama.

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 7,519.87 ft (2,292.056 m) above mean sea level (levels by Bureau of Reclamation).

EXTREMES.--Current year: Maximum discharge, 746 ft^3/s (21.1 m^3/s) May 12 (gage height, 5.93 ft or 1.807 m); no flow Jan. 1 to Mar. 6. Period of record: Maximum discharge, 1,070 ft^3/s (30.3 m^3/s) May 28, 1973 (gage height, 7.40 ft or 2.256 m); no flow many days most years.

REMARKS.--Records represent regulated diversions from Rio Blanco, Little Navajo River, and Navajo River in San Juan River Basin.

COOPERATION.--Records furnished by Bureau of Reclamation.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			0	127	249	293	19	50	.56	.44	22	.56
2			0	118	284	264	17	82	.56	.44	23	.56
3			0	89	362	254	17	207	.56	.44	21	.56
4			0	68	388	288	9.8	206	.56	.44	14	.56
5			0	57	398	279	9.8	145	.56	.44	12	.56
6			0	71	315	235	9.3	79	.56	.44	11	.56
7			.15	69	301	199	7.6	52	.56	.44	9.0	.56
8			.30	71	420	161	7.5	55	.56	.44	12	.56
9			.30	91	432	131	3.6	52	.56	.44	18	.56
10			.54	99	352	153	2.7	59	.44	.44	11	.56
11			3.3	72	364	191	1.4	28	.44	.44	9.4	.56
12			.35	63	487	206	.84	19	.44	.44	.61	.56
13			2.4	52	419	184	.84	15	.44	.44	1.9	.56
14			4.0	55	176	179	.84	12	.44	.44	.69	.56
15			8.5	51	311	180	6.0	9.6	.44	.44	.69	.56
16			34	75	504	166	40	7.1	.44	.44	.69	.56
17			69	103	486	171	24	6.0	.44	.44	.69	.56
18			96	176	404	155	139	4.7	.44	.44	.69	.56
19			83	195	429	131	82	1.7	.44	.44	.69	.56
20			66	147	311	101	72	4.7	.44	.44	.69	.56
21			68	112	243	98	55	3.0	.44	.44	.69	.56
22			69	117	248	90	61	1.5	.44	.44	.69	.56
23			71	167	243	88	59	.56	.44	.44	.69	.56
24			65	197	268	85	70	.44	.44	.44	.69	.56
25			76	233	219	69	51	.56	.44	.44	.94	.56
26			98	360	347	47	18	.56	.44	.44	3.1	.56
27			121	383	409	44	10	.56	.44	.44	.69	.56
28			138	305	470	37	16	.56	.44	24	.69	.56
29		------	143	305	482	30	38	.56	.44	24	.69	.56
30		------	169	275	432	22	25	.56	.44	19	.69	.56
31		------	199	------	378	------	26	.56	------	18	------	.56
TOTAL	0	0	1,584.84	4,293	11,131	4,531	859.22	1,104.22	14.28	96.88	179.30	17.36
MEAN	0	0	51.1	143	359	151	27.7	35.6	.48	3.13	5.98	.56
MAX	0	0	199	383	504	293	139	207	.56	24	23	.56
MIN	0	0	0	51	176	22	.84	.44	.44	.44	.61	.56
AC-FT	0	0	3,140	8,520	22,080	8,990	1,700	2,190	28	192	356	34

CAL YR 1974 TOTAL 23,811.10 MEAN 65.2 MAX 504 MIN 0 AC-FT 47,230
WTR YR 1974 TOTAL 24,065.29 MEAN 65.9 MAX 504 MIN 0 AC-FT 47,730

08284200 WILLOW CREEK ABOVE HERON RESERVOIR, NEAR PARK VIEW, N. MEX.

LOCATION.--Lat 36°44'33", long 106°37'34", Rio Arriba County, in Tierra Amarilla Grant, on right bank 200 ft (61 m) downstream from bridge, 0.2 mi (0.3 km) downstream from Iron Spring Creek, 3.3 mi (5.3 km) west of Park View, and at mile 9.7 (15.6 km).

DRAINAGE AREA.--112 mi^2 (290 km^2).

PERIOD OF RECORD.--October and November 1962 (monthly discharge only), December 1962 to current year.

GAGE.--Water-stage recorder. Concrete control since June 6, 1963. Datum of gage is 7,196.29 ft (2,193.429 m) above mean sea level (levels by Bureau of Reclamation). Prior to Apr. 1, 1971, at site 900 ft (270 m) downstream at lower datum.

AVERAGE DISCHARGE.--7 calendar years (1963-69), 11.5 ft^3/s (0.326 m^3/s), 8,330 acre-ft/yr (10.3 hm^3/yr), prior to completion of Azotea tunnel.

EXTREMES.--Current year: Maximum discharge, 699 ft^3/s (19.8 m^3/s) May 12 (gage height, 4.21 ft or 1.283 m); minimum daily, 0.18 ft^3/s (0.005 m^3/s) Jan. 1 to Feb. 10.
Period of record: Maximum discharge, 1,600 ft^3/s (45.3 m^3/s) Aug. 11, 1967 (gage height, 3.88 ft or 1.183 m, site and datum then in use), prior to completion of Azotea tunnel; no flow at times most years prior to 1971.

REMARKS.--Records represent inflow to Heron Reservoir and include San Juan River water imported through Azotea tunnel (see sta 08284160).

COOPERATION.--Records furnished by Bureau of Reclamation.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	.18	.18	.25	155	242	304	21	40	1.9	.29	20	.49
2	.18	.18	.25	144	267	274	16	99	1.7	.27	28	.56
3	.18	.18	.25	115	348	257	20	186	1.9	.27	29	.84
4	.18	.18	.25	92	378	275	10	234	1.8	.42	20	.76
5	.18	.18	.25	67	394	284	8.4	180	.74	.80	15	.80
6	.18	.18	.25	94	317	247	8.2	106	.80	.80	10	1.3
7	.18	.18	1.5	90	296	212	7.4	72	1.5	1.2	11	.96
8	.18	.18	1.7	82	390	176	6.6	62	1.8	1.4	11	.80
9	.18	.18	4.8	100	451	144	6.2	82	1.4	2.0	17	.52
10	.18	.18	4.8	116	348	157	3.4	78	.59	2.9	15	.59
11	.18	.23	8.1	86	364	189	2.4	44	.76	3.6	9.5	.59
12	.18	.23	2.8	74	464	212	1.8	26	.50	4.1	4.7	.52
13	.18	.23	6.9	58	466	191	1.5	20	.30	4.6	1.4	.49
14	.18	.23	7.3	64	193	184	1.7	16	.26	3.9	1.8	.38
15	.18	.23	18	58	278	182	2.6	12	.30	3.4	.63	.42
16	.18	.23	74	83	496	169	47	9.0	.98	2.9	.56	.45
17	.18	.23	198	105	493	178	33	7.4	2.9	2.3	.42	.36
18	.18	.23	211	177	387	160	130	5.2	3.9	2.0	.40	.45
19	.18	.23	197	218	432	144	76	3.4	3.9	1.8	.36	.56
20	.18	.23	188	155	523	108	103	3.4	.80	1.6	.32	.45
21	.18	.23	140	124	265	106	68	4.1	.36	1.4	.27	.42
22	.18	.23	125	124	263	101	68	3.4	.34	2.0	.27	.52
23	.18	.23	126	178	263	96	55	1.8	.36	2.8	.36	.59
24	.18	.23	108	210	286	97	77	1.4	.32	2.5	.40	.67
25	.18	.23	112	250	230	80	43	1.4	.30	2.2	.34	.63
26	.18	.23	128	330	334	59	24	1.7	.32	2.2	.88	.59
27	.18	.23	149	382	403	53	14	1.6	.62	2.5	1.7	.56
28	.18	.23	166	304	455	44	14	1.3	.45	21	.88	.56
29	.18	------	172	298	488	33	48	1.5	.34	28	.88	.52
30	.18	------	192	275	436	25	32	2.3	.29	28	.56	.40
31	.18	------	245	------	378	------	26	2.4	------	21	------	.32
TOTAL	5.58	5.94	2,588.40	4,608	11,128	4,741	975.2	1,308.3	32.43	154.15	202.63	18.07
MEAN	.18	.21	83.5	154	359	158	31.5	42.2	1.08	4.97	6.75	.58
MAX	.18	.23	245	382	496	304	130	234	3.9	28	29	1.3
MIN	.18	.18	.25	58	193	25	1.5	1.3	.26	.27	.27	.32
AC-FT	11	12	5,130	9,140	22,070	9,400	1,930	2,600	64	306	402	36

CAL YR 1974 TOTAL 25,767.70 MEAN 70.6 MAX 496 MIN .18 AC-FT 51,110
WTR YR 1974 TOTAL 25,952.53 MEAN 71.1 MAX 496 MIN .18 AC-FT 51,480

08284300 HORSE LAKE CREEK ABOVE HERON RESERVOIR, NEAR PARK VIEW, N. MEX.

LOCATION.--Lat 36°42'24", long 106°44'42", Rio Arriba County, in Tierra Amarilla Grant, on right bank 3.7 mi (6.0 km) northwest of Heron Dam, 7.8 mi (12.6 km) downstream from Horse Lake, and 9.9 mi (15.9 km) west of Park View.

DRAINAGE AREA.--45 mi^2 (120 km^2), approximately.

PERIOD OF RECORD.--October and November 1962 (monthly discharge only), December 1962 to current year. No winter records subsequent to 1973.

GAGE.--Water-stage recorder. Concrete control since June 10, 1963. Datum of gage is 7,188.85 ft (2,191.161 m) above mean sea level (levels by Bureau of Reclamation). Prior to July 1, 1971, at site 1,100 ft (340 m) upstream at higher datums.

AVERAGE DISCHARGE.--11 calendar years (1963-73), 1.10 ft^3/s (0.031 m^3/s), 797 acre-ft/yr (0.983 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, about 170 ft^3/s (4.81 m^3/s) Aug. 1 (gage height, 3.01 ft or 0.917 m), from rating curve extended above 37 ft^3/s (1.05 m^3/s); no flow most of time.
Period of record: Maximum discharge, 3,960 ft^3/s (112 m^3/s) July 30, 1968 (gage height, 4.9 ft or 1.49 m, site and datum then in use), from rating curve extended above 37 ft^3/s (1.05 m^3/s) on basis of slope-area measurements at gage heights 3.20 ft (0.975 m) and 4.9 ft (1.49 m); no flow most of time.

REMARKS.--Diversions above station for irrigation of meadows and for off-channel stock tanks.

COOPERATION.--Records furnished by Bureau of Reclamation.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			-	.11				4.0		0	0	
2			-	.40				20		0	.47	
3			-	.84				1.6		0	.13	
4			-	1.2				.08		0	.02	
5			-	1.7				.03		0	.01	
6			-	1.6				.02		0	0	
7			-	.57				0		0	0	
8			-	.28				.01		0	0	
9			-	.20				.01		0	-	
10			-	.12				0		0	-	
11			-	.16				0		0	-	
12			-	.12				0		0	-	
13			.80	.10				0		0	-	
14			1.8	.08				0		0	-	
15			6.6	.10				0		0	-	
16			19	.08				0		0	-	
17			25	.07				0		0	-	
18			21	.06				0		0	-	
19			25	.06				0		0	-	
20			29	.06				.22		0	-	
21			11	.05				0		0	-	
22			8.0	.04				0		0	-	
23			6.2	.04				0		0	-	
24			4.2	.04				0		0	-	
25			2.4	.04				0		0	-	
26			1.4	.05				0		0	-	
27			.92	.03				0		0	-	
28			.61	.02				0		0	-	
29		------	.39	.02				0		.08	-	
30		------	.26	.02				0		.27	-	
31		------	.18	------		------		0	------	.02	------	
TOTAL	-	-	-	8.26	0	0	0	25.97	0	.37	-	-
MEAN	-	-	-	.28	0	0	0	.84	0	.012	-	-
MAX	-	-	-	1.7	0	0	0	20	0	.27	-	-
MIN	-	-	-	.02	0	0	0	0	0	0	-	-
AC-FT	-	-	-	16	0	0	0	52	0	.7	-	-

PEAK DISCHARGE (BASE, 100 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
8- 1	1800	3.01	about 170				

08284510 HERON RESERVOIR NEAR PARK VIEW, N. MEX.

LOCATION.--Lat 36°39'56", long 106°42'13", Rio Arriba County, in Tierra Amarilla Grant, at Heron Dam on Willow Creek, 0.2 mi (0.3 km) upstream from Rio Chama, 5.1 mi (8.2 km) northeast of El Vado Dam, and 8.7 mi (14.0 km) southwest of Park View.

DRAINAGE AREA.--193 mi² (500 km²).

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Prior to Mar. 24, 1971, non-recording gage.

EXTREMES.--Current year: Maximum contents, 193,600 acre-ft (239 hm³) Aug. 9-10 (elevation, 7,143.47 ft or 2,177.330 m); minimum, 149,800 acre-ft (185 hm³) Dec. 20-22, 24, 25, 30, 31 (elevation, 7,131.17 ft or 2,173.581 m).
Period of record: Maximum contents, 199,300 acre-ft (246 hm³) Sept. 14-16, 1973 (elevation, 7,144.95 ft or 2,177.781 m); no storage prior to Oct. 21, 1970.

REMARKS.--Reservoir is formed by earthfill dam; storage began Oct. 21, 1970. Total capacity 401,300 acre-ft (495 hm³) at elevation 7,186.1 ft (2,190.32 m), low point on crest of uncontrolled spillway, including 1,340 acre-ft (1.65 hm³) of dead storage at elevation 7,003.0 ft (2,134.51 m), invert of gate sill of outlet tunnel. Reservoir is used for storage of transmountain water from San Juan River basin and for recreation. Figures given herein represent total storage.

COOPERATION.--Records furnished by Bureau of Reclamation.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Bureau of Reclamation in 1971)

7,130	146,000
7,140	180,400
7,150	219,800

CONTENTS, IN ACRE-FEET, AT 2400, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	156,100	156,600	156,500	157,100	164,100	184,800	190,800	191,400	191,900	190,600	190,200	189,500
2	156,200	156,600	156,500	157,600	164,700	185,300	190,700	192,200	191,900	190,500	190,400	188,300
3	156,200	156,600	156,500	157,700	165,300	185,800	190,600	192,500	191,800	190,500	190,400	186,200
4	156,200	156,600	156,600	157,800	166,000	186,300	190,500	193,100	191,700	190,400	190,400	184,100
5	156,200	156,600	156,600	157,800	166,700	186,800	190,400	193,300	191,700	190,400	190,400	182,000
6	156,200	156,600	156,600	158,000	167,300	187,200	190,400	193,400	191,600	190,400	190,400	179,700
7	156,200	156,600	156,600	158,100	167,900	187,700	190,400	193,500	191,500	190,300	190,400	177,700
8	156,400	156,500	156,600	158,200	168,700	187,900	190,300	193,500	191,500	190,300	190,400	175,600
9	156,500	156,500	156,700	158,400	169,500	188,100	190,300	193,600	191,400	190,300	190,400	173,500
10	156,500	156,500	157,000	158,300	170,200	188,300	190,200	193,600	191,400	190,400	190,400	171,500
11	156,500	156,500	157,000	158,200	170,800	188,700	190,100	193,500	191,200	190,300	190,300	169,300
12	156,500	156,500	157,100	158,300	171,600	189,000	190,100	193,400	191,100	190,400	190,100	167,000
13	156,500	156,500	157,100	158,300	172,600	189,200	190,000	193,300	190,900	190,300	190,000	164,700
14	156,500	156,500	157,200	158,300	172,900	189,500	190,000	193,200	190,900	190,300	189,900	162,300
15	156,500	156,500	157,300	158,300	173,400	189,700	190,000	193,100	190,900	190,300	189,800	160,000
16	156,400	156,500	157,500	158,500	174,300	189,900	190,100	192,900	190,900	190,300	189,800	157,700
17	156,400	156,500	157,900	158,600	175,300	190,100	190,000	192,900	190,800	190,200	189,800	155,400
18	156,500	156,500	158,400	159,000	176,100	190,300	190,300	192,900	190,800	190,200	189,800	153,100
19	156,500	156,500	158,900	159,400	176,800	190,100	190,300	192,800	190,800	190,200	189,800	151,000
20	156,500	156,600	159,000	159,600	177,300	190,300	190,400	192,800	190,800	190,100	189,700	149,800
21	156,500	156,600	158,700	159,800	177,800	190,400	190,500	192,700	190,700	190,100	189,700	149,800
22	156,500	156,500	158,500	160,000	178,300	190,500	190,600	192,600	190,700	190,000	189,700	149,800
23	156,500	156,500	158,100	160,300	178,700	190,600	190,600	192,500	190,600	190,000	189,700	149,900
24	156,500	156,500	157,700	160,600	179,300	190,800	190,700	192,400	191,100	190,000	189,600	149,800
25	156,500	156,500	157,300	161,100	179,600	190,900	190,800	192,300	191,000	190,000	189,600	149,800
26	156,500	156,500	156,900	161,600	180,300	191,000	190,800	192,200	190,900	189,900	189,600	149,900
27	156,600	156,500	156,400	162,300	181,100	191,000	190,800	192,200	190,800	190,000	189,500	149,900
28	156,600	156,500	156,100	163,000	182,000	191,000	190,800	192,200	190,800	190,000	189,600	149,900
29	156,600	------	156,100	163,200	182,800	191,000	190,900	192,100	190,700	190,200	189,500	149,900
30	156,600	------	156,400	163,800	183,600	190,900	190,800	192,100	190,600	190,300	189,500	149,800
31	156,600	------	156,800	------	184,200	------	190,900	192,000	------	190,300	------	149,800
MAX	156,600	156,600	159,000	163,800	184,200	191,000	190,900	193,600	191,900	190,600	190,400	189,500
MIN	156,100	156,500	156,100	157,100	164,100	184,800	190,000	191,400	190,600	189,900	189,500	149,800
(†)	7,133.24	7,133.22	7,133.31	7,135.34	7,141.02	7,142.79	7,142.78	7,143.07	7,142.70	7,142.61	7,142.41	7,131.19
(‡)	+600	-100	+300	+7,000	+20,400	+6,700	0	+1,100	-1,400	-300	-800	-39,700

CAL YR 1974 MAX 193,600 MIN 149,800 ‡ -6,200
WTR YR 1974 MAX 198,900 MIN 155,900 ‡ -8,200

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

08284520 WILLOW CREEK BELOW HERON DAM, N. MEX.

LOCATION.--Lat 36°39'56", long 106°42'13", Rio Arriba County, in Tierra Amarilla Grant, in outlet conduits of Heron Dam, 0.2 mi (0.3 km) upstream from Rio Chama, 5.1 mi (8.2 km) northeast of El Vado Dam, and 8.7 mi (14.0 km) southwest of Park View.

DRAINAGE AREA.--193 mi^2 (500 km^2).

PERIOD OF RECORD.--January 1971 to current year.

GAGE.--Totalizing flowmeters in each of two outlet conduits in Heron Dam.

EXTREMES.--Current year: Maximum discharge, 1,200 ft^3/s (34.0 m^3/s) Dec. 12; no flow many days.
Period of record: Maximum daily discharge, 2,220 ft^3/s (62.9 m^3/s) Dec. 12, 1973; no flow many days each year.

REMARKS.--Flow regulated by Heron Dam (see sta 08284510) since Oct. 21, 1970. Outlet conduits are 14-in (0.356 m) and 120-in (3.048 m) in diameter.

COOPERATION.--Records furnished by Bureau of Reclamation.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1		0	0	0	0	0	41	0	0	0	0	0
2		0	0	0	0	0	48	0	0	0	0	553
3		0	0	15	0	0	25	0	0	0	0	1,030
4		0	0	30	0	0	10	0	0	0	0	1,030
5		0	0	18	0	7.0	4.2	0	0	0	0	1,030
6		0	0	10	0	19	0	27	0	0	0	1,030
7		0	0	10	0	19	0	49	0	0	0	1,030
8		28	22	10	0	19	0	49	0	0	0	1,030
9		0	0	10	0	19	0	49	0	0	0	1,030
10		0	0	129	0	19	0	49	26	0	0	1,000
11		0	0	105	0	34	0	49	41	0	31	1,060
12		0	0	51	0	48	0	48	15	0	49	1,120
13		0	0	30	0	48	0	48	0	0	50	1,140
14		0	0	30	0	48	0	48	0	0	31	1,140
15		0	0	30	0	48	0	48	0	0	7.2	1,140
16		0	0	11	0	48	20	20	0	0	0	1,130
17		0	0	0	0	85	46	0	0	0	0	1,130
18		0	0	0	0	107	21	0	0	0	0	1,090
19		0	0	0	0	40	0	0	0	0	0	1,060
20		0	182	0	0	0	0	11	0	0	0	556
21		0	303	0	0	0	0	19	0	41	0	0
22		0	302	11	0	0	0	19	0	65	0	0
23		0	302	19	0	0	0	19	0	32	0	0
24		0	302	19	0	0	0	19	0	0	0	0
25		0	334	19	0	0	0	19	0	0	0	0
26		0	360	25	0	0	0	10	0	0	0	0
27		0	359	30	0	9.1	0	0	0	0	0	0
28		0	360	30	0	24	0	0	0	0	0	0
29		------	136	20	0	30	0	0	0	0	0	0
30		------	0	0	62	30	0	0	0	0	0	0
31		------	0	------	37	------	0	0	------	0	------	0
TOTAL	0	28	2,962	642	99	701.1	215.2	600	82	138	168.2	19,329
MEAN	0	1.00	95.5	21.4	3.19	23.4	6.94	19.4	2.73	4.45	5.61	624
MAX	0	28	360	129	62	107	48	49	41	65	50	1,140
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	56	5,880	1,270	196	1,390	427	1,190	163	274	334	38,340

CAL YR 1974 TOTAL 24,964.50 MEAN 68.4 MAX 1,140 MIN 0 AC-FT 49,520
WTR YR 1974 TOTAL 25,897.40 MEAN 71.0 MAX 2,220 MIN 0 AC-FT 51,370

08285000 EL VADO RESERVOIR NEAR TIERRA AMARILLA, N. MEX.

LOCATION.--Lat 36°35'39", long 106°44'00", Rio Arriba County, in Tierra Amarilla Grant, at outlet tower of dam on Rio Chama, at village of El Vado, 12.4 mi (20.0 km) southwest of Tierra Amarilla, and at mile 77.7 (125.0 km).

DRAINAGE AREA.--873 mi² (2,261 km²), of which about 100 mi² (260 km²) probably is noncontributing.

PERIOD OF RECORD.--January 1935 to September 1965 (monthend contents only), October 1965 to current year. Prior to October 1967, contents at about 0730 hrs.

GAGE.--Water-stage recorder. Prior to October 1967, nonrecording gage only below gage height 6,879.3 ft (2,096.81 m). Datum of gage is 8.21 ft (2.502 m) above mean sea level.

EXTREMES.--Current year: Maximum contents, 173,700 acre-ft (214 hm³) May 19 (gage height 6,895.0 ft or 2,101.60 m); minimum, 62,260 acre-ft (76.8 hm³) Nov. 13 (gage height, 6,845.7 ft or 2,086.57 m).
Period of record: Maximum contents, 204,900 acre-ft (253 hm³) June 4, 5, 1948 (gage height, 6,904.2 ft or 2,104.40 m), of which 7,400 acre-ft (9.12 hm³) was uncontrolled storage; no storage at times prior to December 1966.

REMARKS.--Reservoir is formed by rockfill dam, steel faced. Storage began in January 1935. Capacity 196,500 acre-ft (242 hm³) between gage heights 6,759.0 ft (2,060.14 m) and 6,902.0 ft (2,103.73 m), top of spillway gate. Dead storage, 1,060 acre-ft (1.31 hm³) below 6,775.0 ft (2,065.02 m), sill of outlet works. Figures given herein represent total contents. Reservoir is used to impound water for irrigation by Middle Rio Grande Conservancy District and, since December 1972, for storage of contract water from San Juan - Chama Project. Rehabilitation of outlet works, completed in December 1966, increased valve-controlled release from about 1,750 ft³/s (49.6 m³/s) to about 6,000 ft³/s (170 m³/s).

COOPERATION.--Records furnished by Bureau of Reclamation.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on Survey by Bureau of Reclamation in 1966)

6,840	53,770
6,860	86,770
6,880	130,800
6,900	189,800

CONTENTS, IN ACRE-FEET, AT 2400, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	126,500	127,300	127,500	127,800	144,500	166,900	128,600	97,910	68,660	63,670	62,420	62,570
2	126,500	127,300	127,500	128,300	146,400	166,000	127,300	96,690	68,500	63,520	62,420	63,670
3	126,500	127,300	127,500	128,600	148,700	165,100	125,500	95,280	68,170	63,360	62,420	65,740
4	126,500	127,300	127,500	128,800	150,600	164,200	123,500	94,090	68,010	63,360	62,420	67,840
5	126,500	127,300	127,500	128,800	152,600	162,600	121,800	93,500	67,840	63,040	62,420	69,820
6	126,500	127,300	127,800	129,100	154,100	161,400	120,100	93,500	67,680	63,040	62,420	72,000
7	126,800	127,300	127,800	129,100	155,800	160,200	118,200	93,300	67,520	62,890	62,420	74,040
8	126,800	127,300	127,800	129,300	158,200	159,400	116,500	93,100	67,350	62,730	62,420	76,120
9	127,000	127,300	127,800	129,300	161,100	158,200	115,600	93,100	67,190	62,570	62,420	78,220
10	127,000	127,300	127,500	129,600	163,800	157,000	115,100	92,910	67,030	62,420	62,420	80,180
11	127,000	127,300	127,500	129,800	166,900	155,800	114,700	92,910	66,710	62,420	62,420	82,350
12	127,000	127,300	127,300	129,800	169,000	154,400	114,200	92,320	66,540	62,420	62,420	84,540
13	127,000	127,300	127,000	130,100	170,300	153,200	113,500	90,960	66,380	62,420	62,260	85,650
14	127,000	127,300	127,000	130,100	170,600	151,800	113,300	89,420	66,220	62,420	62,420	85,650
15	127,300	127,300	127,300	130,300	171,200	150,400	112,800	88,090	66,060	62,420	62,420	85,840
16	127,300	127,300	127,500	130,300	172,400	148,700	112,400	86,580	65,900	62,420	62,420	86,030
17	127,300	127,300	128,000	130,600	173,100	147,300	112,100	85,100	65,900	62,420	62,420	86,400
18	127,300	127,300	128,300	131,100	173,400	145,900	111,900	83,620	65,740	62,570	62,420	86,210
19	127,300	127,300	128,800	131,400	173,700	144,200	111,700	81,980	65,580	62,570	62,570	86,210
20	127,300	127,500	129,600	131,400	173,400	142,600	111,400	80,540	65,420	62,570	62,570	86,210
21	127,300	127,500	129,800	131,400	173,100	140,900	111,000	79,110	65,260	62,570	62,570	86,210
22	127,300	127,500	129,300	131,400	172,800	139,000	110,800	77,520	65,100	62,730	62,570	86,210
23	127,300	127,500	129,100	131,600	172,100	137,400	110,600	76,120	64,940	62,730	62,570	86,210
24	127,000	127,500	128,600	132,200	171,500	135,600	109,600	74,560	64,780	62,420	62,570	86,210
25	127,000	127,500	128,300	133,400	171,200	134,000	108,100	73,190	64,620	62,420	62,570	86,210
26	127,000	127,500	128,000	135,600	170,600	132,700	106,600	71,490	64,460	62,420	62,570	86,210
27	127,300	127,500	128,000	138,200	170,000	131,900	104,800	70,320	64,300	62,570	62,570	86,210
28	127,300	127,500	128,000	140,100	169,600	131,100	103,500	69,490	64,140	62,730	62,570	86,210
29	127,300	------	128,000	142,000	168,700	130,100	101,800	69,320	63,990	62,730	62,570	86,400
30	127,300	------	128,000	143,400	168,100	129,300	100,400	68,990	63,830	62,420	62,570	86,400
31	127,300	------	128,000	------	167,500	------	99,140	68,830	------	62,420	------	86,400
MAX	127,300	127,500	129,800	143,400	173,700	166,900	128,600	97,910	68,660	63,670	62,570	86,400
MIN	126,500	127,300	127,000	127,800	144,500	129,300	99,140	68,830	63,830	62,420	62,260	62,570
(†)	6,878.6	6,878.7	6,878.9	6,884.7	6,893.0	6,879.4	6,866.3	6,849.8	6,846.7	6,845.8	6,845.9	6,859.8
(‡)	+1,000	+200	+500	+15,400	+24,100	-38,200	-30,160	-30,310	-5,000	-1,410	+150	+23,830

CAL YR 1974 MAX 173,700 MIN 62,260 ‡ -39,900
WTR YR 1974 MAX 173,700 MIN 63,830 ‡ -68,870

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.

08285500 RIO CHAMA BELOW EL VADO DAM, N. MEX.

LOCATION.--Lat 36°34'48", long 106°43'24", Rio Arriba County, in Tierra Amarilla Grant, on left bank 1.5 mi (2.4 km) downstream from El Vado Dam, 2.8 mi (4.5 km) upstream from Rio Nutrias, 13 mi (21 km) southwest of Tierra Amarilla, and at mile 76.2 (122.6 km).

DRAINAGE AREA.--877 mi² (2,271 km²), of which about 100 mi² (260 km²) is probably noncontributing.

PERIOD OF RECORD.--October 1913 to November 1915, April to November 1916, March, April 1920, September 1920 to August 1924, October 1935 to current year. Monthly discharge only for some periods, published in WSP 1312. Published as "Chama River" prior to 1935, as "near Tierra Amarilla" 1913-14, 1935-47, as "near El Vado" 1915-16, and as "at El Vado" 1920-24.

GAGE.--Water-stage recorder. Datum of gage is 6,696.12 ft (2,040.977 m) above mean sea level. Prior to October 1935, at site 1.5 mi (2.4 km) upstream at different datum. October 1935 to September 1938 at site 1.1 mi (1.8 km) upstream at datum 30.34 ft (9.248 m) higher.

AVERAGE DISCHARGE.--36 calendar years (1936-71), 368 ft³/s (10.42 m³/s), 266,600 acre-ft/yr (329 hm³/yr), prior to release of transmountain water.

EXTREMES.--Current year: Maximum discharge, 2,470 ft³/s (70.0 m³/s) June 7 (gage height, 4.86 ft or 1.481 m); minimum, 10 ft³/s (0.28 m³/s) July 24.
Period of record: Maximum discharge, 9,000 ft³/s (255 m³/s) May 22, 1920 (gage height, 12 ft or 3.7 m), site and datum then in use), from rating curve extended above 3,500 ft³/s (99.1 m³/s); no flow Mar. 25, 26, 31, 1955. Maximum discharge since construction of El Vado Dam in 1935, 6,010 ft³/s (170 m³/s) May 17, 1941 (gage height, 6.89 ft or 2.100 m).
Flood of Oct. 4 or 5, 1911, was greater than floods in September 1904 and May 1920, from information by local residents.

REMARKS.--Records good. Flow regulated since 1935 by El Vado Reservoir (see sta 08285000). Since April 1972 flow affected by release of transmountain water from Heron Reservoir (see sta 08284510). Diversions for irrigation of about 10,600 acres (42.9 km²) above station.

REVISIONS (WATER YEARS).--WSP 1312: 1914, 1949. WSP 1392: 1949.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	39	51	48	240	382	637	468	742	116	86	63	38
2	39	51	49	104	382	637	678	742	116	86	63	38
3	39	51	49	104	478	637	920	742	116	86	65	38
4	39	49	49	104	559	728	912	742	116	86	65	38
5	39	49	44	104	559	791	904	417	96	86	65	38
6	37	49	46	104	559	791	904	192	83	86	65	38
7	37	49	46	104	559	865	904	192	83	86	65	38
8	37	49	119	104	430	791	896	192	83	86	63	38
9	37	49	192	104	306	784	488	173	83	86	63	38
10	37	49	188	196	306	784	236	159	101	86	63	38
11	37	49	188	207	306	784	236	159	121	65	89	38
12	37	49	192	101	306	784	236	418	99	18	113	38
13	37	49	156	101	563	784	236	791	86	18	107	598
14	39	49	110	101	856	856	236	784	86	16	71	1,060
15	42	48	69	101	616	920	232	784	86	16	37	1,060
16	46	48	34	101	385	912	236	777	86	16	37	1,060
17	46	48	34	101	472	912	236	777	86	16	37	1,060
18	46	48	34	101	553	912	187	770	86	16	37	1,100
19	46	48	34	234	559	912	156	770	86	16	37	1,120
20	48	48	34	361	598	912	166	763	86	16	37	708
21	70	48	329	361	637	912	166	763	86	54	37	31
22	93	48	670	361	637	912	166	763	86	99	37	30
23	93	48	670	361	637	904	166	763	86	101	37	30
24	93	48	670	361	637	904	402	756	86	99	38	30
25	74	48	638	366	637	904	798	756	86	63	38	30
26	51	48	601	366	637	621	798	749	86	22	38	30
27	51	48	527	371	637	440	798	749	86	22	38	30
28	51	48	464	371	637	474	791	422	86	22	38	30
29	51	------	398	376	637	468	763	156	86	78	38	29
30	51	------	320	376	637	468	742	116	86	150	38	29
31	51	------	320	------	637	------	742	116	------	113	------	29
TOTAL	1,533	1,364	7,322	6,447	16,741	23,080	15,799	17,195	2,761	1,896	1,619	8,550
MEAN	49.5	48.7	236	215	540	769	510	555	92.0	61.2	54.0	276
MAX	93	51	670	376	856	920	920	791	121	150	113	1,120
MIN	37	48	34	101	306	440	156	116	83	16	37	29
AC-FT	3,040	2,710	14,520	12,790	33,210	45,780	31,340	34,110	5,480	3,760	3,210	16,960

CAL YR 1974 TOTAL 104,307 MEAN 286 MAX 1,120 MIN 16 AC-FT 206,900
WTR YR 1974 TOTAL 120,025 MEAN 329 MAX 2,230 MIN 29 AC-FT 238,100

08286500 RIO CHAMA ABOVE ABIQUIU RESERVOIR, N. MEX.

LOCATION.--Lat 36°19'06", long 106°35'50", Rio Arriba County, on left bank 40 ft (12 m) downstream from site of former bridge, 7.7 mi (12.4 km) downstream from Rio Gallina, 9 mi (14 km) northwest of Youngsville, 15.6 mi (25.1 km) upstream from Abiquiu Dam, 30.3 mi (48.8 km) downstream from El Vado Dam, and at mile 47.4 (76.3 km).

DRAINAGE AREA.--1,600 mi² (4,144 km²), of which about 100 mi² (260 km²) is probably noncontributing.

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

GAGE.--Water-stage recorder. Altitude of gage is 6,275 ft (1,913 m) from topographic map.

AVERAGE DISCHARGE.--10 calendar years (1962-71), 338 ft³/s (9.572 m³/s), 244,900 acre-ft/yr (302 hm³/yr), prior to release of transmountain water.

EXTREMES.--Current year: Maximum discharge, 2,120 ft³/s (60.0 m³/s) July 29 (gage height, 5.50 ft or 1.676 m); minimum, 18 ft³/s (0.51 m³/s) Oct. 20.
Period of record: Maximum discharge, 6,550 ft³/s (185 m³/s) May 20, 1973 (gage height, 8.70 ft or 2.652 m); minimum 7.5 ft³/s (0.21 m³/s) Oct. 17, 18, 1963.
Major floods probably occurred on Sept. 29, 1904, Oct. 4 or 5, 1911, and May 22, 1920.

REMARKS.--Records good. Flow regulated by El Vado Reservoir (see sta 08285000). Since April 1972 flow affected by release of transmountain water from Heron Reservoir (see sta 08284510). Diversions for irrigation of about 15,000 acres (60.7 km²) above station. Water quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	50	60	63	323	383	608	439	740	118	79	94	40
2	48	60	69	167	373	608	486	729	116	79	70	41
3	46	58	134	128	398	603	876	729	116	79	76	44
4	43	56	147	119	533	632	882	799	116	82	71	43
5	40	56	97	114	541	751	876	597	114	80	67	43
6	40	54	92	114	545	756	876	210	86	83	64	42
7	41	52	132	111	541	784	912	199	80	83	64	40
8	42	50	128	112	513	778	876	196	79	83	63	40
9	44	50	245	112	320	767	731	203	79	82	67	39
10	44	52	242	111	323	767	249	165	78	101	68	39
11	40	52	212	286	326	767	239	161	113	242	65	38
12	40	52	221	137	328	767	237	159	121	78	95	38
13	41	54	244	112	382	767	237	707	89	37	112	190
14	42	56	194	112	835	795	237	740	83	25	111	1,030
15	42	54	175	112	765	894	244	740	84	22	66	1,000
16	42	50	130	111	386	888	244	734	88	20	43	1,010
17	48	50	94	111	402	888	237	734	88	19	42	1,030
18	56	53	78	112	541	882	244	734	83	19	42	1,060
19	54	50	71	114	533	882	151	734	82	19	41	1,100
20	50	54	69	344	545	888	169	734	82	19	40	1,030
21	58	52	60	358	613	888	169	729	84	19	40	120
22	89	50	637	358	617	882	165	729	82	80	40	48
23	106	54	651	358	617	882	165	729	82	116	41	43
24	104	50	656	367	613	882	171	729	80	114	42	38
25	97	52	646	370	613	882	712	729	80	101	40	35
26	68	54	580	376	613	791	756	724	79	60	40	37
27	58	55	550	383	613	402	745	729	79	42	39	37
28	56	57	446	369	608	446	745	622	78	47	38	37
29	56	------	443	383	603	446	856	223	79	39	38	37
30	56	------	326	386	603	443	729	134	79	148	38	35
31	58	------	323	------	608	------	724	121	------	171	------	35
TOTAL	1,699	1,497	8,155	6,690	16,234	22,416	15,379	16,942	2,697	2,268	1,757	8,439
MEAN	54.8	53.5	263	223	524	747	496	547	89.9	73.2	58.6	272
MAX	106	60	656	389	835	894	912	799	121	242	112	1,100
MIN	40	50	60	111	320	402	151	121	78	19	38	35
AC-FT	3,370	2,970	16,180	13,270	32,200	44,460	30,500	33,600	5,350	4,500	3,490	16,740

CAL YR 1974 TOTAL 104,173 MEAN 285 MAX 1,100 MIN 19 AC-FT 206,600
WTR YR 1974 TOTAL 120,366 MEAN 330 MAX 2,230 MIN 39 AC-FT 238,700

08286900 ABIQUIU RESERVOIR NEAR ABIQUIU, N. MEX.

LOCATION.--Lat 36°14'24", long 106°25'44", Rio Arriba County in Piedra Lumbre Grant, in operations building at Abiquiu Dam on Rio Chama, 6.6 mi (10.6 km) northwest of Abiquiu, and at mile 32.1 (51.6 km).

DRAINAGE AREA.--2,146 mi² (5,558 km²), of which about 100 mi² (260 km²) is probably noncontributing.

PERIOD OF RECORD.--February 1963 to September 1965 (monthend contents only), October 1965 to current year. Prior to October 1969, contents at 2400 hours.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum contents, 43,040 acre-ft (53.1 hm³) Jan. 1 (elevation, 6,164.39 ft or 1,878.906 m); minimum, 3,780 acre-ft (4.66 hm³) Oct. 8 (elevation 6,115.91 ft or 1,864.129 m).
Period of record: Maximum contents, 205,300 acre-ft (253 hm³) June 22, 1973 (elevation, 6,219.93 ft or 1,895.835 m); no storage at times prior to May 1968.

REMARKS.--Reservoir is formed by earthfill dam, completed Feb. 5, 1963. Capacity, 1,216,000 acre-ft (1.50 km³) between elevations 6,060 ft (1,847 m), invert of outlet tunnel, and 6,350 ft (1,935 m), crest of spillway, based on capacity table effective Jan. 1, 1974. No dead storage. Reservoir is normally used for flood control. A desilting pool of about 2,000 acre-ft (2.47 hm³) was maintained from May 1968 to 1974, when it was increased to 4,000 acre-ft (4.93 hm³).

COOPERATION.--Records furnished by Corps of Engineers.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Corps of Engineers in 1973)

6,115	3,460	6,140	16,820
6,120	5,410	6,150	25,250
6,130	10,470	6,160	36,680
		6,170	52,610

CONTENTS, IN ACRE-FEET, AT 0800, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	42,420	5,300	4,010	5,820	4,060	4,080	3,970	4,430	3,960	3,840	4,180	4,020
2	40,380	4,050	4,030	5,470	3,990	4,000	4,040	4,350	4,030	3,840	3,970	4,020
3	38,730	4,090	4,060	4,780	3,970	4,010	4,250	4,000	4,010	3,820	4,070	4,060
4	37,410	4,180	4,260	4,130	4,140	4,020	4,050	4,160	3,970	3,800	3,980	4,090
5	36,110	4,160	4,420	4,100	4,160	4,180	4,070	3,910	3,950	3,800	3,980	4,110
6	34,870	4,100	4,480	4,100	4,120	3,980	4,020	4,030	3,970	3,810	4,010	4,010
7	33,720	4,050	4,540	4,080	4,080	4,030	4,080	4,130	3,920	3,840	4,040	4,010
8	32,500	4,020	4,700	4,080	4,020	4,210	4,040	3,980	3,960	3,800	4,050	4,020
9	31,340	4,040	4,830	4,080	3,880	3,990	4,000	4,130	3,920	3,880	4,060	4,010
10	30,140	4,070	5,280	4,080	4,080	4,080	4,470	4,090	3,910	3,980	4,050	3,970
11	28,940	4,100	5,690	4,040	3,980	4,010	3,960	4,010	3,900	4,260	4,020	4,030
12	27,730	4,060	6,040	4,040	3,940	4,020	4,020	4,000	3,950	4,030	3,980	4,060
13	26,540	4,040	6,190	3,920	4,000	4,050	4,010	4,190	3,940	3,960	4,050	4,070
14	25,320	4,040	6,350	3,920	4,260	4,060	4,010	4,180	3,900	4,010	3,980	4,530
15	24,150	4,000	6,100	4,010	4,130	4,210	4,000	4,080	3,910	4,050	4,030	7,080
16	22,980	4,030	5,630	4,020	4,080	4,260	4,020	4,020	4,070	4,030	3,980	9,060
17	21,820	4,050	4,960	4,050	4,080	4,170	4,030	4,050	3,920	4,010	4,010	10,990
18	20,710	4,070	5,020	4,070	4,140	4,040	4,030	4,060	3,940	4,010	4,040	12,910
19	19,640	4,070	5,060	4,020	4,040	4,030	4,380	4,070	3,910	4,040	4,050	14,830
20	18,540	4,090	4,880	4,080	4,180	4,040	3,960	4,040	3,890	4,060	4,050	16,760
21	17,500	4,050	4,410	4,160	3,980	4,040	4,020	3,990	3,870	4,050	4,040	18,260
22	16,500	4,020	4,140	4,010	4,040	4,030	4,020	4,010	3,880	4,000	4,030	18,310
23	15,380	4,030	4,790	4,020	4,070	4,010	4,030	4,020	3,860	4,050	4,030	18,310
24	14,270	4,000	5,350	4,070	4,050	3,990	4,040	4,030	3,870	4,060	4,030	18,290
25	13,180	4,000	5,910	4,040	4,020	3,990	4,180	4,040	3,870	4,010	4,020	18,280
26	12,120	4,010	6,340	4,040	4,000	4,010	4,290	4,040	3,850	4,070	4,020	18,280
27	11,030	4,050	6,550	4,050	4,060	4,020	4,080	4,060	3,840	3,980	4,040	18,290
28	9,850	4,030	6,640	4,050	4,000	4,080	3,950	4,260	3,840	4,020	4,030	18,330
29	8,720	------	6,580	4,040	3,980	4,050	4,100	3,980	3,840	4,020	4,050	18,350
30	7,590	------	6,460	4,010	4,030	4,020	4,050	4,200	3,840	4,110	4,050	18,350
31	6,600	------	6,150	------	4,080	------	4,430	4,100	------	4,090	------	18,330
MAX	42,420	5,300	6,640	5,820	4,260	4,260	4,470	4,430	4,070	4,260	4,180	18,350
MIN	6,600	4,000	4,010	3,920	3,880	3,980	3,950	3,910	3,840	3,800	3,970	3,970
(†)	6,122.57	6,116.60	6,121.62	6,116.54	6,116.73	6,116.56	6,117.64	6,116.77	6,116.07	6,116.76	6,116.65	6,142.03
(‡)	a-37,850	-2,570	+2,120	-2,140	+70	-60	+410	-330	-260	+250	-40	+14,280

CAL YR 1974 MAX 42,420 MIN 3,800 ‡ a-26,120
WTR YR 1974 MAX 85,320 MIN 3,840 ‡ a-78,130

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.
a Computed on basis of revised capacity table put into use Jan. 1, 1974.

08287000 RIO CHAMA BELOW ABIQUIU DAM, N. MEX.

LOCATION.--Lat 36°14'12", long 106°24'59", in SE¼SE¼ sec.8, T.23 N., R.5 E., Rio Arriba County, on right bank 0.8 mi (1.3 km) downstream from Abiquiu Dam, 5.9 mi (9.5 km) northwest of Abiquiu, and at mile 31.3 (50.4 km).

DRAINAGE AREA.--2,147 mi² (5,561 km²), of which about 100 mi² (260 km²) is probably noncontributing.

PERIOD OF RECORD.--October 1961 to current year (monthly discharge only, October 1961).

GAGE.--Water-stage recorder. Concrete control since Jan. 25, 1966. Altitude of gage is 6,040 ft (1,841 m) from topographic map. Prior to Jan. 25, 1966, at datum 1.60 ft (0.488 m) lower.

AVERAGE DISCHARGE.--10 calendar years (1962-71), 363 ft³/s (10.28 m³/s), 263,000 acre-ft/yr (324 hm³/yr), prior to release of transmountain water.

EXTREMES.--Current year: Maximum daily discharge, 1,110 ft³/s (31.4 m³/s) Jan. 1 (gage height 3.98 ft or 1.213 m); minimum, about 2.5 ft³/s (0.07 m³/s) Oct. 13.
Period of record: Maximum discharge, 2,990 ft³/s (84.7 m³/s) July 1, 1965 (gage height, 6.69 ft or 2.039 m); maximum gage height, 7.29 ft (2.222 m) Jan. 14, 1967 (backwater from ice); minimum discharge, about 0.5 ft³/s (0.01 m³/s) Mar. 17, 1966, Jan. 28, 1972.

REMARKS.--Records good. Flow controlled by El Vado Reservoir (see sta 08285000) 46.4 mi (74.7 km) upstream and Abiquiu Reservoir (see sta 08286900) 0.8 mi (1.3 km) upstream. Since April 1972 flow affected by release of transmountain water from Heron Reservoir (see sta 08284510) 54.5 mi (87.7 km) upstream. Diversions for irrigation of about 17,600 acres (71.2 hm³) above station. Water quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1,110	709	92	521	449	634	438	748	136	89	160	44
2	972	289	92	510	449	615	444	878	122	93	114	38
3	809	47	92	472	416	605	781	814	144	95	109	41
4	722	81	93	261	529	605	908	843	140	92	108	48
5	721	106	92	112	617	753	879	656	127	89	70	80
6	716	105	92	133	644	769	870	293	115	93	70	67
7	715	90	93	133	606	726	897	242	90	111	68	49
8	713	64	93	133	603	803	922	224	89	87	75	49
9	709	64	92	132	380	763	628	211	96	57	81	47
10	705	64	93	157	365	765	402	212	87	85	86	33
11	699	88	94	256	397	766	293	173	93	257	85	29
12	697	102	146	233	345	746	229	167	123	216	86	44
13	693	102	212	138	368	746	236	555	119	67	126	44
14	691	102	282	94	748	746	235	803	93	17	119	45
15	685	86	434	104	832	828	235	801	88	37	102	47
16	681	75	469	123	492	904	235	780	132	39	53	48
17	679	75	228	132	400	929	237	766	117	30	41	49
18	674	76	92	170	535	907	243	769	100	24	44	50
19	668	76	157	172	552	870	280	780	102	17	49	73
20	662	88	272	282	581	876	205	781	98	27	52	76
21	660	95	316	433	630	876	155	761	95	43	52	41
22	686	83	386	427	617	876	157	752	96	63	52	41
23	721	73	444	391	631	876	159	753	95	114	52	41
24	715	71	446	420	636	872	177	750	90	138	52	32
25	705	72	464	441	635	861	557	753	95	116	49	27
26	693	73	523	446	616	770	857	744	94	91	44	27
27	689	84	541	457	620	462	838	741	91	79	44	27
28	679	91	532	454	635	436	750	722	89	56	44	27
29	669	------	535	456	602	466	817	349	87	59	45	27
30	560	------	532	432	593	466	957	162	89	128	47	31
31	718	------	525	------	602	------	765	198	------	180	------	38
TOTAL	22,216	3,131	8,554	8,625	17,125	22,317	15,786	18,181	3,132	2,689	2,179	1,360
MEAN	717	112	276	288	552	744	509	586	104	86.7	72.6	43.9
MAX	1,110	709	541	521	832	929	957	878	144	257	160	80
MIN	560	47	92	94	345	436	155	162	87	17	41	27
AC-FT	44,070	6,210	16,970	17,110	33,970	44,270	31,310	36,060	6,210	5,330	4,320	2,700

CAL YR 1974 TOTAL 125,295 MEAN 343 MAX 1,110 MIN 17 AC-FT 248,500
WTR YR 1974 TOTAL 167,079 MEAN 458 MAX 1,130 MIN 20 AC-FT 331,400

08289000 RIO OJO CALIENTE AT LA MADERA, N. MEX.

LOCATION.--Lat 36°20'59", long 106°02'37", in NW¼NE¼ sec.1, T.24 N., R.8 E., Rio Arriba County, on left bank 400 ft (120 m) upstream from bridge on State Highway 96, 2.4 mi (3.9 km) south of La Madera, 2.6 mi (4.2 km) downstream from confluence of Rio Vallecitos and Rio Tusas, 3.1 mi (5.0 km) north of Ojo Caliente, and at mile 19.9 (32.0 km).

DRAINAGE AREA.--419 mi^2 (1,085 km^2).

PERIOD OF RECORD.--April 1932 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,358.84 ft (1,938.174 m) above mean sea level. Prior to Apr. 23, 1934, at site about 2.6 mi (4.2 km) upstream at different datum. Apr. 23, 1934 to Apr. 21, 1936, at datum 12.58 ft (3.834 m) lower and Apr. 22, 1936 to Oct. 26, 1956, at datum 13.84 ft (4.218 m) lower, both at site 1,400 ft (430 m) downstream.

AVERAGE DISCHARGE.--42 calendar years, 66.7 ft^3/s (1.889 m^3/s), 48,320 acre-ft/yr (59.6 hm^3/yr); 20 calendar years (1955-74), 55.4 ft^3/s (1.569 m^3/s), 40,140 acre-ft/yr (49.5 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 655 ft^3/s (18.5 m^3/s) about Apr. 27 (gage height, 5.05 ft or 1.539 m); minimum, 1.0 ft^3/s (0.028 m^3/s) Feb. 24, result of freezeup.
Period of record: Maximum discharge, 3,140 ft^3/s (88.9 m^3/s) Apr. 21, 1958 (gage height, 6.42 ft or 1.957 m), from rating curve extended above 1,300 ft^3/s (36.8 m^3/s); maximum gage height, 7.25 ft (2.210 m), from floodmarks, June 19, 1966; minimum discharge, 0.2 ft^3/s (0.006 m^3/s) Aug. 17, 1956.
The flood of Apr. 21, 1958, may have been exceeded by a flood in May 1920, from information by local resident.

REMARKS.--Records good except those for April, which are poor. Diversions above station for irrigation of about 3,500 acres (14.2 hm^3), 1962 determination.

REVISIONS (WATER YEARS).--WSP 1712: 1959.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	14	18	19	43	116	8.2	5.0	6.3	6.0	4.7	15	13
2	15	18	20	44	167	8.7	4.9	7.6	5.8	5.0	17	15
3	16	16	22	38	204	8.9	4.9	19	5.7	5.4	19	16
4	16	17	20	55	208	6.5	5.6	19	5.7	5.5	20	14
5	18	17	18	29	151	7.9	5.4	16	5.7	5.7	18	16
6	17	16	19	34	132	8.5	5.2	17	5.2	6.2	18	16
7	17	15	22	55	108	6.5	5.0	13	5.2	6.8	18	14
8	18	17	21	55	133	53	4.3	13	4.9	7.0	17	17
9	18	16	23	58	147	35	3.0	15	4.9	6.7	20	12
10	18	17	24	41	153	20	3.2	14	4.6	6.9	19	13
11	16	18	22	57	139	16	3.4	11	3.1	7.6	19	14
12	14	16	22	55	100	13	3.4	9.5	3.2	8.6	18	15
13	15	20	22	54	84	11	3.4	9.0	3.5	8.0	18	14
14	15	22	22	35	67	8.3	3.4	8.4	4.0	7.6	18	12
15	15	20	24	35	61	7.9	3.4	7.5	4.1	7.6	18	12
16	15	21	27	45	54	7.6	4.3	6.0	4.4	7.5	18	12
17	17	21	30	50	46	7.4	4.0	5.0	4.5	7.2	17	12
18	18	22	32	70	45	6.3	5.3	4.0	4.2	7.2	16	12
19	17	18	36	60	38	5.9	5.3	3.3	4.3	7.2	14	12
20	18	18	37	75	32	5.7	5.6	3.6	4.5	7.4	14	11
21	21	15	35	65	27	5.4	5.0	3.8	4.6	7.6	14	11
22	21	14	33	75	22	5.3	4.6	3.9	4.9	8.6	15	11
23	16	15	33	95	21	5.4	5.0	3.8	4.9	9.3	16	11
24	17	13	32	140	19	5.6	5.4	4.3	5.0	8.8	14	9.9
25	18	13	30	200	18	4.8	6.4	5.8	5.5	8.2	14	10
26	19	14	33	260	15	4.4	5.6	5.2	5.6	8.3	15	12
27	21	16	33	300	12	4.4	5.7	5.4	5.4	10	14	12
28	16	17	36	260	10	4.3	5.3	5.9	5.3	9.5	13	12
29	18	------	37	220	9.5	4.3	5.3	5.3	4.8	12	15	14
30	17	------	46	188	8.1	4.9	5.5	5.6	4.7	16	15	14
31	18	------	47	------	7.9	------	5.3	6.3	------	15	------	13
TOTAL	529	482	874	2,691	2,354.5	304.5	147.1	264.5	143.9	249.1	494	401.9
MEAN	17.1	17.2	28.2	89.7	76.0	10.2	4.75	8.53	4.80	8.04	16.5	13.0
MAX	21	22	47	300	208	53	6.4	19	6.0	16	20	17
MIN	14	13	18	29	7.9	4.3	3.0	3.3	3.1	4.7	13	9.9
AC-FT	1,050	956	1,730	5,340	4,670	604	292	525	285	494	980	797

CAL YR 1974 TOTAL 8,935.5 MEAN 24.5 MAX 300 MIN 3.0 AC-FT 17,720
WTR YR 1974 TOTAL 8,821.9 MEAN 24.2 MAX 300 MIN 3.0 AC-FT 17,500

PEAK DISCHARGE (BASE, 600 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
† unknown		5.05	655				

† Probably occurred Apr. 27.
NOTE.--No gage-height record Apr. 15-28.

08290000 RIO CHAMA NEAR CHAMITA, N. MEX.

LOCATION.--Lat 36°04'26", long 106°06'40", in NE¼NE¼ sec.8, T.21 N., R.8 E., Rio Arriba County, San Juan Pueblo Grant, at downstream end of pier nearest left bank of bridge on U.S. Highway 285, 0.5 mi (0.8 km) west of Chamita, 2.5 mi (4.0 km) northwest of San Juan Pueblo, and at mile 2.8 (4.5 km).

DRAINAGE AREA.--3,144 mi² (8,143 km²), of which about 100 mi² (260 km²) is probably noncontributing.

PERIOD OF RECORD.--October 1912 to current year. Monthly discharge only for some periods, published in WSP 1312. Published as Chama River near Chamita prior to 1928, and Chama River at Chamita 1929-30.

GAGE.--Water-stage recorder. Concrete control since Jan. 1, 1964. Datum of gage is 5,653.61 ft (1,723.220 m) above mean sea level. Prior to Oct. 4, 1933, at railroad bridge 2.3 mi (3.7 km) downstream at different datums. Oct. 4, 1933 to Mar. 1, 1942, at site 50 ft (15 m) downstream at datum 0.22 ft (0.067 m) higher. Mar. 2, 1942 to Dec. 31, 1963, at site 200 ft (61 m) downstream, present datum.

AVERAGE DISCHARGE.--59 calendar years (1913-71), 537 ft³/s (15.21 m³/s), 389,100 acre-ft/yr (480 hm³/yr), prior to release of transmountain water.

EXTREMES.--Current year: Maximum discharge, 1,180 ft³/s (33.4 m³/s) Jan. 1 (gage height, 4.91 ft or 1.497 m); minimum, 22 ft³/s (0.62 m³/s) Sept. 12.
Period of record: Maximum discharge, 15,000 ft³/s (425 m³/s) May 22, 1920, from rating curve extended above 2,300 ft³/s (65.1 m³/s); maximum gage height, 10.45 ft (3.185 m) Aug. 22, 1961; no flow at times.
The floods of Sept. 29, 1904, and Oct. 4 or 5, 1911, probably exceeded 15,000 ft³/s (425 m³/s). Another major flood occurred in 1884, from newspaper accounts.

REMARKS.--Records good. Diversions above station for irrigation of about 27,600 acres (112 km²). Chamita ditch, on left bank, and Hernandez ditch, on right bank, bypass gage for irrigation of several hundred acres below station; see tabulation below for monthly diversion. Flow partly regulated by El Vado Reservoir (see sta 08285000) and Abiquiu Reservoir (see sta 08286900), 74.9 mi (120.5 km) and 29.3 mi (47.1 km) upstream, respectively. Since April 1972 flow affected by release of transmountain water from Heron Reservoir (see sta 08284510) 83.0 mi (133.5 km) upstream. Water quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1512: 1913-15, 1934, 1936. WSP 1632: 1929(M). WSP 1732: 1931(M). WSP 1923: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1,150	753	132	655	494	585	388	658	146	76	183	79
2	1,070	570	133	628	511	597	350	822	89	74	195	86
3	885	130	133	613	509	559	506	658	87	74	132	82
4	800	110	132	504	552	558	905	759	90	78	160	84
5	741	133	132	256	679	620	833	749	95	75	129	94
6	728	138	132	228	712	796	898	387	92	79	110	128
7	728	142	134	220	722	711	859	203	76	105	103	105
8	734	111	134	233	742	778	937	233	63	121	96	95
9	727	102	135	210	570	818	793	191	54	80	109	80
10	725	104	163	225	388	721	333	202	52	69	110	79
11	710	107	158	269	460	775	358	171	61	121	113	72
12	707	134	151	360	401	719	206	156	57	328	110	70
13	715	138	244	249	426	740	217	221	94	157	113	81
14	711	145	264	195	498	750	211	636	104	93	148	69
15	696	139	430	152	890	766	209	662	91	39	134	80
16	682	120	495	173	550	909	231	664	87	47	126	91
17	684	118	463	183	555	966	207	651	116	50	81	90
18	691	120	198	195	393	943	214	652	86	42	66	87
19	670	115	185	246	505	870	234	656	83	38	67	88
20	664	121	282	244	431	884	295	668	78	32	75	113
21	682	141	393	410	589	883	169	667	70	35	74	106
22	664	140	407	476	528	875	154	660	67	45	65	85
23	709	113	496	457	514	892	148	660	85	75	71	77
24	708	105	506	474	524	874	137	653	81	132	71	56
25	701	107	515	580	546	843	247	655	82	146	66	45
26	699	107	566	664	560	823	746	643	74	113	66	45
27	713	110	609	808	519	523	765	615	85	124	71	45
28	697	124	612	657	568	366	683	638	82	100	72	45
29	691	------	612	585	529	402	676	496	87	95	76	45
30	610	------	611	551	510	408	814	149	79	117	77	45
31	717	------	628	------	530	------	858	143	------	191	------	50
TOTAL	22,807	4,477	10,165	11,640	16,605	21,954	14,581	16,168	2,493	2,951	3,067	2,597
MEAN	736	160	329	388	536	732	470	521	83.1	95.2	102	77.3
MAX	1,150	753	628	808	890	966	937	858	146	328	195	128
MIN	610	102	132	152	226	366	137	143	52	32	65	45
AC-FT	45,240	8,880	20,200	23,090	32,940	43,550	28,920	32,070	4,940	5,850	6,080	4,750
(†)	-	-	-	468	707	672	639	589	376	233	-	-
(‡)	-	-	-	680	1,230	990	560	633	491	355	-	-

CAL YR 1974 TOTAL 129,295 MEAN 354 MAX 1,150 MIN 32 AC-FT 256,500
WTR YR 1974 TOTAL 170,190 MEAN 466 MAX 1,190 MIN 21 AC-FT 337,600

† Diversion, in acre-ft, by Chamita ditch.
‡ Diversion, in acre-ft, by Hernandez ditch.

Diversions from Rio Chama

During the irrigation season records of discharge are collected on all 17 ditches and 2 pumps which divert from Rio Chama below El Vado Dam. All measuring devices consist of totalizing type flowmeters. All ditches are also equipped with Parshall flumes. In most cases meters on ditches are located below the most downstream wasteway and above any irrigated land. Flows tabulated represent water that is delivered to each ditch or portion thereof and may include waste water from another ditch. No attempt is made to credit for water returned to Rio Chama or delivered to another ditch.

08286300 MONASTERY PUMP NEAR ALIRE, N. MEX.—Lat 36°22'45", long 106°40'55", in SE¼SW¼, sec.24, T.25 N., R.2 E.,, Rio Arriba County, in Santa Fe National Forest, totalizing flowmeter on discharge pipe of pump on left bank of Rio Chama, at Christ of the Desert Monastery, 8.8 mi (14.2 km) southwest of Alire, and 24 mi (39 km) northwest of Abiquiu. Period of record, April 1972 to current year.

08287020 ABEYTA TRUJILLO DITCH NEAR ABIQUIU, N. MEX.—Lat 36°14'03", long 106°23'22", Rio Arriba County, in Carson National Forest, totalizing flowmeter and Parshall flume on left bank 0.9 mi (1.4 km) downstream from heading located on left bank of Rio Chama, and 4.5 mi (7.2 km) northeast of Abiquiu. Period of record, April 1972 to current year.

08287040 WINFIELD MORTON PUMP NEAR ABIQUIU, N. MEX.—Lat 36°12'40", long 106°20'48", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter on discharge pipe of pump on left bank of Jose Pablo Gonzales ditch 700 ft (210 m) downstream from ditch heading located on left bank of Rio Chama, and 1.4 mi (2.3 km) west of Abiquiu. Period of record, April 1972 to current year.

08287060 JOSE PABLO GONZALES DITCH NEAR ABIQUIU, N. MEX.—Lat 36°12'25", long 106°20'35", Rio Arriba County, in Town of Abiquiu Grant, totalizing flowmeter and Parshall flume on left bank, 0.5 mi (0.8 km) downstream from Winfield Morton pump, 0.6 mi (1.0 km) downstream from heading located on left bank of Rio Chama, and 1.2 mi (1.9 km) west of Abiquiu. Period of record, April 1972 to current year.

08287150 GONZALES DITCH AT ABIQUIU, N. MEX.—Lat 36°12'46", long 106°19'16", Rio Arriba County, in Town of Abiquiu Grant, totalizing flowmeter and Parshall flume on right bank, 0.2 mi (0.3 km) downstream from heading located on right bank of Rio Chama, and 0.4 mi (0.6 km) northwest of Abiquiu. Period of record, April 1972 to current year.

08287200 LA FUENTE DITCH NEAR ABIQUIU, N. MEX.—Lat 36°12'52", long 106°16'27", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on left bank, 100 ft (30 m) downstream from culvert on U.S. Highway 84, 0.4 mi (0.6 km) downstream from heading located on right bank of Rio Chama, and 2.5 mi (4.0 km) east of Abiquiu. Period of record, April 1972 to current year.

08287250 QUINTANA DITCH NEAR ABIQUIU, N. MEX.—Lat 36°12'55", long 106°16'26", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on right bank, 100 ft (30 m) upstream from culvert on U.S. Highway 84, 0.2 mi (0.3 km) downstream from heading located on right bank of Rio Chama, and 2.6 mi (4.2 km) east of Abiquiu. Period of record, April 1972 to current year.

08287270 VALENTINE MARTINEZ DITCH NEAR ABIQUIU, N. MEX.—Lat 36°12'55", long 106°16'12", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on right bank on north side of U.S. Highway 84, 0.2 mi (0.3 km) downstream from heading located on left bank of Quintana ditch (see sta 08287250), and 2.8 mi (4.5 km) east of Abiquiu. Period of record, April 1972 to current year.

08287300 MARIANO DITCH NEAR ABIQUIU, N. MEX.—Lat 36°13'05", long 106°16'09", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on left bank 0.5 mi (0.8 km) downstream from heading located on left bank of Rio Chama, and 2.9 mi (4.7 km) east of Abiquiu. Period of record, April 1972 to current year.

08287400 FERRAN DITCH NEAR ABIQUIU, N. MEX.—Lat 36°12'57", long 106°14'34", Rio Arriba County, in Carson National Forest, totalizing flowmeter and Parshall flume on left bank just downstream from siphon, 40 ft (12 m) upstream from forest boundary, 0.2 mi (0.3 km) downstream from culvert on State Highway 96, 0.4 mi (0.6 km) downstream from tail of Mariano ditch (see sta 08287300), 0.9 mi (1.4 km) downstream from heading located on left bank of Rio Chama, and 4.4 mi (7.1 km) east of Abiquiu. Period of record, April 1972 to current year.

08287600 TIERRA AZUL DITCH NEAR MEDANALES, N. MEX.—Lat 36°12'06", long 106°14'11", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on right bank 1.1 mi (1.8 km) downstream from heading located on right bank of Rio Chama, and 3.5 mi (5.6 km) northwest of Medanales. Period of record, April 1972 to current year.

08288050 JOSE V. MARTINEZ DITCH NEAR MEDANALES, N. MEX.—Lat 36°11'44", long 106°13'39", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on left bank 0.1 mi (0.2 km) downstream from heading located on left bank of Rio Chama, and 2.9 mi (4.7 km) northwest of Medanales. Period of record, April 1972 to current year.

08288100 MANZANARES AND MONTOYA DITCH NEAR MEDANALES, N. MEX.—Lat 36°11'13", long 106°12'35", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on right bank, 0.2 mi (0.3 km) downstream from heading located on right bank of Rio Chama, and 1.7 mi (2.7 km) northeast of Medanales. Period of record, April 1972 to current year.

08288150 RIO DE CHAMA DITCH NEAR MEDANALES, N. MEX.—Lat 36°11'13", long 106°12'02", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter, water-stage recorder, and Parshall flume on left bank, 0.5 mi (0.8 km) downstream from tail of Jose V. Martinez ditch (see sta 08288050), 0.7 mi (1.1 km) downstream from heading located on left bank of Rio Chama, and 1.3 mi (2.1 km) northwest of Medanales. Period of record, April 1972 to current year.

08288200 MARTINEZ AND DURANES DITCH (UPPER) NEAR MEDANALES, N. MEX.—Lat 36°10'55", long 106°11'59", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on right bank, 300 ft (91 m) downstream from tail of Manzanares and Montoya ditch (see sta 08288100), 0.7 mi (1.1 km) downstream from heading located on right bank of Rio Chama, and 1.1 mi (1.8 km) northwest of Medanales. Period of record, April 1972 to current year.

08288250 MARTINEZ AND DURANES DITCH (LOWER) NEAR MEDANALES, N. MEX.—Lat 36°09'26", long 106°10'24", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on right bank, 0.9 mi (1.4 km) downstream from culvert on State Highway 233, 1.4 mi (2.3 km) south of Medanales, 2.5 mi (4.0 km) downstream from "upper" gage (see sta 08288200), and 3.2 mi (5.1 km) downstream from heading located on right bank of Rio Chama. Period of record, April 1972 to current year.

08288300 CHILI DITCH NEAR HERNANDEZ, N. MEX.—Lat 36°07'00", long 106°09'11", in SW¼SW¼ sec.24, T.22 N., R.7 E., Rio Arriba County, totalizing flowmeter and Parshall flume on left bank, 0.4 mi (0.6 km) downstream from heading located on right band of Rio Chama, 0.5 mi (0.8 km) upstream from siphon under Rio del Oso, and 4.1 mi (6.6 km) northwest of Hernandez. Period of record, April 1972 to current year.

Diversions from Rio Chama - Continued

08289500 CHAMITA DITCH NEAR CHAMITA, N. MEX.--Lat 36°04'57", long 106°06'54", in SW¼NE¼ sec.5, T.21 N., R.8 E., in Rio Arriba County, in San Juan Pueblo Grant, totalizing flowmeter, water-stage recorder, and Parshall flume on left bank, 30 ft (9 m) upstream from flume over Arroyo de la Penita, 0.7 mi (1.1 km) downstream from heading located on left bank of Rio Chama, and 1.0 mi (1.6 km) northwest of Chamita. Period of record, March 1936 to April 1941, February 1963 to current year (records furnished by Bureau of Reclamation August 1966 to December 1972).

08289800 HERNANDEZ DITCH AT HERNANDEZ, N. MEX.--Lat 36°04'52", long 106°07'16", Rio Arriba County, in Bartolome Sanchez Grant, totalizing flowmeter, water-stage recorder, and Parshall flume on right bank, 0.7 mi (1.1 km) downstream from heading located on right bank of Rio Chama, 1.1 mi (1.8 km) north of Hernandez, and 1.3 mi (2.1 km) northwest of Chamita. Period of record, March 1963 to current year (records furnished by Bureau of Reclamation July 1965 to December 1971).

08290100 SALAZAR DITCH AT HERNANDEZ, N. MEX.--Lat 36°03'44", long 106°06'31", in SE¼SE¼ sec.8, T.21 N., R.8 E., Rio Arriba County, in San Juan Pueblo Grant, totalizing flowmeter and Parshall flume on right bank, 0.1 mi (0.2 km) downstream from heading located on right bank of Rio Chama, and 0.6 mi (1.0 km) east of Hernandez. Period of record, April 1972 to current year.

Diversions from Rio Chama, in acre-feet, calendar year 1974

	Diversion	APR	MAY	JUN	JUL	AUG	SEP	OCT
08286300	Monastery pump	0	1.4	0.2	0.6	0	0.2	0.5
08287020	Abeyta Trujillo ditch	82	441	317	267	95	28	0
08287040	Winfield Morton pump	39	150	119	99	70	2	0
08287060	Jose Pablo Gonzales ditch	540	746	a616	687	1,260	182	151
08287150	Gonzales ditch	55	316	258	230	129	2	0
08287200	La Puente ditch	0	86	29	58	188	0	0
08287250	Quintana ditch	112	129	48	43	70	27	17
08287270	Valentine Martinez ditch	1.2	26	14	22	18	2	0
08287300	Mariano ditch	186	396	333	257	212	26	94
08287400	Ferran ditch	b61	b342	b215	b65	b3	0	0
08287600	Tierra Azul ditch	222	870	590	373	708	155	0
08288050	Jose V. Martinez ditch	247	305	290	210	208	124	109
08288100	Manzanares and Montoya ditch	12	106	94	63	58	1	1
08288150	Rio de Chama ditch	505	845	727	813	777	558	149
08288200	Martinez and Duranes ditch (upper)	315	1,220	508	568	633	566	333
08288250	Martinez and Duranes ditch (lower)	c280	1,100	640	235	635	100	0
08288300	Chili ditch	259	256	111	203	253	172	54
08289500	Chamita ditch	468	707	672	639	589	376	233
08289800	Hernandez ditch	680	1,230	990	560	633	491	355
08290100	Salazar ditch	360	592	a650	611	a518	549	211

a Record partially estimated; Rio Chama Watermaster records used in estimates.
b Parshall flume submerged; record partially estimated.
c Estimate based on relationship with Martinez and Duranes ditch (upper).
NOTE.--Records collected during irrigation season only.

08291000 SANTA CRUZ RIVER AT CUNDIYO, N. MEX.

LOCATION.--Lat 35°57'53", long 105°54'14", in SE¼NW¼ sec.17, T.20 N., R.10 E., Santa Fe County, on left bank 135 ft (41 m) downstream from bridge on State Highway 4, 200 ft (61 m) downstream from confluence of Rio Medio and Rio Frijoles, 0.6 mi (1.0 km) northwest of Cundiyo, 1.8 mi (2.9 km) upstream from Santa Cruz Dam, and at mile 11.9 (19.1 km).

DRAINAGE AREA.--86 mi² (220 km²), approximately.

PERIOD OF RECORD.--October 1930 to current year. Monthly discharge only for some periods, published in WSP 1312. Prior to October 1953, published as Rio Santa Cruz at Cundiyo.

GAGE.--Water-stage recorder. Concrete control since Jan. 3, 1954. Altitude of gage is 6,460 ft (1,969 m) from topographic map. Sept. 1, 1930 to Aug. 12, 1932, water-stage recorder at site about 1 mi (2 km) downstream at different datum. Aug. 13, 1932 to Oct. 29, 1934, water-stage recorder at site 35 ft (11 m) upstream at datum 0.42 ft (0.128 m) higher. Oct 30, 1934 to Jan. 2, 1954, water-stage recorder at present site at datum 0.64 ft (0.195 m) lower.

AVERAGE DISCHARGE.--44 calendar years, 28.7 ft³/s (0.813 m³/s), 20,790 acre-ft/yr (25.6 hm³/yr); 20 calendar years (1955-74), 26.2 ft³/s (0.742 m³/s), 18,980 acre-ft/yr (23.4 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 82 ft³/s (2.32 m³/s) Aug. 20 (gage height, 2.33 ft or 0.710 m); maximum gage height, 3.24 ft (0.988 m) Jan. 4, backwater from ice; minimum discharge, 1.2 ft³/s (0.034 m³/s) Nov. 26, result of freezeup.
Period of record: Maximum discharge, 2,420 ft³/s (68.5 m³/s) Sept. 24, 1931 (gage height, 7.8 ft or 2.38 m, site and datum then in use), from rating curve extended above 170 ft³/s (4.81 m³/s); minimum, 0.19 ft³/s (0.005 m³/s) Mar. 13, 1954, result of freezeup.

REMARKS.--Records good except those for winter periods, which are fair. Diversions for irrigation of about 1,000 acres (4.05 hm³) above station.

REVISIONS (WATER YEARS).--WSP 1392: 1931(M), 1932-33, 1934-39(M), 1942, 1943(M).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	8.0	8.5	8.9	24	27	24	8.2	10	9.8	4.1	10	8.0
2	7.0	8.5	9.8	23	29	23	7.8	12	6.1	4.4	11	10
3	6.0	8.0	10	19	32	24	7.5	27	5.8	5.4	11	11
4	6.0	8.0	8.9	18	34	24	10	27	5.8	6.1	11	10
5	7.0	8.5	7.5	16	34	21	12	14	7.1	7.5	7.8	8.7
6	8.0	8.5	9.0	18	30	22	13	13	9.0	10	12	8.5
7	9.0	8.0	9.5	16	33	23	15	23	8.5	16	10	8.0
8	9.0	7.0	9.5	15	35	28	9.4	17	7.5	11	9.0	7.5
9	9.0	6.0	10	15	37	22	8.2	16	3.7	9.4	12	7.0
10	8.9	7.0	10	17	40	20	7.8	13	3.7	13	11	7.0
11	7.0	7.0	10	15	43	18	8.5	12	3.4	15	10	7.5
12	7.0	7.5	9.8	14	43	17	9.8	9.4	6.1	14	9.0	8.0
13	8.0	7.5	12	12	46	17	16	8.5	7.8	14	8.5	8.5
14	9.0	7.8	14	11	48	16	15	7.1	8.5	13	8.4	8.5
15	9.0	7.5	16	11	47	16	11	8.5	9.4	11	8.4	8.5
16	9.5	7.8	22	15	47	14	12	9.8	7.8	10	8.4	8.5
17	9.5	8.0	29	15	45	12	9.0	9.4	8.5	9.8	8.0	9.0
18	9.6	8.1	33	19	43	12	12	8.2	9.0	9.8	7.5	7.7
19	9.0	8.0	30	24	42	12	16	5.1	9.4	9.4	7.0	7.5
20	8.5	7.8	30	21	41	13	15	8.5	8.5	9.0	7.0	7.0
21	9.8	7.5	26	19	38	13	15	6.1	8.5	9.4	6.9	6.7
22	7.7	7.0	23	20	36	11	9.8	7.8	8.5	9.8	9.0	6.6
23	5.2	7.5	22	26	33	11	7.5	9.4	8.2	11	9.1	6.5
24	5.0	7.0	20	29	31	11	6.8	13	6.8	10	5.2	6.0
25	6.0	7.5	20	36	31	11	8.2	13	6.8	9.8	6.0	6.0
26	8.0	7.5	20	41	30	11	9.0	7.1	6.8	9.4	6.1	6.0
27	9.8	7.8	23	40	29	10	10	6.8	6.8	11	7.4	6.0
28	9.0	8.2	22	34	29	10	8.5	9.4	7.1	12	7.5	6.5
29	8.0	------	24	30	29	9.0	7.5	13	7.1	12	7.0	8.0
30	8.0	------	26	29	28	8.2	9.8	16	4.9	13	7.5	8.0
31	8.0	------	29	------	25	------	6.8	12	------	12	------	7.5
TOTAL	248.5	215.0	553.7	640	1,115	483.2	322.1	374.1	216.9	321.3	258.7	240.2
MEAN	8.02	7.68	17.9	21.3	36.0	16.1	10.4	12.1	7.23	10.4	8.62	7.75
MAX	9.8	8.5	33	41	48	28	16	27	9.8	16	12	11
MIN	5.0	6.0	7.5	11	25	8.2	6.8	5.1	3.4	4.1	5.2	6.0
AC-FT	493	426	1,100	1,270	2,210	958	639	742	430	637	513	476

CAL YR 1974 TOTAL 4,988.7 MEAN 13.7 MAX 48 MIN 3.4 AC-FT 9,900
WTR YR 1974 TOTAL 5,037.8 MEAN 13.8 MAX 48 MIN 3.4 AC-FT 9,990

PEAK DISCHARGE (BASE, 100 FT³/S).--No peak above base.

08294300 RIO NAMBE AT NAMBE FALLS, NEAR NAMBE, N. MEX.

LOCATION.--Lat 35°50'46", long 105°54'29", in NW¼SW¼ sec.29, T.19 N., R.10 E., Santa Fe County, in Nambe Indian Reservation, on left bank 800 ft (240 m) downstream from Nambe Falls, 2.4 mi (3.9 km) upstream from confluence of Rio Nambe and Rio En Medio, 4.2 mi (6.8 km) southeast of Nambe Pueblo and 5.2 mi (8.4 km) southeast of Nambe.

DRAINAGE AREA.--25.1 mi^2 (65.0 km^2).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 6,513.73 ft (1,985.385 m) above mean sea level (levels by Bureau of Reclamation).

AVERAGE DISCHARGE.--11 calendar years, 10.6 ft^3/s (0.300 m^3/s), 7,680 acre-ft/yr (9.47 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 23 ft^3/s (0.65 m^3/s) May 16 (gage height, 0.95 ft or 0.290 m); maximum gage height, 1.10 ft (0.335 m) Dec. 25 (backwater from ice); minimum discharge not determined.
Period of record: Maximum discharge, 1,090 ft^3/s (30.9 m^3/s) Aug. 8, 1967 (gage height, about 6.0 ft or 1.83 m, from flood-marks), from rating curve extended above 44 ft^3/s (1.25 m^3/s) on basis of field estimate of peak flow; minimum determined, 0.50 ft^3/s (0.014 m^3/s) Mar. 19, 1971, but may have been less during periods of ice effect.

COOPERATION.--Records furnished by Bureau of Reclamation.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	4.8	2.9	4.2	9.8	14	14	4.2	5.4	6.0	2.9	6.8	4.1
2	4.5	3.5	4.2	9.4	15	13	4.0	7.0	4.5	2.7	6.1	4.5
3	4.1	3.3	4.2	8.9	16	13	3.8	9.6	3.8	2.7	6.1	5.1
4	4.3	3.3	4.0	8.0	16	12	3.9	17	2.6	2.7	6.4	5.0
5	4.6	3.3	3.8	7.2	16	13	4.6	17	2.5	2.7	6.0	4.8
6	4.8	2.9	3.8	8.4	15	12	5.6	16	2.7	3.8	5.4	4.5
7	4.9	2.5	3.8	8.8	15	12	5.2	16	2.7	6.8	5.4	4.2
8	4.9	2.7	4.2	8.0	14	12	3.4	13	2.7	4.5	5.6	4.0
9	4.8	3.1	5.4	7.6	15	11	3.1	11	2.7	4.0	5.8	3.8
10	4.5	3.8	5.1	6.0	17	9.8	2.9	9.4	2.7	4.5	5.4	3.8
11	4.4	3.8	5.1	8.4	20	9.8	3.1	8.4	2.7	8.0	5.2	3.8
12	4.4	3.8	5.1	7.2	20	9.4	4.9	7.6	2.7	7.8	5.0	3.8
13	4.5	4.0	4.8	7.2	20	8.9	4.3	6.8	2.5	7.4	4.9	3.8
14	4.6	4.0	4.2	7.6	20	8.9	4.0	6.1	2.5	7.2	4.8	3.7
15	4.6	4.5	4.8	7.2	20	8.9	3.6	6.4	2.5	7.2	4.7	3.6
16	4.6	4.8	5.1	7.6	21	8.0	3.2	5.8	3.8	7.2	4.5	3.4
17	4.5	4.8	6.4	8.9	20	7.6	3.0	5.4	4.2	7.2	4.2	3.2
18	4.5	5.1	7.6	11	20	7.2	3.6	5.4	4.0	6.8	3.9	3.0
19	4.2	5.4	7.2	13	20	7.2	4.0	5.1	4.0	6.8	3.8	2.9
20	4.2	5.4	6.4	10	18	7.6	4.3	5.1	4.0	6.8	3.7	3.8
21	4.8	5.4	5.8	8.9	16	6.8	4.1	5.1	3.8	6.8	3.8	4.0
22	4.0	5.3	6.1	9.8	15	6.4	3.9	4.5	3.8	7.2	4.2	4.0
23	1.6	5.1	6.1	13	14	6.8	3.9	4.2	4.2	7.6	4.6	3.8
24	1.9	5.0	5.1	13	14	7.2	4.0	5.1	4.2	7.6	4.4	4.0
25	2.4	4.8	6.4	16	15	6.4	4.3	7.2	3.8	7.6	3.9	3.9
26	2.9	4.8	8.4	20	14	7.2	4.2	4.8	3.8	6.8	3.5	3.8
27	3.5	4.5	8.9	20	15	6.4	4.2	5.1	4.0	8.0	3.3	3.8
28	2.7	4.2	8.4	16	16	5.1	4.3	6.4	4.0	7.7	3.3	3.5
29	3.1	------	8.9	14	16	5.1	4.4	7.2	4.0	9.0	3.5	4.2
30	1.7	------	10	13	15	4.8	4.5	6.6	3.3	6.8	3.8	3.8
31	2.2	------	11	------	14	------	4.9	7.2	------	6.8	------	3.8
TOTAL	121.5	116.0	184.5	315.1	516	267.5	125.4	246.9	104.7	191.6	142.0	121.4
MEAN	3.92	4.14	5.95	10.5	16.6	8.92	4.05	8.03	3.49	6.18	4.73	3.92
MAX	4.9	5.4	11	20	21	14	5.6	17	6.0	9.0	6.8	5.1
MIN	1.6	2.5	3.8	7.2	14	4.8	2.9	4.2	2.5	2.7	3.3	2.9
AC-FT	241	230	366	625	1,020	531	249	494	208	380	282	241

CAL YR 1974 TOTAL 2,454.6 MEAN 6.72 MAX 21 MIN 1.6 AC-FT 4,870
WTR YR 1974 TOTAL 2,497.2 MEAN 6.84 MAX 21 MIN 1.6 AC-FT 4,950

PEAK DISCHARGE (BASE, 40 FT^3/S).--No peak above base.

NOTE.--No gage-height record July 4 to Aug. 6.

08302100 NORTH FORK TESUQUE CREEK TRIBUTARY NEAR SANTA FE, N. MEX.

LOCATION.--Lat 35°46'44", long 105°48'04", Santa Fe County, in Santa Fe National Forest, on left bank 40 ft (12 m) upstream from culvert on gravel road leading to radio towers from State Highway 475, 172 ft (52 m) upstream from mouth, and 9.9 miles (15.9 km) northeast of Santa Fe.

DRAINAGE AREA.--0.013 mi^2 (8.5 acres or 3.44 km^2).

PERIOD OF RECORD.--July 1973 to June 1974 (discontinued).

GAGE.--Water-stage recorder and 45° V-notch sharp-crested weir. Altitude of gage is 10,240 ft (3,121 m), from topographic map.

EXTREMES.--Maximum discharge during period January to June 1974, 0.067 ft^3/s (0.0019 m^3/s) Mar. 31 (gage height, 1.320 ft or 0.402 m); minimum 0.002 ft^3/s (0.00006 m^3/s) Jan. 1 to Feb. 28.
Period of record: Maximum discharge, 0.067 ft^3/s (0.0019 m^3/s) Mar. 31, 1974 (gage height, 1.320 ft or 0.402 m); minimum, 0.001 ft^3/s (0.00003 m^3/s) Dec. 25, 1973.

REMARKS.--Records fair.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	.002	.002	.003	.060	.019	.006						
2	.002	.002	.003	.053	.017	.006						
3	.002	.002	.003	.045	.016	.006						
4	.002	.002	.004	.039	.015	.006						
5	.002	.002	.004	.034	.016	.006						
6	.002	.002	.004	.031	.015	.006						
7	.002	.002	.004	.029	.014	.006						
8	.002	.002	.004	.032	.013	.006						
9	.002	.002	.005	.037	.013	.005						
10	.002	.002	.005	.039	.012	.005						
11	.002	.002	.005	.039	.011	.005						
12	.002	.002	.006	.039	.011	.005						
13	.002	.002	.006	.037	.011	.005						
14	.002	.002	.007	.034	.011	.005						
15	.002	.002	.011	.032	.011	.005						
16	.002	.002	.016	.032	.010	.005						
17	.002	.002	.025	.036	.010	.004						
18	.002	.002	.031	.041	.010	.004						
19	.002	.002	.028	.041	.009	.004						
20	.002	.002	.026	.037	.009	.004						
21	.002	.002	.025	.034	.008	.004						
22	.002	.002	.022	.032	.008	.004						
23	.002	.002	.021	.031	.008	.004						
24	.002	.002	.021	.028	.008	.004						
25	.002	.002	.022	.026	.008	.004						
26	.002	.002	.026	.025	.008	.004						
27	.002	.002	.032	.023	.007	.004						
28	.002	.002	.037	.022	.007	.004						
29	.002	------	.045	.021	.006	.004						
30	.002	------	.058	.021	.006	.004						
31	.002	------	.067	------	.006	------						
TOTAL	.062	.056	.576	1.030	.333	.144						
MEAN	.0020	.0020	.0186	.0343	.0107	.0048						
MAX	.002	.002	.067	.060	.019	.006						
MIN	.002	.002	.003	.021	.006	.004						
AC-FT	.12	.11	1.14	2.04	.66	.29						

PEAK DISCHARGE (BASE, 0.040 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3-31	0030	1.320	0.067				

08312600 POJOAQUE RIVER AT SAN ILDEFONSO PUEBLO, N. MEX.

LOCATION.--Lat 35°53'51", long 106°06'24", Santa Fe County, in San Ildefonso Pueblo Grant, on right bank 0.7 mi (1.1 km) northeast of San Ildefonso Pueblo, and 1.0 mi (1.6 km) upstream from mouth.

DRAINAGE AREA.--184 mi^2 (477 km^2), approximately.

PERIOD OF RECORD.--May 1972 to current year (operated as a miscellaneous measurement site and high-flow station only).

GAGE.--Water-stage recorder. Altitude of gage is 5,560 ft (1,695 m) from topographic map.

EXTREMES.--Current year: Maximum discharge, about 900 ft^3/s (25.5 m^3/s) Oct. 10; no flow many days.
Period of record: Maximum discharge, 6,100 ft^3/s (173 m^3/s) Aug. 19, 1972 (gage height, 6.80 ft or 2.073 m, from floodmarks), from rating curve extended above 110 ft^3/s (3.12 m^3/s) on basis of slope-area measurements at gage heights 5.12 ft (1.561 m) and 6.80 ft (2.073 m); no flow many days in 1972 and 1974.

REMARKS.--Records poor. Diversions for irrigation of about 4,900 acres (19.8 km^2), 1973 determination, above station. Mean daily discharge computed only when flow exceeds about 40 ft^3/s (1.13 m^3/s). See table below for results of discharge measurements made during year.

DISCHARGE MEASUREMENTS, IN CUBIC FEET PER SECOND

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Jan. 16	3.65	May 6	0.48	Aug. 12	*1.5	Oct. 21	0.20
Feb. 6	2.14	28	0	26	0	Nov. 12	*2.5
25	.44	June 12	* .10	Sept. 9	0	25	*2.7
Mar. 18	8.26	26	* .06	Oct. 10	0	Dec. 10	*6.2
Apr. 10	2.16	July 15	* .05	11	*2.5	24	*1.0

*Estimated

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1										-		
2										-		
3										-		
4										-		
5										-		
6										-		
7										-		
8										-		
9										-		
10										70		
11										-		
12										-		
13										-		
14										-		
15										-		
16										-		
17										-		
18										-		
19										-		
20										-		
21										-		
22										-		
23										-		
24										-		
25										-		
26										-		
27										-		
28										-		
29		------								-		
30		------								-		
31		------		------		------		------		-	------	

PEAK DISCHARGE (BASE, 250 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-10	1900	-	about 900				

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, N. MEX.

LOCATION.--Lat 35°52'29", long 106°08'30", in SW¼SW¼ sec.18, T.19 N., R.8 E., Santa Fe County, in San Ildefonso Pueblo Grant, near right bank on downstream end of pier of former railway bridge, 400 ft (120 m) downstream from bridge on State Highway 4, 1.8 mi (2.9 km) southwest of San Ildefonso Pueblo, 2.5 mi (4.0 km) downstream from Pojoaque River, 6.8 mi (10.9 km) west of Pojoaque, and at mile 1,614.2 (2,597.2 km).

DRAINAGE AREA.--14,300 mi² (37,040 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, Colo.

PERIOD OF RECORD.--February 1895 to December 1905, June 1909 to current year. Monthly discharge only for some periods, published in WSP 1312. In early reports this record was published as "at Water Tank," as "at Rio Grande," and as "near Buckman."

GAGE.--Water-stage recorder. Datum of gage is 5,488.48 ft (1,672.889 m) above mean sea level. See WSP 1312, 1732, or 1923 for history of changes prior to June 1, 1910.

AVERAGE DISCHARGE.--75 calendar years (1896-1905, 1910-74), 1,504 ft³/s (42.59 m³/s), 1,090,000 acre-ft/yr (1.34 km³/yr); 20 calendar years (1955-74), 1,127 ft³/s (31.92 m³/s), 816,500 acre-ft/yr (1.01 km³/yr).

EXTREMES.--Current year: Maximum discharge, 1,760 ft³/s (49.8 m³/s) Jan. 1 (gage height, 4.02 ft or 1.225 m); minimum, 202 ft³/s (5.72 m³/s) Sept. 12.
Period of record: Maximum discharge, 24,400 ft³/s (691 m³/s) May 23, 1920; maximum gage height, 14.5 ft (4.42 m) Sept. 29, 1904 (present site and datum); minimum daily discharge, 60 ft³/s (1.70 m³/s) July 4, 5, 1902.
The 1920 flood is greatest since at least 1884 and probably since 1741; information from W. H. Yeo's file on floods.

REMARKS.--Records good. Flow partly regulated by Heron, El Vado and Abiquiu Reservoirs (see sta 08284510, 08285000, 08286900) on Rio Chama which contributes about 40 percent of total flow. Since April 1972 flow affected by release of transmountain water from Heron Reservoir. Diversions above station for irrigation of about 620,000 acres (2,510 km²) in Colorado and 75,000 acres (304 km²) in New Mexico. Water-quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 828: Drainage area. WSP 1512: 1895-99, 1904-06, 1911-12, 1914, 1931(M), 1935. WSP 1712: 1904(M).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1,720	1,320	754	1,590	1,130	877	607	774	357	254	498	380
2	1,680	1,270	792	1,640	1,100	918	544	946	296	256	480	381
3	1,410	718	766	1,640	1,060	872	628	1,100	270	250	443	473
4	1,190	650	792	1,500	1,020	868	1,110	1,050	275	251	443	476
5	1,260	678	780	1,070	1,180	924	1,010	1,080	272	266	460	479
6	1,340	678	773	864	1,300	1,150	1,080	707	279	289	428	512
7	1,300	689	812	818	1,240	1,070	1,030	461	265	338	415	534
8	1,310	645	864	780	1,220	1,110	1,130	550	239	328	411	529
9	1,310	625	890	736	1,160	1,410	1,020	476	223	307	420	507
10	1,320	650	1,020	736	884	1,190	576	490	216	413	439	446
11	1,300	662	995	766	918	1,230	569	427	219	456	447	467
12	1,270	667	967	877	953	1,160	392	378	219	625	448	439
13	1,290	684	1,060	760	1,020	1,150	391	348	232	494	447	466
14	1,320	706	1,130	667	1,090	1,110	383	648	265	417	470	455
15	1,300	694	1,280	605	1,580	1,060	381	913	262	352	469	443
16	1,290	672	1,470	564	1,170	1,170	412	916	270	346	451	462
17	1,300	667	1,420	564	890	1,220	389	867	285	350	411	463
18	1,320	678	1,120	595	864	1,170	400	890	283	343	388	468
19	1,320	672	1,090	625	1,000	1,100	521	884	268	323	385	463
20	1,300	684	1,190	640	890	1,100	526	915	277	313	390	470
21	1,330	689	1,340	766	1,050	1,090	391	906	270	315	391	482
22	1,360	684	1,380	851	986	1,080	350	890	261	317	389	464
23	1,370	656	1,470	799	960	1,080	325	896	281	341	385	462
24	1,320	650	1,430	844	946	1,080	310	902	277	382	409	455
25	1,300	640	1,410	974	939	1,050	332	926	262	402	401	385
26	1,300	645	1,440	1,060	953	1,050	871	911	255	384	396	412
27	1,320	678	1,500	1,220	897	844	1,000	896	257	390	414	436
28	1,290	712	1,490	1,120	939	575	968	920	246	401	447	400
29	1,250	------	1,500	1,190	925	615	922	838	256	367	455	387
30	1,240	------	1,520	1,220	877	614	1,010	420	254	459	430	401
31	1,170	------	1,550	------	844	------	1,110	362	------	466	------	384
TOTAL	41,100	20,063	35,995	28,071	31,987	30,937	20,708	23,637	7,893	11,195	12,860	13,961
MEAN	1,326	717	1,161	936	1,032	1,031	668	769	263	361	429	450
MAX	1,720	1,320	1,550	1,640	1,580	1,410	1,130	1,100	357	625	498	534
MIN	1,170	625	754	564	844	575	310	348	216	250	385	380
AC-FT	81,520	39,790	71,400	55,680	63,450	61,360	41,070	47,280	15,660	22,210	25,510	27,690

CAL YR 1974 TOTAL 278,607 MEAN 763 MAX 1,720 MIN 216 AC-FT 552,600
WTR YR 1974 TOTAL 346,557 MEAN 949 MAX 1,730 MIN 216 AC-FT 687,400

PEAK DISCHARGE (BASE, 5,200 FT³/S).--No peak above base.

08315500 MCCLURE RESERVOIR NEAR SANTA FE, N. MEX.

LOCATION.--Lat 35°41'18", long 105°50'06", in NE¼SW¼ sec.24, T.17 N., R.10 E., Santa Fe County, in Santa Fe National Forest, on outlet tower at McClure Dam on Santa Fe River, 2.1 mi (3.4 km) upstream from Nichols Reservoir, 5.8 mi (9.3 km) east of Santa Fe, and at mile 34.0 (54.7 km).

DRAINAGE AREA.--17.4 mi² (45.1 km²).

PERIOD OF RECORD.--September 1929, July to October 1930, April 1931 to June 1946, September 1947 to current year. Prior to October 1947, published in WSP 1312. Prior to October 1965, monthend contents only.

GAGE.--Water-stage recorder. Altitude of gage is 7,788 ft (2,374 m) from topographic map. Prior to Oct. 1, 1947, nonrecording gages at same site and various datums all referred to the Public Service Co. of New Mexico assumed datum, 165.9 ft (50.57 m) lower.

EXTREMES.--Current year: Maximum contents, 2,110 acre-ft (2.60 hm³) May 19-24 (gage height, 89.2 ft or 27.19 m); minimum, 1,380 acre-ft (1.70 hm³) July 29 to Aug. 3 (gage height, 76.8 ft or 23.41 m).
Period of record: Maximum contents, 3,140 acre-ft (3.87 hm³) June 25, 1960 (gage height, 103.7 ft or 31.61 m); no contents Jan. 25 to May 8, 1951.

REMARKS.--Reservoir is formed by earthfill dam, completed in 1926 (capacity, 503 acre-ft or 620,000 m³), raised 5 ft (1.5 m) in 1935 (capacity, 650 acre-ft or 801,000 m³), and raised 36.5 ft (11.13 m) more in 1947 (capacity, 2,615 acre-ft or 3.22 hm³ at gage height 96.6 ft or 29.44 m, crest of concrete spillway). Between October 1947 and May 1953 varying amounts of sandbag bulkheads were placed on crest of spillway to increase capacity. Between May 1953 and December 1971 spillway was equipped with radial gates that opened automatically thereby increasing capacity to over 3,000 acre-ft (3.70 hm³). Radial gates were removed during 1972 (capacity, 2,615 acre-ft or 3.22 hm³). No dead storage. Water is for municipal use of city of Santa Fe.

COOPERATION.--Supplementary stage readings and capacity table furnished by Public Service Co. of New Mexico.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by Public Service Co. of New Mexico in 1947)

75	1,280
80	1,550
85	1,840
90	2,160

CONTENTS, IN ACRE-FEET, AT 2400, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1,860	1,890	1,860	1,800	1,930	2,040	1,660	1,380	1,540	1,470	1,610	1,740
2	1,860	1,890	1,850	1,810	1,940	2,040	1,640	1,380	1,540	1,470	1,620	1,750
3	1,860	1,890	1,840	1,810	1,940	2,020	1,630	1,410	1,540	1,460	1,630	1,750
4	1,860	1,890	1,840	1,810	1,950	2,010	1,610	1,430	1,540	1,460	1,640	1,750
5	1,860	1,890	1,840	1,820	1,950	2,000	1,600	1,450	1,540	1,460	1,640	1,750
6	1,870	1,890	1,840	1,820	1,970	1,990	1,590	1,460	1,540	1,460	1,650	1,760
7	1,870	1,890	1,830	1,830	1,970	1,980	1,590	1,470	1,530	1,460	1,660	1,760
8	1,870	1,890	1,830	1,830	1,980	1,970	1,570	1,480	1,530	1,460	1,670	1,760
9	1,870	1,890	1,810	1,830	1,990	1,950	1,560	1,500	1,530	1,460	1,670	1,760
10	1,870	1,890	1,800	1,830	2,000	1,940	1,550	1,500	1,520	1,460	1,680	1,770
11	1,870	1,890	1,780	1,830	2,010	1,930	1,530	1,510	1,520	1,460	1,680	1,770
12	1,870	1,890	1,770	1,830	2,030	1,920	1,520	1,510	1,520	1,470	1,680	1,770
13	1,870	1,890	1,760	1,830	2,050	1,900	1,510	1,520	1,510	1,470	1,690	1,770
14	1,870	1,890	1,750	1,830	2,060	1,890	1,510	1,520	1,510	1,460	1,700	1,770
15	1,870	1,890	1,730	1,830	2,080	1,880	1,500	1,520	1,510	1,480	1,700	1,770
16	1,880	1,890	1,720	1,830	2,100	1,870	1,490	1,520	1,510	1,480	1,700	1,770
17	1,880	1,890	1,720	1,830	2,100	1,850	1,480	1,530	1,510	1,480	1,710	1,770
18	1,880	1,890	1,720	1,840	2,100	1,640	1,470	1,530	1,510	1,480	1,710	1,770
19	1,880	1,890	1,730	1,840	2,110	1,820	1,460	1,530	1,510	1,480	1,710	1,780
20	1,890	1,890	1,740	1,840	2,110	1,810	1,460	1,530	1,500	1,480	1,720	1,780
21	1,890	1,890	1,740	1,840	2,110	1,800	1,450	1,530	1,500	1,480	1,720	1,780
22	1,890	1,890	1,750	1,850	2,110	1,780	1,440	1,530	1,500	1,480	1,720	1,780
23	1,890	1,890	1,750	1,850	2,100	1,770	1,430	1,520	1,500	1,490	1,730	1,780
24	1,890	1,890	1,750	1,860	2,100	1,750	1,420	1,520	1,500	1,500	1,730	1,780
25	1,890	1,880	1,750	1,870	2,100	1,740	1,410	1,530	1,490	1,500	1,730	1,780
26	1,890	1,870	1,760	1,870	2,090	1,720	1,400	1,530	1,480	1,510	1,740	1,780
27	1,890	1,870	1,760	1,890	2,080	1,710	1,390	1,540	1,480	1,520	1,740	1,790
28	1,890	1,870	1,770	1,900	2,080	1,700	1,380	1,540	1,480	1,540	1,740	1,790
29	1,890	------	1,770	1,900	2,070	1,680	1,380	1,540	1,470	1,560	1,740	1,790
30	1,890	------	1,780	1,920	2,060	1,670	1,380	1,540	1,470	1,580	1,740	1,790
31	1,890	------	1,790	------	2,060	------	1,380	1,540	------	1,600	------	1,790
MAX	1,890	1,890	1,860	1,920	2,110	2,040	1,660	1,540	1,540	1,600	1,740	1,790
MIN	1,860	1,870	1,720	1,800	1,930	1,670	1,380	1,380	1,470	1,460	1,610	1,740
(†)	85.8	85.4	84.1	86.2	88.4	82.0	76.8	79.8	78.6	80.8	83.3	84.1
(‡)	+30	-20	-80	+130	+140	-390	-290	+160	-70	+130	+140	+50

CAL YR 1974 MAX 2,110 MIN 1,380 ‡ -70
WTR YR 1974 MAX 2,490 MIN 1,380 ‡ -1,030

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.

08316000 SANTA FE RIVER NEAR SANTA FE, N. MEX.

LOCATION.--Lat 35°41'12", long 105°50'35", in NE¼SE¼ sec.23, T.17 N., R.10 E., Santa Fe County, in Santa Fe National Forest, on left bank 0.4 mi (0.6 km) downstream from McClure Dam, 5.3 mi (8.5 km) east of Santa Fe, and at mile 33.6 (54.1 km).

DRAINAGE AREA.--18.2 mi² (47.1 km²).

PERIOD OF RECORD.--June 1910, January 1913 to current year. Monthly discharge only for some periods, published in WSP 1312. Prior to October 1953, published as Santa Fe Creek near Santa Fe.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 7,718 ft (2,352 m) from topographic map. See WSP 1312 for history of changes prior to Oct. 1, 1947.

AVERAGE DISCHARGE.--62 calendar years, 7.99 ft³/s (0.226 m³/s), 5,790 acre-ft/yr (7.14 hm³/yr); 20 calendar years (1955-74), 6.39 ft³/s (0.181 m³/s), 4,630 acre-ft/yr (5.71 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 12 ft³/s (0.34 m³/s) Mar. 11-12 (gage height, 2.00 ft or 0.610 m); minimum, 0.96 ft³/s (0.027 m³/s) Nov. 3 to Dec. 25.
Period of record: Maximum discharge, 1,500 ft³/s (42.5 m³/s) Aug. 14, 1921 (gage height, 5.17 ft, or 1.576 m, site and datum then in use), from rating curve extended above 150 ft³/s (4.25 m³/s); minimum, 0.08 ft³/s (0.002 m³/s) July 31, Aug. 1, 1951.
Peaks which probably exceeded 1,000 ft³/s (28.3 m³/s) occurred Aug. 19, 1872, and Sept. 29 or 30, 1904. Without regulation the flood of Sept. 23, 1929, might have exceeded 1,500 ft³/s (42.5 m³/s).

REMARKS.--Records good except those for November, which are fair. Flow regulated by McClure Reservoir (see sta 08315500), completed in 1926, raised in 1935 and again in 1947.

REVISIONS (WATER YEARS).--WSP 1512: 1933, 1936-37(M), 1942, drainage area. WSP 1732: 1923, 1925.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1.1	1.5	6.0	2.8	3.0	8.4	7.3	3.0	2.8	2.8	1.0	.96
2	1.1	1.5	6.0	2.8	3.5	8.4	7.0	3.0	2.8	2.8	1.0	.96
3	1.1	1.5	5.8	2.8	4.2	8.4	7.0	3.0	2.8	2.8	.96	.96
4	1.1	1.5	5.8	2.8	4.2	8.4	6.8	3.0	2.8	2.8	.96	.96
5	1.1	1.6	5.8	2.8	4.2	8.4	6.8	3.0	2.8	2.8	.96	.96
6	1.1	1.8	5.8	2.8	4.2	8.4	6.8	3.0	2.8	3.0	.96	.96
7	1.1	2.2	5.8	2.8	4.2	8.4	6.8	3.0	2.8	3.0	.96	.96
8	1.1	2.3	5.8	2.8	4.2	8.4	6.8	3.0	2.8	3.0	.96	.96
9	1.1	2.3	5.8	2.8	4.2	8.4	6.8	3.2	2.8	3.0	.96	.96
10	1.1	2.3	5.8	2.8	4.4	8.4	6.8	3.2	2.8	3.2	.96	.96
11	1.2	2.3	8.2	2.8	4.4	8.4	6.5	3.2	2.8	3.0	.96	.96
12	1.2	2.3	12	2.8	4.4	8.4	6.5	3.2	2.8	3.0	.96	.96
13	1.2	2.3	11	2.8	4.4	8.4	6.5	3.2	2.8	3.0	.96	.96
14	1.2	2.3	11	2.8	4.4	8.4	6.5	3.2	2.8	3.0	.96	.96
15	1.2	2.3	11	2.8	4.7	8.4	6.5	3.2	2.8	3.0	.96	.96
16	1.2	2.3	11	2.8	6.2	8.2	6.5	3.2	2.8	3.0	.96	.96
17	1.2	2.2	11	2.8	8.7	8.2	6.5	3.2	2.8	2.8	.96	.96
18	1.2	2.2	8.2	2.8	9.0	8.2	6.5	3.2	2.8	2.8	.96	.96
19	1.2	2.2	5.8	2.8	9.0	8.2	6.5	3.2	2.8	2.8	.96	.96
20	1.2	2.2	5.8	2.8	9.0	8.2	6.5	3.2	2.8	2.8	.96	.96
21	1.2	2.2	5.5	2.8	9.0	8.2	6.5	3.0	2.8	2.8	.96	.96
22	1.2	2.2	5.5	2.8	9.0	7.9	6.5	3.0	2.8	2.8	.96	.96
23	1.2	2.2	5.5	2.8	9.0	7.9	6.5	3.0	2.8	2.8	.96	.96
24	1.3	2.2	5.3	2.8	9.0	7.6	6.2	3.0	2.8	1.6	.96	.96
25	1.4	2.2	3.8	3.0	9.0	7.6	6.2	3.0	2.8	1.0	.96	.96
26	1.5	2.2	2.8	3.0	9.0	7.6	6.2	3.0	2.8	1.0	.96	1.0
27	1.5	2.2	2.8	3.0	8.7	7.6	6.2	3.0	2.8	1.0	.96	1.0
28	1.5	4.1	2.8	3.0	8.7	7.6	6.0	3.0	2.8	1.0	.96	1.0
29	1.5	------	2.8	3.0	8.4	7.3	4.7	3.0	2.8	1.0	.96	1.0
30	1.5	------	2.8	3.0	8.4	7.3	3.0	2.8	2.8	1.1	.96	1.0
31	1.5	------	2.8	------	8.4	------	3.0	2.8	------	1.1	------	1.0
TOTAL	38.3	60.6	195.8	85.2	201.1	243.6	194.9	95.0	84.0	75.6	28.88	30.00
MEAN	1.24	2.16	6.32	2.84	6.49	8.12	6.29	3.06	2.80	2.44	.96	.97
MAX	1.5	4.1	12	3.0	9.0	8.4	7.3	3.2	2.8	3.2	1.0	1.0
MIN	1.1	1.5	2.8	2.8	3.0	7.3	3.0	2.8	2.8	1.0	.96	.96
AC-FT	76	120	388	169	399	483	387	188	167	150	57	60

CAL YR 1974 TOTAL 1,332.98 MEAN 3.65 MAX 12 MIN .96 AC-FT 2,640
WTR YR 1974 TOTAL 1,644.00 MEAN 4.50 MAX 12 MIN 1.0 AC-FT 3,260

08316500 NICHOLS RESERVOIR NEAR SANTA FE, N. MEX.

LOCATION.--Lat 35°41'24", long 105°52'46", in SE¼NE¼ sec.21, T.17 N., R.10 E., Santa Fe County, in Santa Fe National Forest, on outlet tower at Nichols Dam on Santa Fe River, 0.6 mi (1.0 km) east of Twomile Reservoir, 3.3 mi (5.3 km) east of Santa Fe, and at mile 31.0 (49.9 km).

DRAINAGE AREA.--22.8 mi² (59.1 km²).

PERIOD OF RECORD.--March 1943 to September 1965 (monthend contents only), October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 7,313.2 ft (2,229.06 m) above mean sea level.

EXTREMES.--Current year: Maximum contents, 482 acre-ft (594,000 m³) Jan. 1 (gage height, 159.6 ft or 48.65 m); minimum 242 acre-ft (298,000 m³) Feb. 26 (gage height, 147.6 ft or 44.99 m).
Period of record: Maximum contents, 836 acre-ft (1.03 hm³) June 8, 1952 (gage height, 171.8 ft or 52.36 m); minimum, 16 acre-ft (19,700 m³) Feb. 11 to Mar. 10, 1944, Feb. 1-19, 1948.

REMARKS.--Reservoir is formed by earthfill dam. No storage prior to Mar. 16, 1943. Capacity, 685 acre-ft (845,000 m³) between gage heights 121.2 ft (36.94 m), bottom of lower operational gate and 167.0 ft (50.90 m), crest of spillway. Dead storage, 14 acre-ft (17,300 m³). Water is for municipal use of city of Santa Fe.

COOPERATION.--Supplementary stage readings and survey to compute capacity table furnished by Public Service Co. of New Mexico.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by Public Service Co. of New Mexico in 1943)

145	202
150	279
155	375
160	491

CONTENTS, IN ACRE-FEET, AT 2400, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	477	327	250	380	304	313	285	373	273	256	329	313
2	472	321	254	377	302	312	283	369	270	259	329	315
3	468	317	257	375	304	310	283	365	268	262	329	315
4	463	314	260	371	306	306	281	360	266	265	329	315
5	458	312	263	367	308	304	281	356	265	270	329	313
6	456	310	266	365	310	300	279	352	263	271	329	310
7	452	308	268	362	312	298	279	346	262	276	329	310
8	449	304	268	358	313	294	279	342	260	281	329	306
9	444	302	268	354	315	292	279	338	259	286	329	300
10	440	300	268	350	315	290	277	333	257	294	329	292
11	438	298	273	346	310	288	276	329	256	300	327	290
12	433	294	290	342	308	286	276	325	256	308	327	290
13	431	292	310	338	306	285	276	321	254	313	325	290
14	426	290	325	335	302	285	276	317	253	321	325	290
15	419	288	340	333	304	286	276	313	253	325	327	290
16	412	288	354	329	310	290	274	310	253	331	329	290
17	405	285	367	325	310	292	274	306	251	336	331	290
18	398	279	375	323	312	296	279	304	251	342	333	292
19	391	274	377	319	313	298	290	300	251	348	335	292
20	384	270	382	317	317	298	302	298	250	352	336	294
21	380	265	386	315	317	296	312	294	250	354	325	294
22	373	259	391	315	319	294	321	292	250	356	321	294
23	367	253	398	313	329	292	329	290	250	356	319	294
24	362	250	403	312	335	292	338	288	250	348	317	294
25	358	246	403	312	331	290	346	286	248	342	315	294
26	352	243	403	310	327	288	354	285	248	338	313	294
27	346	245	398	308	323	286	362	283	246	335	313	296
28	342	245	394	308	321	286	369	281	246	333	313	296
29	336	------	391	306	319	285	373	277	248	333	313	296
30	335	------	386	304	317	285	375	276	253	331	313	296
31	331	------	384	------	315	------	375	274	------	331	------	298
MAX	477	327	403	380	335	313	375	373	273	356	335	315
MIN	331	243	250	304	302	285	274	274	246	256	313	290
(†)	152.7	147.8	155.4	151.3	151.9	150.3	155.0	149.7	148.3	152.7	151.8	151.0
(‡)	-151	-86	+139	-80	+11	-30	+90	-101	-21	+78	-18	-15

CAL YR 1974 MAX 477 MIN 243 ‡ -184
WTR YR 1974 MAX 569 MIN 243 ‡ -191

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

08317200 SANTA FE RIVER ABOVE COCHITI LAKE, N. MEX.

LOCATION.--Lat 35°32'49", long 106°13'41", in NW¼ sec.8, T.15 N., R.7 E., Santa Fe County, in Mesita de Juana Lopez Grant, on right bank at foot of La Bajada Hill, 5.0 mi (8.0 km) upstream from Cochiti Dam, 6.3 mi (10.1 km) east of Peña Blanca, and at mile 8.2 (13.2 km).

DRAINAGE AREA.--231 mi² (598 km²).

PERIOD OF RECORD.--March 1970 to current year. Published as "above Cochiti Reservoir" prior to October 1970.

GAGE.--Water-stage recorder. Altitude of gage is 5,505 ft (1,678 m) from topographic map.

EXTREMES.--Current year: Maximum discharge, 1,350 ft³/s (38.2 m³/s) Sept. 20 (gage height, 4.40 ft or 1.341 m), from rating curve extended above 120 ft³/s (340 m³/s) on basis of slope-area measurements at gage heights 5.69 ft (1.734 m) and 9.58 ft (2.920 m); minimum, 0.39 ft³/s (0.011 m³/s) July 2,3.
Period of record: Maximum discharge, 11,400 ft³/s (323 m³/s) July 26, 1971 (gage height, 9.58 ft or 2.920 m), from rating curve extended above 120 ft³/s (3.40 m³/s) on basis of slope-area measurements at gage heights 5.69 ft (1.734 m) and 9.58 ft (2.920 m); no flow July 16-18, 1971.

REMARKS.--Records fair. Surface and ground-water diversions and returns for municipal supply of city of Santa Fe in upper part of basin. Diversions for irrigation of about 400 acres (1.6 km²) above station. See tabulation below for the results of discharge measurements made during year at point adjacent to gage of an unnamed ditch on right bank which diverts water 0.4 mi (0.6 km) upstream and bypasses gage; ditch flow not included in record.

REVISIONS (WATER YEARS).--WRD N. Mex., 1971: 1970(P).

DISCHARGE MEASUREMENTS, IN CUBIC FEET PER SECOND, OF DITCH

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Jan. 14	0	May 6	0.38	July 8	*0.01	Sept. 18	0.25
Feb. 4	0	22	* .27	25	* .10	Oct. 17	0
26	0	June 10	.45	Aug. 12	* .26	Nov. 11	0
Mar. 19	0	July 2	.21	22	* .70	Dec. 12	0
Apr. 8	.77						

*Estimated

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	3.7	8.9	9.9	6.3	7.2	1.3	1.1	2.4	2.9	4.7	7.7	8.8
2	2.3	8.7	9.7	7.2	5.6	1.5	.78	2.2	2.4	4.5	8.0	9.2
3	6.5	8.2	9.2	7.6	5.0	1.4	.82	3.1	2.4	4.8	7.7	9.2
4	7.4	8.0	8.6	7.7	5.3	1.7	1.1	3.1	2.2	5.7	7.4	9.1
5	7.5	7.8	8.5	7.4	4.7	1.4	1.6	12	2.2	5.0	6.3	9.7
6	9.8	7.3	8.1	6.3	4.2	1.3	1.1	3.3	2.6	7.7	7.7	9.3
7	8.9	7.9	8.4	5.4	4.0	1.5	14	4.9	2.3	17	7.7	8.4
8	9.9	7.4	7.8	6.1	3.6	2.1	3.3	4.1	2.1	7.8	8.0	8.6
9	11	7.9	8.2	6.8	3.7	1.6	1.9	3.8	2.5	6.5	8.6	6.8
10	11	8.0	11	6.4	3.5	1.5	1.7	3.3	2.2	6.3	8.3	7.5
11	11	8.7	9.9	6.5	3.3	1.5	.82	2.5	2.1	13	7.8	8.1
12	11	8.9	9.9	6.0	3.6	1.4	30	2.0	2.0	14	7.7	8.0
13	9.4	9.2	9.2	5.7	3.8	1.4	16	1.9	2.1	8.3	8.1	8.0
14	9.5	9.7	8.7	5.6	3.2	1.4	33	2.3	2.5	7.5	7.9	7.8
15	9.4	9.7	8.5	5.2	3.4	1.5	3.6	2.2	3.0	7.3	8.2	7.6
16	9.2	9.3	8.1	5.1	2.8	1.3	3.1	2.2	11	7.2	8.1	7.7
17	9.9	9.2	7.8	5.0	3.9	1.4	3.0	2.1	9.3	6.9	7.8	7.7
18	11	9.3	7.9	4.7	3.3	1.5	2.7	1.9	4.9	7.0	7.4	7.9
19	11	9.2	7.5	4.4	3.0	1.3	2.4	2.0	24	7.3	7.0	8.4
20	10	10	6.9	4.6	2.6	1.0	16	2.0	127	6.9	7.0	8.5
21	15	10	7.5	3.8	2.6	.98	10	2.0	15	6.7	8.3	9.1
22	13	9.7	7.8	4.5	2.4	1.1	4.0	2.0	8.0	6.5	8.2	8.9
23	9.4	9.5	7.5	4.7	2.4	1.3	2.9	2.2	7.0	9.3	8.0	8.8
24	8.7	9.4	5.6	4.5	2.4	1.4	2.4	2.5	6.0	8.3	7.6	8.4
25	8.7	9.3	6.9	4.6	2.7	1.2	1.7	3.3	5.3	7.7	7.2	7.2
26	9.4	9.8	7.0	4.5	2.0	1.2	1.4	3.0	5.5	7.5	7.2	7.4
27	9.5	9.7	6.7	4.4	1.8	1.0	2.2	3.2	4.8	24	7.7	8.9
28	8.7	9.7	6.5	4.2	2.5	1.1	2.8	3.6	4.9	9.1	7.8	7.2
29	8.6	------	7.2	4.2	1.2	1.3	2.7	4.8	5.4	7.7	7.9	9.5
30	8.9	------	7.2	4.2	1.1	1.1	2.3	3.5	4.8	17	8.6	8.5
31	8.9	------	6.6	------	.95	------	2.1	3.4	------	8.0	------	9.2
TOTAL	288.2	250.4	250.3	163.6	101.75	40.68	172.52	98.8	278.4	267.2	232.9	259.4
MEAN	9.30	8.94	8.07	5.45	3.28	1.36	5.57	3.19	9.28	8.62	7.76	8.37
MAX	15	10	11	7.7	7.2	2.1	33	12	127	24	8.6	9.7
MIN	2.3	7.3	5.6	3.8	.95	.98	.78	1.9	2.0	4.5	6.3	6.8
AC-FT	572	497	496	325	202	81	342	196	552	530	462	515

CAL YR 1974 TOTAL 2,404.15 MEAN 6.59 MAX 127 MIN .78 AC-FT 4,770
WTR YR 1974 TOTAL 2,257.15 MEAN 6.18 MAX 127 MIN .78 AC-FT 4,480

PEAK DISCHARGE (BASE, 300 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
7- 7	2045	2.80	350	7-20	2200	3.00	430
7-12	1730	2.93	402	9-19	2230	2.93	402
7-14	1600	3.79	873	9-20	1700	4.40	1,350

08317300 COCHITI LAKE NEAR COCHITI PUEBLO, N. MEX.

LOCATION.--Lat 35°38'11", long 106°19'05", in NW¼NW¼ sec.9, T.16 N., R.6 E., Sandoval County, in Pueblo de Cochiti Grant, on right bank 1.3 mi (2.1 km) north of control tower, 2.5 mi (4.0 km) northeast of Cochiti Pueblo, and at mile 1,589.2 (2,557.0 km).

DRAINAGE AREA.--14,900 mi² (38,590 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, Colo.

PERIOD OF RECORD.--November 1973 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum contents, 5,770 acre-ft (7.11 hm³) Jan. 1 (elevation, 5,266.38 ft or 1,605.193 m); minimum, 3,120 acre-ft (3.85 hm³) July 25 (elevation, 5,258.51 ft or 1,602.794 m).
Period of record: Maximum contents, 5,830 acre-ft (7.19 hm³) Dec. 31, 1973 (elevation, 5,266.54 ft or 1,605.241 m); no storage prior to Nov. 12, 1973.

REMARKS.--Lake is formed by an earthfill dam on Rio Grande and Santa Fe River; dam still under construction when storage began on Nov. 12, 1973. Capacity 498,100 acre-ft (614.0 hm³) between elevation 5,190.0 ft (1,581.91 m) and 5,450.0 ft (1,661.16 m), crest of service spillway. Dead storage 2,220 acre-ft (2.74 hm³) below elevation 5,255.0 ft (1,601.72 m), invert of outlet structure. Lake was created primarily for flood and sediment control. However, a 50,000 acre-ft (61.6 hm³) permanent pool has been authorized for recreational purposes.

COOPERATION.--Records furnished by Corps of Engineers.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Corps of Engineers in 1972)

5,255	2,220
5,260	3,560
5,270	7,250

CONTENTS, IN ACRE-FEET, AT 2400, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	5,730	4,970	4,150	5,580	4,810	4,160	5,680	4,140	3,640	5,640	4,720	4,620
2	5,640	4,980	4,240	5,670	4,710	4,220	5,610	4,240	3,500	5,640	4,730	4,560
3	5,180	4,360	4,270	5,680	4,640	4,190	5,640	4,540	3,340	5,630	4,720	4,660
4	4,840	4,010	4,260	5,540	4,560	4,170	4,230	4,470	3,390	5,640	4,660	4,760
5	4,770	5,940	4,260	5,060	4,700	4,200	4,400	4,610	3,500	5,650	4,700	4,800
6	5,070	5,930	4,250	4,540	4,910	4,520	4,520	4,400	3,580	5,730	4,660	4,870
7	5,080	5,940	4,300	4,300	4,920	4,560	4,510	4,100	3,610	5,850	4,620	4,990
8	5,090	5,880	4,400	4,160	4,880	4,570	4,630	4,070	3,600	5,910	4,600	5,040
9	5,110	5,820	4,440	4,060	4,820	4,970	4,560	3,940	3,540	5,950	4,590	5,040
10	5,120	5,840	4,680	4,000	4,450	4,870	4,200	3,840	3,340	5,890	4,620	4,900
11	5,100	5,840	4,720	4,080	4,540	4,850	5,810	3,810	3,460	4,270	4,650	4,910
12	5,060	5,890	4,680	4,130	4,320	4,770	5,560	3,700	3,450	4,600	4,680	4,840
13	5,020	4,140	4,770	4,080	4,440	4,740	5,350	3,490	3,440	4,720	4,690	4,850
14	5,010	4,030	4,930	3,940	4,510	4,680	5,300	3,660	3,530	4,630	4,710	4,830
15	5,010	5,990	5,130	3,800	5,130	4,600	5,270	4,220	3,580	4,430	4,770	4,820
16	4,940	5,980	5,450	3,680	4,920	4,680	5,290	4,550	3,640	4,320	4,770	4,840
17	5,010	5,970	5,560	3,640	4,570	4,780	5,280	4,360	3,680	4,290	4,700	4,850
18	5,020	5,980	5,130	3,670	4,320	4,770	5,260	4,370	3,750	4,270	4,620	4,870
19	5,020	5,980	4,900	3,700	4,370	4,680	5,280	4,380	3,750	4,220	4,540	4,870
20	5,010	5,980	4,910	3,750	4,500	4,640	5,520	4,390	3,760	4,170	4,510	4,860
21	5,020	4,020	5,100	3,890	4,440	4,610	5,280	4,410	3,750	4,160	4,500	4,920
22	5,060	4,020	5,230	4,080	4,450	4,600	5,280	4,390	3,730	4,120	4,500	4,910
23	5,080	4,000	5,380	4,100	4,400	4,590	5,180	4,380	3,730	4,140	4,480	4,890
24	5,030	3,990	5,400	4,140	4,540	4,590	5,130	4,390	3,740	4,200	4,510	4,820
25	5,000	5,960	5,380	4,290	4,330	4,580	5,120	4,410	3,720	4,290	4,540	4,570
26	5,000	5,950	5,380	4,480	4,340	4,540	5,640	4,390	3,690	4,350	4,540	4,520
27	5,010	5,990	5,460	4,770	4,280	4,330	4,140	4,360	3,670	4,350	4,570	4,580
28	4,980	4,050	5,470	4,760	4,280	3,940	4,340	4,380	3,640	4,420	4,630	4,570
29	4,910	------	5,480	4,810	4,290	3,750	4,390	4,330	3,640	4,420	4,720	4,490
30	4,880	------	5,500	4,890	4,230	3,740	4,370	4,510	3,630	4,520	4,710	4,440
31	4,820	------	5,540	------	4,150	------	4,590	4,450	------	4,560	------	4,410
MAX	5,730	4,980	5,560	5,680	5,130	4,970	4,630	4,610	3,760	4,720	4,770	5,040
MIN	4,770	3,820	4,150	3,640	4,150	3,740	3,120	3,490	3,340	3,630	4,480	4,410
(†)	5,263.80	5,261.53	5,265.77	5,264.00	5,261.85	5,260.57	5,263.11	5,262.75	5,260.23	5,263.05	5,263.49	5,262.61
(‡)	-950	-770	+1,490	-650	-740	-410	+850	-140	-820	+930	+150	-300

CAL YR 1974 MAX 5,730 MIN 3,120 ‡ -1,360
WTR YR 1974 MAX 5,780 MIN 0 ‡ +3,630

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

08317400 RIO GRANDE BELOW COCHITI DAM, N. MEX.

LOCATION.--Lat 35°37'04", long 106°19'26", in SW¼NE¼ sec.17, T.16 N., R.6 E., Sandoval County, in Pueblo de Cochiti Grant, on upstream end of pier near left bank, 1,000 ft (300 m) downstream from Cochiti Dam, 1.4 mi (2.3 km) northeast of Cochiti Pueblo, and at mile 1,589.0 (2,556.7 km).

DRAINAGE AREA.--14,900 mi² (38,590 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, Colo.

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,224.29 ft (1,592.364 m) above mean sea level (Corps of Engineers bench mark). Prior to Nov. 14, 1973, at site 2.4 mi (3.9 km) downstream at altitude 5,210 ft (1,588 m) from topographic map.

EXTREMES.--Current year: Maximum discharge, 1,730 ft³/s (49.0 m³/s) Jan. 1 (gage height, 4.42 ft or 1.347 m); minimum, 19 ft³/s (0.54 m³/s) Oct. 21.

Period of record: Maximum discharge 10,300 ft³/s (292 m³/s) July 26, 1971 (gage height, 7.90 ft or 2.408 m), from rating curve extended above 2,600 ft³/s (73.6 m³/s); minimum, 8.1 ft³/s (0.23 m³/s) Nov. 12, 1973, result of closure of Cochiti Dam.

The flood of May 15, 1941, reached a discharge of 23,400 ft³/s (663 m³/s) at a nearby site upstream from mouth of Santa Fe River. The flood of May 23, 1920, probably exceeded 23,400 ft³/s (663 m³/s), and is likely the highest since 1905.

REMARKS.--Records good. Discharges at present site include flow of Santa Fe River which will eventually be intercepted by Cochiti Dam and released through the combined outlet works. Flow regulated by Cochiti Dam since Nov. 12, 1973. Diversions above station for irrigation of about 620,000 acres (2,510 km²) in Colorado and about 81,000 acres (328 km²) in New Mexico. Cochiti eastside main canal, on left bank, and Sili main canal, on right bank, head at Cochiti Dam and bypass gage for irrigation of about 6,000 acres (24.3 km²) below station; see tabulation below for monthly and yearly diversion, as furnished by Bureau of Reclamation. Water quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1,690	1,210	651	1,350	1,000	641	423	733	288	98	435	458
2	1,620	1,250	650	1,390	939	662	412	641	243	96	451	438
3	1,480	1,110	671	1,440	900	672	382	733	183	100	459	437
4	1,260	814	674	1,420	851	665	515	833	112	99	444	466
5	1,140	709	684	1,250	858	653	763	852	78	99	445	481
6	1,280	694	678	954	980	722	859	674	89	134	444	493
7	1,330	693	674	771	1,060	808	876	517	96	233	435	513
8	1,340	680	699	696	1,030	626	859	402	98	210	427	529
9	1,360	652	720	651	1,010	920	862	408	87	157	427	531
10	1,320	647	775	620	910	993	750	351	75	152	428	521
11	1,290	650	866	608	756	951	489	319	67	227	437	502
12	1,250	656	846	652	733	931	429	283	58	296	444	493
13	1,240	571	839	660	763	902	316	277	55	337	449	483
14	1,260	714	912	617	782	881	283	324	64	329	452	483
15	1,270	695	983	565	983	845	254	527	77	298	466	475
16	1,250	670	1,140	511	1,130	852	245	616	120	251	471	475
17	1,250	660	1,260	471	938	921	243	658	155	222	465	484
18	1,260	658	1,200	461	754	948	234	660	114	219	448	488
19	1,280	661	1,040	463	719	932	232	657	136	212	431	494
20	1,270	652	985	488	746	888	297	655	253	205	419	492
21	1,270	659	1,040	508	728	875	315	668	139	206	418	498
22	1,300	660	1,120	580	770	848	248	664	131	202	418	501
23	1,310	660	1,180	621	764	838	205	657	127	202	418	496
24	1,300	650	1,230	620	729	838	174	665	128	206	419	489
25	1,280	642	1,250	652	720	820	164	678	126	223	428	449
26	1,270	636	1,240	721	719	802	229	682	116	242	428	414
27	1,270	644	1,260	835	724	772	524	680	107	256	425	420
28	1,270	656	1,290	936	685	611	658	693	104	259	434	428
29	1,230	------	1,290	944	696	470	719	726	101	262	458	411
30	1,220	------	1,300	995	686	434	729	464	99	268	464	402
31	1,160	------	1,320	------	658	------	774	365	------	330	------	394
TOTAL	40,320	20,256	30,467	23,430	25,721	23,921	14,464	18,042	3,626	6,630	13,187	14,637
MEAN	1,301	723	983	781	830	797	467	582	121	214	440	472
MAX	1,690	1,250	1,320	1,440	1,130	993	876	833	288	337	471	531
MIN	1,140	571	650	461	658	434	164	277	55	96	418	394
AC-FT	79,970	40,170	60,430	46,470	51,020	47,450	28,690	35,790	7,190	13,150	26,160	29,030
(†)	0	0	6,510	6,800	8,080	8,130	7,580	7,850	7,200	6,480	0	0
(‡)	0	0	1,040	2,520	2,870	3,030	2,850	2,850	2,410	2,500	0	0

CAL YR 1974 TOTAL 234,698 MEAN 643 MAX 1,690 MIN 55 AC-FT 465,500 † 58,630 ‡ 20,060
WTR YR 1974 TOTAL 295,836 MEAN 811 MAX 1,690 MIN 44 AC-FT 586,800 † 57,510 ‡ 19,870

† Diversion, in acre-ft, by Cochiti eastside main canal at head.
‡ Diversion, in acre-ft, by Sili main canal at head.

08317850 GALISTEO CREEK ABOVE GALISTEO RESERVOIR, N. MEX.

LOCATION.--Lat 35°26'58", long 106°09'08", in NE¼NW¼ sec.13, T.14 N., R.7 E., Santa Fe County, in Mesita de Juana Lopez Grant, on right bank at site of former railroad bridge at Waldo, 800 ft (240 m) downstream from Waldo Gulch, 1.8 mi (2.9 km) northwest of Cerrillos, 4.0 mi (6.4 km) upstream from Galisteo Dam, and at mile 15.8 (25.4 km).

DRAINAGE AREA.--567 mi² (1,469 km²).

PERIOD OF RECORD.--May 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,595 ft (1,705 m) from topographic map.

EXTREMES.--Current year: Maximum discharge, 1,660 ft³/s (47.0 m³/s) Aug. 27 (gage height, 4.75 ft or 1.448 m), from rating curve extended above 80 ft³/s (2.27 m³/s); no flow part of each day Sept. 7, 8.
Period of record: Maximum discharge, 7,460 ft³/s (211 m³/s) July 26, 1971 (gage height, 8.00 ft or 2.438 m), from rating curve extended above 200 ft³/s (5.66 m³/s); no flow part of each day June 6-8, 18, Sept. 2-9, 24, 1973, Sept. 7, 8, 1974.

REMARKS.--Records poor. Diversions for irrigation of about 50 acres (202,000 m²) above station.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	.79	2.6	2.4	1.1	4.4	.60	.19	2.2	.14	.29	4.7	1.4
2	1.6	2.4	2.6	1.9	1.7	.70	.19	1.2	.14	.29	3.2	1.6
3	2.2	2.1	2.2	1.3	1.1	1.0	.22	2.2	.14	.29	2.9	1.6
4	1.9	2.1	1.9	1.2	.98	.70	.29	1.3	.22	.42	2.4	1.6
5	1.9	2.1	1.6	1.1	.98	1.0	.47	43	.19	.57	1.7	1.6
6	2.1	1.7	1.9	1.1	.88	.60	.47	2.1	.22	2.1	1.6	1.5
7	2.2	1.6	2.1	.71	.79	.37	38	.64	.03	9.7	1.6	1.4
8	2.4	1.4	1.9	.88	.79	.33	3.8	.71	.01	2.1	1.7	1.2
9	2.6	2.4	1.9	.98	.71	.33	.79	.58	.02	1.1	2.1	1.1
10	2.2	3.2	5.0	.88	.71	.29	.14	.37	.03	.98	1.7	1.0
11	2.1	3.8	3.2	.88	.47	.33	.08	.33	.03	93	1.4	1.1
12	2.2	2.9	2.6	.79	.42	.29	.10	.33	.04	31	1.6	1.1
13	2.2	3.5	2.6	.64	.37	.25	5.1	.37	.06	3.5	1.4	1.1
14	2.4	4.7	2.6	.71	.29	.25	83	.33	.19	1.4	1.4	1.0
15	2.9	3.2	2.4	.98	.33	.25	30	.33	1.6	.88	1.6	1.1
16	2.9	2.9	2.4	.88	.42	.22	3.3	.29	32	.79	1.6	1.4
17	3.5	3.5	2.2	.88	.42	.22	1.3	.25	157	.71	1.6	1.6
18	4.7	3.8	2.6	.79	.42	.22	11	.25	3.8	.79	1.7	1.3
19	3.2	3.2	2.4	.71	.47	.25	11	.25	2.4	.64	1.6	1.6
20	2.9	4.1	2.1	.79	.42	.22	22	.84	40	.71	1.6	1.6
21	3.5	4.4	1.6	1.1	.42	.19	11	.66	1.5	3.1	1.7	2.1
22	2.6	4.4	1.4	1.2	.47	.22	.88	.25	.98	.98	1.8	2.1
23	2.4	4.1	1.3	1.2	.52	.22	.33	.29	.79	61	1.6	1.3
24	1.9	3.8	.88	1.3	.70	.25	.22	.58	.64	2.6	1.5	1.0
25	2.2	3.5	1.2	1.7	.80	.25	.19	28	.52	1.2	1.6	1.0
26	2.6	2.6	1.2	1.6	1.3	.25	3.2	1.1	.42	1.1	1.6	1.1
27	3.8	2.2	1.3	.79	1.3	.25	1.9	139	.29	64	1.6	1.2
28	2.1	2.1	1.2	.98	1.0	.19	.64	13	.25	19	1.4	1.4
29	2.6	------	1.1	1.1	.80	.19	55	2.9	.25	5.3	1.1	1.6
30	2.9	------	.98	4.3	1.0	.22	44	.19	.29	18	1.2	1.7
31	2.6	------	.98	------	1.0	------	1.9	.14	------	8.5	------	1.3
TOTAL	78.09	84.3	61.74	34.47	26.38	10.65	330.70	243.65	244.19	335.84	54.2	42.7
MEAN	2.52	3.01	1.99	1.15	.85	.36	10.7	7.86	8.14	10.8	1.81	1.38
MAX	4.7	4.7	5.0	4.3	4.4	1.0	83	139	157	93	4.7	2.1
MIN	.79	1.4	.88	.64	.29	.19	.08	.14	.01	.29	1.1	1.0
AC-FT	155	167	122	68	52	21	656	483	484	666	108	85

CAL YR 1974 TOTAL 1,546.91 MEAN 4.24 MAX 157 MIN .01 AC-FT 3,070
WTR YR 1974 TOTAL 1,274.43 MEAN 3.49 MAX 157 MIN .01 AC-FT 2,530

PEAK DISCHARGE (BASE, 2,500 FT³/S).--No peak above base.

08317900 GALISTEO RESERVOIR NEAR CERRILLOS, N. MEX.

LOCATION.--Lat 35°27'44", long 106°12'30", in NW¼ sec.9, T.14 N., R.7 E., Santa Fe County, in Mesita de Juana Lopez Grant, at Galisteo Dam on Galisteo Creek, 5.0 mi (8.0 km) northwest of Cerrillos, and at mile 11.8 (19.0 km).

DRAINAGE AREA.--596 mi² (1,544 km²).

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder above elevation 5,500.3 ft (1,676.49 m), nonrecording below. Datum of gage is at mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents, 462 acre-ft (570,000 m³) Aug. 27 (elevation, 5,509.95 ft or 1,679.433 m), from floodmarks; no storage most of time.
Period of record: Maximum contents, 2,510 acre-ft (3.09 hm³) July 26, 1971 (elevation, 5,517.00 ft or 1,681.582 m); no storage most of time.

REMARKS.--Reservoir is formed by an earthfill dam, completed Oct. 11, 1970. Capacity 88,990 acre-ft (110 hm³) between elevations 5,496.0 ft (1,675.18 m), sill of ungated outlet conduit, and 5,608.0 ft (1,709.32 m), crest of uncontrolled spillway. No dead storage. Reservoir is used for flood control.

COOPERATION.--Records furnished by Corps of Engineers.

NOTE.--No contents at 2400 hours each day during 1974 calendar year.

08317950 GALISTEO CREEK BELOW GALISTEO DAM, N. MEX.

LOCATION.--Lat 35°27'56", long 106°12'57", in SE¼SE¼ sec.5, T.14 N., R.7 E., Santa Fe County, in Mesita de Juana Lopez Grant, on right bank, 0.6 mi (1.0 km) downstream from Galisteo Dam, 5.5 mi (8.8 km) northwest of Cerrillos, and at mile 11.2 (18.0 km).

DRAINAGE AREA.--597 mi² (1,546 km²).

PERIOD OF RECORD.--March 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,450 ft (1,661 m) from topographic map.

EXTREMES.--Current year: Maximum discharge, 786 ft³/s (22.3 m³/s) Sept. 17 (gage height, 5.00 ft or 1.524 m); no flow many days. Period of record: Maximum discharge, 2,000 ft³/s (56.6 m³/s) July 27, 1971 (gage height, 7.00 ft or 2.134 m); maximum gage height, 7.33 ft (2.234 m) July 20, 1971; no flow many days.

REMARKS.--Records poor. Flow regulated by Galisteo Reservoir 0.6 mi (1.0 km) upstream. Diversions for irrigation of about 50 acres (202,000 m²) above station. Water quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1.4	1.7	.72	0	12		0	0	0	0	7.1	.40
2	1.5	1.5	.31	1.6	2.0		0	0	0	0	4.3	.50
3	.80	1.1	.16	.78	.50		0	0	0	0	3.2	.50
4	1.0	1.1	.01	.21	.02		0	.05	0	0	2.9	.50
5	1.2	1.1	0	.40	0		0	18	0	0	2.9	.50
6	1.4	1.0	0	.41	0		0	2.0	0	1.1	1.3	.47
7	1.3	.90	0	0	0		40	.51	0	12	.98	.45
8	1.3	.80	0	0	0		1.4	.03	0	3.7	1.1	.42
9	1.4	1.2	0	.09	0		0	.21	0	1.5	1.6	.40
10	1.3	2.1	5.5	.03	0		0	0	0	1.0	.98	.40
11	1.2	2.5	2.7	.07	0		0	0	0	84	.72	.43
12	1.3	1.9	1.4	.02	0		1.0	0	0	40	.61	.42
13	1.3	2.4	1.3	0	0		1.2	0	0	5.0	.72	.40
14	1.5	3.2	1.1	0	0		62	0	0	1.5	.61	.37
15	1.9	2.3	.98	.06	0		25	0	.79	1.2	.61	.40
16	2.0	2.0	.72	.09	0		2.1	0	24	1.0	.61	.45
17	2.5	2.3	.72	.05	0		1.6	0	147	.85	.50	.50
18	4.0	2.7	.72	.03	0		66	0	4.6	.23	.50	.45
19	2.2	2.2	1.1	.03	0		15	0	1.1	.13	.40	.50
20	2.1	3.0	.85	0	0		24	0	30	.10	.40	.50
21	2.6	3.3	.58	0	0		23	0	4.4	1.5	.50	.60
22	1.7	3.3	.25	0	0		10	0	.30	1.6	.72	.60
23	.92	3.1	.13	0	0		3.2	0	0	56	.50	.43
24	.86	2.7	.10	0	0		0	0	0	9.0	.50	.33
25	.80	2.5	.07	.12	0		0	24	0	2.0	.49	.23
26	1.0	1.4	.05	.12	0		4.4	4.2	0	1.0	.48	.35
27	2.7	1.4	.05	0	0		6.5	96	0	60	.47	.40
28	1.1	.98	.03	0	0		.85	30	0	20	.44	.40
29	1.5	------	0	.01	0		34	5.1	0	7.1	.30	.45
30	1.8	------	0	1.1	0		42	.98	0	19	.35	.48
31	1.7	------	0	------	0	------	0	0	------	12	------	.40
TOTAL	49.28	55.68	19.55	5.22	14.52	0	363.25	180.88	212.19	340.51	36.79	13.63
MEAN	1.59	1.99	.63	.17	.47	0	11.7	5.83	7.07	11.0	1.23	.44
MAX	4.0	3.3	5.5	1.6	12	0	66	96	147	84	7.1	.60
MIN	.80	.80	0	0	0	0	0	0	0	0	.30	.23
AC-FT	98	110	39	10	29	0	721	359	421	675	73	27

CAL YR 1974 TOTAL 1,291.50 MEAN 3.54 MAX 147 MIN 0 AC-FT 2,560
WTR YR 1974 TOTAL 972.12 MEAN 2.66 MAX 147 MIN 0 AC-FT 1,930

08319000 RIO GRANDE AT SAN FELIPE, N. MEX.

LOCATION.—Lat 35°26'39", long 106°26'23", in SW¼NW¼ sec.17, T.14 N., R.5 E., Sandoval County, in San Felipe Grant, on right bank 200 ft (61 m) downstream from Tonque Arroyo, 1,700 ft (520 m) upstream from steel highway bridge, 0.8 mi (1.3 km) upstream from San Felipe Pueblo, 11 mi (18 km) northeast of Bernalillo, and at mile 1,572.7 (2,530.5 km).

DRAINAGE AREA.—16,100 mi² (41,670 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, Colo.

PERIOD OF RECORD.—October 1925 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.—Water-stage recorder. Datum of gage is 5,115.73 ft (1,559.275 m) above mean sea level. Prior to Sept. 27, 1957, at site 1,800 ft (550 m) downstream at datum 5.35 ft (1.63 m) lower, except period May 16, 1945 to Sept. 30, 1946 when it was 5.94 ft (1.81 m) lower than present datum.

AVERAGE DISCHARGE.—49 calendar years, 1,361 ft³/s (38.54 m³/s), 986,000 acre-ft/yr (1.22 km³/yr); 20 calendar years (1955-74), 1,125 ft³/s (31.86 m³/s), 815,100 acre-ft/yr (1.01 km³/yr).

EXTREMES.—Current year: Maximum discharge, 1,810 ft³/s (51.3 m³/s) Jan. 1 (gage height, 4.39 ft or 1.338 m); minimum, 104 ft³/s (2.95 m³/s) Sept. 14.
Period of record: Maximum discharge, 27,300 ft³/s (773 m³/s) June 26, 1937 (gage height, 11.13 ft or 3.392 m, site and datum then in use), from rating curve extended above 15,000 ft³/s (425 m³/s); minimum, 32 ft³/s (0.906 m³/s) July 7, 1934.
Other major floods occurred in 1874, 1884, and 1904.

REMARKS.—Records good. Diversions for irrigation of about 705,000 acres (2,850 km²) above station, some of which is irrigated below by Cochiti eastside main canal and San Felipe eastside acequia, which bypass station. Flow partly regulated by El Vado Reservoir (see sta 08285000) and Abiquiu Reservoir (see sta 08286900). Since April 1972 flow affected by release of transmountain water from Heron Reservoir (see sta 08284510).

REVISIONS (WATER YEARS).—WSP 1312: 1926-30, WSP 1392: 1937(M), WSP 1512: 1931-32, 1933(M), 1934-36, 1938(M).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1,710	1,310	773	1,530	1,060	717	505	970	365	156	465	488
2	1,720	1,350	802	1,570	1,020	742	495	810	294	149	494	467
3	1,730	1,280	846	1,610	995	763	461	891	244	156	498	456
4	1,680	976	819	1,600	955	748	523	1,040	225	167	490	478
5	1,470	807	845	1,490	942	741	807	1,050	230	159	477	504
6	1,330	758	835	1,220	1,040	782	971	910	184	185	484	515
7	1,430	747	822	1,000	1,130	896	1,070	685	179	280	468	542
8	1,450	729	827	881	1,130	980	1,060	540	193	302	458	569
9	1,470	698	862	810	1,120	1,010	589	508	185	234	449	580
10	1,450	679	927	785	1,070	1,150	1,000	394	150	247	444	579
11	1,410	673	972	785	887	1,090	715	404	143	273	447	551
12	1,330	683	957	759	868	1,090	585	357	135	465	456	543
13	1,320	582	942	804	878	1,070	490	309	129	426	461	529
14	1,310	789	1,010	781	899	1,040	383	338	133	426	469	531
15	1,330	773	1,080	708	1,020	993	438	449	164	400	479	517
16	1,340	752	1,220	644	1,260	900	333	663	163	356	487	508
17	1,340	736	1,360	589	1,130	1,000	323	726	364	305	484	518
18	1,370	742	1,390	562	931	1,040	336	754	203	288	471	526
19	1,400	752	1,220	558	846	1,030	347	765	210	272	449	528
20	1,390	756	1,170	586	865	974	357	773	266	269	432	528
21	1,420	765	1,190	617	827	962	410	789	302	262	424	524
22	1,470	776	1,290	708	886	950	347	795	235	265	422	533
23	1,450	782	1,350	765	878	929	269	815	252	262	427	531
24	1,470	776	1,420	795	858	932	228	821	202	286	422	527
25	1,450	770	1,430	756	830	936	206	830	198	281	432	494
26	1,450	757	1,430	784	834	908	209	844	187	302	434	448
27	1,460	755	1,430	802	815	912	514	840	177	355	435	438
28	1,460	768	1,460	950	779	770	746	908	167	352	498	443
29	1,430	------	1,480	950	768	590	866	864	167	344	471	432
30	1,370	------	1,500	1,020	778	536	980	644	159	348	491	421
31	1,310	------	1,500	------	738	------	950	478	------	388	------	410
TOTAL	44,720	22,721	35,157	27,317	29,030	27,181	17,510	21,959	6,185	8,958	14,818	15,655
MEAN	1,443	811	1,134	911	936	906	565	708	206	289	461	505
MAX	1,730	1,350	1,500	1,610	1,260	1,150	1,070	1,050	365	465	498	580
MIN	1,310	582	773	558	738	536	206	309	129	149	422	410
AC-FT	88,700	45,070	69,730	54,180	57,580	53,910	34,730	43,560	12,270	17,770	27,410	31,050
(†)	0	0	2,360	3,450	3,720	3,950	3,680	3,840	3,700	3,240	0	0

CAL YR 1974 TOTAL 270,211 MEAN 740 MAX 1,730 MIN 129 AC-FT 536,000
WTR YR 1974 TOTAL 330,966 MEAN 907 MAX 1,740 MIN 116 AC-FT 656,500

PEAK DISCHARGE (BASE, 5,000 FT³/S).—NO PEAK ABOVE BASE.

(†) MONTHLY DIVERSION, IN ACRE-FT, OF COCHITI EASTSIDE CANAL; RECORD OF THIS FLOW IS FURNISHED BY BUREAU OF RECLAMATION.

08321500 JEMEZ RIVER BELOW EAST FORK, NEAR JEMEZ SPRINGS, N. MEX.

LOCATION.--Lat 35°49'39", long 106°38'52", in NW¼ sec.5, T.18 N., R.3 E., Sandoval County, on left bank 0.4 mi (0.6 km) downstream from East Fork and boundary of Santa Fe National Forest, 5.3 mi (8.5 km) northeast of Jemez Springs, and at mile 43.0 (69.2 km).

DRAINAGE AREA.--173 mi² (448 km²).

PERIOD OF RECORD.--July 1949 to October 1950 (gaged separately above East Fork), May 1951 to September 1957 (irrigation seasons only), March 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,702.7 ft (2,042.98 m) above mean sea level. Prior to May 1951, at sites 3,000 ft (900 m) upstream, at different datums and on separate channels.

AVERAGE DISCHARGE.--16 calendar years, 27.8 ft³/s (0.787 m³/s), 20,140 acre-ft/yr (24.8 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 203 ft³/s (5.75 m³/s) Mar. 27 (gage height, 2.40 ft or 0.732 m); minimum, 3.4 ft³/s (0.096 m³/s) Nov. 27.
Period of record: Maximum discharge recorded, 2,500 ft³/s (71.4 m³/s) Apr. 21, 1958 (gage height, 7.35 ft or 2.240 m), from rating curve extended above 1,100 ft³/s (31.2 m³/s) on basis of slope-area and contracted-opening measurements of peak flow; minimum, 0.91 ft³/s (0.026 m³/s) Jan. 24, 1969, result of freezeup.

REMARKS.--Records good except for winter months, which are poor. No diversion above station.

REVISIONS (WATER YEARS).--WSP 1512: 1951-54(M), 1955, 1956(M). WSP 1712: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	12	14	20	57	38	12	11	16	11	12	25	10
2	11	13	21	44	45	12	11	20	9.9	12	23	12
3	8.5	13	21	17	33	13	11	29	9.9	12	26	14
4	9.0	12	20	19	29	13	10	41	9.8	12	19	12
5	9.5	12	20	38	28	12	11	26	8.9	12	21	11
6	9.7	11	23	66	26	12	12	18	9.0	16	21	11
7	10	12	24	113	28	12	14	20	9.2	26	19	11
8	10	12	23	64	28	14	17	20	9.9	19	18	10
9	10	13	23	55	26	13	15	18	10	14	26	8.0
10	10	13	22	48	26	13	13	15	9.3	14	29	9.0
11	9.8	13	19	34	23	11	12	13	8.7	23	19	10
12	9.0	12	17	34	21	11	12	13	8.6	23	17	10
13	10	13	19	28	20	12	16	12	9.3	25	16	10
14	11	13	19	27	20	12	15	12	11	21	15	9.5
15	11	13	21	26	19	11	15	12	13	17	15	9.0
16	11	13	27	28	18	12	14	11	17	15	15	10
17	12	13	31	29	17	11	13	12	18	14	13	10
18	13	13	35	30	17	11	13	12	15	14	13	10
19	12	12	36	32	17	11	17	12	14	13	13	10
20	13	15	60	30	17	11	23	12	14	13	11	9.5
21	16	14	105	27	16	11	20	12	14	13	11	9.5
22	14	12	99	27	16	9.9	19	12	14	17	12	10
23	10	14	89	27	16	10	15	14	14	26	13	9.5
24	11	12	106	28	15	10	14	13	14	22	10	8.0
25	12	13	113	29	15	11	13	12	13	17	10	8.5
26	13	15	136	33	14	11	14	12	13	16	11	9.0
27	13	17	143	33	12	10	23	12	12	21	8.0	10
28	11	19	125	31	12	11	20	15	12	29	9.5	10
29	10	------	130	30	12	11	20	13	12	38	8.5	10
30	11	------	129	30	12	10	22	12	12	52	8.0	10
31	14	------	112	------	12	------	18	11	------	35	------	10
TOTAL	345.7	371	1,786	1,114	648	343.9	473	482	355.5	613	475.0	310.5
MEAN	11.2	13.3	57.6	37.1	20.9	11.5	15.3	15.5	11.9	19.8	15.8	10.0
MAX	16	19	143	113	45	14	23	41	18	52	29	14
MIN	8.5	11	17	17	12	9.9	10	11	8.6	12	8.0	8.0
AC-FT	686	736	3,540	2,210	1,290	682	938	956	705	1,220	942	616

CAL YR 1974 TOTAL 7,217.6 MEAN 20.0 MAX 143 MIN 8.0 AC-FT 14,510
WTR YR 1974 TOTAL 7,188.1 MEAN 19.7 MAX 143 MIN 8.5 AC-FT 14,260

PEAK DISCHARGE (BASE, 100 FT³/S).--MAR. 27 (0130) 203 FT³/S (2.40 FT.); APR. 7 (0400) 163 FT³/S (2.19 FT.).

08323000 RIO GUADALUPE AT BOX CANYON, NEAR JEMEZ, N. MEX.

LOCATION.—Lat 35°43'52", long 106°45'44", Sandoval County, in Cañon de San Diego Grant, on left bank at downstream end of Guadalupe Box Canyon, 4.8 mi (7.7 km) upstream from mouth, 5 mi (8 km) southwest of Jemez Springs, and 7 mi (11 km) north of Jemez.

DRAINAGE AREA.—235 mi² (609 km²).

PERIOD OF RECORD.—May 1951 to September 1957 (irrigation seasons only), May 1958 to current year.

GAGE.—Water-stage recorder. Datum of gage is 6,015.5 ft (1,833.52 m) above mean sea level.

AVERAGE DISCHARGE.—16 calendar years, 34.8 ft³/s (0.986 m³/s), 25,210 acre-ft/yr (31.1 hm³/yr).

EXTREMES.—Current year: Maximum discharge, 164 ft³/s (4.64 m³/s) Apr. 27 (gage height, 4.51 ft or 1.375 m); minimum, 5.1 ft³/s (0.144 m³/s) Feb. 24.
Period of record: Maximum discharge determined, 1,440 ft³/s (40.8 m³/s) Apr. 21, 1958 (gage height, 7.6 ft or 2.32 m, from floodmarks), from rating curve extended above 750 ft³/s (21.2 m³/s) on basis of slope-area measurements of peak flow; minimum, 2.8 ft³/s (0.079 m³/s) Dec. 9, 1967.
The flood of May 13 or 14, 1941, exceeded all other observed floods at this location. The discharge for that flood was computed to be 3,190 ft³/s (90.3 m³/s) at a downstream station, Rio Guadalupe near Jemez Springs (drainage area, 239 mi² or 619 km²).

REMARKS.—Records good except those for winter period, and June, which are poor. Flow regulated to some extend since October 1958 by San Gregorio Reservoir on Clear Creek, 24 mi (39 km) upstream (capacity, 345 acre-ft or 0.425 hm³), and by transmountain diversion into Rio Puerco Basin for irrigation of about 300 acres (121 hm²) in vicinity of Cuba.

REVISIONS.—WSP 1712: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	13	17	15	46	75	15	8.7	24	8.9	8.0	20	13
2	12	15	17	45	86	15	8.9	23	8.4	7.5	20	14
3	10	14	17	34	95	16	8.7	24	8.2	7.5	21	15
4	10	14	18	36	98	16	8.2	24	7.8	7.5	19	15
5	12	14	16	34	87	14	8.7	25	7.5	7.5	18	16
6	13	13	18	40	74	14	9.4	19	7.3	9.4	20	16
7	13	14	21	45	67	15	11	16	7.3	14	18	15
8	16	14	21	41	70	15	13	17	6.4	17	17	16
9	17	15	20	45	67	14	12	16	6.2	12	19	10
10	16	15	23	46	70	14	11	15	7.1	12	19	12
11	14	15	22	42	71	13	9.4	13	6.8	13	17	13
12	13	14	21	39	66	12	8.9	13	6.6	16	16	13
13	17	14	22	36	63	12	9.2	13	6.8	21	16	12
14	16	13	24	34	58	12	8.9	11	7.1	19	16	11
15	14	13	28	36	53	11	12	11	6.6	14	16	11
16	16	13	33	38	50	12	12	10	6.4	12	16	13
17	16	12	45	46	46	11	11	9.7	7.8	10	15	13
18	16	13	51	53	43	10	11	10	9.7	10	16	13
19	15	12	52	61	39	9.7	13	9.4	10	9.2	16	12
20	15	13	52	56	34	9.7	20	9.4	11	8.9	15	10
21	19	11	49	55	32	9.2	22	9.4	10	8.9	14	12
22	17	12	45	56	29	8.9	23	9.2	11	9.7	15	13
23	15	12	42	67	28	8.9	19	9.2	11	12	16	13
24	13	12	39	72	26	9.2	16	9.7	10	15	14	9.0
25	15	14	37	77	24	9.2	14	11	9.7	15	13	10
26	17	15	39	96	22	8.9	14	10	9.2	12	13	11
27	15	14	42	117	19	9.2	14	9.2	9.2	15	13	11
28	13	14	42	96	21	8.7	15	14	8.7	19	13	12
29	16	------	45	89	23	8.4	15	16	8.4	22	12	12
30	15	------	49	89	16	8.7	25	13	8.2	27	11	11
31	16	------	55	------	14	------	25	10	------	24	------	11
TOTAL	455	381	1,022	1,667	1,566	349.7	417.0	433.2	249.3	415.1	484	388.0
MEAN	14.7	13.6	33.0	55.6	50.5	11.7	13.5	14.0	8.31	13.4	16.1	12.5
MAX	19	17	55	117	98	16	25	25	11	27	21	16
MIN	10	11	15	34	14	8.4	8.2	9.2	6.2	7.5	11	9.0
AC-FT	902	756	2,030	3,310	3,110	694	827	859	494	823	960	770

CAL YR 1974 TOTAL 7,827.3 MEAN 21.4 MAX 117 MIN 6.2 AC-FT 15,530
WTR YR 1974 TOTAL 7,660.2 MEAN 21.0 MAX 117 MIN 6.2 AC-FT 15,190

PEAK DISCHARGE (BASE, 100 FT³/S).— APR. 27 (0200) 164 FT³/S (4.51 FT.).

08324000 JEMEZ RIVER NEAR JEMEZ, N. MEX.

LOCATION.--Lat 35°39'42", long 106°44'34", Sandoval County, in Cañon de San Diego Grant, on left bank 0.7 mi (1.1 km) downstream from Rio Guadalupe, 3.5 mi (5.6 km) north of Jemez, and at mile 29.5 (47.5 km).

DRAINAGE AREA.--470 mi² (1,220 km²).

PERIOD OF RECORD.--June 1936 to May 1941, August 1949 to October 1950, May 1951 to September 1952 (irrigation seasons only), March 1953 to current year. Monthly discharge only for some periods, published in WSP 1732. Published as Jemez Creek near Jemez, 1936-41.

GAGE.--Water-stage recorder. Concrete control since Dec. 6, 1965. Datum of gage is 5,622.3 ft (1,713.68 m) above mean sea level. June 22, 1936 to Mar. 11, 1937, at site 60 ft (20 m) upstream at datum 0.50 ft (0.152 m) higher. Mar. 12, 1937, to July 8, 1938, at present site at datum 0.7 ft (0.21 m) higher. July 9, 1938, to May 6, 1941, at site 60 ft (20 m) upstream at datum 0.70 ft (0.213 m) higher.

AVERAGE DISCHARGE.--25 calendar years (1937-40, 1954-74), 68.7 ft³/s (1.946 m³/s), 49,770 acre-ft/yr (61.4 hm³/yr); 20 calendar years (1955-74), 68.6 ft³/s (1.943 m³/s) 49,700 acre-ft/yr (61.3 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,680 ft³/s (47.6 m³/s) Oct. 10 (gage height, 7.50 ft or 2.286 m); minimum, 8.4 ft³/s (0.24 m³/s) Dec. 24.
Period of record: Maximum discharge, 5,900 ft³/s (167 m³/s) Apr. 21, 1958, from rating curve extended above 2,200 ft³/s (62.3 m³/s) on basis of contracted-opening measurement; maximum gage height, 8.6 ft or 2.62 m, May 6, 1941, present datum; minimum, 4.2 ft³/s (0.12 m³/s) Jan. 5, 1972, result of freezeup.
Maximum flood since at least 1890 occurred between May 6 and 15, 1941, after gage was destroyed (discharge probably exceeded 6,000 ft³/s or 170 m³/s), from information by local residents.

REMARKS.--Records good except those for winter months, which are fair. Diversions for irrigation of about 300 acres (121 hm²) above station.

REVISIONS (WATER YEARS).--WSP 1712: Drainage area. WSP 1923, Vol. 2: 1957-58.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	19	29	31	113	118	19	12	40	15	14	50	21
2	18	30	35	102	135	20	11	42	13	14	44	23
3	18	26	34	70	139	20	12	45	13	12	45	27
4	16	26	34	61	140	20	12	47	13	12	41	39
5	22	28	31	70	123	20	12	48	13	14	39	28
6	23	21	32	100	103	19	12	45	13	15	42	28
7	24	25	35	154	97	20	14	35	14	27	40	25
8	25	26	35	112	96	20	17	34	14	31	37	23
9	25	25	36	98	92	19	19	32	14	25	46	16
10	25	28	42	95	90	21	17	29	12	142	47	19
11	20	26	35	84	91	19	13	21	12	39	40	23
12	21	28	35	78	85	18	13	18	11	38	34	25
13	27	28	35	68	76	16	14	19	14	42	32	23
14	25	28	33	63	71	16	18	18	15	41	31	22
15	23	27	36	63	63	19	17	15	15	34	31	20
16	24	27	41	66	57	20	18	16	16	29	30	21
17	26	28	51	76	55	17	14	14	19	26	29	22
18	28	30	61	83	50	14	16	18	17	24	30	22
19	27	26	65	90	47	14	17	19	16	24	31	21
20	26	29	68	87	42	13	19	20	19	22	29	19
21	33	26	105	81	37	13	27	20	18	22	27	19
22	32	22	114	84	36	12	27	18	18	25	29	21
23	22	25	106	96	32	12	25	19	18	41	31	24
24	23	21	114	104	27	13	23	22	18	37	28	15
25	24	22	124	110	28	13	24	19	18	33	26	19
26	31	26	144	152	27	13	22	18	17	30	25	25
27	31	29	170	171	22	13	23	19	14	32	22	23
28	23	29	153	141	23	12	26	24	14	41	23	25
29	27	-------	162	129	27	12	51	27	14	50	29	25
30	27	-------	168	129	19	12	39	26	14	68	17	22
31	28	-------	163	------	18	------	40	19	------	61	------	22
TOTAL	763	741	2,328	2,910	2,066	489	624	806	451	1,065	1,005	707
MEAN	24.6	26.5	75.1	97.0	66.6	16.3	20.1	26.0	15.0	34.4	33.5	22.8
MAX	33	30	170	171	140	21	51	48	19	142	50	39
MIN	16	21	31	61	18	12	11	14	11	12	17	15
AC-FT	1,510	1,470	4,620	5,770	4,100	970	1,240	1,600	895	2,110	1,990	1,400

CAL YR 1974 TOTAL 13,955 MEAN 38.2 MAX 171 MIN 11 AC-FT 27,680
WTR YR 1974 TOTAL 13,595 MEAN 37.2 MAX 171 MIN 11 AC-FT 26,970

PEAK DISCHARGE (BASE, 1,000 FT³/S).--OCT. 10 (1700) 1,680 FT³/S (7.50 FT.).

08328500 JEMEZ CANYON RESERVOIR NEAR BERNALILLO, N. MEX.

LOCATION.--Lat 35°23'40", long 106°32'50", in SW¼SW¼ sec.32, T.14 N., R.4 E., Sandoval County, at corner of outlet works control tower of Jemez Canyon Dam on Jemez River, 2.8 mi (4.5 km) upstream from mouth, and 6 mi (10 km) north of Bernalillo.

DRAINAGE AREA.--1,034 mi² (2,678 km²).

PERIOD OF RECORD.--October 1953 to September 1965 (monthend contents only), October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

EXTREMES.--Current year: Maximum contents, 457 acre-ft (563,500 m³) Mar. 27 (elevation, 5,150.42 ft or 1,569.848 m); no contents most of year.
Period of record: Maximum contents, 71,220 acre-ft (87.8 hm³) June 8, 1958 (elevation, 5,213.36 ft or 1,589.032 m); no storage most of time.

REMARKS.--Reservoir is formed by earthfill dam, completed October 19, 1953. Capacity, 180,600 acre-ft (223 hm³), from capacity table adopted January 1, 1972, between elevations 5,125.0 ft (1,562.1 m) sill of outlet gates and 5,252.3 ft (1,600.90 m) operating deck of spillway. Capacity by original survey was 189,100 acre-ft (233 hm³). Maximum controlled capacity, 110,500 acre-ft (136 hm³) at elevation 5,232.0 ft or 1,594.71 m (floor of spillway which is located about 0.8 mi or 1.3 km south of dam). Original plan for reservoir operation was to desilt all flow above 30 ft³/s (0.85 m³/s) by storage for one day before releasing to Rio Grande, and for possible detention during flood stage on Rio Grande.

COOPERATION.--Records furnished by Corps of Engineers.

Capacity tables, (elevation, in feet, and contents, in acre-feet)

5,135	1	5,145	75	5,165	4,510	5,185	20,810
5,136	2	5,150	400	5,170	7,330	5,190	26,700
5,138	7	5,155	1,310	5,175	11,120	5,195	33,280
5,140	16	5,160	2,610	5,180	15,620	5,200	40,570

CONTENTS, IN ACRE-FEET, AT 0800, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			0	324	148		0	0		0		
2			0	314	184		0	0		0		
3			0	249	164		0	0		0		
4			0	149	173		0	0		0		
5			0	93	176		0	0		0		
6			0	80	164		0	0		0		
7			0	87	127		0	0		0		
8			0	155	57		0	0		0		
9			0	228	17		0	0		0		
10			0	173	0		0	0		0		
11			0	123	0		0	0		552		
12			0	91	0		0	0		173		
13			0	11	0		0	0		0		
14			0	0	0		0	0		0		
15			0	0	0		0	0		0		
16			0	0	0		0	0		0		
17			1.0	0	0		0	0		0		
18			6.0	0	0		0	0		0		
19			18	0	0		0	0		0		
20			33	0	0		0	0		0		
21			48	0	0		0	0		0		
22			138	0	0		0	0		0		
23			235	0	0		0	0		0		
24			291	0	0		0	0		96		
25			376	0	0		0	0		0		
26			420	0	0		0	0		0		
27			457	8.0	0		0	0		0		
28			408	48	0		0	0		0		
29		------	340	96	0		20	75		0		
30		------	311	101	0		0	0		25		
31		------	319	------	0	------	0	0	------	0	------	
MAX	0	0	457	324	184	0	20	75	0	552	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
(†)	0	0	5,149.25	5,145.88	0	0	0	0	0	0	0	0
(‡)	0	0	+319	-218	-101	0	0	0	0	0	0	0

CAL YR 1974 . . . . . .(‡). 0
WTR YR 1974 . . . . . .(‡) 0

(†) ELEVATION, IN FEET, AT END OF MONTH.
(‡) CHANGE IN CONTENTS, IN ACRE-FEET.

08329000 JEMEZ RIVER BELOW JEMEZ CANYON DAM, N. MEX.

LOCATION.--Lat 35°23'24", long 106°32'03", in NE¼ sec.5, T.13 N., R.4 E., Sandoval County, on right bank 0.8 mi (1.3 km) downstream from Jemez Canyon Dam, 2.0 mi (3.2 km) upstream from mouth, and 6 mi (9.6 km) north of Bernalillo.

DRAINAGE AREA.--1,038 mi² (2,688 km²).

PERIOD OF RECORD.--March 1936 to January 1938, March 1943 to current year. Published as "Jemez Creek" prior to 1948, and as "near Bernalillo" prior to 1954.

GAGE.--Water-stage recorder. Datum of gage is 5,095.60 ft (1,553.139 m) above mean sea level from Corps of Engineers bench mark. Prior to Apr. 24, 1951, at site 0.8 mi (1.3 km) upstream at datum 24.51 ft (7.471 m) higher. Apr. 24, 1951, to June 25, 1958, at site 37 ft (11 m) upstream at datum 4.40 ft (1.341 m) above present datum. Supplementary water-stage recorder at gages on Jemez Canyon Dam at datum 5,125.00 ft (1,562.100 m) above mean sea level (Corps of Engineers bench mark) used at times since January 1953.

AVERAGE DISCHARGE.--32 calendar years (1937, 1944-74), 52.8 ft³/s (1.495 m³/s), 38,250 acre-ft/yr (47.2 hm³/yr); 20 calendar years (1955-74), 56.5 ft³/s (1.600 m³/s), 40,930 acre-ft/yr (50.5 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 320 ft³/s (9.06 m³/s) Mar. 28 (gage height, 7.26 ft or 2.213 m); no flow on many days.
Period of record: Maximum discharge, 16,300 ft³/s (462 m³/s) Aug. 29, 1943 (gage height, 5.62 ft or 1.713 m, site and datum then in use), from rating curve extended above 3,000 ft³/s (85.0 m³/s); no flow for many days most years.
A flood in 1900 was probably less than 16,000 ft³/s (453 m³/s), but highest observed outside period of record.

REMARKS.--Records poor. Subsequent to October 1953, flow at this station can be completely regulated by Jemez Canyon Reservoir (see sta 08328500). However, reservoir is designed essentially for desilting and flood control rather than storage. Diversions for irrigation of about 3,000 acres (1,210 hm²) above station.

REVISIONS (WATER YEARS).--WSP 1178: 1949. WSP 1212: 1950. WSP 1512: 1936, 1943, 1945, 1947-48, 1949(M), 1950. WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	15	14	25	106	81		0	27	1.0	0	59	13
2	15	21	25	113	80		0	18	0	0	56	12
3	15	19	24	75	76		0	51	0	.71	34	13
4	15	28	28	27	77		0	29	0	6.1	34	12
5	15	20	24	19	76		0	25	0	9.0	34	15
6	16	8.6	16	26	81		0	26	0	11	32	12
7	16	7.9	25	35	78		0	24	0	28	32	13
8	28	7.5	22	44	75		0	22	0	25	31	12
9	38	15	26	54	66		0	23	0	22	33	11
10	35	47	99	59	57		0	5.0	0	23	33	9.8
11	45	76	81	59	57		0	1.0	0	56	34	8.2
12	41	41	52	59	56		0	0	0	50	34	12
13	45	43	45	54	57		0	0	0	31	33	12
14	62	70	33	52	41		0	0	0	30	32	11
15	70	49	22	54	29		0	0	0	28	33	12
16	65	59	21	44	19		0	0	0	26	32	6.0
17	54	45	23	44	6.6		0	0	0	25	31	8.0
18	56	31	24	41	8.7		0	0	0	24	32	14
19	47	21	21	38	8.7		12	0	0	22	31	12
20	25	36	30	34	7.8		6.3	0	0	20	28	14
21	35	27	31	31	6.3		7.2	0	5.1	17	29	17
22	24	27	30	29	7.5		2.4	0	4.8	18	29	16
23	11	23	36	36	6.6		0	11	.30	27	27	12
24	23	21	34	47	.90		0	2.1	0	40	26	11
25	16	33	84	34	1.2		0	0	3.0	30	25	11
26	21	25	127	62	.80		0	0	.90	29	23	11
27	20	28	211	71	0		0	0	0	38	16	11
28	7.0	35	265	60	0		0	0	0	38	16	11
29	14	------	228	86	0		0	35	0	39	16	11
30	35	------	161	83	0		32	11	0	48	17	7.0
31	17	------	144	------	0	------	7.8	5.0	------	46	------	6.0
TOTAL	941.0	858.0	2,052	1,611	1,060.60	0	67.7	296.1	15.10	803.81	882	355.2
MEAN	30.4	30.6	66.2	53.7	34.2	0	2.18	9.45	.50	25.9	29.4	11.5
MAX	70	76	265	113	81	0	32	35	5.1	56	59	17
MIN	7.0	7.5	18	19	0	0	0	0	0	0	16	6.0
AC-FT	1,870	1,700	4,070	3,200	2,100	0	134	581	30	1,590	1,750	705

CAL YR 1974 TOTAL 8,959.51 MEAN 24.5 MAX 265 MIN 0 AC-FT 17,730
WTR YR 1974 TOTAL 8,096.60 MEAN 22.2 MAX 265 MIN 0 AC-FT 16,060

08329100 BERNALILLO FLOODWATER RETARDING RESERVOIR NO. 1 (PIEDRA LISA ARROYO), NEAR BERNALILLO, N. MEX.

LOCATION.—Lat 35°18'50", long 106°31'44", Sandoval County in Bernalillo Grant, in reservoir 0.3 mi (0.5 km) east of intersection of State Highway 44 and Interstate 25, and 1.5 mi (2.4 km) northeast of Bernalillo.

DRAINAGE AREA.—4.1 mi^2 (10.6 km^2), of which 2.0 mi^2 (5.2 km^2) has contouring, pitting and small dams to reduce runoff.

PERIOD OF RECORD.—September 1955 to June 1974 (discontinued).

GAGE.—Water-stage recorder adjacent to outlet tower with fixed ports. Datum of gage is 5,169.98 ft (1,575.810 m) above mean sea level, levels by Soil Conservation Service. Since July 21, 1958, supplementary outflow gage 390 ft (120 m) below toe of dam, water-stage recorder and Parshall flume.

AVERAGE OUTFLOW.—17 calendar years, 0.010 ft^3/s (0.0003 m^3/s), 7.24 acre-ft/yr (8,930 m^3/yr).

EXTREMES.—Current year: No flow during period Jan. 1 to June 30.
Period of record: Maximum outflow, 55 ft^3/s (1.56 m^3/s) July 19, 1956 (gage height, 11.23 ft or 3.423 m). Maximum inflow, 2,330 ft^3/s (66.0 m^3/s) July 19, 1956, average for 5-minute interval, computed from outflow and change in reservoir contents. No inflow or outflow for most of time.

REMARKS.—Records good. Records represent outflow from Piedra Lisa Reservoir, completed in 1955. Water quality records for the current year are published in Part 2 of this report.

Reservoir is formed by earthfill dam, completed in 1955. Capacity, 300 acre-ft (121 hm^2) original survey, no dead storage. Gage height of spillway crest is 27 ft (8.2 m), crest of dam is 35 ft (10.7 m). Outlet tower has an inside opening 3 ft (0.91 m) square and outlet pipe through dam is 2 ft (0.61 m) in diameter. A total of 9 port openings are spaced at 5 ft (1.5 m) vertical intervals on upstream and sides of tower. They are 2 ft (0.61 m) wide by 1 ft (0.30 m) high; sill of lowest upstream port is at gage height 4.8 ft (1.46 m) modified in 1963 to lowest side ports at gage height 6.3 ft (1.9 m).

08329900 NORTH FLOODWAY CHANNEL NEAR ALAMEDA, N. MEX.

LOCATION.—Lat 35°11'58", long 106°35'53", Bernalillo County, in Elena Gallegos Grant, on left bank 0.5 mi (0.8 km) upstream from Edith Blvd., 1.1 mi (1.8 km) upstream from mouth, and 1.2 mi (1.9 km) northeast of Alameda.

PERIOD OF RECORD.—July 1968 to current year (no winter records).

GAGE.—Water-stage recorder and concrete lined channel. Altitude of gage is 5,015 ft (1,529 m) from Corps of Engineers plan and profile map.

EXTREMES.—Current year: Maximum discharge, 3,000 ft³/s (85.0 m³/s) Sept. 20 (gage height, 4.50 ft or 1.372 m); no flow most of time.
Period of record: Maximum discharge, 5,000 ft³/s (142 m³/s) July 26, 1971 (gage height, 6.30 ft or 1.920 m) from rating curve extended above 2,900 ft³/s (82.1 m³/s); no flow most of time.

REMARKS.—Records good. Floodway channel intercepts flow of numerous arroyos in northeast Albuquerque and discharges into the Rio Grande at a point 1.6 mi (2.6 km) north of Alameda.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1				1.0		1.0	2.7	4.5	1.8	0	2.7	
2				0		3.2	0	2.7	1.6	0	2.7	
3				0		0	0	8.1	0	0	7.3	
4				0		0	2.0	3.6	.71	2.9	5.4	
5				0		0	0	1.4	1.8	50	4.5	
6			0	0		0	0	0	1.8	82	4.5	
7			0	0		0	65	0	9.5	59	3.6	
8			0	0		0	26	17	1.0	3.6	2.7	
9			0	0		0	137	5.4	0	1.8	48	
10			0	0		0	.90	5.4	0	24	21	
11			0	0		0	0	5.4	0	32	2.7	
12			0	0		0	173	5.4	0	40	2.7	
13			0	0		0	26	4.5	0	.90	2.7	
14			0	0		0	14	4.5	29	3.2	2.7	
15			0	0		0	4.5	3.6	126	.90	1.8	
16			0	0		0	17	4.5	25	0	1.8	
17			0	0		0	44	1.8	14	0	1.8	
18			0	0		1.5	12	2.7	3.6	0	2.4	
19			0	0		2.7	68	4.5	3.6	0	.64	
20			2.0	0		2.7	5.4	30	355	0	1.3	
21			3.6	0		0	0	2.7	177	0	2.7	
22			.86	0		47	0	18	0	28	1.0	
23			21	0		26	0	32	0	66	1.8	
24			5.9	0		4.5	0	14	0	1.8	1.8	
25			6.3	0		5.4	0	9.0	0	1.8	1.8	
26			2.3	0		3.6	.26	3.6	0	0	1.8	
27			0	0		4.5	4.5	81	0	79	1.8	
28			2.0	0		2.7	76	9.6	0	7.2	3.6	
29		------	.41	0		2.7	36	22	0	45	3.6	
30		------	0	12		4.5	3.2	4.5	0	12	4.5	
31		------	.62	------		------	4.2	1.8	------	3.6	------	
TOTAL				13.0	0	112.0	721.66	313.2	729.41	541.70	148.14	
MEAN				.43	0	3.73	23.3	10.1	24.3	17.5	4.94	
MAX				12	0	47	173	81	355	82	48	
MIN				0	0	0	0	0	0	0	.64	
AC-FT				26	0	222	1,430	621	1,450	1,070	294	

08330000 RIO GRANDE AT ALBUQUERQUE, N. MEX.

LOCATION.--Lat 35°05'21", long 106°40'48", Bernalillo County, in Atrisco Grant, at downstream side of Old Town Bridge on U.S. Highway 66 at Albuquerque, and at mile 1,540.0 (2,477.9 km).

DRAINAGE AREA.--17,440 mi² (45,170 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, Colo.

PERIOD OF RECORD.--October 1941 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Datum of gages is 4,946.16 ft (1,507.590 m) above mean sea level. Prior to Sept. 18, 1947, at various sites at datum about 2.00 ft (0.610 m) higher; Sept. 18, 1947, to Apr. 12, 1959, at site 550 ft (170 m) to the left of present site; Apr. 13, 1959, to June 29, 1960, at site 150 ft (46 m) to right of present site. Supplemental water-stage recorders at sites 75 ft (23 m) and 150 ft (46 m) to right of present site used at various times since 1964.

AVERAGE DISCHARGE.--33 calendar years, 1,043 ft³/s (29.54 m³/s), 755,700 acre-ft/yr (932 hm³/yr); 20 calendar years (1955-74), 979 ft³/s (27.73 m³/s), 709,300 acre-ft/yr (875 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 2,080 ft³/s (58.9 m³/s) Jan. 1 (gage height, 5.64 ft or 1.719 m); maximum gage height, 5.84 ft or 1.780 m, July 9; minimum, about 4.0 ft³/s (0.11 m³/s) Sept. 30.
Period of record: Maximum discharge, 25,000 ft³/s (708 m³/s) Apr. 24, 1942, from rating curve extended above 13,900 ft³/s (394 m³/s); maximum gage height, 7.82 ft or 2.384 m Aug. 10, 1967; no flow at times.

REMARKS.--Records fair except those for September, which are poor. Possible regulation by operation of reservoirs on Rio Chama and by flood-and-silt-detention reservoir on Jemez River (see sta 08285000, 08286900, 08328500). Since April 1972 flow affected by release of transmountain water from Heron Reservoir (sta 08284510). Diversions above station for irrigation of about 718,000 acres (2,910 km²), several hundred of which are below station. Water quality records for the current year are published in Part 2 of this report.

COOPERATION.--Records for Albuquerque Riverside drain and Arenal, Armijo, and Atrisco canals furnished by Bureau of Reclamation.

REVISIONS (WATER YEARS).--WSP 1312: 1946(M).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1,950	1,300	568	1,230	967	371	150	805	224	25	285	453
2	1,930	1,300	604	1,250	974	370	78	737	90	20	317	447
3	1,760	1,360	698	1,210	856	394	62	442	60	30	365	435
4	1,510	1,180	728	1,230	809	389	42	584	65	40	405	440
5	1,320	845	699	1,200	760	355	39	552	50	35	408	500
6	1,300	785	692	1,180	790	293	261	602	70	50	416	540
7	1,410	681	596	918	916	345	644	515	40	61	396	540
8	1,390	668	597	687	1,070	503	668	325	30	81	433	574
9	1,510	694	586	558	1,030	551	1,300	221	15	97	532	586
10	1,690	681	800	508	962	894	1,040	132	12	120	425	574
11	1,630	759	759	548	844	916	800	118	30	137	424	540
12	1,610	858	759	457	553	766	273	112	45	350	456	490
13	1,470	814	768	409	566	732	681	67	45	276	465	510
14	1,510	694	691	496	552	700	261	51	30	171	439	440
15	1,530	845	755	440	530	670	198	46	30	183	464	406
16	1,430	858	828	349	814	640	264	42	99	148	489	406
17	1,360	800	968	245	1,160	628	145	56	75	114	500	470
18	1,410	720	1,070	185	978	648	149	175	15	115	510	470
19	1,340	632	975	134	736	653	101	243	10	116	500	480
20	1,380	694	848	136	694	589	156	299	30	116	440	490
21	1,410	652	785	150	566	470	108	334	221	126	424	518
22	1,430	635	853	169	465	480	119	364	75	195	406	563
23	1,380	604	987	211	463	632	78	540	15	160	389	544
24	1,490	604	1,090	300	459	520	33	398	5.0	136	393	488
25	1,510	571	1,180	319	388	528	20	440	50	227	403	445
26	1,430	599	1,250	347	407	623	18	542	30	182	420	475
27	1,390	600	1,220	388	419	586	20	625	30	254	420	401
28	1,450	570	1,180	574	367	603	22	826	25	350	431	382
29	1,480	------	1,220	798	356	385	155	879	15	313	437	406
30	1,380	------	1,160	815	360	255	390	887	10	365	446	449
31	1,410	------	1,160	------	378	------	613	411	------	316	------	431
TOTAL	46,100	21,999	27,072	17,499	21,166	16,489	8,888	12,370	1,541.0	4,829	12,639	14,891
MEAN	1,487	786	873	583	683	550	287	399	51.4	156	428	480
MAX	1,950	1,360	1,250	1,250	1,160	916	1,300	887	224	365	532	586
MIN	1,300	570	568	134	356	255	18	42	5.0	20	285	382
AC-FT	91,440	43,640	53,700	34,710	41,980	32,710	17,630	24,540	3,060	9,580	25,070	29,540
(†)	968	756	9,700	13,890	14,010	13,960	13,020	11,130	11,760	11,870	994	922

CAL YR 1974 TOTAL 205,683.0 MEAN 564 MAX 1,950 MIN 5.0 AC-FT 408,000 (†) 103,000
WTR YR 1974 TOTAL 264,551.0 MEAN 725 MAX 1,950 MIN 5.0 AC-FT 524,700 (†) 104,300

PEAK DISCHARGE (BASE, 4,000 FT³/S).-- NO PEAK ABOVE BASE.

(†) COMBINED FLOW, IN ACRE-FT, OF ALBUQUERQUE RIVERSIDE DRAIN AND ARENAL, ARMIJO, AND ARTISCO CANALS. THIS FLOW WHICH BYPASSES RIVER GAGE, CAN BE ADDED TO RIVER RECORDS TO GET ENTIRE SURFACE FLOW IN VALLEY CROSS-SECTION.

08331990 RIO GRANDE CONVEYANCE CHANNEL NEAR BERNARDO, N. MEX.

LOCATION.--Lat 34°24'52", long 106°48'11", Socorro County, in Sevilleta or Belen Grant, 0.2 mi (0.3 km) south of U.S. Highway 60, 1.8 mi (2.9 km) east of Bernardo, about 3 mi (5 km) upstream from floodway, and 4 mi (6 km) upstream from Rio Puerco.

PERIOD OF RECORD.--June 1936 to September 1937, October 1964 to current year. July 1943 to September 1964, included in composite flow of "Rio Grande near Bernardo". October 1960 to September 1964, monthly acre-feet published in WSP 1923 (daily records available in district files). Beginning October 1952, flow in conveyance channel represents controlled diversion from Rio Grande. Prior to October 1952, records called "San Francisco Riverside drain near Bernardo", not equivalent.

GAGE.--Water-stage recorder with concrete control. Datum of gage is 4,720.00 ft (1,438.656 m) above mean sea level. Prior to October 1964, 0.2 mi (0.3 km) upstream at various datums.

AVERAGE DISCHARGE.--22 calendar years (1953-74), 507 ft^3/s (14.36 m^3/s), 367,300 acre-ft/yr (453 hm^3/yr); 20 calendar years (1955-74) 526 ft^3/s (14.90 m^3/s), 381,100 acre-ft/yr (470 hm^3/yr).

EXTREMES.--Period of record: Maximum daily discharge, 2,220 ft^3/s (62.9 m^3/s) Apr. 22, 1958; no flow many days most years.

REMARKS.--Records good. Conveyance channel is 1 of 4 channels (see sta 08332010, 08332030, and 08332050) carrying flow in valley cross section. Original design and plan was for conveyance channel to carry flows up to about 2,000 ft^3/s (56.6 m^3/s). For combined monthly flow in acre-ft of this channel, floodway, Bernardo interior drain and Lower San Juan Riverside drain, see tabulation below daily table for sta 08332010. Water quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1,570	1,320	596	912	119	78	0	0	254	61	273	277
2	1,570	1,250	519	996	192	75	0	0	132	48	283	276
3	1,560	1,300	592	1,030	309	90	0	0	53	46	269	247
4	1,570	1,310	592	1,110	364	70	0	.84	26	47	287	148
5	1,440	1,100	622	1,050	312	55	.26	32	21	33	301	67
6	1,300	913	527	868	352	55	0	52	8.0	27	306	64
7	1,300	843	474	697	301	56	0	78	5.3	31	291	62
8	1,450	814	418	497	347	56	0	103	3.3	98	286	61
9	1,500	612	412	358	354	49	0	65	1.6	91	299	60
10	1,550	778	408	319	330	34	0	31	.99	123	300	57
11	1,490	758	676	261	267	29	0	13	0	146	295	55
12	1,430	768	830	257	208	39	55	9.8	0	144	269	52
13	1,390	802	743	210	175	29	109	.50	0	216	280	49
14	1,350	777	691	220	106	18	178	0	0	266	288	45
15	1,370	791	644	252	119	4.2	274	0	0	246	297	42
16	1,410	862	651	176	69	.64	200	0	0	225	306	37
17	1,400	825	658	157	68	0	146	0	0	225	306	36
18	1,380	805	783	132	62	0	125	0	0	211	316	34
19	1,380	776	869	101	71	0	179	0	0	175	319	33
20	1,370	770	874	99	121	0	127	0	9.3	161	319	32
21	1,370	793	769	90	175	0	96	0	174	167	303	31
22	1,360	791	673	93	149	0	26	0	92	166	282	31
23	1,390	777	702	78	129	0	.60	33	85	212	283	29
24	1,390	768	752	70	116	0	0	11	75	210	289	28
25	1,440	765	851	81	100	0	.45	17	84	175	287	28
26	1,410	755	883	89	133	0	0	78	94	158	293	27
27	1,390	736	903	76	113	0	0	90	57	219	283	26
28	1,380	677	901	49	75	0	0	69	50	260	281	27
29	1,390	------	941	79	96	0	0	101	21	242	279	27
30	1,330	------	908	92	93	0	0	126	18	253	278	27
31	1,310	------	819	------	88	------	0	214	------	253	------	27
TOTAL	43,940	24,436	21,681	10,499	5,513	737.84	1,516.31	1,124.14	1,264.49	4,935	8,748	2,042
MEAN	1,417	873	699	350	178	24.6	48.9	36.3	42.1	159	292	65.9
MAX	1,570	1,320	941	1,110	364	90	274	214	254	266	319	277
MIN	1,300	677	408	49	62	0	0	0	0	27	269	26
AC-FT	87,150	48,470	43,000	20,820	10,940	1,460	3,010	2,230	2,510	9,790	17,350	4,050

CAL YR 1974 TOTAL 126,436.78 MEAN 346 MAX 1,570 MIN 0 AC-FT 250,800
WTR YR 1974 TOTAL 195,846.78 MEAN 537 MAX 1,730 MIN 0 AC-FT 388,500

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, N. MEX.

LOCATION.--Lat 34°25'01", long 106°48'00", Socorro County, in Belen or Sevilleta Grant on downstream side of bridge on U.S. Highway 60, 5 mi (8 km) downstream from heading of conveyance channel, 2 mi (3 km) east of Bernardo, and at mile 1,487.2 (2,392.9 km).

DRAINAGE AREA.--19,230 mi² (49,810 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, Colo.

PERIOD OF RECORD.--June 1936 to January 1939, October 1941 to current year. Monthly discharge only October 1942 to June 1943 published in WSP 1312, and October 1960 to September 1964, published in WSP 1923 (daily records available in district files). Published as "Rio Grande near Bernardo" prior to October 1964. Prior to October 1952, flow of Bernardo interior drain was included only when it carried river overflow, the entire flow has been included from October 1952 to September 1964. Flow in the conveyance channel, formerly San Francisco Riverside drain, has been included in record prior to October 1964.

GAGE.--Water-stage recorder. Datum of gage is 4,722.55 ft (1,439.433 m) above mean sea level.

AVERAGE DISCHARGE.--19 calendar years (1936-38, 1941-58), 1,125 ft³/s (31.86 m³/s), 815,100 acre-ft/yr (1,000 hm³/yr). Includes flow of floodway, conveyance channel, and Bernardo interior drain.
16 calendar years (1958-74) 247 ft³/s (7.000 m³/s), 179,000 acre-ft/yr (221 hm³/yr), floodway only.
16 calendar years (1958-74) 877 ft³/s (24.84 m³/s), 635,400 acre-ft/yr (783 hm³/yr), includes flow of floodway, conveyance channel, Bernardo interior drain, and lower San Juan Riverside drain.

EXTREMES.--Current year: Maximum discharge, 561 ft³/s (15.9 m³/s) Dec. 13 (gage height, 4.49 ft or 1.369 m); no flow most of time.
1936-39, 1941 to current year: Maximum discharge, 21,000 ft³/s (595 m³/s) Apr. 25, 1942 (gage height, 6.90 ft or 2.103 m); no flow for many days most years.

REMARKS.--Records poor. Floodway is 1 of 4 channels (see sta 08331990, 08332030, and 08332050) carrying flow in valley cross section. For combined monthly flow in acre-ft of floodway, conveyance channel, Bernardo interior drain and Lower San Juan Riverside drain see tabulation below. Normal plan is for floodway to carry flow when capacity of conveyance channel (about 2,000 ft³/s or 56.6 m³/s) is exceeded. Diversions for irrigation of about 740,000 acres (2,990 km²) above station. Water quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	336										0	187
2	304										0	196
3	200										0	232
4	140										0	344
5	90										55	440
6	30										110	416
7	10										140	448
8	0										148	464
9	0										148	498
10	0										169	480
11	0										210	489
12	0										164	507
13	0										164	543
14	0										169	480
15	11										196	480
16	0										196	507
17	0										205	472
18	0										222	464
19	0										244	472
20	0										244	489
21	0										232	440
22	0										222	489
23	8.2										232	489
24	1.8										222	480
25	0										210	480
26	0										216	480
27	0										232	480
28	0										238	480
29	0	------									232	432
30	0	------									205	416
31	0	------		------		------			------		------	432
TOTAL	1,131.0	0	0	0	0	0	0	0	0	0	5,025	13,706
MEAN	36.5	0	0	0	0	0	0	0	0	0	168	442
MAX	336	0	0	0	0	0	0	0	0	0	244	543
MIN	0	0	0	0	0	0	0	0	0	0	0	187
AC-FT	2,240	0	0	0	0	0	0	0	0	0	9,970	27,190
(†)	94,880	53,140	56,260	31,810	22,120	9,350	12,860	13,260	12,940	18,380	32,570	36,410

CAL YR 1974 TOTAL 19,862.00 MEAN 54.4 MAX 543 MIN 0 AC-FT 39,400 (†) MEAN 544 AC-FT 394,000
WTR YR 1974 TOTAL 4,877.50 MEAN 13.4 MAX 448 MIN 0 AC-FT 9,670 (†) MEAN 700 AC-FT 507,000

(†) COMBINED FLOW, IN ACRE-FT AND MEAN, IN FT³/S, OF FLOODWAY, CONVEYANCE CHANNEL, BERNARDO INTERIOR DRAIN, AND LOWER SAN JUAN RIVERSIDE DRAIN.

08332030 LOWER SAN JUAN RIVERSIDE DRAIN NEAR BERNARDO, N. MEX.

LOCATION.--Lat 34°24'51", long 106°47'34", in SE¼NW¼ sec.12, T.2 N., R.1 E., Socorro County, on right bank, 1,400 ft (430 m) downstream from bridge on U.S. Highway 60, and 2.5 mi (4.0 km) east of Bernardo.

PERIOD OF RECORD.--June 1936 to September 1937, August 1954 to current year. Monthly discharge only August 1955 to September 1960, published in WSP 1732, and October 1960 to September 1964, published in WSP 1923 (daily records available in district files). Records collected under name of "La Joya Eastside drain" are equivalent.

GAGE.--Water-stage recorder. Datum of gage is 4,722.35 ft (1,439.372 m) above mean sea level.

EXTREMES.--Period of record: Maximum daily discharge, 205 ft³/s (5.81 m³/s) May 24, 26, 1973; no flow for several days during 1963.

REMARKS.--This drain is 1 of 4 channels (see sta 08331990, 08332010 and 08332050) carrying flow in valley cross section. For combined flow in acre-ft of this drain, conveyance channel, floodway, and Bernardo interior drain see tabulation below daily table for station 08332010.

COOPERATION.--Since July 1958 records for this station or La Joya Eastside drain (records equivalent) furnished by Bureau of Reclamation.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	58	55	130	158	138	137	67	52	105	83	60	58
2	58	56	130	161	148	137	62	67	107	92	58	58
3	59	55	123	171	139	146	55	95	97	109	57	58
4	58	55	121	181	148	137	61	114	110	114	56	58
5	58	55	127	169	152	84	60	108	102	100	56	58
6	57	54	145	148	136	88	53	112	95	103	58	58
7	56	55	159	161	120	79	68	129	112	128	58	58
8	56	55	145	167	104	69	95	110	96	112	58	58
9	56	54	151	171	123	65	103	128	83	99	58	58
10	56	54	163	163	108	64	84	128	77	122	58	58
11	56	55	163	136	114	74	86	92	75	126	58	58
12	55	55	169	148	117	69	104	88	53	124	57	58
13	55	55	171	128	119	89	123	94	55	96	58	58
14	55	54	158	157	149	74	130	83	73	90	58	58
15	55	53	145	137	123	65	111	69	78	82	58	58
16	55	53	154	120	131	84	107	59	71	89	58	58
17	55	53	169	92	114	78	98	56	84	99	58	58
18	55	53	158	106	127	83	94	69	82	102	60	58
19	55	52	159	105	134	88	92	65	103	103	60	58
20	56	51	152	106	113	87	105	72	123	116	58	58
21	56	51	163	110	129	70	93	82	67	120	58	58
22	56	50	149	106	150	66	78	108	60	115	58	58
23	56	50	142	79	128	84	84	88	62	119	58	58
24	56	49	151	69	128	80	82	70	69	127	58	58
25	57	49	142	93	111	70	76	111	92	114	58	58
26	56	49	152	78	169	63	69	134	102	110	57	58
27	56	48	119	94	146	69	60	85	104	119	58	58
28	56	49	132	110	147	84	62	70	99	111	58	58
29	55	------	149	124	131	93	58	84	89	113	58	58
30	55	------	156	128	144	82	61	88	95	105	58	58
31	55	------	168	------	134	------	61	102	------	82	------	58
TOTAL	1,738	1,477	4,615	3,876	4,074	2,558	2,542	2,812	2,620	3,324	1,739	1,798
MEAN	56.1	52.8	149	129	131	85.3	82.0	90.7	87.3	107	58.0	58.0
MAX	59	56	171	181	169	146	130	134	123	128	60	58
MIN	55	48	119	69	104	63	53	52	53	82	56	58
AC-FT	3,450	2,930	9,150	7,690	8,080	5,070	5,040	5,580	5,200	6,590	3,450	3,570

CAL YR 1974 TOTAL 33,173 MEAN 90.9 MAX 181 MIN 48 AC-FT 65,800
WTR YR 1974 TOTAL 34,490 MEAN 94.5 MAX 181 MIN 48 AC-FT 68,410

08332050 BERNARDO INTERIOR DRAIN NEAR BERNARDO, N. MEX.

LOCATION.--Lat 34°24'56", long 106°49'15", Socorro County, on downstream side of bridge on U.S. Highway 60, and 1.0 mi (1.6 km) east of Bernardo.

PERIOD OF RECORD.--June 1936 to May 1937, October 1943 to current year. Monthly discharge only June 1936 to May 1937, published in WSP 828. October 1943 to September 1960 included in composite records for station 08332000 "Rio Grande near Bernardo". October 1960 to September 1964 monthly acre-ft published in WSP 1923. Daily records available in district files beginning October 1943.

GAGE.--Water-stage recorder. Datum of gage is 4,713.99 ft (1,436.824 m) above mean sea level. June 4, 1936 to May 17, 1937, nonrecording gage 150 ft (46 m) downstream at datum 2.77 ft (0.844 m) higher.

EXTREMES.--Period of record: Maximum daily discharge, 187 ft@/s (5.30 m@/s) Aug. 7, 1970; no flow at times. Prior to 1952, drain was subject to overflow from floodway.

REMARKS.--Records good except those for October, which are fair. This drain is 1 of 4 channels (see sta 08331990, 08332010, and 08332030) carrying flow in valley cross section. For combined monthly flow in acre-ft of this drain, conveyance channel, floodway, and Lower San Juan Riverside drain see tabulation below daily table for sta 08332010.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	36	28	32	66	60	56	54	46	134	47	31	29
2	36	28	32	76	59	44	54	47	120	44	31	28
3	36	28	32	66	57	59	56	57	117	36	31	28
4	34	29	32	62	60	51	47	92	129	35	31	27
5	34	30	36	36	79	46	47	105	107	32	31	26
6	34	30	35	39	62	36	59	112	86	36	31	26
7	34	30	56	66	58	30	56	110	74	32	31	25
8	34	31	60	56	60	40	88	122	72	34	31	25
9	34	31	74	56	62	37	79	124	65	36	31	24
10	36	31	69	31	46	36	108	112	58	37	31	24
11	34	32	77	42	40	20	88	91	52	29	31	24
12	34	32	75	30	45	21	104	99	47	30	31	25
13	34	36	84	36	44	26	118	77	45	31	31	25
14	34	36	71	37	34	32	128	76	48	31	31	25
15	34	36	74	62	30	72	96	74	59	30	31	25
16	34	36	70	68	31	63	96	60	76	30	31	25
17	34	36	68	71	36	66	104	59	81	31	30	25
18	34	36	69	60	51	62	126	66	85	31	30	25
19	34	32	80	51	54	60	102	48	96	32	30	25
20	34	32	79	48	51	57	97	48	98	31	30	26
21	34	32	78	52	54	56	126	56	78	31	30	26
22	36	32	85	54	46	51	122	68	74	32	30	26
23	36	32	82	44	46	63	66	84	75	30	30	27
24	36	32	81	44	54	57	69	89	122	30	30	26
25	34	32	76	47	60	50	68	104	128	30	29	27
26	32	32	84	47	33	46	56	129	117	30	29	27
27	31	32	86	54	42	48	56	109	117	30	29	27
28	30	32	79	52	41	50	47	111	94	36	29	27
29	29	------	75	66	53	54	41	124	101	31	29	27
30	28	------	83	49	57	46	36	129	84	36	29	27
31	27	------	67	------	56	------	40	130	------	31	------	27
TOTAL	1,031	878	2,072	1,666	1,566	1,423	2,427	2,749	2,636	1,010	910	806
MEAN	33.3	31.4	66.8	55.5	50.4	47.4	78.3	88.7	87.9	32.6	30.3	26.0
MAX	36	36	86	76	79	72	128	130	134	47	31	29
MIN	27	28	32	42	30	20	36	46	45	29	29	24
AC-FT	2,040	1,740	4,110	3,300	3,100	2,820	4,810	5,450	5,230	2,000	1,800	1,600

CAL YR 1974 TOTAL 19,171 MEAN 52.5 MAX 134 MIN 20 AC-FT 38,030
WTR YR 1974 TOTAL 20,381 MEAN 55.8 MAX 134 MIN 20 AC-FT 40,430

08334000 RIO PUERCO ABOVE ARROYO CHICO, NEAR GUADALUPE, N. MEX.

LOCATION.--Lat 35°38'08", long 107°09'56", in SW¼ sec.21, T.16 N., R.3 W., Sandoval County, on right bank 1.6 mi (2.6 km) upstream from Arroyo Chico, 5.5 mi (8.8 km) northeast of village of Guadalupe, and at mile 106.8 (171.8 km).

DRAINAGE AREA.--420 mi² (1,090 km²), approximately.

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

GAGE.--Water-stage recorder. Datum of gage is 5,950 ft (1,813.6 m) above mean sea level. Prior to July 14, 1966 at datum 1.01 ft (0.308 m) higher.

AVERAGE DISCHARGE.--23 calendar years, 13.8 ft³/s (0.391 m³/s), 10,000 acre-ft/yr (12.3 hm³/yr); 20 calendar years (1955-74), 14.6 ft³/s (0.413 m³/s), 10,580 acre-ft/yr (13.0 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 516 ft³/s (14.6 m³/s) Oct. 10 (gage height, 4.46 ft or 1.359 m); no flow for many days.
Period of record: Maximum discharge, 6,940 ft³/s (197 m³/s) July 29, 1967 (gage height, 13.53 ft or 4.124 m), from rating curve extended above 1,300 ft³/s (36.8 m³/s) on basis of slope-area measurements at gage heights 7.75 ft (2.362 m) and 10.60 ft (3.231 m); no flow for many days most years.
Flood of June 29, 1943, probably exceeded 5,000 ft³/s (142 m³/s) based on records for stations above and below.

REMARKS.--Records poor. Diversions for irrigation of about 3,700 acres (1,500 hm²) above station in past years, but present diversion negligible.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	.30	0	4.2	0	1.0		0	0	0	0	4.3	.05
2	.30	0	17	0	.50		0	0	0	0	2.4	.06
3	.30	0	22	0	0		0	5.6	0	0	1.6	.06
4	.30	0	22	0	0		0	.15	0	0	1.4	.07
5	.30	0	11	0	0		0	0	0	0	1.4	.03
6	.20	0	10	0	0		0	0	0	0	1.1	.40
7	.20	0	15	0	0		0	0	0	0	.72	.20
8	.20	0	13	0	0		0	0	0	0	.40	.20
9	.20	0	16	0	0		0	0	0	0	.47	.20
10	.20	0	16	0	0		0	0	0	50	.28	.20
11	.20	0	19	0	0		0	0	0	60	.10	.10
12	.20	0	22	0	0		0	0	0	30	.07	.10
13	.22	0	39	0	0		0	0	0	5.0	.10	.10
14	.25	0	42	0	0		0	0	0	3.0	.15	.20
15	.05	0	13	0	0		0	0	0	2.0	.15	.20
16	.02	0	9.2	0	0		0	0	.54	0	.15	.20
17	.06	0	10	0	0		0	0	1.8	0	.15	.20
18	0	.02	8.2	0	0		1.4	0	0	0	.19	.20
19	0	.01	7.3	0	0		0	0	0	0	.19	.20
20	0	0	8.7	0	0		0	2.9	0	0	.23	.20
21	0	.06	8.2	0	0		0	0	0	1.0	.23	.20
22	0	.06	5.0	0	0		.01	0	0	10	.19	.20
23	.01	.15	3.0	0	0		1.5	0	0	30	.19	.20
24	0	.08	2.0	0	0		.54	0	0	3.0	.19	.10
25	0	.03	1.0	0	0		.62	0	0	2.0	.19	.05
26	0	.01	.60	0	0		.15	0	0	1.0	.19	.05
27	0	0	.20	0	0		.05	0	0	20	.19	.05
28	0	.02	.05	7.3	0		0	3.2	0	3.0	.19	.05
29	0	------	0	6.0	0		5.7	10	0	2.0	.10	.05
30	0	------	0	2.0	0		.72	0	0	30	.06	.05
31	0	------	0	------	0	------	0	0	------	10	------	.05
TOTAL	3.51	.44	343.65	15.3	1.50	0	10.69	21.85	2.34	262.0	17.27	4.22
MEAN	.11	.016	11.1	.51	.048	0	.34	.70	.078	8.45	.58	.14
MAX	.30	.15	42	7.3	1.0	0	5.7	10	1.8	60	4.3	.40
MIN	0	0	0	0	0	0	0	0	0	0	.06	.03
AC-FT	7.0	.9	682	30	3.0	0	21	43	4.6	520	34	8.4

CAL YR 1974 TOTAL 682.77 MEAN 1.87 MAX 60 MIN 0 AC-FT 1,350
WTR YR 1974 TOTAL 405.39 MEAN 1.11 MAX 42 MIN 0 AC-FT 804

PEAK DISCHARGE (BASE, 1,000 FT³/S).--NO PEAK ABOVE BASE.

08340500 ARROYO CHICO NEAR GUADALUPE, N. MEX.

LOCATION.--Lat 35°35'33", long 107°11'19", in NE¼ sec.30, T.16 N., R.3 W., Sandoval County, on left bank 0.2 mi (0.3 km) upstream from mouth, 4.1 mi (6.6 km) northwest of Guadalupe, and 5.5 mi (8.8 km) southwest of Cabezon.

DRAINAGE AREA.--1,390 mi² (3,600 km²), approximately.

PERIOD OF RECORD.--November 1943 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5,921 ft (1,804.7 m) above mean sea level. Prior to June 21, 1968 at site 500 ft (150 m) upstream at datum 2.00 ft (0.610 m) higher.

AVERAGE DISCHARGE.--31 calendar years, 22.8 ft³/s (0.646 m³/s), 16,520 acre-ft/yr (20.4 hm³/yr); 20 calendar years (1955-74), 22.5 ft³/s (0.637 m³/s), 16,300 acre-ft/yr (20.1 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 4,190 ft³/s (119 m³/s) Aug. 3 (gage height, 8.76 ft or 2.670 m); no flow for many days.
Period of record: Maximum discharge, 15,200 ft³/s (430 m³/s) Sept. 12, 1972 (gage height, 17.5 ft or 5.33 m, from floodmarks), from rating curve extended above 2,900 ft³/s (82.1 m³/s) on basis of slope-measurements at gage heights 11.6 ft (3.536 m) and 14.8 ft (4.511 m); no flow for many days each year.

REMARKS.--Records poor. Diversions for irrigation of about 100 acres (40 hm²) above station.

REVISIONS (WATER YEARS).--WSP 1282: 1944-50.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	.01	.30	.80	0	.02		0	.15	0	0	14	.15
2	.01	.40	17	.04	0		0	.11	0	0	5.0	.15
3	.01	.30	25	0	0		0	972	0	0	3.0	.15
4	.02	.20	17	0	0		0	72	0	0	1.0	.15
5	.02	.20	4.4	0	0		0	11	0	0	.57	.33
6	.02	.20	3.5	0	0		0	3.6	0	.42	.49	.65
7	.02	.20	3.0	0	0		0	1.7	0	94	.41	.37
8	.02	.20	2.5	0	0		0	.57	0	18	.37	.30
9	.02	.20	2.0	0	0		0	.21	0	4.1	.41	.33
10	.02	.20	1.7	0	0		0	0	0	156	.30	.30
11	.02	.40	1.6	0	0		0	0	0	275	.17	.20
12	.02	.60	1.4	0	0		0	0	0	100	.13	.20
13	.05	.80	1.0	0	0		0	0	0	109	.15	.20
14	.10	1.0	.33	0	0		0	0	0	26	.13	.30
15	.10	1.2	.27	0	0		0	0	0	3.0	.13	.40
16	.10	1.8	.17	0	0		0	0	108	0	.13	.45
17	.17	2.1	.13	0	0		.43	0	30	0	.13	.45
18	2.9	2.4	0	0	0		.99	0	2.0	0	.13	.41
19	2.5	2.6	0	0	0		65	0	0	0	.11	.37
20	1.3	1.6	0	0	0		33	0	0	0	.11	.37
21	.60	1.4	0	0	0		10	0	0	2.0	.11	.24
22	.40	1.2	0	0	0		15	3.2	0	25	.11	.24
23	.40	.80	0	0	0		2.4	7.0	0	197	.11	.27
24	.40	.65	0	0	0		16	0	0	5.0	.15	.33
25	.50	.61	0	0	0		10	0	0	1.0	.17	.30
26	.60	.61	0	0	0		7.0	0	.02	0	.17	.30
27	.80	.65	0	0	0		10	0	0	138	.19	.30
28	.40	.75	0	0	0		8.0	0	0	10	.17	.20
29	.20	------	0	0	0		7.0	0	0	163	.19	.20
30	.20	------	0	.01	0		6.6	0	0	127	.15	.20
31	.20	------	0	------	0	------	.30	0	------	49	------	.20
TOTAL	12.13	23.57	81.80	.05	.02	0	191.72	1,071.54	140.02	1,502.52	28.39	9.01
MEAN	.39	.84	2.64	.002	.0006	0	6.18	34.6	4.67	48.5	.95	.29
MAX	2.9	2.6	25	.04	.02	0	65	972	108	275	14	.65
MIN	.01	.20	0	0	0	0	0	0	0	0	.11	.15
AC-FT	24	47	162	.10	.04	0	380	2,130	278	2,980	56	18

CAL YR 1974 TOTAL 3,060.77 MEAN 8.39 MAX 972 MIN 0 AC-FT 6,070
WTR YR 1974 TOTAL 1,524.65 MEAN 4.18 MAX 972 MIN 0 AC-FT 3,020

PEAK DISCHARGE (BASE, 2,500 FT³/S).--AUG. 3 (0330) 4,190 FT³/S (8.76 FT.).

08341400 BLUEWATER LAKE NEAR BLUEWATER, N. MEX.

LOCATION.—Lat 35°17'31", long 108°06'40", in SE¼ sec.9, T.12 N., R.12 W., Valencia County, at left end of Bluewater Dam on Bluewater Creek, and 9.5 mi (15.2 km) west of Bluewater.

DRAINAGE AREA.—201 mi² (521 km²).

PERIOD OF RECORD.—June 1927 to December 1950 (monthend contents only, published in WSP 1732), April 1958 to current year (monthend contents only).

GAGE.—Water-stage recorder. Datum of gage is 7,345.57 ft (2,238.930 m) above mean sea level. July 1958 to January 1961, nonrecording gage at nearby site, same datum. Gage heights have been converted to sea-level elevations.

EXTREMES.—Current year: Maximum contents, 26,650 acre-ft (32.9 hm³) Jan. 1 (elevation, 7,394.9 ft or 2,253.97 m); minimum, 13,160 acre-ft (16.2 hm³) Dec. 31 (elevation, 7,382.8 ft or 2,250.28 m).
Period of record: Maximum contents determined, 47,100 acre-ft (58.1 hm³) Apr. 30, 1941. Contents may have been greater on Apr. 28, 1941 when peak discharge of 800 ft³/s (22.7 m³/s) occurred at station 8 mi (13 km) downstream; no storage at times prior to 1947.

REMARKS.—Records fair. Reservoir is formed by concrete arch dam. Storage began in 1927. Capacity, 38,500 acre-ft (47.5 hm³) at elevation 7,402.6 ft (2,256.31 m) crest of uncontrolled siphon spillway which is vented to avoid drawdown below crest, and 44,200 acre-ft (54.5 hm³) at elevation 7,405.6 ft (2,257.23 m) crest of ungated spillway over dam. Dead storage, 3.4 acre-ft (4,190 m³) at elevation 7,345.4 ft (2,238.88 m) sill of lower outlet tube. Lake not usually drawn below conservation pool level (elevation, 7,365.36 ft or 2,244.962 m), below which ownership is by State Game and Fish Department. Above this level, water is owned and used by Bluewater-Toltec Irrigation Co. Figures given herein represent total contents at 2400 hours.

MONTH-END ELEVATIONS AND CONTENTS, CALENDAR 1974

DATE	ELEVATION-(FEET)	CONTENTS (ACRE-FEET)	CHANGE IN CONTENTS (ACRE-FEET)
DEC. 31	7,394.9	26,650	-
JAN. 31	7,394.8	26,520	- 130
FEB. 28	7,394.6	26,250	- 400
MAR. 31	7,394.7	26,380	+ 130
APR. 30	7,393.0	24,170	-2,210
MAY 31	7,390.6	21,180	-2,990
JUNE 30	7,388.1	18,230	-2,950
JULY 31	7,386.1	16,140	-2,090
AUG. 31	7,384.8	14,910	-1,230
SEPT. 30	7,383.3	13,590	-1,320
OCT. 31	7,383.3	13,590	0
NOV. 30	7,383.0	13,330	- 260
DEC. 31	7,382.8	13,160	- 170
CALENDAR YEAR 1974	-	-	-13,490

08343000 RIO SAN JOSE AT GRANTS, N. MEX.

LOCATION.--Lat 35°09'16", long 107°52'11", in SW¼NW¼ sec.26, T.11 N., R.10 W., Valencia County, on right bank at bridge on State Highway 53 at Grants, 0.2 mi (0.3 km) south of U.S. Highway 66, and at mile 67.8 (109.1 km).

DRAINAGE AREA.--1,020 mi² (2,640 km²), approximately.

PERIOD OF RECORD.--October 1912 to February 1914, June 1914, October 1914 to February 1915, May 1915 to June 1921, September 1921 to June 1923, October 1923 to May 1926, September to December 1926, May 1949 to September 1966, June 1968 to current year. Monthly discharge only for some periods published in WSP 1312. Prior to October 1967, published as "Bluewater Creek at Grants".

GAGE.--Water-stage recorder. Datum of gage is 6,468.34 ft (1,971.550 m) above mean sea level (levels by Corps of Engineers). See WSP 1732 or 1923 for history of changes prior to Jan. 1, 1926.

AVERAGE DISCHARGE.--32 calendar years (1913, 1915-20, 1922, 1924-25, 1950-66, 1968-74), 3.60 ft³/s (0.102 m³/s), 2,610 acre-ft/yr (3.22 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 329 ft³/s (9.32 m³/s) Oct. 12 (gage height, 3.66 ft or 1.116 m); no flow most of time.
1950-66, 1968-74: Maximum discharge recorded, 1,760 ft³/s (49.8 m³/s) Aug. 28, 1952 (gage height, 5.35 ft or 1.631 m), from rating curve extended above 300 ft³/s (8.50 m³/s) on basis of velocity-area studies; no flow for long periods.
Maximum flood observed occurred Sept. 6 or 7, 1909, when Bluewater Dam washed out. A flood in July 1919 probably exceeded the one in 1952.

REMARKS.--Records fair. Flow partly regulated by Bluewater Lake 24 mi (39 km) upstream (see sta 08341400). Diversions and groundwater withdrawals for irrigation of about 4,500 acres (1,820 hm²) above station.

REVISIONS (WATER YEARS).--WSP 1512: 1913-14. WSP 1712: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1								0		0		
2								0		0		
3								0		0		
4								0		0		
5								0		0		
6								11		0		
7								1.5		0		
8								.19		0		
9								0		0		
10								0		0		
11								0		0		
12								0		28		
13								0		3.7		
14								0		.36		
15								0		.01		
16								0		0		
17								0		0		
18								0		0		
19								0		0		
20								0		0		
21								0		0		
22								0		0		
23								0		0		
24								0		0		
25								0		0		
26								0		0		
27								0		0		
28								0		0		
29		------						0		0		
30		------						0		0		
31		------		------		------		0	------	0	------	
TOTAL	0	0	0	0	0	0	0	12.69	0	32.07	0	0
MEAN	0	0	0	0	0	0	0	.41	0	1.03	0	0
MAX	0	0	0	0	0	0	0	11	0	28	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	25	0	64	0	0

CAL YR 1974 TOTAL 44.76 MEAN .12 MAX 28 MIN 0 AC-FT 89
WTR YR 1974 TOTAL 12.69 MEAN .035 MAX 11 MIN 0 AC-FT 25

PEAK DISCHARGE (BASE, 200 FT³/S).--OCT. 12 (1900) 329 FT³/S (3.66 FT.).

08343100 GRANTS CANYON AT GRANTS, N. MEX.

LOCATION.--Lat 35°09'39", long 107°50'15", in NE¼NE¼ sec.25, T.11 N., R.10 W., Valencia County, at Roosevelt Avenue, in the town of Grants, 0.2 mi (0.3 km) east of intersection of Roosevelt and First Avenue, and 1.1 mi (1.8 km) upstream from confluence with Rio San Jose (formerly Bluewater Creek).

DRAINAGE AREA.--13.0 mi² (33.7 km²).

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

GAGE.--Water-stage recorder and culvert control. Altutide of gage is 6,450 ft (1,966.0 m) from topographic map.

AVERAGE DISCHARGE.--13 calendar years, 0.199 ft³/s (0.006 m³/s), 144 acre-ft/yr (178,000 m³/yr).

EXTREMES.--Current year: Maximum discharge, 27 ft³/s (0.76 m³/s) Aug. 3 (gage height, 0.71 ft or 0.216 m); no flow most of time.
Period of record: Maximum discharge, 1,550 ft³/s (43.9 m³/s) Aug. 26, 1963, (gage height, 5.10 ft or 1.554 m), from rating curve extended above 220 ft³/s (6.23 m³/s) on basis of slope-area measurements at gage heights 3.17 ft (0.966 m), 5.10 ft (1.554 m), and 5.38 ft (1.640 m); maximum gage height, 5.38 ft (1.640 m) Sept. 8, 1967; no flow for most of time.

REMARKS.--Records poor.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1							0	0				
2							0	.17				
3							0	1.1				
4							0	0				
5							0	0				
6							0	0				
7							0	0				
8							0	0				
9							0	0				
10							0	0				
11							0	0				
12							0	0				
13							0	0				
14							0	0				
15							0	0				
16							0	0				
17							0	0				
18							0	0				
19							0	0				
20							0	0				
21							0	0				
22							0	0				
23							0	0				
24							0	0				
25							0	0				
26							0	0				
27							0	0				
28							0	0				
29		------					0	0				
30		------					.50	0				
31		------		------		------	0	0	------		------	
TOTAL	0	0	0	0	0	0	.50	1.27	0	0	0	0
MEAN	0	0	0	0	0	0	.016	.041	0	0	0	0
MAX	0	0	0	0	0	0	.50	1.1	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	1.0	2.5	0	0	0	0

CAL YR 1974 TOTAL 1.77 MEAN .0050 MAX 1.1 MIN 0 AC-FT 3.5
WTR YR 1974 TOTAL 1.77 MEAN .0050 MAX 1.1 MIN 0 AC-FT 3.5

PEAK DISCHARGE (BASE, 175 FT³/S).--NO PEAK ABOVE BASE.

08343500 RIO SAN JOSE NEAR GRANTS, N. MEX.

LOCATION.--Lat 35°04'27", long 107°45'01", in SE¼SE¼ sec.23, T.10 N., R.9 W., Valencia County, on right bank at west boundary of Acoma Pueblo Grant, 8.5 mi (13.7 km) southeast of Grants, and at mile 57.4 (92.4 km).

DRAINAGE AREA.--2,300 mi² (5,960 km²), approximately, of which 1,130 mi² (2,930 km²) does not contribute directly to surface runoff.

PERIOD OF RECORD.--June 1936 to current year. Prior to October 1955, published as "San Jose River near Grants".

GAGE.--Water-stage recorder and concrete control. Datum of gage is 6,269.47 ft (1,910.934 m) above mean sea level.

AVERAGE DISCHARGE.--38 calendar years, 6.47 ft³/s (0.183 m³/s), 4,690 acre-ft/yr (5.78 hm³/yr); 20 calendar years (1955-74), 6.08 ft³/s (0.172 m³/s), 4,400 acre-ft/yr (5.43 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 52 ft³/s (1.47 m³/s) Oct. 8 (gage height, 1.96 ft or 0.597 m); minimum, 2.9 ft³/s (0.082 m³/s) May 30, 31.

Period of record: Maximum discharge, 1,400 ft³/s (39.6 m³/s) Sept. 20, 1963 (gage height, 4.87 ft or 1.484 m), from rating curve extended above 450 ft³/s (12.7 m³/s) on basis of slope-area measurements at gage heights 3.19 ft (0.972 m) and 4.87 ft (1.484 m); minimum, 1.9 ft³/s (0.054 m³/s) Feb. 21, 1973.

Maximum flood probably occurred Sept. 6 or 7, 1909, following destruction of Bluewater dam. The peak of Sept. 20, 1963 may have been exceeded by those of July 1919, August and September 1929, and August 1935.

REMARKS.--Records good except those for October, which are poor. Flow partly regulated by Bluewater Lake, 34 mi (55 km) upstream (see sta 08341400). Diversions and ground-water withdrawal for irrigation of about 5,100 acres (2,060 hm²) above station.

REVISIONS (WATER YEARS).--WSP 898: 1936-39(M). WSP 1512: 1943. WSP 1712: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	4.5	6.4	5.2	5.8	6.3	3.4	5.3	5.0	5.9	4.6	5.2	4.5
2	4.0	6.3	4.9	6.1	6.0	3.6	5.8	6.2	5.8	4.6	5.3	4.5
3	3.5	5.5	5.0	5.9	5.3	3.5	5.8	7.7	5.8	4.6	5.5	4.5
4	3.0	5.6	4.7	5.5	5.3	3.7	5.8	12	5.8	4.6	5.5	4.5
5	3.5	6.0	4.5	5.4	5.5	4.0	5.8	11	5.8	4.6	5.5	4.6
6	3.7	5.5	4.6	5.8	5.1	4.0	5.9	6.8	5.3	4.6	5.8	4.5
7	3.7	5.2	4.7	5.2	5.3	4.1	6.2	6.3	5.0	5.4	6.0	4.3
8	4.0	5.0	4.8	5.1	5.5	4.1	6.3	6.8	4.9	12	6.1	3.9
9	3.7	4.9	4.8	5.4	4.9	4.1	6.2	6.9	5.0	10	6.3	3.9
10	3.5	5.4	4.9	5.4	5.0	4.0	5.8	6.7	5.0	5.3	6.1	4.1
11	3.7	5.8	4.8	5.5	4.8	4.0	5.6	6.7	5.0	6.7	5.8	4.2
12	4.0	6.1	4.9	5.6	4.8	4.0	5.3	6.6	4.7	8.0	5.9	4.1
13	4.5	5.8	5.3	5.5	4.9	4.0	5.3	6.3	4.7	20	5.9	4.3
14	4.8	6.0	5.3	5.6	4.8	4.1	5.3	6.3	4.9	13	5.9	4.3
15	5.1	5.4	5.3	5.8	4.5	4.1	5.8	6.7	4.9	9.0	5.8	4.0
16	5.3	5.4	5.3	5.9	4.2	4.4	6.4	6.5	4.9	7.0	5.9	4.1
17	5.6	5.5	5.3	6.0	4.0	4.4	5.3	6.7	4.7	6.0	5.9	4.4
18	5.8	5.2	5.4	6.3	4.0	4.4	5.8	6.1	4.6	5.5	5.8	4.5
19	5.2	5.1	5.4	6.5	4.1	4.4	5.6	5.8	4.9	5.0	5.7	4.5
20	5.0	5.6	5.6	6.5	4.2	4.6	5.3	5.8	4.9	4.5	5.5	4.6
21	5.9	5.2	5.6	6.8	3.9	4.8	5.3	5.8	4.9	5.2	5.2	5.2
22	5.5	5.2	5.9	6.7	3.9	4.9	5.3	5.8	4.9	7.0	5.4	5.7
23	4.9	5.1	5.9	6.1	4.0	4.8	5.3	5.8	4.6	10	5.5	4.8
24	4.9	4.7	5.8	6.9	3.8	4.9	5.2	6.3	4.6	11	5.0	4.2
25	5.1	4.8	5.3	7.0	3.9	4.9	5.0	6.3	4.6	7.0	4.9	4.1
26	5.7	5.3	5.0	6.8	4.0	4.9	5.2	6.3	4.6	6.0	5.0	4.2
27	6.0	5.4	5.5	6.5	3.9	4.7	4.9	6.3	4.6	5.5	4.8	4.4
28	5.5	5.2	5.5	6.4	3.9	5.0	5.2	6.3	4.6	5.5	4.9	4.4
29	5.4	------	5.6	6.4	3.7	5.0	4.9	6.3	4.5	5.5	4.6	4.7
30	5.9	------	5.8	6.1	3.5	5.1	4.9	6.3	4.6	5.5	4.5	4.6
31	6.3	------	5.8	------	3.3	------	4.8	5.8	------	5.3	------	4.5
TOTAL	147.2	152.6	162.4	180.5	140.1	129.9	170.6	206.2	149.0	218.5	164.8	137.1
MEAN	4.75	5.45	5.24	6.02	4.52	4.33	5.50	6.65	4.97	7.05	5.49	4.42
MAX	6.3	6.4	5.9	7.0	6.3	5.1	6.4	12	5.9	20	6.3	5.7
MIN	3.0	4.7	4.5	5.1	3.3	3.4	4.8	5.0	4.5	4.5	4.5	3.9
AC-FT	292	303	322	358	278	258	338	409	296	433	327	272

CAL YR 1974 TOTAL 1,958.9 MEAN 5.37 MAX 20 MIN 3.0 AC-FT 3,890
WTR YR 1974 TOTAL 1,834.2 MEAN 5.03 MAX 12 MIN 3.0 AC-FT 3,640
PEAK DISCHARGE (BASE, 100 FT³/S).--NO PEAK ABOVE BASE.

08350500 RIO SAN JOSE NEAR LAGUNA, N. MEX.

LOCATION.--Lat 35°01'25", long 107°19'32", in SW¼NW¼ sec.12, T.9 N., R.5 W., Valencia County, on right bank, at diversion dam of Mesita ditch, 3 mi (5 km) downstream from Rio Paquate, 3.5 mi (5.6 km) east of Laguna, and at mile 24.8 (39.3 km).

DRAINAGE AREA.--3,040 mi² (7,870 km²), approximately, of which about 1,130 mi² (2,930 km²) does not contribute directly to surface runoff.

PERIOD OF RECORD.--March 1937 to September 1941, August 1973 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 5,640 ft (1,719 m) from topographic map.

EXTREMES.--Maximum discharge during period August 1973 to December 1974, 854 ft³/s (24.2 m³/s) Oct. 13, 1974 (gage height, 4.98 ft or 1.518 m); no flow for many days.
Period of record: Maximum discharge, 3,400 ft³/s (96.3 m³/s) Aug. 1, 1973 (gage height, 5.50 ft or 1.676 m, datum then in use) on basis of computation of peak flow over dam; no flow for many days.

REMARKS.--Records poor. Flow regulated to some extent since 1927 by Bluewater Lake 67 mi (108 km) upstream (see sta 08341400).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1973

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1								—	4.2	0	6.8	11
2								—	1.8	0	7.2	12
3								—	.70	0	7.1	11
4								—	.28	0	6.7	10
5								—	0	0	6.7	11
6								—	0	0	7.9	10
7								—	0	0	8.1	10
8								—	0	0	8.3	10
9								—	0	0	8.3	10
10								—	41	0	8.9	10
11								—	230	0	9.3	10
12								—	101	0	9.7	10
13								0	46	0	10	10
14								0	10	0	11	10
15								0	7.7	0	10	10
16								0	5.8	0	11	11
17								0	4.2	0	11	12
18								0	3.1	0	11	12
19								0	2.2	0	11	12
20								0	1.3	.17	11	10
21								0	.59	.66	11	10
22								0	.50	1.1	11	11
23								0	.26	.63	11	15
24								24	.17	.50	12	14
25								50	.09	.80	12	12
26								6.4	0	1.1	12	12
27								1.6	0	1.4	11	10
28								0	0	1.5	11	12
29		------						0	0	3.6	11	13
30		------						0	0	5.4	11	14
31		------		------		------		7.6	------	6.1	------	12
TOTAL								—	460.89	22.96	294.0	347
MEAN								—	15.4	.74	9.80	11.2
MAX								—	230	6.1	12	15
MIN									0	0	6.7	10
AC-FT								—	914	46	583	688

08350500 RIO SAN JOSE NEAR LAGUNA, N. MEX.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	12	3.5	8.4	7.9	1.1		0	0	0	0	19	8.7
2	10	4.0	8.9	7.4	.79		0	3.8	0	0	14	8.7
3	9.0	3.7	8.4	6.9	.75		0	5.1	0	0	12	9.1
4	8.0	3.6	8.3	6.5	1.1		0	4.4	0	0	9.8	8.7
5	10	3.5	8.4	6.1	1.3		0	4.9	0	0	8.7	6.7
6	13	3.3	9.2	5.7	1.5		0	3.1	0	0	5.0	6.1
7	16	3.1	9.3	5.0	1.7		0	1.3	0	.44	4.0	6.2
8	17	2.8	9.5	4.4	2.0		0	.50	0	2.2	2.0	6.0
9	16	3.1	10	4.0	2.3		0	.33	0	1.6	2.4	5.0
10	17	3.5	10	3.5	2.4		0	.22	0	60	1.3	5.5
11	17	4.0	10	2.9	2.1		0	.08	0	52	.64	6.0
12	17	4.5	9.0	2.9	2.0		0	.55	0	58	1.0	6.0
13	17	5.0	8.4	2.8	1.0		0	.08	0	360	1.9	7.0
14	18	5.0	8.3	2.8	.22		0	0	0	138	2.4	7.0
15	17	5.0	8.4	2.9	0		0	0	0	83	3.1	7.5
16	16	5.2	8.4	2.9	0		0	0	0	30	2.6	7.5
17	16	5.4	8.4	2.9	0		0	0	0	14	2.0	8.0
18	16	5.6	8.1	3.1	0		0	0	0	4.4	3.3	8.0
19	16	5.8	8.4	3.2	0		0	0	0	1.3	4.4	8.5
20	16	6.0	8.7	3.1	0		0	0	0	1.0	5.0	8.5
21	15	5.6	8.7	2.9	0		0	0	.81	.50	5.8	9.0
22	15	5.4	8.9	2.9	0		0	0	.75	8.2	6.4	9.5
23	8.0	5.0	9.2	2.9	0		0	0	.05	142	6.4	8.5
24	4.0	4.5	9.2	2.5	0		0	0	0	43	5.8	7.5
25	2.5	5.5	9.0	1.9	0		0	0	0	20	5.6	7.0
26	1.6	6.0	9.3	2.0	0		0	.42	0	15	6.7	6.5
27	1.8	6.0	9.2	1.5	0		0	0	0	14	8.0	6.5
28	2.0	6.2	9.8	1.1	0		0	0	0	15	9.8	7.0
29	2.2	------	10	1.1	0		3.4	0	0	34	7.0	7.0
30	2.5	------	9.2	.84	0		1.1	0	0	84	10	6.5
31	3.0	------	8.6	------	0	------	0	0	------	55	------	6.5
TOTAL	351.6	129.8	277.5	106.54	20.26	0	4.5	24.78	1.61	1,216.64	176.03	226.2
MEAN	11.3	4.64	8.95	3.55	.65	0	.15	.80	.054	39.2	5.87	7.30
MAX	18	6.2	10	7.9	2.4	0	3.4	5.1	.81	360	19	9.5
MIN	1.6	2.8	8.1	.84	0	0	0	0	0	0	.64	5.0
AC-FT	697	257	550	211	40	0	8.9	49	3.2	2,410	349	449

CAL YR 1974 TOTAL 2,535.46 MEAN 6.95 MAX 360 MIN 0 AC-FT 5,030
WTR YR 1974 TOTAL 1,580.55 MEAN 4.33 MAX 18 MIN 0 AC-FT 3,140

08351500 RIO SAN JOSE AT CORREO, N. MEX.

LOCATION.--Lat 34°58'05", long 107°11'11", in NE¼ sec.31, T.9 N., R.3 W., Valencia County, on right bank 0.7 mi (1.1 km) upstream from State Highway 6, 0.8 mi (1.3 km) northwest of Correo, and 14 mi (23 km) upstream from mouth.

DRAINAGE AREA.--3,660 mi² (9,480 km²), approximately, of which about 1,130 mi² (2,930 km²) does not contribute directly to surface runoff.

PERIOD OF RECORD.--April 1943 to current year. Prior to October 1955, published as "San Jose River at Correo".

GAGE.--Water-stage recorder. Datum of gage is 5,492.43 ft (1,674.093 m) above mean sea level. Prior to Oct. 1, 1958, water-stage recorder and concrete control at site 1 mi (1.6 km) downstream at datum 17.55 ft (5.349 m) lower.

AVERAGE DISCHARGE.--31 calendar years, 12.2 ft³/s (0.346 m³/s), 8,840 acre-ft/yr (10.9 hm³/yr); 20 calendar years (1955-74), 13.6 ft³/s (0.385 m³/s), 9,850 acre-ft/yr (12.1 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,720 ft³/s (48.7 m³/s) Oct. 13 (gage height, 4.08 ft or 1.244 m), from rating curve extended above 700 ft³/s (19.8 m³/s) on basis of slope-area measurement at a gage height of 4.28 ft (1.305 m); no flow for many days.

Period of record: Maximum discharge, 7,150 ft³/s (202 m³/s) Aug. 11, 1955; maximum gage height, 20.7 ft (6.31 m), Aug. 22, 1958, backwater from dam (site and datum then in use); no flow for many days.

A flood which probably occurred Aug. 21, 1935, reached a stage of 15.4 ft (4.69 m), from floodmarks, former site and datum (discharge, about 11,000 ft³/s or 312 m³/s), but was probably exceeded by the flood of Sept. 23, 1929 (discharge not determined), based on study of records for Rio Puerco at Rio Puerco.

REMARKS.--Records poor. Flow regulated to some extent since 1927 by Bluewater Lake 78 mi (126 km) upstream (see sta 08341400).

REVISIONS (WATER YEARS).--WSP 1442: 1944, 1945(M), 1946-48, 1949(M), 1950, 1951(P), 1952. WSP 1732: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	3.0	8.0	4.8	2.0			0	12	0	0	4.5	4.0
2	2.0	9.0	4.4	2.2			0	9.4	0	0	4.0	3.5
3	1.5	6.5	4.0	2.2			0	8.3	0	0	3.5	3.5
4	1.0	7.0	2.8	1.5			0	6.3	0	0	3.0	3.8
5	2.0	7.0	2.2	1.5			0	.50	0	0	2.8	4.0
6	3.0	6.0	3.2	1.7			0	.25	0	0	3.0	3.5
7	4.0	6.0	3.2	1.2			0	.20	0	0	2.9	3.0
8	5.0	4.0	3.2	.50			98	0	0	0	2.8	2.5
9	4.0	5.0	3.6	.30			0	0	0	0	2.5	2.7
10	3.2	7.0	4.8	.24			0	0	0	26	1.7	2.9
11	5.2	10	4.4	.15			0	1.8	0	364	1.3	3.2
12	6.0	7.4	4.4	0			0	.43	0	54	1.7	3.4
13	6.2	6.2	4.8	0			0	0	0	717	2.2	3.7
14	6.8	7.4	4.0	0			0	0	0	496	3.0	4.0
15	8.0	6.8	4.0	0			0	0	0	117	4.0	3.5
16	10	5.7	4.0	0			0	0	0	50	5.0	3.3
17	11	5.2	3.6	0			0	0	0	41	4.5	3.6
18	10	5.2	3.2	0			0	0	0	28	5.0	3.5
19	8.8	5.2	3.2	0			0	0	19	16	6.0	3.5
20	7.4	4.8	3.6	0			0	0	7.8	8.0	7.0	3.5
21	8.0	4.4	3.2	0			0	0	.26	7.0	6.0	3.7
22	6.2	4.8	3.6	0			0	0	0	5.0	5.0	4.0
23	6.4	5.2	3.2	0			0	0	0	594	4.5	3.7
24	6.2	3.5	4.0	0			0	0	0	60	4.8	3.3
25	6.0	4.0	3.6	0			0	0	0	20	4.7	3.0
26	6.5	7.4	4.0	0			0	10	0	10	4.6	2.8
27	7.5	6.8	3.6	0			0	30	0	80	4.5	2.9
28	7.2	5.7	3.6	0			0	2.0	0	50	4.7	2.8
29	7.0	------	2.2	0			59	0	0	46	4.4	3.0
30	7.5	------	2.2	0			110	0	0	10	4.2	3.2
31	7.2	------	2.0	------		------	3.0	0	------	5.0	------	3.0
TOTAL	183.8	171.2	110.6	13.49	0	0	270.0	81.18	27.06	2,804.0	117.8	104.0
MEAN	5.93	6.11	3.57	.45	0	0	8.71	2.62	.90	90.5	3.93	3.35
MAX	11	10	4.8	2.2	0	0	110	30	19	717	7.0	4.0
MIN	1.0	3.5	2.0	0	0	0	0	0	0	0	1.3	2.5
AC-FT	365	340	219	27	0	0	536	161	54	5,560	234	206

CAL YR 1974 TOTAL 3,882.13 MEAN 10.6 MAX 717 MIN 0 AC-FT 7,700
WTR YR 1974 TOTAL 877.07 MEAN 2.40 MAX 110 MIN 0 AC-FT 1,740

PEAK DISCHARGE (BASE, 800 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
7-8	0300	3.42	978	10-23	UNKNOWN	4.08	1,680
7-30	0030	3.95	1,500	10-29	2115	3.27	825
10-13	UNKNOWN	4.08	1,720				

08352500 RIO PUERCO AT RIO PUERCO, N. MEX.

LOCATION.--Lat 34°47'38", long 106°59'20", in NW¼ sec.31, T.7 N., R.1 W., Valencia County, in San Clemente Grant, on downstream end of pier nearest left abutment of the Atchison, Topeka and Santa Fe Railway Co. bridge, and 7 mi (11 km) downstream from Rio San Jose, and at mile 36.2 (58.2 km).

DRAINAGE AREA.--6,590 mi² (17,070 km²), approximately, of which at least 1,130 mi² (2,930 km²) does not contribute directly to surface runoff.

PERIOD OF RECORD.--June 1909 to December 1912 (records fragmentary, gage heights only), March 1934 to current year. Records for January 1913 to December 1914 published in WSP 358, 388, and 408 have been found to be unreliable and should not be used.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5,008.59 ft (1,526.618 m) above mean sea level.

AVERAGE DISCHARGE.--40 calendar years (1935-74), 58.5 ft³/s (1.657 m³/s), 42,380 acre-ft/yr (52.3 hm³/yr); 20 calendar years (1955-74), 50.9 ft³/s (1.441 m³/s), 36,880 acre-ft/yr (45.5 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 4,240 ft³/s (120 m³/s) Aug. 4 (gage height, 3.40 ft or 1.036 m); no flow for many days.

Period of record: Maximum discharge, 28,000 ft³/s (793 m³/s) Aug. 21, 1935 (gage height, 7.24 ft or 2.207 m), by computation of peak flow over dam; no flow many days.

The damaging flood of Sept. 23, 1929, is the greatest since about 1880; it reached a stage of 18 ft (5.5 m) conditions prior to destruction of railroad bridge. Discharge, 37,700 ft³/s (1,070 m³/s), by weir formula, from reports of State Engineer. The flood of Aug. 12, 1929, reached a stage of about 16 ft or 4.9 m (discharge, 31,300 ft³/s or 886 m³/s, by weir formula, from reports of State Engineer). A flood on Oct. 4, 1913, reached a stage of 9.5 ft or 2.90 m (discharge not determined) prior to construction of the concrete control.

REMARKS.--Records poor. Diversions for irrigation of about 11,500 acres (4,650 hm²) above station (includes 3,700 acres or 1,500 hm² irrigated partly or entirely from wells).

REVISIONS (WATER YEARS).--WSP 1512: 1937 (calendar year figures only), 1941, 1944. WSP 1712: 1958. WSP 1732: Drainage area. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1.0	4.5	6.5	.10			0	11	0	0	128	2.4
2	.90	5.4	2.9	.10			0	6.6	0	0	85	3.5
3	.80	4.8	2.1	.10			0	500	0	0	20	4.6
4	1.2	6.1	1.7	.15			0	1,070	0	0	9.0	4.9
5	.50	4.5	1.2	.21			0	150	0	0	7.0	4.5
6	1.0	6.1	1.0	.10			0	50	0	0	5.0	4.4
7	2.0	6.1	9.2	0			0	20	0	2.2	4.0	4.1
8	2.5	2.1	5.8	0			26	79	0	.47	6.0	4.0
9	6.1	1.7	6.6	0			7.6	66	0	6.1	2.6	1.1
10	4.8	1.4	4.2	0			.55	16	0	2.6	2.4	.20
11	4.2	2.6	6.8	0			.01	6.0	0	506	2.2	.17
12	4.5	6.5	11	0			.04	2.5	0	403	1.7	.07
13	5.8	6.5	9.2	0			.01	.50	0	828	1.1	.57
14	5.4	6.5	6.8	0			0	0	0	561	1.4	2.2
15	6.5	5.8	4.8	0			0	0	0	156	1.8	1.6
16	5.8	5.4	18	0			0	5.1	6.5	40	2.1	1.4
17	6.1	5.1	19	0			0	0	.68	62	2.4	1.6
18	9.2	5.1	9.2	0			0	0	42	21	2.2	2.9
19	6.8	4.5	6.1	0			0	0	18	14	2.2	2.4
20	5.8	4.0	4.5	0			0	0	8.5	9.6	2.9	2.1
21	5.4	4.0	3.6	0			0	0	141	5.6	3.6	2.8
22	5.4	2.9	3.6	0			0	1.8	159	4.1	3.9	4.5
23	3.6	3.6	3.1	0			0	3.8	95	699	3.7	4.1
24	3.1	1.4	2.9	0			0	1.2	45	297	4.6	2.0
25	1.2	1.9	2.9	0			0	1.0	10	94	4.0	2.0
26	4.5	2.4	2.6	0			0	6.1	2.0	50	3.8	.16
27	4.2	3.5	2.4	0			0	5.8	.09	57	3.8	1.4
28	1.0	4.0	2.4	0			0	3.8	0	180	3.1	2.1
29	2.4	------	1.9	0			0	2.4	0	106	3.8	1.5
30	2.4	------	.68	0			57	.01	0	708	3.5	3.0
31	5.1	------	.17	------		------	60	0	------	257	------	3.6
TOTAL	115.90	109.1	156.95	.74	0	0	151.21	1,772.81	524.77	4,696.37	323.5	74.97
MEAN	3.74	3.90	5.06	.025	0	0	4.88	57.2	17.5	151	10.8	2.42
MAX	9.2	6.5	19	.21	0	0	60	1,070	159	828	128	4.9
MIN	.50	1.4	.17	0	0	0	0	0	0	0	1.1	.07
AC-FT	230	216	311	1.5	0	0	300	3,520	1,040	9,320	642	149

CAL YR 1974 TOTAL 7,926.32 MEAN 21.7 MAX 1,070 MIN 0 AC-FT 15,720
WTR YR 1974 TOTAL 2,040.25 MEAN 7.78 MAX 1,070 MIN 0 AC-FT 5,650

PEAK DISCHARGE (BASE, 2,500 FT³/S).--AUG. 4 (0045) 4,240 FT³/S (3.40 FT.).

08353000 RIO PUERCO NEAR BERNARDO, N. MEX.

LOCATION.--Lat 34°24'33", long 106°51'09", in SE¼ sec.8, T.2 N., R.1 E., Socorro County, on bridge on former U.S. Highway 85 and 0.2 mi (0.3 km) upstream from Interstate Highway 25, 1.2 mi (1.9 km) southwest of Bernardo, 3 mi (4.8 km) upstream from mouth, and 18 mi (29 km) south of Belen.

DRAINAGE AREA.--7,350 mi² (19,040 km²), approximately, of which at least 1,130 mi² (2,930 km²) does not contribute directly to surface runoff.

PERIOD OF RECORD.--November 1939 to current year. Fragmentary gage height record and footnotes concerning no flow for the period September 1910 to August 1914, published in WSP 358 and 388, are in error and should not be used.

GAGE.--Water-stage recorder. Datum of gage is 4,722.34 ft (1,439.369 m) above mean sea level. Prior to Jan. 24, 1969, at datum 3.10 ft (0.945 m) higher.

AVERAGE DISCHARGE.--35 calendar years (1940-74), 50.5 ft³/s (1.430 m³/s), 36,590 acre-ft/yr (45.1 hm³/yr); 20 calendar years (1955-74), 47.1 ft³/s (1.334 m³/s), 34,120 acre-ft/yr (42.1 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 2,980 ft³/s (84.4 m³/s) Aug. 4 (gage height, 10.40 ft or 3.170 m); no flow for extended periods.

Period of record: Maximum discharge, 18,800 ft³/s (532 m³/s) Sept. 23, 1941, from rating curve extended above 7,800 ft³/s (221 m³/s); maximum gage height, 16.9 ft (5.15 m) present datum, Aug. 12, 1955; no flow for extended periods.

The greatest flood since about 1880 occurred Sept. 23, 1929, from information by local residents (discharge, about 35,000 ft³/s or 991 m³/s, estimated on basis of peak at Rio Puerco). Another flood occurred Aug. 12, 1929 (discharge, 30,600 ft³/s or 867 m³/s, by slope-area method, from reports of State Engineer).

REMARKS.--Records poor. Diversions for irrigation of about 11,500 acres (4,650 hm²) above station (includes 3,700 acres or 1,500 hm² irrigated wholly or partly from wells). Water quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1512: 1941-42, 1944-45, 1946(P), 1947-49. WSP 1632: 1957. WSP 1732: Drainage area. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			0		.75		0	35	0	0	178	
2			0		0		0	6.0	0	0	77	
3			0		0		0	8.0	0	0	92	
4			0		0		0	1,140	0	0	20	
5			0		0		0	418	0	0	10	
6			0		0		0	80	0	0	1.0	
7			0		0		0	50	0	.11	0	
8			0		0		0	60	0	0	0	
9			0		0		0	156	0	0	0	
10			0		0		0	10	0	0	0	
11			0		0		0	1.0	0	112	0	
12			0		0		0	0	0	679	0	
13			0		0		0	0	0	354	0	
14			0		0		0	0	0	965	0	
15			0		0		0	0	0	265	0	
16			0		0		0	0	0	92	0	
17			0		0		0	0	0	15	0	
18			0		0		0	0	0	2.0	0	
19			4.6		0		4.7	0	17	0	0	
20			.75		0		0	0	40	0	0	
21			.15		0		0	23	32	0	0	
22			0		0		0	134	189	3.0	0	
23			0		0		0	213	40	8.0	0	
24			0		0		0	28	12	448	0	
25			0		0		0	50	4.0	65	0	
26			0		0		0	171	0	3.0	0	
27			0		0		0	0	0	0	0	
28			0		0		.57	0	0	0	0	
29		------	0		0		24	57	0	134	0	
30		------	0		0		.60	2.0	0	239	0	
31		------	0	------	0	------	87	0	------	582	------	
TOTAL	0	0	5.68	0	.75	0	116.67	2,616.0	554.0	3,966.11	538.0	0
MEAN	0	0	.18	0	.024	0	3.76	84.4	11.1	128	11.3	0
MAX	0	0	4.6	0	.75	0	87	1,140	189	965	178	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	11	0	1.5	0	231	5,190	662	7,870	670	0

CAL YR 1974 TOTAL 7,377.21 MEAN 20.2 MAX 1,140 MIN 0 AC-FT 14,630
WTR YR 1974 TOTAL 5,070.10 MEAN 8.42 MAX 1,140 MIN 0 AC-FT 6,100

PEAK DISCHARGE (BASE, 2,000 FT³/S).--AUG. 4 (1330) 2,980 FT³/S (10.40 FT.).

08354000 RIO SALADO NEAR SAN ACACIA, N. MEX.

LOCATION.--Lat 34°17'50", long 106°53'59', in NW¼ sec.24, T.1 N., R.1 W., Socorro County, at former bridge site 0.3 mi (0.5 km) upstream from bride on Interstate Highway 25, 3.1 mi (5.0 km) upstream from mouth, 2.9 mi (4.7 km) north of San Acacia, and 15 mi (24 km) north of Socorro.

DRAINAGE AREA.--1,380 mi² (3,570 km²), approximately.

PERIOD OF RECORD.--October 1947 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,765 ft (1,452.4 m) from topographic map. Prior to Sept. 14, 1966, at site 1.7 mi (2.7 km) downstream at different datum.

AVERAGE DISCHARGE.--27 calendar years, 16.4 ft³/s (0.464 m³/s), 11,880 acre-ft/yr (14.6 hm³/yr); 20 calendar years (1955-74), 17.7 ft³/s (0.501 m³/s), 12,820 acre-ft/yr (15.8 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,850 ft³/s (52.4 m³/s) Aug. 3 (gage height, 2.70 ft or 0.823 m); no flow most of time.
Period of record: Maximum discharge, 36,200 ft³/s (1,030 m³/s) July 31, 1965 (gage height, 5.54 ft or 1.689 m, from floodmarks, present site and datum), from rating curve extended above 900 ft³/s (25.5 m³/s) on basis of slope-area measurement of peak flow; no flow most of time.
Another flood occurred Aug. 12, 1929 (discharge, 27,400 ft³/s or 776 m³/s, by slope-area method), from reports of State Engineer.

REMARKS.--Records poor. Diversions for irrigation of about 100 acres (40.5 hm²) above station. Water quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1512: 1948-49, 1955. WSP 1632: 1953.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1							0	1.0	0	0		
2							0	149	0	0		
3							0	457	0	0		
4							0	3.0	0	0		
5							0	67	0	0		
6							0	5.0	0	0		
7							0	62	0	2.4		
8							5.0	75	0	3.3		
9							.07	5.0	0	0		
10							0	0	0	0		
11							0	0	0	0		
12							0	0	0	.50		
13							0	0	0	13		
14							2.0	0	0	7.2		
15							10	0	0	0		
16							5.5	0	0	0		
17							1.0	0	0	0		
18							.50	0	20	0		
19							6.6	0	0	0		
20							5.0	0	32	0		
21							1.0	0	0	0		
22							10	26	0	9.4		
23							5.0	10	0	29		
24							5.0	1.0	0	55		
25							1.0	11	0	1.0		
26							1.0	3.0	0	1.0		
27							.50	0	0	6.0		
28							0	0	0	9.1		
29		------					0	0	0	1.1		
30		------					31	0	0	19		
31		------		------		------	5.0	0	------	1.0	------	
TOTAL	0	0	0	0	0	0	96.17	877.0	52	166.00	0	0
MEAN	0	0	0	0	0	0	3.01	28.3	1.73	4.39	0	0
MAX	0	0	0	0	0	0	31	457	32	55	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	185	1,740	103	270	0	0

CAL YR 1974 TOTAL 1,156.17 MEAN 3.17 MAX 457 MIN 0 AC-FT 2,300
WTR YR 1974 TOTAL 1,029.17 MEAN 2.82 MAX 457 MIN 0 AC-FT 2,040

PEAK DISCHARGE (BASE, 3,000 FT³/S).--NO PEAK ABOVE BASE.

08354500 SOCORRO MAIN CANAL NORTH AT SAN ACACIA, N. MEX.

LOCATION.--Lat 34°15'17", long 106°53'43', in SE¼NW¼ sec.1, T.1 S., R.1 W., Socorro County, on right bank at San Acacia, and 0.5 mi (0.8 km) downstream from point of diversion.

PERIOD OF RECORD.--April 1936 to September 1964 (monthly discharge only), October 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,660.16 ft (1,420.417 m) above mean sea level. Prior to Mar. 8, 1958, at site 300 ft (90 m) upstream (in old channel) at datum 0.42 ft (0.128 m) lower.

EXTREMES.--Period of record: Maximum daily discharge, 251 ft³/s (7.11 m³/s) July 30, 1965; no flow at times.

REMARKS.--Records poor. This canal is 1 of 3 channels (see sta 08354800, 08354900) carrying flow in valley cross section. For combined monthly flow in acre-ft of this canal, conveyance channel, and floodway, see tabulation below daily table for sta 08354900. Canal diverts water from right bank of Rio Grande for irrigation of about 8,000 acres (3,240 hm²). Alamillo Acequia and 3 other smaller ditches divert water from canal above station for irrigation of about 400 acres (162 hm²). Discharge records collected at the canal heading from October 1964 to September 1965 indicate that 7,770 acre-ft (9.58 hm³) or 9% of the initial canal flow was diverted before reaching the regular gaging station.

REVISIONS (WATER YEARS).--WSP 1242: 1951.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			109	204	224	212	125	112	125	129		
2			118	186	239	198	114	122	126	144		
3			123	155	246	213	104	128	136	144		
4			126	177	224	229	110	134	146	138		
5			164	181	220	184	107	166	158	92		
6			165	178	223	213	106	159	148	84		
7			176	179	220	229	113	172	136	106		
8			174	182	228	134	134	193	132	98		
9			186	196	230	131	127	190	114	87		
10			186	216	226	119	134	185	109	68		
11			206	219	226	115	157	173	99	62		
12			194	224	227	92	150	156	84	60		
13			196	201	219	118	152	128	72	67		
14			193	234	210	102	93	108	100	73		
15			199	204	204	93	97	97	116	60		
16			200	208	201	121	106	80	127	65		
17			197	240	154	131	108	105	111	72		
18			197	249	172	132	149	114	96	71		
19			188	220	164	140	87	94	76	80		
20			183	220	191	130	59	90	63	105		
21			181	210	201	121	133	101	0	108		
22			182	208	198	117	122	94	0	69		
23			194	187	200	128	88	89	0	13		
24			198	192	206	120	109	98	0	18		
25			215	216	207	88	97	96	38	44		
26			210	198	212	90	87	88	82	80		
27			205	205	212	94	76	91	80	69		
28			206	206	184	106	79	108	83	48		
29		------	204	214	189	110	68	111	82	42		
30		------	204	229	216	129	115	118	115	19		
31		------	199	------	208	------	88	126	------	22	------	
TOTAL	0	0	5,678	6,255	6,469	4,139	3,356	3,802	2,724	2,326	0	0
MEAN	0	0	183	209	209	138	108	123	90.8	75.0	0	0
MAX	0	0	215	249	246	229	152	193	158	144	0	0
MIN	0	0	109	155	154	88	59	80	0	13	0	0
AC-FT	0	0	11,260	12,410	12,830	8,210	6,660	7,540	5,400	4,610	0	0

CAL YR 1974 TOTAL 34,749.00 MEAN 95.2 MAX 249 MIN 0 AC-FT 68,920
WTR YR 1974 TOTAL 37,871.00 MEAN 104 MAX 249 MIN 0 AC-FT 75,120

08354800 RIO GRANCE CONVEYANCE CHANNEL AT SAN ACACIA, N. MEX.

LOCATION.--lat 34°14'54", long 106°54'04', in SW¼ sec.1, T.1 S., R.1 W., Socorro County, in right bank 75 ft (23 m) upstream from railway crossing, 0.5 mi (0.8 km) south of San Acacia, and 1.2 mi (1.9 km) downstream from San Acacia diversion dam.

PERIOD OF RECORD.--October 1958 to September 1964 included in composite flow of station "08355000 Rio Grande at San Acacia," October 1960 to September 1964 (monthly discharge published in WSP 1923 with records for station 08355000), October 1964 to current year. Daily records 1958-64 are available in files at district office.

GAGE.--Water-stage recorder. Datum of gage is 4,652.5 ft (1,418.08 m) above mean sea level (Bureau of Reclamation datum).

AVERAGE DISCHARGE.--16 calendar years, 548 ft³/s (15.52 m³/s), 397,000 acre-ft/yr (490 hm³/yr).

EXTREMES.--Period of record: Maximum daily discharge, 1,950 ft³/s (55.2 m³/s) May 12, 13, 1966; no flow at times.

REMARKS.--Records good. Conveyance channel, constructed in 1958, is 1 of 3 channels (See sta 08354500, 08354900) carrying flow in valley cross section. Original design and plan was for conveyance channel to carry all flows up to about 2,000 ft³/s (56.6 m³/s). For combined monthly flow in acre-ft of this channel, floodway, and Socorro main canal north see tabulation below daily table for station 08354900. Water quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1,780	1,400	567	718	59	2.6	1.5	1.8	316	39	542	540
2	1,780	1,310	511	812	94	2.3	.85	213	257	15	484	540
3	1,750	1,340	564	922	186	2.3	.85	559	123	16	440	552
4	1,670	1,380	605	1,020	272	2.3	.85	269	70	22	419	571
5	1,530	1,210	593	941	250	2.3	.85	67	42	188	459	564
6	1,410	982	516	802	228	2.0	.85	51	32	92	517	576
7	1,360	903	466	658	234	2.3	.85	35	61	78	558	593
8	1,550	880	444	496	200	2.3	.85	29	20	147	569	622
9	1,590	888	408	502	230	2.3	1.0	28	15	156	604	618
10	1,620	888	405	259	238	2.3	.50	20	12	205	609	661
11	1,610	807	511	171	172	2.3	.67	15	10	237	685	669
12	1,560	837	789	175	112	2.0	.67	12	9.0	681	657	666
13	1,550	835	646	110	60	2.3	2.0	10	7.5	551	638	656
14	1,420	825	612	117	22	2.0	3.0	9.5	7.5	985	629	649
15	1,440	802	567	156	4.5	1.5	213	9.0	6.6	617	628	645
16	1,510	857	549	92	.85	1.5	257	9.0	11	551	616	649
17	1,480	876	557	35	1.0	1.5	145	10	110	280	616	629
18	1,460	870	649	51	1.0	1.5	102	10	100	255	606	636
19	1,460	832	751	25	2.0	1.8	225	9.5	116	196	596	654
20	1,470	832	795	18	5.0	1.0	300	14	393	167	593	663
21	1,460	827	746	19	49	1.0	202	28	516	145	593	664
22	1,440	825	624	18	47	.85	26	102	432	221	566	664
23	1,510	802	590	18	34	.67	100	316	307	413	567	664
24	1,520	800	639	11	6.2	.85	4.1	81	280	686	554	684
25	1,480	777	686	7.5	3.0	1.5	3.0	99	274	496	535	691
26	1,440	761	748	4.9	10	1.5	2.3	373	231	251	542	701
27	1,420	721	718	3.3	42	1.5	1.5	231	217	321	532	698
28	1,420	627	718	3.0	6.6	1.5	1.5	137	147	410	548	666
29	1,470	------	742	3.3	3.7	1.8	1.8	194	134	521	542	631
30	1,380	------	760	24	2.6	1.3	1.5	187	67	551	540	595
31	1,350	------	692	------	2.6	------	.67	241	------	758	------	589
TOTAL	46,890	25,691	19,159	7,987.0	2,578.05	52.87	1,601.46	3,369.8	4,293.6	9,907	16,984	19,600
MEAN	1,513	918	618	266	83.2	1.76	51.7	109	143	320	566	632
MAX	1,780	1,400	795	1,020	272	2.6	300	559	516	985	685	701
MIN	1,350	627	405	3.0	.85	.67	.50	1.8	6.6	15	419	540
AC-FT	93,010	50,960	38,000	15,840	5,110	105	3,180	6,680	8,520	19,650	33,690	38,880

CAL YR 1974 TOTAL 158,113.78 MEAN 433 MAX 1,780 MIN .50 AC-FT 313,600
WTR YR 1974 TOTAL 202,550.78 MEAN 555 MAX 1,830 MIN .50 AC-FT 401,800

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, N. MEX.

LOCATION.--Lat 34°15'23", long 106°53'18", Socorro County, in Sevilleta Grant, 0.2 mi (0.3 km) below San Acacia diversion dam, 0.3 mi (0.5 km) east of San Acacia, 2 mi (3 km) downstream from Rio Salado, and at mile 1,472.6 (2,369.4 km).

DRAINAGE AREA.--26,770 mi² (69,330 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, Colo.

PERIOD OF RECORD.--April 1936 to Septmeber 1958 (prior to construction of conveyance channel), October 1958 to September 1964 (flow in conveyance channel included), October 1964 to current year. Prior to October 1964 published as "08355000 Rio Grande at San Acacia" and records are not equivalent.

GAGE.--Water-stage recorder. Datum of gage is 4,654.50 ft (1,418.692 m) above mean sea level. Aug. 19, 1965 to Aug. 15, 1967 at same site at datum 1.89 ft (0.576 m) higher. Prior to Mar. 19, 1953, at several sites 0.1 mi (0.2 km) upstream at different datums. Mar. 19, 1953 to Aug. 19, 1965, at site 0.4 mi (0.6 km) downstream at datum 3.60 ft (1.097 m) higher. Floodway is bypassed by Socorro main canal north and since Oct. 1958, by conveyance channel.

AVERAGE DISCHARGE.--22 calendar years (1937-58), 1,192 ft³/s (33.76 m³/s), 863,000 acre-ft/yr (1,060 hm³/yr), prior to construction of conveyance channel; does not include Socorro main canal north.
16 calendar years (1959-74), 255 ft³/s (7.222 m³/s), 184,700 acre-ft/yr (228 hm³/yr), flow of floodway only.
16 calendar years (1959-74), 890 ft³/s (25.20 m³/s), 644,800 acre-ft/yr (795 hm³/yr), combined flow of floodway, conveyance channel and Socorro main canal north.

EXTREMES.--Current year: Maximum discharge, 3,020 ft³/s (85.5 m³/s) Aug. 4 (gage height, 6.22 ft or 1.896 m); minimum, about 0.50 ft³/s (.014 m³/s) at times.
Period of record: maximum discharge, 27,400 ft³/s (776 m³/s) Aug. 5, 1936 (gage height, 10.75 ft or 3.277 m, site and datum then is use); no flow at times.

REMARKS.--Records poor. Floodway is 1 of 3 channels (see sta 08354500, 08354800) carrying flow in valley cross section. For combined monthly flow in acre-ft of floodway, conveyance channel, and Socorro main canal north see tabulation below. Normal plan is for floodway to carry flow when combined capacities of conveyance channel (about 2,000 ft³/s or 56.6 m³/s) and Socorro main canal north (about 200 ft³/s or 5.66 m³/s) is exceeded, during periods of silt sluicing, and when river silt load is excessive. Diversions above station for irrigation of about 760,000 acres (3,080 km²); this includes Socorro main canal north which bypasses station and irrigates about 8,000 acres (3,240 hm²). Water quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1242: 1951. WSP 1732: 1958(M). WRD 1969: 1967.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	18	2.8	31	52	16	26	1.9	3.6	18	21	60	2.6
2	15	2.6	34	57	17	28	1.7	50	17	19	5.5	5.0
3	14	2.3	33	42	32	31	1.7	146	17	26	1.2	4.0
4	13	2.3	36	30	21	33	1.8	625	12	25	2.3	3.0
5	12	3.0	32	41	25	14	1.8	494	17	40	3.9	2.5
6	11	2.9	33	45	29	4.5	1.9	166	9.2	16	3.0	2.5
7	11	2.0	30	40	28	3.9	1.8	119	8.3	32	2.0	2.3
8	17	1.2	34	38	29	3.4	2.0	132	5.8	15	2.0	2.0
9	17	.85	38	39	35	2.9	2.2	177	4.6	9.4	2.0	3.7
10	17	.79	38	65	36	2.7	2.5	82	4.6	8.9	2.0	3.5
11	19	1.9	42	48	42	2.3	2.6	29	4.3	7.8	1.5	2.7
12	16	3.2	34	50	38	2.2	3.0	18	4.1	95	1.5	2.2
13	13	2.6	33	45	51	2.1	4.7	19	7.1	5.6	1.5	1.2
14	11	2.6	34	41	37	1.7	9.5	21	9.7	78	1.6	2.0
15	12	2.2	35	47	35	1.4	10	21	6.5	7.4	1.6	2.6
16	11	1.6	31	42	31	1.3	7.6	19	12	2.6	1.7	3.9
17	10	1.7	32	36	15	1.2	16	14	29	3.1	1.7	5.8
18	8.4	1.6	30	38	16	1.3	14	9.9	11	4.5	1.8	4.0
19	7.8	3.0	33	26	14	1.6	13	11	7.3	1.7	1.8	3.5
20	7.6	3.5	31	25	21	1.6	11	12	90	9.4	1.8	3.0
21	6.9	3.3	30	22	42	1.6	13	9.2	6.2	10	3.0	2.6
22	7.6	3.2	30	25	51	1.7	11	72	5.1	11	2.5	2.4
23	7.8	2.8	31	20	38	1.9	8.6	137	20	16	2.5	2.1
24	6.6	2.3	30	12	36	2.0	8.3	16	22	61	2.5	1.9
25	5.2	4.4	26	10	39	2.2	8.3	59	24	7.6	2.3	1.9
26	3.5	4.9	26	11	43	2.3	7.8	124	36	7.6	2.3	1.8
27	2.8	16	32	10	39	2.3	7.7	22	31	44	2.3	1.8
28	2.1	31	26	11	32	2.2	7.5	31	67	8.9	2.3	1.9
29	2.0	------	32	12	28	2.2	7.0	26	40	17	2.5	2.0
30	2.0	------	31	14	31	2.0	22	20	22	15	2.5	1.9
31	2.8	------	30	------	27	------	5.2	26	------	203	------	1.8
TOTAL	309.1	112.54	998	994	974	186.5	216.8	2,712.4	565.8	828.5	95.1	81.8
MEAN	9.97	4.02	32.2	33.1	31.4	6.22	6.99	87.5	18.9	26.7	3.17	2.64
MAX	19	31	42	65	51	33	22	625	90	203	30	5.8
MIN	2.0	.79	26	10	14	1.2	1.7	3.6	3.1	1.7	1.2	1.2
AC-FT	613	223	1,980	1,970	1,930	370	430	5,380	1,120	1,640	189	162
(†)	93,620	51,180	51,240	30,220	19,870	8,860	10,270	19,600	15,040	25,900	33,880	39,040

CAL YR 1974 TOTAL 8,074.54 MEAN 22.1 MAX 625 MIN .79 AC-FT 16,020 (†) MEAN 551 AC-FT 398,600
WTR YR 1974 TOTAL 8,625.64 MEAN 23.6 MAX 625 MIN .79 AC-FT 17,100 (†) MEAN 682 AC-FT 494,000
(†) COMBINED FLOW, IN ACRE-FT AND MEAN IN FT³/S, OF FLOODWAY, CONVEYANCE CHANNEL, AND SOCORRO MAIN CANAL NORTH.

08355300 ARROYO DE LA MATANZA AT SOCORRO, N. MEX.

LOCATION.--Lat 34°01'51", long 106°54'04", Socorro County, in Town of Socorro Grant, on left abutment of former highway bridge, and 1.9 mi (3.1 km) south of Socorro.

DRAINAGE AREA.--46.0 mi² (119 km²).

PERIOD OF RECORD.--January 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,760 ft (1,451 m) from topographic map.

AVERAGE DISCHARGE.--5 calendar years, 0.567 ft³/s (.016 m³/s), 411 acre-ft/yr (507,000 m³/yr).

EXTREMES.--Current year: Maximum discharge, 335 ft³/s (9.49 m³/s) Oct. 10 (gage height, 4.30 ft or 1.311 m); no flow most of time.
Period of record: Maximum discharge, 1,580 ft³/s (44.7 m³/s) July 28, 1970 (gage height, 6.20 ft or 1,890 m), from rating curve extended above 60 ft³/s (1.70 m³/s) on basis of slope-area measurement of peak flow; no flow most of time.

REMARKS.--Record poor.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1							0	0	0	0		
2							0	0	0	0		
3							0	0	0	0		
4							0	0	0	0		
5							0	0	0	0		
6							0	.58	0	.09		
7							0	0	0	2.6		
8							0	0	0	0		
9							0	0	0	.24		
10							0	0	0	17		
11							0	0	0	1.2		
12							0	0	0	2.3		
13							0	0	0	0		
14							10	0	.50	0		
15							0	0	5.9	0		
16							0	0	0	0		
17							0	0	0	0		
18							0	0	3.6	0		
19							0	0	.49	0		
20							0	.39	0	0		
21							0	0	0	0		
22							0	.76	0	3.9		
23							0	.21	0	15		
24							0	0	0	.94		
25							0	1.2	0	0		
26							0	1.2	0	0		
27							0	0	0	6.6		
28							0	0	0	.02		
29		------					0	0	0	0		
30		------					0	0	0	0		
31		------		------		------	0	0	------	0	------	
TOTAL	0	0	0	0	0	0	10	4.34	10.49	47.88	0	0
MEAN	0	0	0	0	0	0	.32	.14	.35	1.54	0	0
MAX	0	0	0	0	0	0	10	1.2	5.9	17	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	20	8.6	21	95	0	0

CAL YR 1974 TOTAL 72.71 MEAN .20 MAX 17 MIN 0 AC-FT 144
WTR YR 1974 TOTAL 26.65 MEAN .060 MAX 10 MIN 0 AC-FT 49

PEAK DISCHARGE (BASE, 175 FT³/S).--OCT. 10 (1700) 335 FT³/S (4.30 FT.).

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, N. MEX.

LOCATION.--Lat 33°41'07", long 106°59'40", Socorro County, in Pedro Armendaris Grant No. 34, on right bank 0.4 mi (0.6 km) northwest of Atchison, Topeka and Santa Fe Railway Co. bridge over floodway channel, 1.0 mi (1.6 km) southwest of former site of San Marcial, 3.5 mi (5.6 km) downstream from railroad bridge near Tiffany siding, and 51 mi (82 km) downstream from heading at San Acacia.

PERIOD OF RECORD.--October 1958 to September 1959, October 1960 to current year. Prior to October 1964 monthly discharge only published with record for Rio Grande at San Marcial (sta 08358500).

GAGE.--Water-stage recorder. Datum of gage is 4,454.00 ft (1,357.579 m) above mean sea level (levels by Bureau of Reclamation). Prior to Apr. 29, 1958, at datum 4.19 ft (1.277 m) higher.

AVERAGE DISCHARGE.--20 calendar years, 548 ft³/s (15.52 m³/s), 397,000 acre-ft/yr (490 hm³/yr).

EXTREMES.--1954-74: Maximum daily discharge, 2,200 ft³/s (62.3 m³/s) May 14, 1966; no flow at times.

REMARKS.--Records poor. Original design and plan was for conveyance channel to carry all flows up to about 2,000 ft³/s (56.6 m³/s). Conveyance channel is 1 of 2 channels (see sta 08358400) carrying flow in valley cross section. For combined monthly flow in acre-ft of this channel and floodway see tabulation below daily table for sta 08358400. Water quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1,700	1,500	741	914	182	130	6.0	0			0	
2	1,770	1,490	679	978	187	139	42	146			0	
3	1,700	1,500	711	1,240	172	119	2.0	515			0	
4	1,630	1,550	735	1,210	516	205	1.0	1,220			0	
5	1,540	1,400	715	1,200	446	174	1.0	195			0	
6	1,400	1,160	711	1,050	395	111	0	170			0	
7	1,360	1,090	630	854	378	110	0	176			0	
8	1,530	994	628	748	309	121	0	151			0	
9	1,590	958	580	561	301	82	0	20			0	
10	1,620	946	557	462	374	28	38	5.0			0	
11	1,630	902	626	427	366	18	94	0			15	
12	1,600	866	933	379	258	14	0	0			45	
13	1,570	910	787	360	234	8.1	0	0			0	
14	1,540	902	735	324	102	4.5	52	0			0	
15	1,520	910	716	359	108	13	270	0			0	
16	1,600	890	686	327	101	22	338	0			0	
17	1,570	986	673	252	96	14	218	0			0	
18	1,560	950	728	210	97	2.0	47	0			0	
19	1,510	945	856	223	73	1.0	48	0			0	
20	1,530	919	953	191	169	81	279	0			0	
21	1,510	906	890	155	184	86	296	0			0	
22	1,500	925	747	211	267	38	243	0			0	
23	1,530	871	688	148	279	14	150	0			0	
24	1,620	885	752	104	292	16	106	0			0	
25	1,550	865	786	95	216	18	86	0			0	
26	1,540	856	878	101	136	14	54	0			0	
27	1,500	825	890	133	227	10	10	0			0	
28	1,520	738	854	126	179	14	1.0	0			0	
29	1,550	------	882	171	185	14	0	0			0	
30	1,540	------	970	96	163	14	0	0			0	
31	1,470	------	906	------	132	------	0	0	------		------	
TOTAL	48,300	28,599	23,616	13,569	6,915	1,634.6	2,382.0	2,592.0	0	0	60	0
MEAN	1,556	1,021	762	452	223	54.5	76.8	83.6	0	0	2.00	0
MAX	1,770	1,550	970	1,240	446	205	338	1,220	0	0	45	0
MIN	1,360	738	557	56	73	1.0	0	0	0	0	0	0
AC-FT	95,800	56,730	46,840	26,910	13,720	3,240	4,720	5,140	0	0	119	0

CAL YR 1974 TOTAL 127,667.6 MEAN 350 MAX 1,770 MIN 0 AC-FT 253,200
WTR YR 1974 TOTAL 220,175.6 MEAN 603 MAX 1,770 MIN 0 AC-FT 436,700

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, N. MEX.

LOCATION.--Lat 33°40'50", long 106°59'30", Socorro County, in Pedro Armendaris Grant No. 33 on pier of the Atchison, Topeka, and Santa Fe Railway Co. bridge, 1.1 mi (1.8 km) downstream from former site of San Marcial, 18.5 mi (29.8 km) southwest of San Antonio, and at mile 1,425.2 (2,293.1 km).

DRAINAGE AREA.--27,700 mi² (71,740 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, Colo.

PERIOD OF RECORD.--October 1964 to current year. Records collected at this site January 1895 to September 1964 represented total flow of the river and were published as Rio Grande at San Marcial (sta 08358500). Records of daily discharge for floodway only April 1950 to September 1964 are available in files of district office.

GAGE.--Water-stage recorder. Datum of gage is 4,455.19 ft (1,357.942 m) above mean sea level.

AVERAGE DISCHARGE.--10 calendar years (1965-74), 194 ft³/s (5.494 m³/s), 140,600 acre-ft/yr (173 hm³/yr).
Total flow of river.--79 years (1895-74), 1,249 ft³/s (35.37 m³/s), 904,900 acre-ft/yr (1,120 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,180 ft³/s (33.4 m³/s) Aug. 5 (gage height, 10.78 ft or 3.286 m); no flow for most of time.
Period of record: Maximum discharge since January 1895 about 50,000 ft³/s (1,420 m³/s) Oct. 11, 1904.

REMARKS.--Records poor. Floodway is 1 of 2 channels (see sta 08358300) carrying flow in valley cross section. Prior to 1950 all flow was in floodway channel. Normal plan is for floodway to carry flow when capacity of conveyance channel (about 2,000 ft³/s or 56.6 m³/s) is exceeded. Combined monthly discharge in acre-ft is given at end of each year table. Diversion for irrigation of about 775,000 acres (3,140 km²) above station (includes about 13,800 acre-ft or 17.0 hm³ diverted from conveyance channel, as based on weekly measurements, data furnished by Bureau of Reclamation). Water quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1								0	250	100	777	485
2								0	254	90	590	485
3								0	223	75	514	494
4								0	145	75	460	494
5								352	100	85	440	480
6								280	71	112	465	475
7								88	54	110	506	475
8								48	41	120	514	518
9								65	50	208	542	514
10								118	24	274	494	542
11								65	5.0	554	530	582
12								62	.19	590	534	554
13								67	0	525	510	550
14								62	.05	570	522	542
15								56	1.4	714	518	578
16								17	28	590	542	582
17								9.6	80	400	534	578
18								6.6	112	546	570	554
19								20	122	542	546	554
20								52	128	278	546	566
21								22	361	282	542	554
22								8.8	360	266	514	550
23								107	445	355	510	542
24								188	242	485	514	562
25								142	195	560	518	610
26								222	178	420	490	598
27								294	216	360	514	598
28								286	195	520	506	570
29		------						209	164	475	502	580
30		------						209	139	495	494	570
31		------		------		------		206	------	515	------	586
TOTAL	0	0	0	0	0	0	0	3,222.0	4,165.64	10,467	15,758	16,922
MEAN	0	0	0	0	0	0	0	104	139	338	525	546
MAX	0	0	0	0	0	0	0	352	445	714	777	610
MIN	0	0	0	0	0	0	0	0	0	75	440	475
AC-FT	0	0	0	0	0	0	0	6,390	8,260	20,760	31,260	33,560
(†)	95,800	56,730	46,840	26,910	13,720	3,240	4,720	11,530	8,260	20,760	31,380	33,560

CAL YR 1974 TOTAL 50,532.64 MEAN 138 MAX 777 MIN 0 AC-FT 100,200 (†) MEAN 488 AC-FT 353,500
WTR YR 1974 TOTAL 7,385.64 MEAN 20.2 MAX 445 MIN 0 AC-FT 14,650 (†) MEAN 623 AC-FT 451,400

(†) COMBINED FLOW, IN ACRE-FT AND MEAN, IN FT³/S, OF FLOODWAY AND CONVEYANCE CHANNEL.

08360500 ELEPHANT BUTTE RESERVOIR AT ELEPHANT BUTTE, N. MEX.

LOCATION.--Lat 33°09'15", long 107°11'28", in NW¼ sec.30, T.13 S., R.3 W., Sierra County, at dam on Rio Grande, 1 mi (1.6 km) west of Elephant Butte, 4 mi (6 km) northeast of Truth or Consequences (Hot Springs), N. Mex., and at mile 1,383.2 (2,225.6 km).

DRAINAGE AREA.--29,445 mi² (76,260 km²), approximately including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, Colo.

PERIOD OF RECORD.--March 1915 to December 1939 (monthend contents only published in WSP 1312), January 1940 to September 1965 (monthend contents only), October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 43.4 ft (13.20 m) above mean sea level. Oct. 16, 1939, to May 2, 1940, and prior to September 1930, nonrecording gages.

EXTREMES.--Current year: Maximum daily contents, 866,000 acre-ft (1,070 hm³) Feb. 21 (gage height, 4,360.94 ft or 1,329.214 m); minimum daily, 315,700 acre-ft (389 hm³) Sept. 16 (gage height, 4,321.20 ft or 1,317.102 m).
Period of record: Maximum daily contents, 2,302,800 acre-ft (2,840 hm³) June 16-18, 1942 (gage height, 4,409.19 ft or 1,343.921 m); minimum daily after initial filling, 9,900 acre-ft (12.2 hm³) Aug. 6, 1954 (gage height, 4,258.03 ft or 1,297.848 m).

REMARKS.--Reservoir is formed by concrete dam. Storage began Jan. 6, 1915. Dam completed May 13, 1916. Capacity, 2,137,000 acre-ft (2.63 km³) survey of 1974 between gage heights 4,231.5 ft (1,289.76 m) sill of outlet gate and 4,407.0 ft (1,343.25 m) crest or spillway. Capacity by original survey was 2,638,900 acre-ft (3.25 km³). No adjustment made for decrease in capacity due to sedimentation between effective dates of capacity tables. No dead storage, survey of 1957, 1961, and 1969. No storage allocated to flood control. Figures given herein represent usable contents and are computed from mean daily gage heights. Water is used for power development and irrigation on Rio Grande Project of Bureau of Reclamation. Lake is major recreational area.

COOPERATION.--Records furnished by Bureau of Reclamation.

REVISIONS (WATER YEARS).--WSP 1442: 1954(m). WSP 1632: Drainage area.

Capacity table (gage height, in feet, and usable contents, in thousands of acre-feet)

4,270	27.93	4,290	92.81	4,310	220.1	4,330	422.2	4,350	701.7
4,275	39.98	4,295	118.2	4,315	263.5	4,335	485.1	4,355	785.2
4,280	54.16	4,300	147.6	4,320	311.4	4,340	552.0	4,360	874.4
4,285	71.45	4,305	181.4	4,325	364.1	4,345	624.0	4,365	970.0

CONTENTS, IN ACRE-FEET, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	771,700	840,700	843,500	752,000	685,300	591,700	469,200	372,100	332,800	321,000	344,300	371,500
2	774,100	843,100	840,700	749,600	683,400	587,800	465,500	369,300	332,200	321,100	345,500	372,400
3	776,800	845,100	837,600	747,100	681,900	584,100	461,400	366,700	331,100	321,200	346,600	373,300
4	779,200	847,100	834,300	744,900	680,300	580,000	457,400	364,200	329,500	321,300	347,200	374,300
5	782,000	849,000	830,700	743,100	677,800	575,700	453,100	362,700	328,600	321,700	348,000	375,000
6	784,400	850,600	827,500	741,600	675,900	571,900	449,100	361,000	327,400	322,400	349,000	375,900
7	787,400	852,700	824,400	740,100	674,500	568,000	445,300	359,800	326,200	322,700	349,800	377,000
8	789,500	853,900	821,200	738,000	673,300	563,900	441,700	359,400	324,800	323,300	350,500	378,000
9	791,800	854,500	817,800	735,500	672,000	559,300	438,500	359,000	323,700	323,500	351,100	378,900
10	794,400	856,000	814,000	732,300	670,500	555,000	434,900	357,800	322,500	323,900	351,800	379,900
11	796,500	857,500	810,800	729,400	669,000	551,100	430,900	356,900	320,900	324,500	352,500	381,000
12	799,300	858,200	808,500	726,100	667,300	547,400	427,300	355,500	319,800	325,700	353,500	382,100
13	801,600	859,500	806,200	723,200	665,900	543,200	424,100	354,200	318,100	326,400	354,300	383,300
14	804,100	859,900	803,500	719,200	663,700	539,400	419,900	353,100	316,700	327,300	355,800	384,300
15	806,500	861,000	800,900	716,000	660,500	535,200	416,800	351,800	315,900	328,200	357,100	385,200
16	808,700	861,700	797,900	713,700	656,500	531,200	413,200	350,700	315,700	329,300	358,200	386,300
17	810,800	862,800	794,600	712,300	651,800	527,100	410,200	349,400	316,300	330,400	359,200	387,200
18	812,900	863,800	791,600	710,500	647,300	523,400	406,700	347,700	316,600	331,500	359,800	388,200
19	815,100	865,100	788,600	709,100	643,700	519,300	403,800	346,500	317,400	332,400	360,600	389,300
20	817,400	865,600	785,700	707,500	639,500	515,600	401,700	345,000	317,900	332,900	361,300	390,300
21	818,700	866,000	782,900	705,400	635,100	511,500	399,800	343,900	318,200	333,500	362,200	391,600
22	820,600	864,300	780,500	703,300	630,700	507,700	397,900	342,800	318,400	334,100	363,100	392,600
23	821,900	861,500	777,300	701,400	627,200	503,600	395,900	341,600	318,600	336,100	364,400	393,600
24	823,700	858,800	774,200	699,800	623,100	499,400	393,600	340,300	319,400	337,600	365,900	394,800
25	825,500	855,600	771,700	697,900	619,600	495,000	391,100	339,000	319,800	338,300	367,000	395,600
26	828,000	852,500	768,600	696,100	615,500	490,800	388,600	338,100	320,200	338,800	367,600	396,800
27	830,400	849,300	765,500	693,800	611,500	486,100	386,100	337,200	320,500	340,500	368,200	397,800
28	832,400	846,600	763,100	691,600	607,300	482,400	383,300	336,400	320,800	341,000	369,200	399,000
29	834,500	------	760,200	689,700	603,200	478,500	380,500	335,400	320,800	341,600	369,800	400,300
30	836,700	------	757,700	687,300	599,100	473,900	377,600	334,500	320,900	342,700	370,500	401,300
31	839,100	------	755,300	------	595,000	------	375,000	333,500	------	343,600	------	402,500
MAX	839,100	866,000	843,500	752,000	685,300	591,700	469,200	372,100	332,800	343,600	370,500	402,500
MIN	771,700	840,700	755,300	687,300	595,000	473,900	375,000	333,500	315,700	321,000	344,300	371,500
(†)	4,359.48	4,359.89	4,354.71	4,350.53	4,344.38	4,335.35	4,326.95	4,323.00	4,321.74	4,323.99	4,326.53	4,329.40
(‡)	+70,000	+7,500	-91,300	-68,000	-92,300	-121,100	-98,900	-41,500	-12,600	+22,700	+26,900	+32,000

CAL YR 1974 . . . . . .(‡) -366,600
WTR YR 1974 . . . . . .(‡) -321,600

(†) GAGE HEIGHT, IN FEET, AT END OF MONTH.
(‡) CHANGE IN CONTENTS, IN ACRE-FEET.

08361000 RIO GRANDE BELOW ELEPHANT BUTTE DAM, N. MEX.

LOCATION.--Lat 33°08'54", long 107°12'22", Sierra County, in Pedro Armendaris Grant, on left bank 1.0 mi (1.6 km) downstream from dam, 1.5 mi (2.4 km) upstream from Cuchillo Negro River, and at mile 1,382.2 (2,224.0 km).

DRAINAGE AREA.--29,450 mi² (76,280 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, Colo.

PERIOD OF RECORD.--January 1915 to current year. Monthly or annual discharge only for some periods, published in WSP 1732. Figures of daily discharge, published in WSP 458 for October to December 1916, are unreliable.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 4,242.09 ft (1,292.989 m) above mean sea level. See WSP 1732 for history of changes prior to Apr. 24, 1942.

AVERAGE DISCHARGE.--60 calendar years, 995 ft³/s (28.18 m³/s), 720,900 acre-ft/yr (889 hm³/yr); 20 calendar years (1955-74), 733 ft³/s (20.76 m³/s), 531,100 acre-ft/yr (655 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 2,470 ft³/s (70.0 m³/s) July 30 (gage height, 7.13 ft or 2.173 m); minimum, 4.5 ft³/s (0.127 m³/s) Dec. 5, 6, 8.
Period of record: Maximum daily discharge, 8,220 ft³/s (233 m³/s) May 22, 1942; no flow at times prior to 1929.

REMARKS.--Records fair. Flow regulated by Elephant Butte Reservoir (see sta 08360500). Diversion for irrigation of about 800,000 acres (3,240 km²) above station.

REVISIONS (WATER YEARS).--WSP 1562: 1920. WSP 1632: Drainage area. WSP 1732: 1917, 1920. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	11	16	2,160	1,810	1,040	2,290	2,150	1,420	675	9.6	11	5.0
2	11	16	2,140	1,810	1,030	2,280	2,150	1,400	671	8.7	11	5.0
3	215	16	2,150	1,820	1,040	2,250	2,170	1,400	666	8.1	10	5.0
4	19	16	2,130	1,850	1,050	2,250	2,200	1,390	652	8.1	10	5.0
5	15	16	2,130	1,880	1,060	2,240	2,240	1,360	646	8.1	9.9	4.7
6	15	16	2,130	1,880	1,080	2,250	2,250	1,340	643	8.6	10	4.7
7	15	16	2,120	1,890	1,090	2,250	2,290	682	640	15	10	4.9
8	15	16	2,120	1,900	1,110	2,280	2,270	691	640	10	9.2	4.5
9	15	16	2,110	1,920	1,120	2,290	1,980	689	640	12	8.7	5.0
10	15	16	2,090	1,910	1,120	2,310	2,240	680	496	16	8.7	19
11	15	16	1,780	1,900	1,120	2,340	2,230	680	456	18	8.7	11
12	15	16	1,670	1,890	1,130	2,330	2,220	679	353	20	8.7	16
13	15	16	2,090	1,910	1,140	2,350	2,200	679	353	18	8.7	11
14	14	18	2,070	1,930	1,200	2,350	2,200	675	353	11	9.0	9.9
15	10	20	2,080	1,960	2,120	2,320	2,180	673	58	11	9.6	11
16	9.9	20	2,090	1,070	2,160	2,310	2,140	684	17	16	9.6	9.6
17	9.6	20	2,080	1,050	2,120	2,270	2,110	687	15	15	9.6	8.7
18	9.9	20	2,090	1,050	2,120	2,260	2,080	683	15	15	8.7	8.7
19	9.9	20	2,110	1,050	2,130	2,220	1,550	683	16	15	8.7	8.7
20	9.9	20	2,110	1,040	2,060	2,190	1,560	686	15	15	8.1	8.7
21	9.9	953	2,110	1,020	2,170	2,170	1,570	734	39	14	8.1	8.1
22	9.9	2,050	2,080	1,050	2,190	2,110	1,570	678	14	16	8.1	8.1
23	11	2,150	2,130	1,050	2,210	2,190	1,560	690	13	21	8.1	8.1
24	14	2,160	2,130	1,040	2,180	2,170	1,560	685	13	16	8.1	8.1
25	16	2,160	2,130	1,040	2,160	2,160	1,570	679	14	11	7.0	8.1
26	16	2,180	2,140	1,050	2,240	2,160	1,560	675	14	10	6.0	7.5
27	16	2,180	2,150	1,050	2,220	2,150	1,540	676	14	9.9	5.5	7.5
28	16	2,180	2,160	1,040	2,240	2,140	1,520	679	14	11	5.5	7.5
29	16	------	2,190	1,050	2,140	2,130	1,490	681	15	10	5.5	7.5
30	16	------	2,170	1,040	2,280	2,140	1,570	683	14	11	5.0	7.0
31	16	------	2,160	------	2,290	------	1,430	679	------	11	------	7.0
TOTAL	620.7	16,359	65,080	43,840	52,360	67,150	59,350	25,390	8,084	395.5	254.9	250.5
MEAN	20.0	584	2,097	1,461	1,689	2,238	1,915	819	269	12.8	8.46	8.08
MAX	215	2,180	2,190	1,960	2,290	2,350	2,290	1,420	675	21	11	19
MIN	9.6	16	1,670	1,020	1,030	2,110	1,430	673	13	8.1	5.0	4.5
AC-FT	1,230	32,450	128,900	86,960	103,900	133,200	117,700	50,360	16,030	784	504	497

CAL YR 1974 TOTAL 339,053.6 MEAN 929 MAX 2,350 MIN 4.5 AC-FT 672,500
WTR YR 1974 TOTAL 339,227.8 MEAN 929 MAX 2,350 MIN 7.5 AC-FT 672,900

08362000 CABALLO RESERVOIR NEAR ARREY, N. MEX.

LOCATION.--Lat 32°53'47", long 107°17'30", in SE¼SW¼ sec.19, T.16 S., R.4 W., Sierra County, in control tower of Caballo Dam on Rio Grande, 0.5 mi (0.8 km) downstream from mouth of Apache Canyon, 0.9 mi (1.4 km) upstream from Bojarquez Bridge, 2 mi (3 km) upstream from Percha diversion dam, 3.5 mi (5.6 km) northeast of Arrey, 5.2 mi (8.4 km) south of Caballo, and at mile 1,356.6 (2,182.8 km).

DRAINAGE AREA.--30,700 mi² (79,510 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, Colo.

PERIOD OF RECORD.--February 1938 to September 1965 (monthend contents only), October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 43.3 ft (13.20 m) above mean sea level.

EXTREMES.--Current year: Maximum daily contents, 109,200 acre-ft (135 hm³) July 23 (gage height, 4,155.16 ft or 1,266.493 m); minimum daily, 18,990 acre-ft (23.4 hm³) Sept. 17 (gage height, 4,132.05 ft or 1,259.449 m).
Period of record: Maximum daily contents, 347,000 acre-ft (428 hm³) Mar. 4, 1942 (gage height, 4,182.06 ft or 1,274.692 m); minimum daily, 118 acre-ft (0.145 hm³), Oct. 14, 1938 (gage height, 4,108.1 ft or 1,252.15 m).

REMARKS.--Reservoir is formed by earthfill dam, completed Sept. 19, 1938. Storage began Feb. 8, 1938. Capacity by 1958 survey, 344,000 acre-ft (424 hm³) between gage heights 4,104 ft (1,250.9 m) bottom of tunnel entrance of gates and 4,182 ft (1,274.7 m) gage height above which spillway gates operate automatically. No dead storage. Storage held for flood control, 100,000 acre-ft (123 hm³). Figures given herein represent usable contents and are computed from mean daily gage heights. Water released from Elephant Butte Reservoir for power development is stored in Caballo Reservoir and released for irrigation on Rio Grande project for Bureau of Reclamation.

COOPERATION.--Records furnished by Bureau of Reclamation.

REVISION (WATER YEARS).--WSP 978: 1942. WSP 1632: Drainage area.

Capacity table (gage height, in feet, and usable contents, in thousands of acre-feet)

4,122	3.41	4,130	14.70	4,138	34.19	4,146	62.50	4,154	102.2
4,124	5.47	4,132	18.88	4,140	40.31	4,148	71.28	4,156	114.5
4,126	8.00	4,134	23.52	4,142	47.03	4,150	80.76	4,158	127.7
4,128	11.06	4,136	28.61	4,144	54.42	4,152	91.03	4,160	141.7

CONTENTS, IN ACRE-FEET, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	39,900	42,180	73,050	68,420	74,400	86,420	79,310	94,370	51,170	23,620	33,160	36,200
2	39,750	42,250	76,130	67,700	74,490	87,620	78,440	90,870	50,530	23,750	33,330	36,280
3	40,250	42,350	77,720	67,660	72,860	89,140	77,720	90,350	49,300	23,850	33,450	36,300
4	40,310	42,410	79,360	67,610	72,680	90,400	77,000	90,300	48,080	23,970	33,500	36,380
5	40,540	42,510	80,330	67,480	73,050	91,140	76,610	91,630	46,280	24,100	33,680	36,520
6	40,570	42,610	80,710	67,350	73,330	91,630	77,140	93,000	44,380	24,320	33,820	36,580
7	40,670	42,840	80,860	67,660	73,790	91,960	78,300	92,780	42,120	25,590	33,930	36,670
8	40,740	42,840	81,160	68,060	73,790	92,180	80,280	91,100	39,690	26,030	34,100	36,850
9	40,870	42,840	81,460	68,510	73,520	92,450	83,020	89,660	36,880	26,240	34,220	37,060
10	41,030	42,840	81,420	69,580	73,190	92,510	85,590	88,250	34,160	26,420	34,370	37,150
11	41,200	42,840	81,060	71,020	72,720	92,780	86,420	86,620	31,200	26,710	34,460	37,180
12	41,230	42,870	80,280	72,350	72,070	93,110	88,090	84,780	28,140	27,390	34,490	37,210
13	41,260	42,940	79,550	74,030	71,420	93,110	89,870	82,870	25,240	27,930	34,550	37,310
14	41,300	43,030	78,830	75,650	71,020	93,110	92,780	79,940	22,570	28,450	34,700	37,370
15	41,360	43,100	78,300	77,240	70,660	92,340	96,620	77,000	20,600	28,720	34,790	37,430
16	41,430	43,130	77,910	78,640	71,240	91,300	100,000	73,980	19,200	29,020	34,850	37,500
17	41,490	43,170	77,620	79,120	72,310	90,660	101,800	70,660	18,990	29,260	34,880	37,560
18	41,560	43,260	77,190	79,220	73,140	90,080	103,100	67,170	19,380	29,480	35,030	37,780
19	41,560	43,360	76,660	79,020	73,890	89,350	105,800	63,750	19,830	29,670	35,090	37,810
20	41,560	43,430	75,470	78,730	74,820	89,300	106,900	60,190	20,290	29,810	35,300	37,840
21	41,590	43,590	74,170	78,440	75,650	88,720	108,700	57,100	20,790	29,970	35,360	37,900
22	41,790	45,170	72,860	78,150	76,610	87,780	109,000	54,650	21,460	30,110	35,420	37,930
23	41,950	49,160	71,750	77,860	77,720	86,830	109,200	54,380	22,080	30,650	35,540	38,090
24	41,980	53,280	70,970	77,860	78,730	86,050	108,700	53,430	22,380	31,790	35,600	38,340
25	41,980	57,540	70,390	77,860	80,040	85,380	107,400	52,380	22,790	32,160	35,660	38,430
26	41,980	61,260	69,980	77,670	81,460	84,430	105,500	52,190	23,030	32,280	35,840	38,180
27	41,980	65,090	69,580	77,140	82,920	83,630	102,900	52,190	23,310	32,420	35,990	38,560
28	41,980	69,050	69,360	76,420	84,280	82,620	101,300	52,070	23,500	32,530	36,020	38,720
29	42,020	------	69,050	75,710	84,880	81,360	98,850	51,810	23,670	32,730	36,110	38,780
30	42,050	------	68,910	75,190	85,180	80,230	96,730	51,730	23,800	32,850	36,160	38,810
31	42,080	------	68,780	------	85,690	------	95,180	51,700	------	33,050	------	39,090
MAX	42,080	69,050	81,460	79,220	85,690	93,110	109,200	94,370	51,170	33,050	36,160	39,090
MIN	39,750	42,180	68,780	67,350	70,660	80,230	76,610	51,700	18,990	23,620	33,160	36,200
(†)	4,140.54	4,147.50	4,147.44	4,148.84	4,150.98	4,149.89	4,152.74	4,143.28	4,134.11	4,137.60	4,138.66	4,139.61
(‡)	+2,110	+26,970	-270	+6,410	+10,500	-5,460	+14,950	-43,480	-27,900	+9,250	+3,110	+2,930

CAL YR 1974 . . . . . .(‡) -880
WTR YR 1974 . . . . . .(‡) -8,050

(†) GAGE HEIGHT, IN FEET, AT END OF MONTH.
(‡) CHANGE IN CONTENTS, IN ACRE-FEET.

08362500 RIO GRANDE BELOW CABALLO DAM, N. MEX.

LOCATION.--Lat 32°53'05", long 107°17'31", in NE¼SW¼ sec.30, T.16 S., R.4 W., Sierra County, on left bank 2,000 ft (600 m) upstream from Interstate Highway 25, 4,200 ft (1,300 m) downstream from Caballo Dam, 1.2 mi (1.9 km) downstream from Apache Canyon, 1.3 mi (2.1 km) upstream from Percha diversion dam, 3 mi (5 km) northeast of Arrey, 5 mi (8 km) south of Caballo, and at mile 1,355.6 (2,181.2 km).

DRAINAGE AREA.--30,700 mi² (79,510 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, Colo.

PERIOD OF RECORD.--January 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,140.9 ft (1,262.15 m) above mean sea level. Prior to Oct. 7, 1938, at datum 7.0 ft (2.13 m) higher, Oct. 7-12, 1938, at datum 6.0 ft (1.83 m) higher, and Oct. 13, 1938, to Dec. 31, 1945, at datum 5.0 ft (1.52 m) higher that present datum.

AVERAGE DISCHARGE.--37 calendar years, 868 ft³/s (24.58 m³/s), 628,900 acre-ft/yr (775 hm³/yr); 20 calendar years (1955-74), 715 ft³/s (20.25 m³/s), 518,000 acre-ft/yr (639 hm³/yr).

EXTREMES.--Current year: Maximum daily discharge, 2,680 ft³/s (75.9 m³/s) Mar. 20; minimum daily, 0.9 ft³/s (0.025 m³/s) Dec. 18-31.
Period of record: Maximum daily discharge, 7,650 ft³/s (217 m³/s) May 20, 1942; minimum daily, 0.1 ft³/s (0.003 m³/s) Oct. 31 to Nov. 14, 1954, Nov. 7 to Dec. 31, 1955, Feb. 15-29, 1972.

REMARKS.--Records good. Flow regulated by Caballo Reservoir capacity, 344,000 acre-ft (424 hm³), 1958 survey and Elephant Butte Reservoir capacity, 2,137,000 acre-ft (2.63 km³), 1969 survey. Diversions for irrigation of about 800,000 acres (3,240 km²) above station. Figures of daily discharge do not include Bonita ditch which diverts from Caballo Dam and bypasses station for irrigation below. See monthly table below for record of ditch.

COOPERATION.--Records furnished by Bureau of Reclamation.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1.3	1.1	1.1	1,990	1,440	1,480	2,430	2,530	955	2.2	2.2	1.4
2	1.3	1.1	819	1,900	1,430	1,290	2,400	1,900	1,090	2.2	1.9	1.3
3	1.2	1.1	1,230	1,730	1,130	1,290	2,370	1,410	1,210	2.2	1.8	1.3
4	1.1	1.1	1,320	1,740	956	1,500	2,360	1,330	1,330	2.2	1.6	1.3
5	1.1	1.1	1,600	1,740	955	1,760	1,860	741	1,600	2.2	1.6	1.3
6	1.0	1.1	1,800	1,650	962	1,700	1,580	1,290	1,710	2.5	1.6	1.2
7	1.0	1.1	1,810	1,520	1,080	1,780	1,420	1,830	1,820	3.0	1.6	1.2
8	1.0	1.1	1,810	1,420	1,240	1,800	863	1,660	1,890	2.2	1.6	1.2
9	1.0	1.1	2,010	1,240	1,250	1,790	483	1,460	1,950	2.2	1.6	1.2
10	1.0	1.1	2,150	1,060	1,240	1,800	973	1,480	1,960	2.2	1.6	1.1
11	1.0	1.1	2,130	1,050	1,230	1,920	1,390	1,610	2,110	5.0	1.6	1.1
12	1.0	1.1	2,080	984	1,230	2,010	1,200	1,590	2,070	4.0	1.6	1.1
13	1.0	1.1	2,090	866	1,230	2,020	830	1,960	1,980	2.5	1.6	1.1
14	1.0	1.1	2,230	836	1,340	2,210	236	2,120	1,770	2.2	1.6	1.0
15	1.0	1.1	2,220	832	1,450	2,320	74	2,140	1,160	2.2	1.6	1.0
16	1.0	1.1	2,190	834	1,460	2,140	898	2,300	538	2.2	1.5	1.0
17	1.0	1.1	2,230	983	1,570	2,120	1,090	2,430	7.0	2.2	1.5	1.0
18	1.0	1.1	2,250	1,060	1,550	2,340	971	2,420	4.0	2.2	1.5	.90
19	1.0	1.1	2,410	1,130	1,520	1,770	771	2,340	3.0	2.2	1.5	.90
20	1.0	1.1	2,680	1,200	1,470	2,320	646	2,390	3.0	2.2	1.5	.90
21	1.0	1.1	2,600	1,180	1,460	2,360	839	2,100	2.8	2.2	1.5	.90
22	1.0	1.1	2,580	1,110	1,490	2,340	1,160	1,540	2.6	2.2	1.5	.90
23	1.0	1.1	2,440	973	1,500	2,230	1,640	1,040	2.4	4.0	1.5	.90
24	1.0	1.1	2,280	1,060	1,420	2,230	1,960	1,420	2.3	2.5	1.5	.90
25	1.0	1.1	2,180	1,120	1,260	2,400	2,150	1,010	2.2	2.2	1.5	.90
26	1.0	1.1	2,160	1,190	1,180	2,380	2,390	781	2.2	2.2	1.5	.90
27	1.0	1.1	2,190	1,260	1,170	2,390	2,220	866	2.2	2.2	1.5	.90
28	1.0	1.1	2,200	1,260	1,470	2,540	2,430	877	2.2	2.2	1.4	.90
29	1.0	------	2,060	1,260	1,700	2,510	2,370	810	2.2	2.2	1.4	.90
30	1.0	------	1,990	1,300	1,690	2,430	2,240	734	2.2	2.2	1.4	.90
31	1.0	------	1,990	------	1,620	------	2,450	852	------	2.2	------	.90
TOTAL	32.0	30.8	61,730.1	37,478	41,693	61,170	46,694	48,961	25,183.3	76.3	47.3	32.40
MEAN	1.03	1.10	1,991	1,249	1,345	2,039	1,506	1,579	839	2.46	1.58	1.05
MAX	1.3	1.1	2,680	1,990	1,700	2,540	2,450	2,530	2,110	5.0	2.2	1.4
MIN	1.0	1.1	1.1	832	955	1,290	74	734	2.2	2.2	1.4	.90
AC-FT	63	61	122,400	74,340	82,700	121,300	92,620	97,110	49,950	151	94	64
(†)	0	0	268	157	139	167	115	158	83	0	0	0

CAL YR 1974 TOTAL 323,128.2 MEAN 885 MAX 2,680 MIN .90 AC-FT 640,900
WTR YR 1974 TOTAL 323,153.9 MEAN 885 MAX 2,680 MIN 1.0 AC-FT 641,000

(†) DIVERSION, IN ACRE-FEET, BY BONITA DITCH. BONITA DITCH DIVERTS DIRECTLY FROM CABALLO DAM AND THIS DIVERSION IS NOT INCLUDED IN THE RIVER RECORDS.

08363700 TORTUGAS ARROYO NEAR LAS CRUCES, N. MEX.

LOCATION.--Lat 32°17'15", long 106°43'43", Dona Ana County, in Dona Ana Bend Colony Grant, 30 ft (9 m) downstream from flood detention dam, 1.2 mi (1.9 km) northeast of New Mexico State University, and 3.3 mi (5.3 km) southeast of Las Cruces.

DRAINAGE AREA.--20.7 mi^2 (53.6 km^2).

PERIOD OF RECORD.--October 1962 to June 1974 (discontinued).

GAGE.--Water-stage recorder and Parshall flume at downstream end of reservoir outlet pipe. Datum of gage is 4,071.62 ft (1,241.030 m) above mean sea level Soil Conservation Service bench mark.

AVERAGE DISCHARGE.--11 calendar years, 0.217 ft^3/s (0.006 m^3/s), 157 acre-ft/yr (194,000 m^3/yr).

EXTREMES.--Current year: No flow during period Jan. 1 to June 30.
Period of record: Maximum discharge, 107 ft^3/s (3.03 m^3/s) Sept. 1, 1972 (gage height, 2.56 ft or 0.780 m); no flow most of time.

REMARKS.--Records good. Records represent outlfow from Tortugas Reservoir, completed in 1962. Water quality records for the current year are published in Part 2 of this report.
Reservoir is designed to retard floodflows and detain silt. Dam is earthfill, L-shaped, 3,400 ft (1,040 m) long at crest and is expected to reduce storage capacity. Outlet drop tower is 9' -2" x 4' -2" inside and 18' 6" high. The tower has 9 rectangular outlet ports, each 8"x17", but 6 are presently closed. Tower is connected to downstream channel by a 30-inch diameter pipe. Records will be published in tabular form, as flow events.

NOTE.--No flow Jan. 1-June 30.

08363840 Rio Grande at Vinton Bridge near Anthony, Tex.

LOCATION.--Lat 31°57'32", long 106°36'17", El Paso County, on right bank 40 ft (12 m) downstream from Farm Road 273, 480 ft (146 m) west of U.S. Highway 80, and 2.8 miles (4.5 km) south of Anthony.

DRAINAGE AREA.--28,680 mi^2 (74,280 km^2), approximately.

PERIOD OF RECORD.--January 1970 to September 1974 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 3,766.72 ft (1,148.096 m) above mean sea level. Prior to May 31, 1972, on left bank at same datum.

EXTREMES.--Current year: Maximum discharge, 1,390 ft^3/s (39.4 m^3/s) Aug. 6 (gage height, 4.51 ft or 1.375 m); maximum gage height, 4.53 ft (1.381 m) July 5; minimum daily discharge, 3.4 ft^3/s (0.96 m^3/s) Mar. 3.
Period of record: Maximum discharge, 2,710 ft^3/s (76.7 m^3/s) Aug. 30, 1973 (gage height, 5.69 ft or 1.734 m); minimum daily 2.6 ft^3/s (0.074 m^3/s) Jan. 28, 1973.

REMARKS.--Records fair. Flow regulated by Caballo Reservoir, capacity 344,000 acre-ft (424 hm^3), 1958 survey, and Elephant Butte Reservoir, capacity 2,137,000 acre-ft (2,630 hm^3), 1959 survey, both in New Mexico. During year, about 484,500 acre-ft (597 hm^3) was diverted for irrigation above station and below Caballo Reservoir.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	50	46	36	821	528	514	748	843	395			
2	49	52	35	846	500	543	826	1,180	342			
3	46	50	34	751	522	548	792	1,190	388			
4	49	50	77	565	440	486	695	877	375			
5	49	50	646	547	311	469	1,170	620	405			
6	50	48	678	556	236	534	1,150	1,030	383			
7	50	46	776	618	226	498	981	449	342			
8	52	44	664	682	225	505	1,080	630	595			
9	57	44	692	646	283	613	1,100	869	643			
10	55	44	756	605	412	709	795	679	728			
11	52	46	872	549	428	707	559	546	599			
12	52	46	747	521	473	648	655	605	555			
13	50	46	678	495	518	710	821	651	526			
14	49	44	664	490	506	683	673	574	530			
15	48	43	776	561	462	715	751	643	553			
16	48	42	791	451	496	874	796	628	660			
17	48	42	786	432	458	818	520	777	489			
18	48	42	846	288	455	771	502	628	506			
19	46	40	867	306	521	794	693	986	502			
20	46	40	878	301	471	807	575	830	448			
21	46	39	938	301	459	616	563	848	416			
22	44	38	816	385	440	739	410	701	593			
23	43	38	747	404	427	861	646	646	580			
24	44	36	687	377	434	750	506	786	530			
25	44	36	669	358	473	766	591	596	287			
26	46	38	678	378	461	726	596	846	261			
27	46	38	696	434	487	748	775	649	239			
28	46	36	710	440	402	661	719	567	215			
29	46	------	756	459	345	648	770	494	198			
30	44	------	806	531	453	833	1,190	467	194			
31	43	------	742	------	500	------	927	405	------			
TOTAL	1,486	1,284	20,544	14,958	13,352	20,294	23,255	22,640	13,077			
MEAN	47.9	43.0	663	499	431	676	750	730	436			
MAX	57	52	938	846	528	874	1,190	1,190	728			
MIN	43	36	34	288	225	469	546	405	194			
AC-FT	2,950	2,550	40,750	29,670	26,480	40,250	46,130	44,910	25,940			

WTR YR 1974 TOTAL 139,065 MEAN 381 MAX 1,190 MIN 34 AC-FT 275,800

08364000 RIO GRANDE AT EL PASO, TEX.

LOCATION.--Lat 31°48'10", long 106°32'25", El Paso County, on downstream side of first pier from left abutment of Courchesne Bridge at El Paso, 1.7 mi (2.7 km) upstream from American Dam, 5.6 mi (9.0 km) upstream from Santa Fe Street-Juarez Avenue Bridge between El Paso and Cd. Juarez, Chihuahua, and at mile 1,249.9 (2,011.1 km).

DRAINAGE AREA.--32,207 mi² (83,415 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, Colo.

PERIOD OF RECORD.--January 1889 to current year. October 1960 to September 1965 in bulletins of International Boundary and Water Commission. Monthly discharges only for some periods published in WSP 1312 or 1732.

GAGE.--Water-stage recorder. Datum of gage is 3,722.30 ft (1,134.557 m) above mean sea level (U.S.C. & G.S. datum). See WSP 1312 or 1732 for history of changes prior to Aug. 4, 1938.

AVERAGE DISCHARGE.--37 calendar years (1938-74), 517 ft³/s (14.64 m³/s), 374,600 acre-ft/yr (462 hm³/yr); 20 calendar years (1955-74), 361 ft³/s (10.22 m³/s) 261,500 acre-ft/yr (322 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,910 ft³/s (54.1 m³/s) Aug. 3 (gage height, 6.09 ft or 1.856 m); minimum, 33.9 ft³/s (0.96 m³/s) Mar. 5.
Period of record: Maximum discharge, 24,000 ft³/s (680 m³/s) June 12, 1905; no flow at times. Maximum discharge since construction of Elephant Butte Dam in 1915, 13,500 ft³/s (382 m³/s) Sept. 3, 1925.

REMARKS.--Daily discharges were computed by adding discharges of American Canal at El Paso and Rio Grande below American Dam at El Paso. Reservoirs, diversions, and drainage returns modify the river flow at this station.

COOPERATION.--Records furnished by International Boundary and Water Commission, United States and Mexico.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	72.6	62.0	64.4	808	659	692	1,050	1,040	552	320	232	158
2	72.1	71.0	57.2	907	618	754	1,080	1,440	492	329	224	117
3	69.5	74.1	52.8	807	627	781	1,030	1,620	534	303	215	124
4	67.2	71.0	42.0	612	596	695	929	1,310	503	308	200	119
5	71.3	72.0	609	551	530	664	1,430	1,100	538	310	210	123
6	71.6	70.9	879	552	419	707	1,460	1,380	516	296	204	132
7	70.1	66.3	1,040	681	411	750	1,290	707	662	279	194	111
8	71.8	63.8	926	740	376	711	1,430	655	676	261	191	111
9	82.1	61.6	787	806	409	879	1,500	1,160	776	258	194	104
10	84.6	63.8	877	676	530	988	1,360	1,000	901	290	192	107
11	78.1	65.4	1,150	676	564	1,040	893	776	815	447	309	123
12	74.8	66.4	1,130	578	598	961	821	786	693	462	350	122
13	73.9	68.5	980	576	659	958	1,100	853	678	730	212	119
14	72.5	68.4	858	584	690	933	998	696	658	825	202	118
15	69.3	64.0	927	624	615	929	1,050	729	705	628	199	117
16	69.0	67.9	914	542	597	1,130	1,110	793	898	366	198	110
17	69.4	69.2	886	494	620	1,160	743	860	751	300	198	110
18	69.7	68.3	945	467	607	1,050	602	959	710	275	198	108
19	66.0	66.6	940	432	659	1,040	871	1,180	635	260	196	104
20	67.2	66.2	964	452	665	1,110	749	1,120	526	256	196	113
21	64.7	64.3	1,030	426	676	828	703	1,090	553	247	197	113
22	64.7	67.2	1,030	499	626	854	544	1,010	722	311	194	112
23	63.8	70.6	1,010	527	598	1,160	498	848	632	432	192	110
24	64.9	70.7	1,010	575	617	1,100	609	1,200	536	419	191	104
25	64.1	64.0	948	476	647	1,110	708	830	461	499	179	108
26	64.8	65.9	879	473	659	1,030	750	1,170	439	369	179	114
27	65.6	67.4	801	596	687	978	838	1,050	413	325	169	121
28	65.7	65.8	745	605	590	895	993	813	382	277	170	128
29	64.2		771	654	556	851	966	722	363	258	169	131
30	64.3		800	671	564	1,020	1,490	663	348	262	168	131
31	62.3	------	744		711		1,310	578	------	256		123
TOTAL	2,151.9	1,883.3	24,796.4	18,067	18,380	27,758	30,905	30,138	18,068	11,158	6,122	3,645
MEAN	69.4	67.3	800	602	593	925	997	972	602	360	204	118
MAX	84.6	74.1	1,150	907	711	1,160	1,500	1,620	901	825	350	158
MIN	62.3	61.6	42.0	426	376	664	498	578	348	247	168	104
AC-FT	4,268	3,735	49,183	35,835	36,456	55,057	61,299	59,778	35,837	22,132	12,143	7,230

CAL YR 1974: TOTAL 193,072.6 MEAN 529 MAX 1,620 MIN 42.0 AC-FT 382,953
WTR YR 1974: TOTAL 182,263.1 MEAN 499 MAX 1,620 MIN 42.0 AC-FT 361,512

08377900 RIO MORA NEAR TERRERO, N. MEX.
(Hydrologic bench-mark station)

LOCATION.--Lat 35°46'38", long 105°39'27", in E½NE¼ sec.22, T.18 N., R.12 E., San Miguel County, in Santa Fe National Forest, on left bank 450 ft (140 m) upstream from bridge on State Highway 63, 600 ft (180 m) upstream from mouth, and 2.6 mi (4.2 km) north of Terrero.

DRAINAGE AREA.--53.2 mi² (137.8 km²).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 7,890 ft (2,405 m) from topographic map.

AVERAGE DISCHARGE.--11 calendar years, 27.8 ft³/s (0.787 m³/s), 20,140 acre-ft/yr (24.8 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 66 ft³/s (1.87 m³/s) May 13 (gage height, 1.78 ft or 0.543 m); maximum gage height, 1.81 ft (0.552 m) Dec. 3 (backwater from ice); minimum discharge recorded, 1.7 ft³/s (0.048 m³/s) Apr. 5, but may have been less during period of ice effect.
Period of record: Maximum discharge, 726 ft³/s (20.6 m³/s) May 21, 1973 (gage height, 3.68 ft or 1.122 m); minimum determined, 0.90 ft³/s (0.025 m³/s) Jan. 12-14, 1964, but may have been less during periods of ice effect.
Greatest flood since 1886 probably occurred Sept. 29, 1904 (based on statement for Pecos River near Pecos and history of that flood period).

REMARKS.--Records good except those for winter periods, which are poor. About 90 percent of the drainage is in the Pecos Wilderness Area and not subject to development, watershed management, or the building of highways; there is limited cattle grazing by permit. Water quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	4.5	5.1	5.2	12	26	23	7.0	9.3	11	7.5	18	7.5
2	4.3	5.1	5.5	12	30	22	6.3	12	9.4	7.3	18	8.0
3	4.0	4.9	5.5	9.6	35	20	5.6	27	9.1	7.2	17	8.5
4	4.5	4.9	5.6	9.3	39	19	6.6	34	8.8	8.0	17	9.0
5	5.0	4.9	5.1	7.8	41	17	8.3	22	8.2	7.3	16	9.5
6	5.2	4.9	5.4	8.9	38	17	6.7	18	7.7	9.5	18	9.0
7	5.4	4.9	5.6	9.5	37	17	13	16	7.6	17	16	8.4
8	5.4	4.8	5.6	9.6	40	18	11	15	7.0	13	16	8.4
9	5.3	4.9	6.0	11	43	17	7.9	14	6.7	10	17	8.0
10	5.2	4.8	5.2	11	46	14	6.9	13	6.7	10	15	7.5
11	5.1	5.0	5.3	9.9	55	13	5.9	12	6.3	12	14	7.5
12	4.9	5.1	5.7	9.5	57	12	5.7	11	6.0	16	15	8.0
13	4.9	5.3	6.0	8.9	62	11	12	9.8	6.0	18	15	8.0
14	4.9	5.2	6.5	8.8	60	11	12	8.9	6.9	20	14	7.5
15	4.9	5.0	7.3	10	59	12	8.9	8.6	7.5	19	14	7.8
16	5.5	5.2	8.7	10	59	12	10	8.2	8.8	18	14	8.0
17	5.8	5.2	10	13	57	10	7.4	8.1	8.3	17	12	8.5
18	5.8	5.0	10	16	54	9.6	8.2	7.7	9.1	17	14	8.5
19	5.5	5.0	9.3	18	52	9.3	8.6	7.5	7.7	16	13	8.0
20	5.5	5.0	9.6	17	48	9.0	8.9	7.4	7.7	16	10	8.0
21	5.6	5.0	8.3	17	44	8.7	11	7.2	14	16	14	8.5
22	5.6	5.2	8.4	17	40	9.7	9.2	7.9	13	16	12	9.0
23	5.3	5.0	8.8	20	37	9.6	12	7.4	11	17	11	9.0
24	5.4	4.9	7.8	21	36	8.2	9.9	7.4	10	17	9.0	8.0
25	5.1	4.9	7.9	29	34	7.8	7.5	11	9.2	17	12	7.0
26	5.2	4.9	9.2	35	32	8.1	6.8	13	8.9	17	12	7.0
27	5.2	5.0	10	38	30	6.9	7.8	10	8.6	20	10	7.0
28	5.1	5.0	9.7	32	28	6.8	6.9	20	8.3	19	8.0	7.5
29	5.1	------	11	28	27	6.7	8.3	16	8.0	21	7.0	7.8
30	5.0	------	14	26	24	7.0	12	15	7.8	21	7.0	7.5
31	5.0	------	16	------	23	------	9.0	12	------	19	------	7.5
TOTAL	159.2	140.1	244.2	486.8	1,293	372.4	267.3	396.4	255.3	465.8	405.0	249.4
MEAN	5.14	5.00	7.88	16.2	41.7	12.4	8.62	12.8	8.51	15.0	13.5	8.05
MAX	5.8	5.3	16	38	62	23	13	34	14	21	18	9.5
MIN	4.0	4.8	5.1	7.8	23	6.7	5.6	7.2	6.0	7.2	7.0	7.0
AC-FT	316	278	484	966	2,560	739	530	786	506	924	803	495

CAL YR 1974 TOTAL 4,734.9 MEAN 13.0 MAX 62 MIN 4.0 AC-FT 9,390
WTR YR 1974 TOTAL 4,224.0 MEAN 11.6 MAX 62 MIN 4.0 AC-FT 8,380

PEAK DISCHARGE (BASE, 100 FT³/S).--No peak above base.

08378500 PECOS RIVER NEAR PECOS, N. MEX.

LOCATION.--Lat 35°42'30", long 105°40'55", in NE¼NE¼ sec.17, T.17 N., R.12 E., San Miguel County, in Santa Fe National Forest, on left bank at downstream side of bridge on private road, 300 ft (91 m) upstream from Indian Creek, 2.4 mi (3.9 km) downstream from Holy Ghost Creek, 9.0 mi (14.5 km) north of Pecos, and at mile 896.6 (1,422.6 km).

DRAINAGE AREA.--189 mi² (490 km²).

PERIOD OF RECORD.--August 1919 to current year. Monthly discharge only for some periods, published in WSP 1312. Published as "near Cowles" 1919-25, "at Irvins Ranch" 1926-29, and as "at Irvins Ranch near Pecos" 1930-39.

GAGE.--Water-stage recorder. Datum of gage is 7,502.94 ft (2,286.896 m) above mean sea level.

AVERAGE DISCHARGE.--55 calendar years, 97.1 ft³/s (2.750 m³/s), 70,350 acre-ft/yr (86.7 hm³/yr); 20 calendar years (1955-74), 88.2 ft³/s (2.498 m³/s), 63,900 acre-ft/yr (78.8 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 228 ft³/s (6.46 m³/s) Aug. 3 (gage height, 2.75 ft or 0.838 m); minimum 15 ft³/s (0.43 m³/s) Apr. 5, Dec. 9, result of freezeup.
Period of record: Maximum discharge, about 4,500 ft³/s (127 m³/s) Sept. 21 or 22, 1929 (gage height, 6.2 ft or 1.89 m, from floodmark), from rating curve extended above 1,600 ft³/s (45.3 m³/s); minimum 2.0 ft³/s (0.057 m³/s) Mar. 19, 1971, result of freezeup.
Flood of Sept. 29, 1904, was greatest since 1886, from information by local residents.

REMARKS.--Records good except those for winter periods and those for September and October, which are poor. Diversions for irrigation of about 75 acres (304,000 m²), 1959 determination, above station. Water quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 898: Drainage area. WSP 1312: 1932(M).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	26	28	24	42	79	79	33	37	32	26	50	25
2	25	27	25	43	92	74	32	47	31	26	55	26
3	21	27	25	53	110	68	30	140	30	25	50	28
4	22	27	23	92	120	65	31	134	29	26	45	30
5	24	25	24	62	118	63	35	81	28	25	38	32
6	25	23	25	62	108	62	62	68	27	30	47	31
7	26	22	25	55	101	63	49	65	27	55	41	29
8	26	22	24	53	116	72	47	55	26	50	38	26
9	26	23	25	68	120	65	37	52	25	45	44	25
10	26	24	24	68	123	60	33	45	25	40	42	23
11	25	24	25	54	153	55	31	42	24	41	37	23
12	25	26	26	55	156	52	31	39	24	44	37	24
13	26	25	27	53	171	50	56	36	24	50	41	24
14	28	23	28	52	165	49	43	34	25	60	37	23
15	30	22	30	57	159	50	41	33	28	55	38	24
16	30	23	33	55	165	55	47	32	33	50	37	25
17	30	23	38	42	159	47	35	32	32	48	34	26
18	29	22	39	52	150	44	55	32	32	45	37	26
19	28	22	36	62	150	43	36	31	28	43	36	25
20	28	22	37	57	136	42	36	31	27	40	29	25
21	28	22	32	56	123	42	42	32	35	40	35	26
22	27	23	33	56	113	42	36	31	34	40	35	27
23	26	22	34	70	106	43	39	34	33	43	35	27
24	27	22	32	74	106	39	35	33	31	43	27	23
25	28	22	32	99	106	39	31	58	30	43	32	20
26	29	22	33	118	96	38	30	37	29	43	32	20
27	28	22	38	126	94	35	32	35	29	50	27	20
28	27	22	35	110	94	33	32	35	28	46	25	41
29	28	------	38	94	88	32	42	43	27	65	23	22
30	28	------	43	90	86	34	55	45	27	60	25	21
31	28	------	53	------	79	------	38	37	------	55	------	20
TOTAL	830	657	966	1,670	3,739	1,535	1,162	1,486	860	1,354	1,107	767
MEAN	26.8	23.5	31.2	55.7	121	51.2	37.5	47.9	28.7	43.7	36.9	24.7
MAX	30	28	53	126	171	79	56	140	35	65	55	32
MIN	21	22	23	42	79	32	30	31	24	25	25	20
AC-FT	1,650	1,300	1,920	3,310	7,420	3,040	2,300	2,950	1,710	2,690	2,200	1,520

CAL YR 1974 TOTAL 16,133 MEAN 44.2 MAX 171 MIN 20 AC-FT 32,000
WTR YR 1974 TOTAL 15,701 MEAN 43.0 MAX 171 MIN 21 AC-FT 31,140

PEAK DISCHARGE (BASE, 310 FT³/S).--No peak above base.

08379500 PECOS RIVER NEAR ANTON CHICO, N. MEX.

LOCATION.--Lat 35°10'44", Long 105°06'30", Guadalupe County, in Anton Chico Grant, on right bank 2.1 mi (3.4 km) upstream from Canon Blanco, 2.3 mi (3.7 km) southeast of Anton Chico, 9.7 mi (15.6 km) downstream from Tecolote Creek, and at mile 816.8 (1,314.2 km).
DRAINAGE AREA.--1,050 mi² (2,720 km²), approximately (contributing area).
PERIOD OF RECORD.--April 1910 to May 1916, October 1916 to September 1924, August to December 1925, January 1927 to current year. Monthly discharge only for some periods, published in WSP 1312.
GAGE.--Water-stage recorder. Altitude of gage is 5,130 ft (1,564 m) from river-profile map. See WSP 1312 for history of changes prior to June 21, 1951.
AVERAGE DISCHARGE.--61 calendar years (1911-15, 1917-24, 1927-74), 132 ft³/s (3.738 m³/s), 95,630 acre-ft/yr (118 hm³/yr); 20 calendar years (1955-74), 108 ft³/s (3.059 m³/s), 78,250 acre-ft/yr (96.5 hm³/yr).
EXTREMES.--Current year: Maximum discharge, 7,850 ft³/s (222 m³/s) Aug. 6 (gage height, 10.4 ft or 3.17 m from inside highwater mark); minimum 0.03 ft³/s (.001 m³/s) July 2.
Period of record: Maximum discharge, 40,300 ft³/s (1,140 m³/s) June 1, 1937 (gage height, 20.34 ft or 6.200 m, from floodmarks), at site and datum then in use, by slope-area measurement; no flow at times.
The greatest flood since 1879 occurred Sept. 29, 1904, discharge about 73,000 ft³/s (207 m³/s), from information by a local resident.
REMARKS.--Records poor. Diversions above station for irrigation of about 4,900 acres (1,980 hm²), 1959 determination, above and below station. Acequia del Bodo Juan Paiz (see table below) diverts water about 8 mi (12.9 km) above gage and bypasses this station on left bank; ditch flow not included in record. Discharge measurements made at point opposite regular gage. A portion of this flow may be returned to the river about 5.0 mi (8.0 km) downstream. Water quality records for the current year are published in Part 2 of this report.
REVISIONS (WATER YEARS).--WSP 1342: 1951(M), 1952-53. WSP 1512: 1912-14, 1931, 1933(M), 1935-36(M), 1938(P), 1939-40, 1941-42(P), 1945(M), 1946(P), 1949(P). WSP 1712: 1942(P).

Discharge measurements, in cubic feet per second, of Acequia del Bodo Juan Paiz, Calendar year 1974

Jan. 9	0	Apr. 24	1.8	June 4	18	July 30	1.3	Oct. 17	42
Feb. 21	0	May 7	21	June 20	0	Sept. 3	18	Dec. 19	0
Apr. 11	23	May 23	46	July 1	0	Oct. 1	5.1		

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	15	16	18	5.3	11	12	3.1	63	13	10	38	7.0
2	19	15	20	9.4	18	9.4	.80	34	8.0	11	29	5.5
3	9.0	16	19	5.6	21	5.8	.40	25	6.7	11	37	9.0
4	13	16	18	8.1	16	8.1	.46	400	5.7	11	64	13
5	20	16	20	5.6	18	8.1	.67	100	6.7	10	58	11
6	30	13	19	2.8	13	15	.55	1,100	5.6	12	57	12
7	40	9.0	20	7.6	15	20	.83	300	4.5	16	18	12
8	43	9.0	18	3.0	19	21	19	150	3.0	7.6	19	11
9	35	8.0	17	2.2	21	17	53	80	1.6	7.4	16	21
10	33	9.0	29	5.9	16	7.2	17	30	.91	9.2	16	9.0
11	13	10	34	12	20	2.6	6.5	20	.65	42	17	7.0
12	8.0	14	30	12	27	3.3	7.6	15	.59	37	14	9.0
13	9.0	16	24	13	35	6.6	3.7	7.6	.62	63	12	11
14	10	12	26	12	62	9.0	2.5	3.3	.93	27	11	13
15	10	15	26	4.3	90	8.5	3.2	4.3	15	20	13	12
16	11	18	31	2.0	57	13	3.8	8.4	13	17	13	15
17	12	21	33	1.6	49	2.0	6.9	7.5	13	13	11	25
18	12	22	35	9.9	52	1.8	12	8.3	11	10	5.2	30
19	13	21	31	13	51	1.4	12	2.4	12	7.5	6.7	25
20	12	20	39	11	42	.99	15	2.0	12	7.3	8.5	26
21	11	18	46	12	40	1.5	12	1.6	13	8.0	9.1	36
22	9.0	17	51	2.4	36	.99	.84	1.4	20	8.9	8.8	38
23	13	16	48	1.6	35	.91	.84	1.5	14	24	6.2	30
24	18	13	46	2.0	29	17	.84	14	14	89	9.5	24
25	20	10	39	9.9	27	4.4	.83	403	14	13	11	66
26	15	11	31	12	29	1.5	.86	352	14	11	9.9	50
27	20	12	29	15	21	4.6	.61	138	15	37	8.5	60
28	20	18	13	17	18	5.9	.44	176	15	63	9.4	90
29	18	------	10	18	18	1.1	2.0	22	13	36	10	75
30	13	------	9.0	13	8.0	.93	.81	30	8.7	31	7.5	25
31	15	------	8.5	------	9.6	------	.72	25	------	41	------	60
TOTAL	539.0	411.0	837.5	249.2	920.8	211.62	189.82	3,527.3	275.20	710.9	553.3	837.5
MEAN	17.4	14.7	27.0	8.31	29.7	7.05	6.12	114	9.17	22.9	18.4	27.0
MAX	43	22	51	18	90	21	53	1,100	20	89	64	90
MIN	8.0	8.0	8.5	1.6	8.0	.91	.40	1.4	.59	7.3	5.2	5.5
AC-FT	1,070	815	1,660	494	1,830	420	377	7,000	546	1,410	1,100	1,660

CAL YR 1974 TOTAL 9,263.14 MEAN 25.4 MAX 1,100 MIN .40 AC-FT 18,370
WTR YR 1974 TOTAL 8,544.26 MEAN 23.4 MAX 1,100 MIN .40 AC-FT 16,950

PEAK DISCHARGE (BASE, 3,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
About 08-06	unknown	10.4*	7,850	08-25	1630	7.90	3,520

NOTE.--No gage-height record July 27 to August 13.
* From floodmark.

08380500 GALLINAS CREEK NEAR MONTEZUMA, N. MEX.

LOCATION.--Lat 35°39'07", long 105°19'06", San Miguel County, in Las Vegas Grant, on left bank 2.4 mi (3.9 km) west of Montezuma, 6.9 mi (11.1 km) northwest of Las Vegas, and at mile 62.4 (100.4 km).

DRAINAGE AREA.--84 mi² (220 km²), approximately.

PERIOD OF RECORD.--March to September 1915, June 1916 to current year. Monthly discharge only for some periods, published in WSP 1312. Prior to October 1964, published as Gallinas River near Montezuma.

GAGE.--Water-stage recorder. Altitude of gage is 6,875 ft (2,096 m) from topographic map. Prior to Sept. 21, 1934, at different datum.

AVERAGE DISCHARGE.--58 calendar years, 19.7 ft³/s (0.558 m³/s), 14,270 acre-ft/yr (17.6 hm³/yr); 20 calendar years (1955-74), 18.8 ft³/s (0.532 m³/s), 13,620 acre-ft/yr (16.8 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 870 ft³/s (24.6 m³/s) Aug. 6 (gage height, 4.00 ft or 1.219 m); minimum, 0.97 ft³/s (0.027 m³/s) Feb. 23, result of freezeup.

Period of record: Maximum discharge, 7,120 ft³/s (202 m³/s) Aug. 2, 1966 (gage height, 9.7 ft or 2.96 m, from floodmarks), from rating curve extended above 500 ft³/s (14.2 m³/s) on basis of slope-area measurements at gage heights 5.25 ft (1.600 m), 8.25 ft (2.515 m), and 9.7 ft (2.96 m); minimum, 0.20 ft³/s (0.006 m³/s), Oct. 6-9, 1922, Sept. 21, Oct. 9-14, 1956, Dec. 13, 1964.

The greatest flood since about 1900 occurred the night of Sept. 29, 1904 (discharge not determined), from information by local residents and G. B. Monk's report on floods.

REMARKS.--Records good except those for winter periods, which are poor. Diversions for irrigation of about 80 acres (324,000 m²), 1959 determination, above station.

REVISIONS (WATER YEARS).--WSP 898: Drainage area. WSP 1562: 1951(P), 1952(M), 1955(P), 1957. WSP 1632: 1931-32, 1933(M), 1934, 1935(M), 1938, 1939-40(M), 1941-42, 1945, 1949-50(M).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	5.0	5.0	5.2	10	13	4.0	2.0	5.0	2.8	3.4	12	3.7
2	4.8	5.1	5.6	9.7	11	4.0	1.9	4.1	2.8	3.4	11	3.9
3	4.5	5.0	6.2	8.8	10	4.0	1.7	10	2.9	3.3	11	4.1
4	4.3	5.2	5.8	9.5	9.8	3.5	1.6	20	3.1	3.3	11	4.2
5	4.5	5.0	5.1	7.9	9.4	3.4	1.7	19	2.9	3.6	9.6	4.4
6	4.7	5.0	5.6	8.3	8.3	3.2	6.2	40	2.7	3.6	9.7	4.2
7	4.8	4.5	5.8	7.8	8.0	2.9	3.8	38	2.6	5.8	9.4	4.0
8	5.0	4.6	5.7	7.1	7.7	3.5	3.4	22	2.5	5.7	8.9	4.0
9	5.0	4.7	6.0	7.5	7.7	3.5	8.3	15	2.4	4.7	9.6	3.9
10	5.0	4.7	6.6	7.6	7.9	3.2	4.5	10	2.3	4.4	9.0	3.8
11	5.0	4.7	5.8	7.7	7.7	3.0	3.3	7.7	2.2	4.9	8.4	3.8
12	5.0	4.8	6.5	7.4	7.5	2.9	2.8	6.3	2.2	16	7.7	4.0
13	5.0	4.9	7.9	7.2	7.1	2.8	2.7	5.4	2.3	23	7.7	4.0
14	5.0	5.1	8.4	6.9	7.0	2.6	2.5	4.6	2.6	21	7.1	3.8
15	5.1	5.0	9.5	7.0	6.6	2.7	2.4	4.0	3.1	17	7.0	3.9
16	5.3	5.2	10	6.8	6.0	2.8	2.3	3.9	3.4	14	6.9	4.0
17	5.3	5.3	12	6.9	5.5	2.6	2.2	3.7	4.6	11	6.4	4.2
18	6.1	5.1	14	7.1	5.2	2.4	2.1	3.2	4.3	9.1	6.4	4.2
19	5.5	4.7	12	7.8	5.1	2.3	2.0	2.9	3.8	7.5	6.0	4.0
20	5.4	5.2	12	8.3	5.2	2.2	1.8	3.1	3.4	6.8	5.5	4.0
21	5.8	4.9	10	8.2	5.1	2.1	1.8	3.2	5.6	6.3	5.5	4.2
22	5.5	5.0	9.8	7.3	4.8	2.1	1.9	3.3	6.3	5.9	5.4	4.5
23	5.2	4.8	9.6	7.5	5.0	10	2.2	3.1	5.8	7.2	5.4	4.5
24	5.5	4.8	8.6	8.1	5.0	3.2	2.1	3.4	5.2	6.8	4.9	4.3
25	6.0	4.9	9.0	9.4	5.5	5.6	2.0	4.0	4.5	6.7	4.6	4.0
26	5.8	5.0	8.9	11	5.1	3.5	1.8	4.5	4.0	7.2	4.9	4.0
27	5.6	5.0	9.2	12	4.4	3.0	1.6	4.1	3.8	8.7	4.3	4.0
28	5.0	5.0	8.9	12	3.7	2.6	1.9	3.9	3.6	12	4.0	4.2
29	5.0	------	8.7	11	3.7	2.3	3.4	3.6	3.5	11	3.8	4.5
30	5.0	------	9.2	11	3.9	2.2	4.8	3.4	3.5	15	3.5	4.4
31	5.0	------	11	------	4.0	------	3.9	3.1	------	14	------	4.3
TOTAL	159.7	138.2	258.6	254.8	205.9	98.1	86.8	267.5	104.7	272.3	216.6	127.0
MEAN	5.15	4.94	8.34	8.49	6.64	3.27	2.80	8.63	3.49	8.78	7.22	4.10
MAX	6.1	5.3	14	12	13	10	8.3	40	6.3	23	12	4.5
MIN	4.3	4.5	5.1	6.8	3.7	2.1	1.6	2.9	2.2	3.3	3.5	3.7
AC-FT	317	274	513	505	408	195	172	531	208	540	430	252

CAL YR 1974 TOTAL 2,190.2 MEAN 6.00 MAX 40 MIN 1.6 AC-FT 4,340
WTR YR 1974 TOTAL 2,131.6 MEAN 5.84 MAX 40 MIN 1.6 AC-FT 4,230

PEAK DISCHARGE (BASE, 200 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
8- 6	2100	4.00	870				

08382500 GALLINAS RIVER NEAR COLONIAS, N. MEX.

LOCATION.--35°10'55", long 104°53'59", Guadalupe County, in Anton Chico and Preston Beck Grants, on right bank 2.3 mi (3.7 km) south of San Miguel-Guadalupe County line, 2.4 mi (3.9 km) upstream from mouth, 5.8 mi (9.3 km) northwest of Colonias, and 9.0 mi (14.5 km) east of Dilia. Mouth at Pecos River mile 798.2 (1,284.3 km).

DRAINAGE AREA.--610 mi^2 (1,580 km^2), approximately.

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

GAGE.--Water-stage recorder. Altitude of gage is 4,944 ft (1,507 m) from topographic map.

AVERAGE DISCHARGE.--24 calendar years, 17.6 ft^3/s (0.498 m^3/s), 12,750 acre-ft/yr (15.7 hm^3/yr); 20 calendar years (1955-74), 19.3 ft^3/s (0.547 m^3/s), 13,980 acre-ft/yr (17.2 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,670 ft^3/s (47.3 m^3/s) Aug. 5 (gage height, 7.70 ft or 2.347 m); no flow many days.
Period of record: Maximum discharge, 9,360 ft^3/s (265 m^3/s) June 16, 1963 (gage height, 16.65 ft or 5.075 m), from rating curve extended above 1,900 ft^3/s (53.8 m^3/s) on basis of slope-area measurements at gage heights 8.64 ft (2.633 m), 12.74 ft (3.883 m), 16.65 ft (5.075 m), and 27.2 ft (8.291 m); no flow most of time.
Flood of about June 1, 1937, reached a stage of about 27.2 ft (8.29 m); discharge determined as 26,700 ft^3/s (756 m^3/s) by slope-area measurement made in 1951. A flood of about the same magnitude occurred Sept. 29-30, 1904.

REMARKS.--Records fair. Diversions for irrigation of about 7,000 acres (2,830 hm^2) 1959 determination, above station.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1.0	3.8	.89	.06			0	8.8	12	0	5.5	1.9
2	.80	4.0	.75	.06			0	235	6.9	0	4.4	1.8
3	.60	3.8	.60	.01			0	51	3.7	0	4.2	1.7
4	.45	3.8	.60	0			0	24	2.1	0	4.6	1.8
5	1.0	3.7	1.2	.14			0	396	.89	0	4.6	1.9
6	3.5	3.3	1.5	.48			0	102	.68	0	14	1.9
7	5.5	2.0	1.5	.32			0	384	.13	0	14	1.8
8	6.0	1.0	1.6	.22			0	54	0	0	13	1.7
9	3.8	1.4	1.9	.14			0	24	0	21	12	1.2
10	5.2	1.0	2.2	.06			20	11	0	11	12	1.6
11	3.3	1.4	2.6	.01			2.6	6.4	0	4.6	11	1.2
12	4.5	2.0	3.1	0			.75	3.7	0	7.6	7.7	1.0
13	6.4	2.6	4.2	0			.13	2.1	0	6.9	5.9	1.2
14	6.6	3.1	4.2	0			0	.68	0	11	4.8	.75
15	6.4	3.2	4.4	0			0	.11	16	6.6	4.4	.80
16	6.1	2.6	3.5	0			0	0	3.3	3.5	4.2	.90
17	6.4	2.2	3.1	0			0	0	.44	2.1	4.0	1.0
18	6.9	2.8	2.4	.14			0	0	4.8	.75	3.5	.75
19	6.6	2.6	2.2	.07			0	0	4.0	.28	3.2	.64
20	7.2	2.6	2.1	0			0	0	8.2	.02	3.1	1.1
21	8.0	2.3	1.9	0			0	0	4.0	0	2.9	1.2
22	6.1	2.6	1.8	0			0	0	1.1	0	2.8	1.6
23	5.7	1.7	1.7	0			0	1.6	2.2	0	2.9	1.0
24	5.3	1.9	1.6	0			0	20	2.2	12	2.9	.80
25	5.0	1.8	1.5	0			0	27	1.9	13	2.9	.60
26	3.6	1.3	1.4	37			0	169	1.1	5.9	2.9	.50
27	3.4	1.3	1.2	1.8			0	51	.26	5.3	2.6	.40
28	4.2	1.1	.89	.52			0	30	0	109	2.4	.50
29	3.7	------	.64	.32			82	23	0	29	2.3	.50
30	3.5	------	.48	.18			88	10	0	15	2.3	1.0
31	3.8	------	.32	------		------	27	6.1	------	8.3	------	.90
TOTAL	140.55	66.9	57.97	41.53	0	0	220.48	1,640.49	75.90	272.85	167.0	35.84
MEAN	4.53	2.39	1.87	1.38	0	0	7.11	52.9	2.53	8.80	5.57	1.16
MAX	8.0	4.0	4.4	37	0	0	88	396	16	109	14	1.9
MIN	.45	1.0	.32	0	0	0	0	0	0	0	2.3	.40
AC-FT	279	133	115	82	0	0	437	3,250	151	541	331	71

CAL YR 1974 TOTAL 2,719.51 MEAN 7.45 MAX 396 MIN 0 AC-FT 5,390
WTR YR 1974 TOTAL 2,491.52 MEAN 6.83 MAX 396 MIN 0 AC-FT 4,940

PEAK DISCHARGE (BASE, 1,700 FT^3/S).--No peak above base.

08382700 PECOS RIVER NEAR COLONIAS, N. MEX.

LOCATION.--Lat 35°03'26", long 104°45'20", in SW¼SE¼SW¼ sec 30, T.10 N., R.21 E., Guadalupe County, at edge of left bank, on south boundary of Preston Beck Grant, 1.2 mi (1.9 km) upstream from River Ranch, 6.5 mi (10.5 km) southeast of Colonias, and 8.8 mi (14.2 km) northwest of Santa Rosa, and at mile 779.6 (1,254.4 km).

DRAINAGE AREA.--2,340 mi² (6,060 km²), approximately.

PERIOD OF RECORD.--July 1970 to current year (operated as a low-flow station only).

GAGE.--Water-stage recorder. Altitude of gage is 4,758 ft (1,450 m) from topographic map.

EXTREMES.--Current year: Maximum discharge not determined; minimum, 9.2 ft³/s (0.26 m³/s) July 16.
Period of record: Maximum discharge not determined; minimum, 5.6 ft³/s (0.16 m³/s) July 3, 16, 17, 1971.

REMARKS.--Records poor. Diversions and ground-water withdrawals above station for irrigation of about 12,000 acres (4,860 hm²), 1959 determination. Base flow is from springs in a 4 mi (6 km) reach upstream from gage.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	18	16	15	15	16	11	12	16	14	12	31	11
2	18	16	16	14	15	11	12	285	13	12	31	11
3	18	16	15	14	15	11	12	98	13	12	25	11
4	17	15	15	15	15	12	13	18	12	12	32	11
5	22	15	17	15	16	12	13	-	12	13	29	11
6	20	13	17	14	16	12	13	-	12	14	28	11
7	20	13	17	14	16	13	13	-	11	15	27	11
8	20	15	17	14	15	12	14	-	11	14	17	11
9	19	15	17	15	15	13	50	114	11	14	17	11
10	19	15	18	14	14	12	74	55	11	-	14	11
11	20	15	17	14	15	12	18	20	10	33	12	11
12	22	15	17	14	14	12	12	15	11	19	12	11
13	20	15	17	14	13	12	12	14	11	22	11	11
14	21	15	17	15	14	12	12	14	13	39	11	11
15	20	15	17	15	13	12	11	14	15	20	12	11
16	19	15	17	15	15	12	10	14	46	15	12	11
17	19	15	17	15	14	12	11	14	14	13	11	11
18	20	15	16	14	13	12	11	14	12	12	11	10
19	20	16	16	14	13	11	11	14	11	12	11	10
20	20	18	17	14	12	11	11	16	11	11	11	11
21	20	17	17	14	13	11	11	15	11	11	11	11
22	19	17	16	14	12	11	11	14	12	11	11	11
23	19	17	17	14	12	12	11	13	12	12	12	11
24	19	17	16	14	13	11	11	15	12	11	12	11
25	17	17	15	15	12	11	11	-	12	35	11	11
26	17	17	15	20	12	12	11	-	12	20	11	11
27	18	16	15	15	12	12	11	-	11	12	11	11
28	17	17	15	16	12	12	11	-	12	68	11	11
29	17	------	15	16	11	13	11	-	12	63	11	11
30	17	------	15	16	11	13	149	21	12	41	11	11
31	16	------	15	------	11	------	23	15	------	28	------	11
TOTAL	588	438	503	442	420	355	616	-	392	-	477	339
MEAN	19.0	15.6	16.2	14.7	13.5	11.8	19.9	-	13.1	-	15.9	10.9
MAX	22	18	18	20	16	13	149	-	46	-	32	11
MIN	16	13	15	14	11	11	10	-	10	-	11	10
AC-FT	1,170	869	998	877	833	704	1,220	-	778	-	946	672

08382800 PECOS RIVER ABOVE LOS ESTEROS DAMSITE, NEAR SANTA ROSA, N. MEX.

LOCATION.--Lat 35°02'26", long 104°40'52", Guadalupe County, in Jose Perea Grant, on left bank, 1.3 mi (2.1 km) downstream from Catfish Falls, 1.6 mi (2.6 km) southwest from mouth of Esteros Creek, and 7.2 mi (11.6 km) north of Santa Rosa, and at mile 767.8 (1,235.4 km).

DRAINAGE AREA.--2,430 mi^2 (6,290 km^2), approximately.

PERIOD OF RECORD.--October 1965 to current year (operated as a low-flow station only).

GAGE.--Water-stage recorder. Altitude of gage is 4,630 ft (1,410 m) from topographic map.

EXTREMES.--Current year: Maximum not determined; minimum, 7.2 ft^3/s (0.20 m^3/s) July 7.
Period of record: Maximum not determined; minimum daily discharge, 1.0 ft^3/s (0.028 m^3/s) Jan. 5, 6, 1971.

REMARKS.--Records poor. Diversions for irrigation of about 12,000 acres (4,860 hm^2), 1959 determination, above station.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	9.0	16	16	14	14	11	9.0	24	17	10	31	12
2	8.0	16	16	15	13	11	9.0	74	15	9.8	34	12
3	8.0	17	16	16	13	10	8.3	117	14	9.8	31	12
4	8.0	17	15	16	13	10	7.9	35	13	9.8	33	12
5	23	16	15	16	12	9.8	7.9	-	12	9.4	33	12
6	28	14	16	15	12	9.8	8.3	-	12	10	30	12
7	25	9.0	15	15	11	10	8.3	-	11	13	29	12
8	22	9.0	16	15	11	10	9.0	-	11	11	23	12
9	17	15	16	16	12	10	11	70	10	10	19	14
10	17	16	17	16	13	10	50	35	10	-	17	13
11	15	17	16	16	13	9.4	30	25	10	225	15	13
12	16	16	15	15	13	9.4	19	20	10	81	14	13
13	17	16	15	15	12	9.8	15	17	10	60	13	13
14	17	16	16	16	13	9.4	14	15	14	54	14	12
15	17	17	16	16	13	9.0	12	13	14	31	14	10
16	17	16	16	15	12	9.4	11	12	34	22	14	11
17	16	16	16	15	13	8.6	10	11	33	17	13	11
18	17	16	15	15	12	8.6	10	11	22	15	12	11
19	17	16	15	14	12	9.0	10	10	16	14	12	12
20	16	17	15	14	11	9.0	10	10	13	14	12	13
21	16	17	16	14	12	9.0	9.8	10	13	14	11	11
22	16	15	16	15	13	8.6	10	9.4	15	14	11	10
23	16	16	16	14	12	12	9.8	9.0	15	14	11	11
24	17	14	17	14	12	9.4	9.0	10	15	14	12	10
25	17	15	16	15	13	9.0	9.0	47	14	30	11	10
26	16	17	16	16	12	8.6	9.0	454	12	20	11	12
27	15	16	15	16	11	8.3	9.0	216	11	19	11	10
28	14	16	15	13	10	8.3	9.4	184	11	35	11	13
29	15	------	14	14	10	8.3	9.8	161	11	88	11	11
30	15	------	14	14	10	9.4	61	25	11	47	11	11
31	17	------	14	------	11	------	34	20	------	34	------	11
TOTAL	504.0	434.0	482	450	374	284.1	449.5	-	429	-	524	362
MEAN	16.3	15.5	15.5	15.0	12.1	9.47	14.5	-	14.3	-	17.5	11.7
MAX	28	17	17	16	14	12	61	-	34	-	34	14
MIN	8.0	9.0	14	13	10	8.3	7.9	-	10	-	11	10
AC-FT	1,000	861	956	893	742	564	892	-	851	-	1,040	718

08383000 PECOS RIVER AT SANTA ROSA, N. MEX.

LOCATION.--Lat 34°56'36", long 104°41'55", in NW¼SE¼ sec.3, T.8 N., R.21 E., Guadalupe County, on left bank 0.6 mi (1.0 km) upstream from bridge on U.S. Highway 66 in Santa Rosa, 1.9 mi (3.1 km) upstream from El Rito Creek, and at mile 756.5 (1,217.2 km).
DRAINAGE AREA.--2.650 mi² (6,860 km²), approximately (contributing area).
PERIOD OF RECORD.--May 1903 to December 1905 (gage heights only), January to December 1906, February 1910 to July 1911, September 1912 to December 1924, March to May 1927, July 1927, January 1928 to current year. Monthly discharge only for some periods, published in WSP 1312. Figures of daily discharge for Apr. 5-20, May 4-7, 11, Aug. 13, 16-18, 24, Sept. 7-9, 11, 13, 19, 21, 23, 25, 27, Oct. 1-31, Nov. 3, 4, 9, 11, 20, 22, 1910, and Feb. 1 to Mar. 31, June 1 to July 31, 1911, published in WSP 358 are unreliable and should not be used.
GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 4,537.56 ft (1,383.048 m) above mean sea level. For history of changes prior to July 1, 1958, see WSP 1732, July 1, 1958, to Sept. 30, 1963, water-stage recorder at site 800 ft (244 m) downstream at datum 4.16 ft (1.268 m) lower. Supplemental water-stage recorder at site 800 ft (244 m) downstream Oct. 1, 1963, to Sept. 13, 1967, at datum 4.16 ft (1.268 m) lower than primary gage.
AVERAGE DISCHARGE.--60 calendar years (1906, 1913-24, 1928-74), 139 ft³/s (3.936 m³/s), 100,700 acre-ft/yr (124 hm³/yr); 20 calendar years (1955-74), 107 ft³/s (3.030 m³/s), 77,520 acre-ft/yr (95.6 hm³/yr).
EXTREMES.--Current year: Maximum discharge, 4,610 ft³/s (131 m³/s) Oct 10 (gage height, 5.10 ft or 1.554 m); minimum, 6.6 ft³/s 0.18 m³/s) June 26, 27.
1930-74: Maximum discharge, 55,200 ft³/s (1,560 m³/s) June 2, 1937 (gage height, 25.7 ft or 7.83 m), site and datum then in use, from rating curve extended above 32,000 ft³/s (906 m³/s); minimum 0.28 ft³/s (0.008 m³/s) Jan. 7, 1971.
The flood of June 2, 1937, is the greatest since about 1886. Flood of Sept. 30, 1904, reached a stage of 24.7 ft (7.53 m), site and datum then in use, discharge, 45,000 ft³/s (1,290 m³/s), by Kutter's formula. Flood of June 9, 1903, reached a stage of 21.1 ft (6.43 m), same site and datum as in 1904, discharge, 34,000 ft³/s (963 m³/s), by comparison with 1904 flood.
REMARKS.--Records fair. Diversions for irrigation of about 12,000 acres (4,860 hm³), 1959 determination, above station. Water quality records for the current year are published in Part 2 of this report.
REVISIONS (WATER YEARS).--WSP 1512: 1913-15. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	10	22	12	12	24	14	14	27	20	13	37	16
2	10	20	12	13	22	14	14	20	18	13	44	16
3	10	20	12	16	19	14	12	218	16	14	41	16
4	8.0	22	11	17	19	13	16	40	15	14	41	16
5	27	19	12	19	19	13	12	900	15	14	39	16
6	29	16	12	17	17	13	13	317	15	14	37	16
7	29	13	12	16	17	13	13	1,380	15	19	35	16
8	35	10	13	16	17	14	40	372	15	20	33	16
9	18	15	12	17	16	13	20	150	14	17	27	16
10	15	18	14	19	13	13	80	56	14	635	24	19
11	16	16	17	16	12	13	83	33	14	282	20	17
12	18	17	13	17	12	13	27	25	13	61	20	17
13	20	16	14	16	11	14	19	20	13	46	19	16
14	19	17	14	17	10	13	16	17	19	41	17	14
15	17	17	14	20	11	12	19	16	20	37	17	13
16	20	19	14	17	11	13	14	16	29	29	16	16
17	20	19	16	19	13	13	12	17	54	24	16	17
18	24	19	14	19	14	12	11	16	39	20	16	14
19	25	19	16	19	14	12	11	14	25	20	16	14
20	25	19	17	17	13	11	10	16	22	19	16	14
21	25	20	17	17	13	11	10	17	20	19	16	19
22	25	19	17	17	14	11	10	17	20	19	14	17
23	22	17	17	17	16	38	9.0	16	20	19	16	14
24	25	14	19	17	16	12	9.0	19	19	19	17	14
25	25	16	19	19	16	9.0	10	22	17	24	17	10
26	25	16	19	25	14	8.1	10	502	16	37	16	14
27	25	14	14	24	14	8.1	9.0	280	14	24	16	17
28	22	13	12	19	13	9.0	10	112	13	24	16	16
29	22	------	12	19	13	10	12	169	13	107	16	24
30	22	------	12	19	13	12	40	41	13	64	14	22
31	22	------	12	------	13	------	81	22	------	46	------	19
TOTAL	655.0	482	441	532	459	388.2	666.0	4,887	570	1,754	689	501
MEAN	21.1	17.2	14.2	17.7	14.8	12.9	21.5	158	19.0	56.6	23.0	16.2
MAX	35	22	19	25	24	38	83	1,380	54	635	44	24
MIN	8.0	10	11	12	10	8.1	9.0	14	13	13	14	10
AC-FT	1,300	956	875	1,060	910	770	1,320	9,690	1,130	3,480	1,370	994

CAL YR 1974 TOTAL 12,024.2 MEAN 32.9 MAX 1,380 MIN 8.0 AC-FT 23,850
WTR YR 1974 TOTAL 11,412.2 MEAN 31.3 MAX 1,380 MIN 8.0 AC-FT 22,640

PEAK DISCHARGE (BASE, 4,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
08-07	0400	5.05	4,450	10-10	2000	5.10	4,610

08383500 PECOS RIVER NEAR PUERTO DE LUNA, N. MEX.

LOCATION.--Lat 34°43'48", long 104°31'28", in NE¼SE¼NW¼ sec.20, T.6 N., R.23 E., Guadalupe County, on left bank 9 mi (14.5 km) southeast of Puerto de Luna, 15.8 mi (25.4 km) upstream from Alamogordo Dam, and at mile 726.2 (1,168.5 km).

DRAINAGE AREA.--3,970 mi² (10,280 km²), approximately (contributing area).

PERIOD OF RECORD.--April 1938 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,311.34 ft (1,314.096 m) above mean sea level. Prior to Apr. 15, 1954, at datum 1 ft (0.30 m) higher.

AVERAGE DISCHARGE.--36 calendar years, 214 ft³/s (6.060 m³/s), 155,000 acre-ft/yr (191 hm³/yr); 20 calendar years (1955-74), 191 ft³/s (5.409 m³/s), 138,400 acre-ft/yr (171 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 15,700 ft³/s (445 m³/s) Aug. 5 (gage height 8.80 ft or 2.682 m); minimum, 46 ft³/s (1.30 m³/s) June 16.
Period of record: Maximum discharge, 48,600 ft³/s (1,380 m³/s) Sept. 1, 1942 (gage height, 17.00 ft or 5.182 m), from rating curve extended above 7,400 ft³/s (210 m³/s) on basis of flow at Santa Rosa; minimum, 11 ft³/s (0.31 m³/s) Jan. 31, 1951.
Maximum flood since at least 1886 occurred June 2, 1937, when peak at Santa Rosa was 55,200 ft³/s (1,560 m³/s). Flood of July 24, 1895, was reported as "highest in 10 years." Other major floods occurred on June 9, 1903, Sept. 30, 1904, and May 1, 1914.

REMARKS.--Records good. Diversions for irrigation of about 12,500 acres (5,060 hm²), 1959 determination, above station. Discharge represents inflow to Alamogordo Reservoir, capacity, 110,700 acre-ft (136 hm²). Water quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1512: 1939.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	98	95	89	69	76	67	54	156	99	88	127	104
2	95	94	88	68	77	68	66	155	81	86	119	104
3	90	93	87	71	75	66	61	146	79	84	131	108
4	95	94	87	74	71	62	62	179	81	83	146	106
5	98	92	87	75	70	61	60	2,150	80	85	128	104
6	100	90	87	74	65	59	77	582	80	87	127	101
7	102	93	90	70	69	58	65	1,640	308	106	122	101
8	105	96	91	75	72	62	60	555	84	100	122	106
9	107	92	83	73	71	60	104	259	70	96	116	106
10	106	93	86	71	71	58	116	146	68	819	107	104
11	104	93	89	74	67	58	123	104	67	1,140	104	111
12	99	92	83	71	68	60	113	101	68	351	100	111
13	98	92	86	73	70	60	77	95	70	222	98	104
14	95	93	89	72	68	64	72	86	91	155	97	99
15	96	92	86	72	64	61	70	76	84	145	97	99
16	96	91	85	71	63	54	67	74	97	126	99	99
17	96	91	90	72	63	55	64	71	119	113	100	101
18	96	90	90	75	63	54	64	74	129	109	104	99
19	96	88	87	76	62	58	60	68	111	107	100	99
20	96	89	88	74	69	62	55	71	100	107	98	99
21	96	90	89	69	67	61	53	69	96	104	98	101
22	96	89	85	69	67	63	53	68	98	104	98	104
23	95	88	80	73	69	63	56	66	105	114	97	99
24	95	88	79	74	72	84	52	70	97	105	100	99
25	95	88	83	72	69	68	56	115	98	99	99	99
26	94	89	81	75	66	82	60	500	96	111	97	101
27	95	90	83	79	66	59	57	300	90	116	98	101
28	96	88	80	71	62	56	58	160	84	152	96	101
29	93	------	79	70	61	55	56	256	87	125	96	106
30	93	------	83	76	60	57	67	222	88	194	101	111
31	95	------	81	------	60	------	90	120	------	139	------	111
TOTAL	3,011	2,553	2,651	2,178	2,093	1,855	2,150	8,724	2,905	5,572	3,222	3,198
MEAN	97.1	91.2	85.5	72.6	67.5	61.8	69.4	281	96.8	180	107	103
MAX	107	96	91	79	77	84	123	2,150	308	1,140	146	111
MIN	90	88	79	68	60	54	52	66	67	83	96	99
AC-FT	5,970	5,060	5,260	4,320	4,150	3,680	4,260	17,300	5,760	11,050	6,390	6,340

CAL YR 1974 TOTAL 40,112 MEAN 110 MAX 2,150 MIN 52 AC-FT 79,560
WTR YR 1974 TOTAL 36,962 MEAN 101 MAX 2,150 MIN 52 AC-FT 73,310

PEAK DISCHARGE (BASE, 5,500 FT³/S).--August 5 (0145) 15,700 ft³/s (8.80 ft).

08384000 ALAMOGORDO RESERVOIR NEAR FORT SUMNER, N. MEX.

LOCATION.--Lat 34°36'30", long 104°23'04", in SE¼SW¼ sec.34, T.5 N., R.24 E., DeBaca County, near center of dam on Pecos River, 5.0 mi (8.0 km) northeast of Guadalupe, 12.2 mi (19.6 km) northwest of Fort Sumner, and at mile 711.0 (1,144.0 km).

DRAINAGE AREA.--4,390 mi² (11,370 km²), approximately (contributing area).

PERIOD OF RECORD.--December 1938 to September 1965 (monthend contents only), October 1965 to current year. Monthend elevations September 1937 to November 1938 published in reports of Pecos River Commission.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (Bureau of Reclamation datum). April 1, 1946, to Sept. 30, 1957, water-stage recorder above elevation 4,234.25 ft (1,290.599 m), nonrecording gage below.

EXTREMES.--Current year: Maximum contents, 102,200 acre-ft (126 hm³) Mar. 8-15, elevation, 4,273.1 ft (1,302.44 m); minimum, 3,280 acre-ft (4.04 hm³) Aug. 24-25, elevation, 4,224.3 ft (1,287.57 m).
Period of record: Maximum contents, 138,300 acre-ft (171 hm³) May 23-30, June 1-10, July 21, Sept. 22, 23, 30, Oct. 12, Nov. 4, 5, 30, Dec. 23, 24, 1941, elevation, 4,275.00 ft (1,303.020 m); maximum elevation 4,276.10 ft (1,303.355 m) June 3, Sept. 8, 1958; no storage July 28 to Aug. 2, 1951, elevation 4,200.70 ft (1,280.373 m).

REMARKS.--Reservoir is formed by earthfill dam, completed and storage began in August 1937. Capacity, 110,700 acre-ft (136 hm³) at elevation 4,275.0 ft (1,303.020 m), top of spillway gates. No dead storage. No storage allocated for flood control. Reservoir is used to store water for irrigation. Figures given herein represent contents computed from elevations at 0800 hours.

COOPERATION.--Elevation record and capacity table furnished by Bureau of Reclamation.

REVISIONS (WATER YEARS).--WSP 1732: 1939-54. WSP 1923: 1939-53(M) (m).

CONTENTS, IN ACRE-FEET, AT 0800, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	94,280	98,410	101,400	71,890	71,230	39,680	18,580	4,230	8,100	12,800	23,790	30,480
2	94,690	98,410	101,400	71,890	71,230	39,460	16,900	4,660	8,100	13,010	24,110	30,480
3	94,690	98,410	101,800	71,890	71,230	39,460	15,340	4,980	8,020	13,010	24,270	30,480
4	95,100	98,410	101,800	71,890	71,230	39,460	13,540	5,050	8,020	13,010	24,920	30,660
5	95,100	98,410	101,800	71,890	71,230	39,460	11,480	6,680	7,940	13,010	25,080	30,850
6	95,100	98,410	101,800	71,890	71,230	39,460	9,580	12,590	7,940	13,010	25,410	31,230
7	95,510	98,410	101,800	71,890	70,910	39,240	7,610	14,420	7,940	13,220	25,570	31,420
8	95,920	98,410	102,200	71,560	70,910	39,240	5,800	18,850	8,690	13,540	25,910	31,610
9	95,920	98,410	102,200	71,560	70,910	39,020	5,820	20,370	8,780	13,980	26,080	31,800
10	96,330	98,410	102,200	71,560	69,940	39,020	4,110	20,930	8,690	14,200	26,240	31,990
11	96,330	98,830	102,200	71,230	68,000	39,020	4,410	21,230	8,610	16,900	26,410	32,180
12	96,740	98,830	102,200	71,230	65,800	38,800	4,660	21,230	8,520	19,120	26,750	32,370
13	96,740	98,830	102,200	71,230	65,170	38,800	4,850	20,370	8,440	19,810	26,920	32,560
14	97,150	99,260	102,200	70,910	64,260	38,800	4,910	18,720	8,360	20,230	27,090	32,750
15	97,150	99,260	102,200	70,910	62,130	38,800	4,980	17,030	8,440	20,790	27,260	32,940
16	97,560	99,680	100,100	70,910	60,060	38,800	4,980	15,460	8,440	20,930	27,440	33,140
17	97,560	99,680	97,990	70,910	58,040	38,590	5,050	13,650	8,440	21,230	27,790	33,340
18	97,560	99,680	95,920	70,910	56,040	38,590	5,050	11,880	9,130	21,370	27,960	33,520
19	97,990	100,100	93,870	70,910	54,090	38,590	5,050	10,130	9,580	21,520	28,140	33,720
20	97,990	100,100	91,870	70,910	52,450	37,540	4,980	8,270	9,860	21,520	28,320	33,910
21	98,410	100,500	89,480	70,910	50,560	35,900	4,980	6,530	10,130	21,520	28,490	34,110
22	98,410	100,500	87,570	70,910	48,730	34,110	4,980	4,600	10,320	21,520	28,670	34,300
23	98,830	100,500	85,660	70,910	46,190	32,560	4,910	3,340	10,800	21,520	28,840	34,490
24	98,830	101,000	83,810	70,910	44,960	30,850	4,850	3,280	11,180	22,110	29,020	34,690
25	98,830	101,000	81,960	70,910	43,270	29,380	4,790	3,280	11,380	22,260	29,380	35,090
26	98,830	101,000	80,170	70,910	41,670	27,610	4,720	3,600	11,680	22,410	29,570	35,290
27	98,830	101,000	78,030	70,910	39,680	25,740	4,660	5,050	11,880	22,710	29,750	35,500
28	98,830	101,400	76,300	71,230	39,680	24,110	4,600	6,300	12,180	22,710	29,930	35,700
29	98,830	------	74,240	71,230	39,680	22,560	4,480	7,140	12,380	23,020	30,120	35,900
30	98,830	------	71,890	71,230	39,680	20,650	4,350	7,610	12,590	23,180	30,300	36,100
31	98,410	------	71,890	------	39,680	------	4,230	8,020	------	23,480	------	36,300
MAX	98,830	101,400	102,200	71,890	71,230	39,680	18,580	21,230	12,590	23,480	30,300	36,300
MIN	94,280	98,410	71,890	70,910	39,680	20,650	4,820	3,280	7,940	12,800	23,790	30,480
(†)	+4,130	+2,990	-29,510	-660	-31,550	-19,030	-16,420	+3,790	+4,570	+10,890	+6,820	+6,000

CAL YR 1974 MAX 102,200 MIN 3,280 CHANGE IN CONTENTS -57,980
WTR YR 1974 MAX 107,100 MIN 3,280 CHANGE IN CONTENTS -94,510

† Change in contents, in acre-feet.

08384000 Alamogordo Reservoir near Fort Sumner, N. Mex.--Continued

ELEVATION, IN FEET, AT 0800, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	4,271.20	4,272.20	4,272.90	4,265.10	4,264.90	4,253.40	4,241.30	4,226.00	4,231.40	4,236.40	4,244.90	-
2	4,271.30	4,272.20	4,272.90	4,265.10	4,264.90	4,253.30	4,240.00	4,226.70	4,231.40	4,236.60	4,245.10	4,248.80
3	4,271.30	4,272.20	4,273.00	4,265.10	4,264.90	4,253.30	4,238.70	4,227.20	4,231.30	4,236.60	4,245.20	-
4	4,271.40	4,272.20	4,273.00	4,265.10	4,264.90	4,253.30	4,237.10	4,227.30	4,231.30	4,236.60	4,245.60	4,248.90
5	4,271.40	4,272.20	4,273.00	4,265.10	4,264.90	4,253.30	4,235.10	4,229.60	4,231.20	4,236.60	4,245.70	-
6	4,271.40	4,272.20	4,273.00	4,265.10	4,264.90	4,253.30	4,233.10	4,236.20	4,231.20	4,236.60	4,245.90	4,249.20
7	4,271.50	4,272.20	4,273.00	4,265.10	4,264.80	4,253.20	4,230.80	4,237.90	4,231.20	4,236.80	4,246.00	4,249.30
8	4,271.60	4,272.20	4,273.10	4,265.00	4,264.80	4,253.20	4,228.40	4,241.50	4,232.10	4,237.10	4,246.20	4,249.40
9	4,271.60	4,272.20	4,273.10	4,265.00	4,264.80	4,253.10	4,225.30	4,242.60	4,232.20	4,237.50	4,246.30	4,249.50
10	4,271.70	4,272.20	4,273.10	4,265.00	4,264.50	4,253.10	4,225.80	4,243.00	4,232.10	4,237.70	4,246.40	4,249.60
11	4,271.70	4,272.30	4,273.10	4,264.90	4,263.90	4,253.10	4,226.30	4,243.20	4,232.00	4,240.00	4,246.50	4,249.70
12	4,271.80	4,272.30	4,273.10	4,264.90	4,263.20	4,253.00	4,226.70	4,243.20	4,231.90	4,241.70	4,246.70	4,249.80
13	4,271.80	4,272.30	4,273.10	4,264.90	4,263.00	4,253.00	4,227.00	4,242.60	4,231.80	4,242.20	4,246.80	4,249.90
14	4,271.90	4,272.40	4,273.10	4,264.80	4,262.70	4,253.00	4,227.10	4,241.40	4,231.70	4,242.50	4,246.90	4,250.00
15	4,271.90	4,272.40	4,273.10	4,264.80	4,262.00	4,253.00	4,227.20	4,240.10	4,231.80	4,242.90	4,247.00	4,250.10
16	4,272.00	4,272.50	4,272.60	4,264.80	4,261.30	4,253.00	4,227.20	4,238.80	4,231.80	4,243.00	4,247.10	4,250.20
17	4,272.00	4,272.50	4,272.10	4,264.80	4,260.60	4,252.90	4,227.30	4,237.20	4,231.80	4,243.20	4,247.30	4,250.30
18	4,272.00	4,272.50	4,271.60	4,264.80	4,259.90	4,252.90	4,227.30	4,235.50	4,232.60	4,243.30	4,247.40	4,250.40
19	4,272.10	4,272.60	4,271.10	4,264.80	4,259.20	4,252.90	4,227.30	4,233.70	4,233.10	4,243.40	4,247.50	4,250.50
20	4,272.10	4,272.60	4,270.60	4,264.80	4,258.60	4,252.40	4,227.20	4,231.60	4,233.40	4,243.40	4,247.60	4,250.60
21	4,272.20	4,272.70	4,270.00	4,264.80	4,257.90	4,251.60	4,227.20	4,229.40	4,233.70	4,243.40	4,247.70	4,250.70
22	4,272.20	4,272.70	4,269.50	4,264.80	4,257.20	4,250.70	4,227.20	4,226.60	4,233.90	4,243.40	4,247.80	-
23	4,272.30	4,272.70	4,269.00	4,264.80	4,256.20	4,249.90	4,227.10	4,224.40	4,234.40	4,243.40	4,247.90	-
24	4,272.30	4,272.80	4,268.50	4,264.80	4,255.70	4,249.00	4,227.00	4,224.30	4,234.80	4,243.80	4,248.00	4,251.00
25	4,272.30	4,272.80	4,268.00	4,264.80	4,255.00	4,248.20	4,226.90	4,224.30	4,235.00	4,243.90	4,248.20	-
26	4,272.30	4,272.80	4,267.50	4,264.80	4,254.30	4,247.20	4,226.80	4,224.90	4,235.30	4,244.00	4,248.30	4,251.30
27	4,272.30	4,272.80	4,266.90	4,264.80	4,253.40	4,246.10	4,226.70	4,227.30	4,235.50	4,244.20	4,248.40	-
28	4,272.30	4,272.90	4,266.40	4,264.90	4,253.40	4,245.10	4,226.60	4,229.10	4,235.80	4,244.20	4,248.50	4,251.50
29	4,272.30	------	4,265.80	4,264.90	4,253.40	4,244.10	4,226.40	4,230.20	4,236.00	4,244.40	4,248.60	-
30	4,272.30	------	4,265.10	4,264.90	4,253.40	4,242.80	4,226.20	4,230.80	4,236.20	4,244.50	4,248.70	-
31	4,272.20	------	4,265.10	------	4,253.40	------	4,226.00	4,231.30	------	4,244.70	------	4,251.60
MEAN	4,271.89	4,272.45	4,270.82	4,264.91	4,260.19	4,251.21	4,229.04	4,233.16	4,232.93	4,241.23	4,247.01	-
MAX	4,272.30	4,272.90	4,273.10	4,265.10	4,264.90	4,253.40	4,241.30	4,243.20	4,236.20	4,244.70	4,248.70	-
MIN	4,271.20	4,272.20	4,265.10	4,264.80	4,253.40	4,242.80	4,225.30	4,224.30	4,231.20	4,236.40	4,244.90	-

WTR YR 1974 MEAN 4,258.00 MAX 4,274.20 MIN 4,224.30

08384500 PECOS RIVER BELOW ALAMOGORDO DAM, N. MEX.

LOCATION.--Lat 34°36'15", long 104°23'14", in lot 1, sec.2, T.4 N., R.24 E., DeBaca County, on left bank 1,200 ft (366 m) downstream from Alamogordo Dam, 2.9 mi (4.7 km) upstream from Salada Creek, 4.6 mi (7.4 km) northeast of Guadalupe, 12.2 mi (19.6 km) northwest of Fort Sumner, and at mile 710.7 (1,143.5 km).

DRAINAGE AREA.--4,390 mi² (11,370 km²), approximately (contributing area).

PERIOD OF RECORD.--October 1912 to April 1926, August 1926 to current year. Monthly discharge only for some periods, published in WSP 1312. Prior to October 1944, published as "near Guadalupe."

GAGE.--Water-stage recorder and Parshall flume, with concrete control above top of flume. Datum of gage is 4,142.67 ft (1,262.686 m) above mean sea level (Bureau of Reclamation datum). Prior to Sept. 10, 1936, at site 1.5 mi (2.4 km) upstream at different datum. Sept. 14, 1936, to Mar. 8, 1941, and June 11, to Sept. 21, 1941 at site 0.2 mi (0.3 km) downstream at different datums.

AVERAGE DISCHARGE.--23 calendar years (1913-25, 1927-36), 236 ft³/s (6.684 m³/s), 171,000 acre-ft/yr (211 hm³/yr), prior to completion of Alamogordo Dam; 38 calendar years (1937-74), 212 ft³/s (6.004 m³/s) 153,600 acre-ft/yr (189 hm³/yr); 20 calendar years (1955-74), 184 ft³/s (5.211 m³/s), 133,300 acre-ft/yr (164 hm³/yr).

EXTREMES.--Current year: Maximum daily discharge, 1,150 ft³/s (32.57 m³/s) Mar. 16 (gage height, 3.30 ft or 1.006 m); no flow Dec 7-9, 15, 17.
Period of record: Maximum discharge, 42,800 ft³/s (1,210 m³/s) Sept. 1, 1942, by computation of flow over spillway and through outlet gages of Alamogordo Dam by Bureau of Reclamation; maximum gage height, 13.58 ft (4.139 m) Sept. 22, 1941, no flow at times.
Flood of June 2, 1937, probably exceeded 55,000 ft³/s (1,560 m³/s) at site 1.5 mi (2.4 km) upstream.

REMARKS.--Records good. Diversion for irrigation of about 12,500 acres (5,060 hm²), 1959 determination, above station. Flow regulated by Alamogordo Reservoir (see sta 08384000). Water quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1512: 1932. WSP 1632: 1942. WSP 1712: 1944.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	5.2	93	8.2	81	65	68	816	84	98	.38	.39	.64
2	5.2	93	6.5	77	66	70	805	85	99	34	.49	.64
3	5.2	94	6.5	78	67	71	789	87	99	76	.57	.64
4	5.2	92	6.6	76	67	70	781	86	100	75	.52	.45
5	5.2	93	6.5	83	66	71	773	37	103	75	.62	.28
6	5.2	94	6.8	77	66	70	759	.49	102	55	1.5	.45
7	5.1	95	7.7	78	67	71	739	17	100	.28	3.6	.10
8	5.2	40	7.0	78	66	70	724	76	100	.28	.60	0
9	5.4	6.5	7.1	78	385	68	318	77	102	.51	.52	.22
10	5.2	6.6	33	79	1,110	66	65	76	102	.65	.53	.64
11	5.2	6.8	92	78	1,110	64	66	76	100	.69	.59	.64
12	5.3	6.9	98	78	748	66	65	301	100	.78	.45	.64
13	5.5	7.1	99	78	217	64	64	768	100	.51	.41	.64
14	5.6	7.3	102	79	1,100	65	64	760	89	.51	.51	.64
15	5.9	7.2	787	67	1,110	65	64	751	100	.51	.56	.40
16	5.8	7.3	1,150	61	1,100	65	62	747	93	.55	.51	.45
17	5.9	7.3	1,140	60	1,110	67	63	739	98	31	.55	.55
18	5.2	7.0	1,140	60	1,120	65	64	728	35	78	.52	.64
19	5.1	6.3	1,140	62	968	413	62	718	.88	76	.52	.64
20	5.3	6.2	1,130	61	922	853	63	704	1.1	75	.54	.84
21	5.5	6.1	1,130	62	934	856	63	685	1.3	75	.64	.84
22	5.6	6.0	1,120	61	942	862	72	660	1.4	72	.98	.84
23	35	6.0	1,110	61	945	868	75	94	1.2	28	.85	.84
24	98	6.0	1,110	61	940	870	76	102	1.1	.42	.66	.84
25	95	6.3	1,100	61	925	863	74	101	1.3	.49	.64	.84
26	96	6.2	1,110	61	945	862	74	100	1.4	.51	.45	.84
27	96	6.4	1,120	61	361	853	85	100	1.3	29	.64	.84
28	95	6.7	1,130	61	66	848	85	100	1.1	74	.64	.84
29	94	------	1,130	64	73	831	88	99	.58	60	.64	.84
30	96	------	446	64	69	820	88	99	.45	.62	.64	.84
31	96	------	93	------	70	------	87	99	------	.51	------	.64
TOTAL	919.0	826.2	17,572.9	2,086	17,799	11,015	8,075	9,156.49	1,733.11	921.20	21.26	19.18
MEAN	29.6	29.5	567	69.5	574	367	260	295	57.8	29.7	.71	.62
MAX	98	95	1,150	83	1,120	870	816	768	103	78	3.6	.84
MIN	5.1	6.0	6.5	60	65	64	62	.49	.45	.28	.39	0
AC-FT	1,820	1,640	34,860	4,140	35,300	21,850	16,020	18,160	3,440	1,830	42	38

CAL YR 1974 TOTAL 70,144.34 MEAN 192 MAX 1,150 MIN 0 AC-FT 139,100
WTR YR 1974 TOTAL 83,151.80 MEAN 228 MAX 1,210 MIN .45 AC-FT 164,900

08385000 FORT SUMNER MAIN CANAL NEAR FORT SUMNER, N. MEX.

LOCATION.--34°30'30", long 104°16'40", in SW¼SW¼ sec.1, T.3 N., R.25 E., DeBaca County, on right bank of concrete canal, 200 ft (60 m) downstream from diversion dam on Pecos River, 3.0 mi (4.8 km) northwest of Fort Sumner, and at Pecos River mile 694.1 (1,116.8 km).

PERIOD OF RECORD.--March 1939 to February 1943 (published in WSP 1732), April 1954 to current year (monthly discharge only prior to October 1965).

GAGE.--Water-stage recorder. Datum of gage is 4,034.7 ft (1,229.78 m) above mean sea level (Bureau of Reclamation bench mark). Prior to March 1954 at site 2.4 mi (3.9 km) downstream at different datum. April 1954 to March 1965 at site 1.1 mi (1.8 km) downstream at datum 1.7 ft (0.52 m) lower.

AVERAGE DISCHARGE.--23 calendar years (1940-42, 1955-74), 48.2 ft^3/s (1.365 m^3/s), 34,920 acre-ft/yr (43.1 hm^3/yr), 20 calendar years (1955-74), 50.2 ft^3/s (1.422 m^3/s), 36,370 acre-ft/yr (44.8 hm^3/yr).

EXTREMES.--Current year: Maximum daily discharge, 112 ft^3/s (3.17 m^3/s) March 21, 22; no flow many days.
Period of record: Maximum daily discharge, 174 ft^3/s (4.93 m^3/s) July 22, 1941; no flow many days each year.

REMARKS.--Records good. Canal diverts water from Pecos River for irrigation of about 6,600 acres (2,670 hm^2), 1961 determination, by the Fort Sumner Irrigation District.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	94	0	100	55	74	79	83	97	0		
2	0	90	0	88	53	71	78	83	96	0		
3	0	91	0	85	52	73	77	81	97	29		
4	0	91	0	81	52	71	77	85	98	61		
5	0	90	0	84	64	70	77	100	96	62		
6	0	89	0	83	67	68	77	16	97	68		
7	0	93	0	80	69	70	76	5.1	96	43		
8	0	92	0	82	69	68	79	48	96	9.0		
9	0	18	0	80	69	65	80	70	95	5.6		
10	0	0	0	80	74	64	80	72	96	4.3		
11	0	0	47	80	67	61	77	70	96	7.2		
12	0	0	80	79	60	67	70	74	94	26		
13	0	0	94	77	69	61	66	88	94	9.9		
14	0	0	93	79	104	61	65	86	95	3.0		
15	0	0	100	80	96	62	66	85	88	0		
16	0	0	105	62	84	64	64	86	95	0		
17	0	0	98	61	83	64	64	87	94	0		
18	0	0	96	60	83	61	62	85	54	32		
19	0	0	94	60	85	67	61	89	0	65		
20	0	0	102	59	88	83	60	92	0	63		
21	0	0	112	58	87	87	60	89	0	67		
22	0	0	112	58	87	86	60	87	0	64		
23	0	0	110	56	87	85	72	95	0	31		
24	41	0	109	56	85	81	71	92	0	0		
25	91	0	107	55	88	79	69	79	0	0		
26	93	0	104	54	84	79	68	79	0	0		
27	94	0	101	52	94	78	74	92	0	0		
28	96	0	95	51	95	78	79	96	0	39		
29	92	------	91	52	88	78	84	97	0	65		
30	93	------	95	56	79	78	83	96	0	27		
31	95	------	106	------	74	------	81	97	------	0	------	
TOTAL	695	748	2,051	2,088	2,391	2,154	2,236	2,486.1	1,674	781.0	0	0
MEAN	22.4	26.7	66.2	69.6	77.1	71.8	72.1	80.2	55.8	25.2	0	0
MAX	96	94	112	100	104	87	84	100	98	68	0	0
MIN	0	0	0	51	52	61	60	5.1	0	0	0	0
AC-FT	1,380	1,480	4,070	4,140	4,740	4,270	4,440	4,930	3,320	1,550	0	0

CAL YR 1974 TOTAL 17,304.10 MEAN 47.4 MAX 112 MIN 0 AC-FT 34,320
WTR YR 1974 TOTAL 19,648.10 MEAN 53.8 MAX 112 MIN 0 AC-FT 38,970

08386000 PECOS RIVER NEAR ACME, N. MEX.

LOCATION.--Lat 33°32'10", long 104°22'34", in SW¼NW¼ sec.14, T.9 S., R.25 E., Chaves County, on right bank 3.0 mi (4.8 km) downstream from U.S. Highway 70, 3.7 mi (6.0 km) downstream from Salt Creek, 4.7 mi (7.6 km) southwest of Acme, 14 mi (22.5 km) northeast of Roswell, and at mile 591.2 (951.2.km).

DRAINAGE AREA.--11,380 mi² (29,470 km²), approximately (contributing area).

PERIOD OF RECORD.--September 1921 to June 1923, July 1937 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Altitude of gage is 3,507 ft (1,069 m), from topographic map. Prior to Nov. 1, 1938, at site on highway bridge 3 mi (4.8 km) upstream at various datums. Since Oct. 25, 1963, supplemental water-stage recorder at site opposite base gage at same datum.

AVERAGE DISCHARGE.--37 calendar years (1938-74), 197 ft³/s (5.579 m³/s), 142,700 acre-ft/yr (176 hm³/yr); 20 calendar years (1955-74), 164 ft³/s (4.644 m³/s) 118,800 acre-ft/yr (146 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,390 ft³/s (39.4 m³/s) October 12 (gage height, 5.77 ft or 1.759 m); no flow at times.
Period of record: Maximum discharge, 45,000 ft³/s (1,270 m³/s) Sept. 23, 1941 (gage height, 13.71 ft or 4.179 m), from rating curve extended above 26,000 ft³/s (736 m³/s); no flow at times.
The flood of May 28, 1937, reached a discharge of 53,000 ft³/s (1,500 m³/s) (gage height, 14.82 ft or 4.517 m, from floodmarks), site and datum then in use, by slope-area method, but may have been exceeded by the flood of Oct. 1, 1904.

REMARKS.--Records fair except those below 10 ft³/s (0.28 m³/s), which are poor. Flow regulated by Alamogordo Reservoir (see sta 08384000). Diversions for irrigation of about 20,000 acres (8,090 hm²), 1959 determination, above station. Water quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	13	12	12	356	14	68	595	1.9	32	19	77	18
2	6.0	12	11	209	12	51	546	4.5	27	18	77	19
3	5.0	14	10	150	9.3	39	564	.68	24	17	61	19
4	6.0	16	8.9	100	8.9	34	564	.51	21	16	61	20
5	9.0	15	7.8	75	6.7	27	595	.34	19	16	52	20
6	11	15	7.4	63	7.0	20	546	.68	16	19	44	19
7	9.3	13	7.0	52	6.4	15	546	2.5	15	21	41	19
8	15	10	7.4	48	6.4	8.9	591	68	12	19	40	21
9	20	10	7.0	47	4.6	6.1	640	28	12	21	40	21
10	36	14	7.0	40	3.3	4.9	720	32	10	30	39	20
11	36	26	7.0	37	2.4	2.8	630	17	8.9	61	37	19
12	23	55	7.8	36	364	1.5	270	6.1	8.1	663	33	17
13	16	37	7.8	31	700	.50	110	1.7	7.0	350	33	17
14	25	25	8.1	27	530	.09	63	.08	20	196	31	17
15	21	21	8.9	26	204	0	42	0	26	105	29	15
16	18	19	8.1	27	548	0	32	330	33	70	30	15
17	16	17	279	30	760	0	24	434	114	54	30	15
18	16	16	760	34	730	0	16	459	125	48	29	15
19	17	16	822	27	780	0	12	459	65	45	28	16
20	17	15	844	22	760	0	13	493	82	40	26	16
21	19	14	910	20	660	0	7.0	502	132	36	25	16
22	17	13	888	18	640	9.1	2.6	661	112	38	24	16
23	14	13	910	18	680	388	1.5	510	146	258	23	16
24	13	11	833	17	700	510	.68	528	164	249	21	15
25	13	11	888	21	690	582	0	303	120	175	21	15
26	13	12	910	18	740	573	0	204	70	123	20	16
27	12	13	833	14	710	555	0	132	48	98	19	17
28	10	12	910	11	650	537	0	165	33	140	19	17
29	11	------	965	11	414	546	0	68	26	85	18	18
30	11	------	877	12	150	537	0	52	21	79	18	25
31	11	------	844	------	91	------	0	41	------	63	------	33
TOTAL	479.3	477	12,606.2	1,597	11,581.0	4,515.89	7,050.78	5,504.99	1,549.0	3,172	1,046	562
MEAN	15.5	17.0	407	53.2	374	151	227	178	51.6	102	34.9	18.1
MAX	36	55	965	356	780	582	720	661	164	663	77	33
MIN	5.0	10	7.0	11	2.4	0	0	0	7.0	16	18	15
AC-FT	951	946	25,000	3,170	22,970	8,960	13,990	10,920	3,070	6,290	2,070	1,110

CAL YR 1974 TOTAL 50,141.16 MEAN 137 MAX 965 MIN 0 AC-FT 99,450
WTR YR 1974 TOTAL 56,293.86 MEAN 154 MAX 965 MIN 0 AC-FT 111,700

PEAK DISCHARGE (BASE, 2,500 FT³/S).--No peak above base.

08386900 F. HERRERA DITCH-S. AT HOLLYWOOD, N. MEX.

LOCATION.--Lat 33°19'35", long 105°36'50", in NE¼NE¼SW¼ sec.30, T.11 S., R.14 E., Lincoln County, on left bank, at upstream end of flume over Grapevine Canyon, 1.0 mi (1.6 km) below point of diversion, 0.7 mi (1.1 km) east of Hollywood, and junction of U.S. Highway 70 and State Highway 37, point of diversion at Rio Ruidoso mile 24.5 (39.4 km).

PERIOD OF RECORD.--May 1960 to current year. (Monthly acre-ft only prior to January 1973, published as a supplement to sta 08387000).

GAGE.--Water stage recorder and concrete control. Altitude of gage is 6,432 ft (1,960.5 m) from Topographic Division. Prior to Mar. 20, 1962, at site 315 ft (96 m) downstream at datum 12.79 ft (3.898 m) lower.

AVERAGE DISCHARGE.--14 calendar years, 0.59 ft³/s (0.0167 m³/s), 427 acre-ft/yr (526,000 m³/yr).

EXTREMES.--Current year: Maximum daily discharge, 0.86 ft³/s (0.024 m³/s) April 26-28; no flow many days.
Period of record: Maximum daily discharge, 6.6 ft³/s (0.19 m³/s) June 15, 1961; no flow many days each year.

REMARKS.--Records poor. Water is diverted from Rio Ruidoso 1.0 mi (1.6 km) upstream for irrigation below sta 08387000.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0	.18	.24	.42	.69	.26	.20	.20	.16	0	0	
2	.15	.20	.22	.42	.72	.24	.13	.19	.11	0	0	
3	.05	.10	.22	.40	.69	.22	.08	.28	.06	0	.21	
4	.10	.10	.22	.40	.69	.19	.09	.40	.06	0	.01	
5	.06	.15	.22	.37	.66	.17	.09	.55	.01	.14	0	
6	.05	.10	.22	.40	.69	.19	.20	.28	.01	.02	0	
7	.10	.05	.24	.42	.69	.24	.28	.69	.16	.01	0	
8	.04	.02	.24	.42	.62	.26	.50	.53	0	0	0	
9	.12	.02	.24	.42	.50	.24	.40	.69	0	0	.02	
10	.10	0	.24	.42	.47	.26	.30	.62	0	0	.04	
11	.06	.03	.24	.42	.59	.24	.32	.47	0	.12	.03	
12	.03	.10	.22	.40	.59	.24	.30	.40	0	.37	.04	
13	.03	.15	.24	.28	.50	.32	.24	.28	0	.20	.03	
14	.06	.20	.30	.42	.48	.40	.30	.19	.12	.33	0	
15	.14	.10	.30	.45	.59	.30	.28	.36	0	.16	.01	
16	.25	.07	.30	.53	.59	.26	.30	.04	0	.13	0	
17	.22	.07	.30	.56	.50	.22	.26	.04	.07	.04	0	
18	.25	.12	.32	.59	.45	.20	.22	.06	.04	.03	0	
19	.22	.14	.32	.59	.37	.12	.26	.38	.16	.01	.01	
20	.20	.16	.30	.56	.32	.11	.22	.29	.06	0	0	
21	.25	.14	.32	.62	.42	.11	.16	.24	.53	.02	0	
22	.22	.10	.35	.80	.72	.05	.13	.10	.47	.12	0	
23	.15	.09	.35	.76	.66	.07	.12	.07	.02	.28	0	
24	.10	.09	.35	.76	.45	.11	.09	.49	0	0	0	
25	.12	.09	.35	.83	.40	.10	.10	.26	0	0	0	
26	.15	.14	.37	.86	.32	.10	.14	.09	0	0	0	
27	.20	.20	.37	.86	.40	.16	.20	.35	0	0	0	
28	.10	.22	.37	.86	.37	.16	.17	.32	0	.02	0	
29	.15	------	.37	.83	.35	.14	.22	.48	0	.01	0	
30	.15	------	.40	.80	.28	.13	.32	.28	0	.12	0	
31	.16	------	.42	------	.28	------	.28	.20	------	0	------	
TOTAL	3.97	3.13	9.16	16.17	16.05	5.81	6.90	9.82	2.04	2.13	.39	0
MEAN	.13	.11	.30	.54	.52	.19	.22	.32	.068	.069	.013	0
MAX	.25	.22	.42	.86	.72	.40	.50	.69	.53	.37	.21	0
MIN	0	0	.22	.28	.28	.05	.08	.04	0	0	0	0
AC-FT	7.9	6.2	18	32	32	12	14	19	4.0	4.2	.8	0

CAL YR 1974 TOTAL 75.57 MEAN .21 MAX .86 MIN 0 AC-FT 150
WTR YR 1974 TOTAL 82.60 MEAN .23 MAX .86 MIN 0 AC-FT 164

08387000 RIO RUIDOSO AT HOLLYWOOD, N. MEX.

LOCATION.--Lat 33°19'43", long 105°36'34", in SW¼SE¼NE¼ sec.30, T.11 S., R.14 E., Lincoln County, on right upstream bridge abutment on road leading to Ruidoso Downs race track, 0.2 mi (0.3 km) north of U.S. Highway 70, 1.1 mi (1.8 km) east of the Hollywood Post Office, 1.2 mi (1.9 km) downstream from the Ruidoso sewage disposal plant, 1.8 mi (2.9 km) downstream from Gavilan Canyon, 2.8 mi (4.5 km) downstream from Carrizozo Creek, and at mile 23.4 (37.7 km).

DRAINAGE AREA.--120 mi² (311 km²), approximately.

PERIOD OF RECORD.--March 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,365.42 ft (1,940.180 m) above mean sea level. Prior to Oct. 14, 1961, at datum 0.30 ft (0.091 m) higher. Oct. 14, 1961, to Mar. 8, 1962, at datum 0.60 ft (0.183 m) higher. Mar. 9, 1962, to June 18, 1965, at datum 1.0 ft (0.305 m) higher.

AVERAGE DISCHARGE.--21 calendar years, 12.9 ft³/s (0.365 m³/s), 9,350 acre-ft/yr (11.5 hm³/yr); 20 calendar years (1955-74), 13.3 ft³/s (0.377 m³/s), 9,640 acre-ft/yr (11.9 hm³/yr).

EXTREMES.--Current year: Maximum discharge 240 ft³/s(6.80 m³/s) Sept. 22 (gage height, 2.79 ft or 0.850 m); minimum, 2.0 ft³/s (0.057 m³/s) June 20.
Period of record: Maximum discharge, 1,340 ft³/s (37.9 m³/s) June 17, 1965, (gage height, 9.05 ft or 2.758 m), from rating curve extended above 110 ft³/s (3.12 m³/s) on basis of slope-area measurement of peak flow; minimum, 0.30 ft³/s (0.008 m³/s) Jan. 1, 1962, May 8-9, 1964.
The flood of Sept. 29, 1941, is probably the highest since at least 1904 (discharge not determined).

REMARKS.--Records good. Figures of discharge do not include F. Herrera ditch-S., which diverts from right bank 1.5 mi (2.4 km) upstream and bypasses station for irrigation of 75 acres (30.4 hm²), 1959 determination. Village of Ruidoso diverts from right bank 7 mi (11.3 km) upstream for municipal use and returns a portion of this river as effluent from sewage disposal plant 1.2 mi (1.9 km) upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	4.6	4.8	5.5	13	9.4	3.4	4.5	10	12	19	33	12
2	4.4	4.8	5.8	12	10	3.3	3.5	9.0	11	16	31	10
3	4.3	4.5	5.9	11	10	3.0	3.4	8.0	9.3	15	38	11
4	4.6	4.2	5.9	11	9.7	2.9	3.2	8.0	8.3	13	33	14
5	4.9	4.5	5.9	10	9.8	2.9	3.4	7.5	7.5	18	32	15
6	4.8	4.3	6.2	9.7	10	2.9	3.7	10	6.6	22	32	13
7	4.9	4.1	6.2	9.4	9.9	3.2	4.4	12	7.1	19	30	13
8	4.8	4.0	6.3	9.5	9.2	3.2	5.0	13	6.2	17	30	12
9	7.6	3.8	6.6	9.7	7.7	3.3	5.4	15	5.0	16	49	12
10	7.0	4.5	6.9	9.9	7.2	3.3	4.7	14	5.3	15	64	12
11	5.5	4.7	6.6	9.9	6.6	3.2	4.8	12	6.0	25	58	11
12	5.2	4.7	6.4	9.7	6.1	3.1	4.1	9.5	5.5	66	50	12
13	5.1	4.6	5.9	9.4	6.6	3.2	4.0	7.6	5.0	89	42	10
14	4.7	4.6	5.5	9.3	7.1	3.3	4.3	6.3	8.0	94	40	9.6
15	4.6	4.4	5.6	9.2	6.6	3.2	4.3	10	5.5	82	36	9.0
16	4.9	4.7	5.1	9.1	5.8	2.9	4.4	7.0	6.0	73	30	9.3
17	5.0	4.9	5.2	9.3	5.5	2.7	4.2	6.4	8.0	67	28	9.1
18	6.0	5.0	5.5	9.8	5.3	2.6	3.9	7.1	11	54	24	9.1
19	5.5	5.0	6.1	10	5.5	2.5	4.5	6.3	15	42	22	8.4
20	5.3	5.3	8.5	11	5.2	2.3	5.0	7.9	23	37	21	8.2
21	5.3	5.2	10	10	5.0	2.4	4.8	8.4	54	33	19	8.3
22	5.0	4.8	8.9	9.7	4.8	2.6	4.3	6.2	132	33	19	9.5
23	5.0	4.6	8.4	9.3	4.5	2.8	4.0	5.5	153	66	20	9.8
24	4.8	4.4	8.4	9.6	4.5	3.3	4.1	7.9	106	69	20	8.0
25	4.9	4.6	8.5	11	4.1	3.2	3.9	6.4	69	63	18	8.5
26	5.2	4.8	9.1	13	3.7	3.3	4.6	5.3	50	56	18	9.8
27	5.5	5.2	10	14	3.6	3.9	6.1	13	44	49	17	9.0
28	5.0	5.2	11	13	3.5	4.1	8.0	19	32	42	15	9.8
29	4.8	------	11	12	3.4	3.9	12	20	28	39	13	12
30	4.7	------	12	11	3.4	4.0	15	16	21	42	12	11
31	4.5	------	12	------	3.4	------	12	14	------	36	------	10
TOTAL	158.4	130.2	230.9	314.5	195.5	93.9	163.5	310.3	860.3	1,327	894	325.4
MEAN	5.11	4.65	7.45	10.5	6.31	3.13	5.27	10.0	28.7	42.8	29.8	10.5
MAX	7.6	5.3	12	14	10	4.1	15	20	153	94	64	15
MIN	4.3	3.8	5.1	9.1	3.4	2.3	3.2	5.3	5.0	15	12	8.0
AC-FT	314	258	458	624	388	186	324	615	1,710	2,630	1,770	645

CAL YR 1974 TOTAL 5,003.9 MEAN 13.7 MAX 153 MIN 2.3 AC-FT 9,930
WTR YR 1974 TOTAL 2,864.6 MEAN 7.85 MAX 153 MIN 2.3 AC-FT 5,680

PEAK DISCHARGE (BASE, 100 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
09-22	1400	2.79	240	10-14	0845	2.11	121

08387600 EAGLE CREEK BELOW SOUTH FORK, NEAR ALTO, N. MEX.

LOCATION.--Lat 33°23'33", long 105°43'16", in SE¼SW¼ sec.31, T.10 S., R.13 E., Lincoln County, at right bank, 100 ft (30 m) downstream from culvert under State Road No. 532, 0.1 mi (0.2 km) downstream from South Fork, and 2.4 mi (3.9 km) west of Alto. Mouth at Rio Ruidoso mile 11.3 (18.2 km).

DRAINAGE AREA.--8.14 mi² (21.08 km²).

PERIOD OF RECORD.--August 1969 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 7,600 ft (2,316 m), from topographic map.

AVERAGE DISCHARGE.--5 calendar years, 2.68 ft³/s (0.0759 m³/s), 1,940 acre-ft/yr (2.39 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 69 ft³/s (1.95 m³/s), Sept. 22 (gage height, 3.28 ft or 1.00 m), from rating curve extended above 21 ft³/s (0.59 m³/s); minimum, 0.05 ft³/s (0.001 m³/s) June 30, July 3,4.
Period of record: Maximum discharge, 107 ft³/s (3.03 m³/s) Oct. 20, 1972 (gage height, 3.49 ft or 1.064 m), from rating curve extended above 21 ft³/s (0.59 m³/s); minimum, 0.05 ft³/s (0.001 m³/s) June 30, July 3,4, 1974.

REMARKS.--Records fair except those during the winter months which are poor. No diversions for irrigation above station. Some water is stored in small unregulated recreational ponds on the Mescalero Apache Indian Reservation upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	.51	.68	.66	1.3	1.1	.25	.22	2.3	3.7	4.2	9.0	3.1
2	.52	.67	.73	1.3	.95	.25	.19	1.6	3.1	3.9	8.6	3.1
3	.47	.60	.77	1.4	.82	.22	.12	1.6	2.8	3.6	8.6	3.0
4	.55	.60	.77	1.3	.74	.21	.06	1.6	2.4	3.2	8.4	2.8
5	.55	.61	.71	1.2	.71	.18	.07	1.6	2.1	3.4	7.6	3.0
6	.56	.57	.73	1.1	.77	.19	.17	1.9	1.8	5.0	7.4	2.9
7	.56	.50	.76	1.0	.84	.19	.12	2.3	1.7	8.2	7.1	2.7
8	.59	.48	.77	.95	.87	.13	.19	3.3	1.6	6.9	7.3	2.4
9	1.0	.48	.74	.86	.79	.16	.18	3.1	1.4	7.0	8.6	2.8
10	.90	.49	.75	.82	.72	.16	.18	2.8	1.3	6.5	10	2.9
11	.74	.50	.68	.78	.64	.16	.10	2.4	1.2	10	10	2.5
12	.60	.51	.72	.82	.57	.13	.08	1.9	1.0	25	9.2	2.6
13	.66	.53	.67	.82	.58	.11	.08	1.5	.98	34	8.6	2.4
14	.70	.54	.64	.82	.57	.11	.11	1.3	1.9	41	8.0	2.3
15	.67	.50	.64	.77	.55	.11	.31	4.2	1.4	36	7.2	2.3
16	.69	.45	.64	.76	.53	.11	.45	3.6	2.8	25	6.6	2.3
17	.66	.47	.64	.73	.51	.11	.41	2.6	3.9	18	6.0	2.3
18	.80	.50	.68	.71	.46	.07	.36	4.0	6.1	13	5.6	2.2
19	.75	.45	.71	.67	.44	.07	1.1	3.7	12	11	5.2	2.1
20	.70	.48	1.1	.74	.43	.07	.81	3.9	13	9.3	4.7	2.1
21	.68	.45	1.8	.81	.43	.07	.45	3.3	34	8.2	4.2	2.2
22	.64	.40	1.7	.89	.38	.09	.38	3.0	58	9.1	4.4	2.1
23	.60	.38	1.7	.86	.37	.09	.33	3.0	45	26	4.1	2.1
24	.56	.37	1.6	.85	.37	.09	.34	2.8	23	29	3.9	1.9
25	.55	.43	1.5	.87	.37	.08	.37	3.0	14	23	3.8	1.7
26	.65	.50	1.5	.98	.33	.09	1.6	3.0	11	18	3.7	1.5
27	.65	.54	1.4	1.3	.31	.08	.86	10	8.9	15	3.5	1.4
28	.50	.58	1.3	1.6	.31	.08	1.8	14	7.2	12	3.5	1.6
29	.54	------	1.3	1.4	.31	.06	2.4	9.7	5.7	11	3.3	2.0
30	.57	------	1.3	1.3	.26	.14	3.3	6.5	4.8	11	3.1	2.4
31	.60	------	1.3	------	.26	------	2.7	4.7	------	10	------	2.0
TOTAL	19.72	14.26	30.91	29.71	17.29	3.86	19.84	114.2	277.78	446.5	191.2	72.7
MEAN	.64	.51	1.00	.99	.56	.13	.64	3.68	9.26	14.4	6.37	2.35
MAX	1.0	.68	1.8	1.6	1.1	.25	3.3	14	58	41	10	3.1
MIN	.47	.37	.64	.67	.26	.06	.06	1.3	.98	3.2	3.1	1.4
AC-FT	39	28	61	59	34	7.7	39	227	551	886	379	144

CAL YR 1974 TOTAL 1,237.97 MEAN 3.39 MAX 58 MIN .06 AC-FT 2,460
WTR YR 1974 TOTAL 569.85 MEAN 1.56 MAX 58 MIN .06 AC-FT 1,130

PEAK DISCHARGE (BASE, 25 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
09-22	0800	3.28	69	10-23	0545	3.04	38
10-14	0830	3.14	49				

08387800 EAGLE CREEK NEAR ALTO, N. MEX.

LOCATION.--Lat 33°23'29", long 105°36'39", in SW¼SE¼SE¼ sec.31, T.10 S., R.14 E., Lincoln County, on left bank 200 ft (60 m) north of Lincoln National Forest boundary, 500 ft (152 m) northeast of windmill, and 4.0 mi (6.4 km) east of Alto. Mouth at Rio Ruidoso mile 11.3 (18.2 km).

DRAINAGE AREA.--15.7 mi² (40.7 km²).

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,838 ft (2,084 m), from topographic map.

AVERAGE DISCHARGE.--5 calendar years, 1.57 ft³/s (0.0445 m³/s), 1,140 acre-ft/yr (1.41 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 47 ft³/s (1.33 m³/s) Sept. 22 (gage height, 1.76 ft or 0.536 m); no flow most of time.
Period of record: Maximum discharge, 47 ft³/s (1.33 m³/s) Sept. 22, 1974 (gage height, 1.76 ft or 0.536 m); no flow most of time.

REMARKS.--Records excellent. Discharge at this station is affected by Alto Reservoir and municipal water supply diversions for Ruidoso and Capitan.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1								0	0	1.6	11	2.2
2								0	0	.85	11	1.8
3								0	0	.42	11	.69
4								0	0	.01	11	.52
5								0	0	.32	10	.60
6								0	0	2.4	9.8	.97
7								0	0	6.3	9.2	1.4
8								0	0	6.2	9.2	1.4
9								0	0	5.9	10	1.5
10								0	0	5.2	11	1.7
11								0	0	8.1	11	2.0
12								0	0	18	8.6	1.4
13								0	0	24	8.1	.64
14								0	0	28	8.6	.40
15								0	0	27	8.2	.27
16								0	.04	22	7.7	.30
17								0	.02	18	7.3	.28
18								0	0	14	7.0	.26
19								0	4.5	11	6.6	.18
20								0	6.6	8.1	5.9	.23
21								0	18	10	3.0	.39
22								0	39	10	2.4	.12
23								0	32	23	3.8	.09
24								0	19	24	3.3	.10
25								0	12	22	3.0	.11
26								0	6.8	19	2.4	.13
27								.28	5.0	18	2.0	.12
28								5.0	7.5	15	2.1	.26
29		------						1.9	5.2	13	2.0	.34
30		------						.66	3.5	14	1.9	.39
31		------		------		------		0	------	13	------	.24
TOTAL	0	0	0	0	0	0	0	7.84	159.16	388.40	208.1	21.03
MEAN	0	0	0	0	0	0	0	.25	5.31	12.5	6.94	.68
MAX	0	0	0	0	0	0	0	5.0	39	28	11	2.2
MIN	0	0	0	0	0	0	0	0	0	.01	1.9	.09
AC-FT	0	0	0	0	0	0	0	16	316	770	413	42

CAL YR 1974 TOTAL 784.53 MEAN 2.15 MAX 39 MIN 0 AC-FT 1,560
WTR YR 1974 TOTAL 167.00 MEAN .46 MAX 39 MIN 0 AC-FT 331

PEAK DISCHARGE (BASE, 25 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
09-22	1430	1.76	47	10-14	1330	1.55	32

08390500 RIO HONDO AT DIAMOND A RANCH, NEAR ROSWELL, N. MEX.

LOCATION.--Lat 33°20'57", long 104°51'05", in NE¼NE¼ sec.20, T.11 S., R.21 E., Chaves County, on right bank 15 ft (5 m) downstream from county road bridge at Diamond A Ranch, 1.3 mi (2.1 km) south of U.S. Highway 70-380, 13 mi (21 km) upstream from Two Rivers Reservoir, 21 mi (34 km) upstream from mouth of Rocky Arroyo, 18 mi (29 km) west of Roswell, and at mile 44.7 (71.9 km).

DRAINAGE AREA.--947 mi² (2,450 km²), contributing area.

PERIOD OF RECORD.--May 1908 to August 1909, May 1939 to current year. Monthly discharge only for 1908-9, published in Technical Report No. 7, State of New Mexico, Streamflow and Reservoir Content 1888-1954.

GAGE--.Water-stage recorder and concrete control. Altitude of gage is 4,190 ft (1,277 m), from topographic map. Prior to Nov. 11, 1965, at site on opposite bank at same datum. Supplemental water-stage recorder on opposite bank Nov. 11, 1965 to December 1972, at same datum.

AVERAGE DISCHARGE.--35 calendar years (1940-74), 23.0 ft³/s (0.651 m³/s), 16,660 acre-ft/yr (20.5 hm³/yr); 20 calendar years (1955-74), 14.1 ft³/s (0.399 m³/s), 10,220 acre-ft/yr (12.6 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,080 ft³/s (30.6 m³/s) Oct. 23 (gage height, 14.11 ft or 4.301 m); no flow most of time.
Period of record: Maximum discharge, 54,800 ft³/s (1,550 m³/s) June 18, 1965 (gage height, 26.40 ft or 8.047 m), from rating curve extended above 3,000 cfs (85.0 m³/s) on basis of slope-area measurement of peak flow; maximum gage height, 28.78 ft (8.772 m), Sept. 22, 1941; no flow most of time.
A flood on June 1, 1937, reached a discharge of 24,900 ft³/s (705 m³/s)at Riverside about 13 mi (21 km) upstream. Other major floods occurred Oct. 31, 1901, Sept. 29, 30, 1904, and July 25, 1905.

REMARKS.--Records poor. Diversions and ground-water withdrawals above station for irrigation above and below station of about 6,500 acres (2,630 hm²), 1959 determination.

REVISIONS (WATER YEARS).--WSP 1392: Drainage area. WSP 1512: 1939-40(P), 1941, 1942-43(P), 1946(P).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1							0	0	0	0	79	26
2							0	0	0	0	76	25
3							0	0	0	0	75	24
4							0	0	0	0	82	16
5							0	0	0	0	75	9.5
6							0	1.2	0	0	71	5.9
7							0	0	0	0	66	5.6
8							0	3.5	0	0	62	6.4
9							0	.29	0	0	61	7.1
10							4.3	0	0	0	71	7.5
11							0	0	0	10	86	8.3
12							0	0	0	82	88	8.3
13							0	0	0	81	83	8.3
14							0	0	0	162	78	6.7
15							0	0	0	130	75	6.7
16							0	0	0	132	69	7.9
17							0	0	0	115	60	7.9
18							0	0	0	98	57	8.7
19							0	0	0	82	50	8.7
20							0	0	0	72	45	9.5
21							0	0	225	64	42	8.7
22							0	0	270	89	36	7.9
23							0	0	175	427	35	7.5
24							0	0	97	171	32	7.5
25							0	0	70	132	31	7.9
26							0	0	49	124	30	8.7
27							0	0	26	126	28	7.1
28							0	0	19	102	28	8.0
29		------					0	0	9.1	90	27	7.9
30		------					0	0	1.7	82	26	7.5
31		------		------		------	0	0	------	84	------	7.5
TOTAL	0	0	0	0	0	0	4.3	4.99	939.8	2,455	1,724	300.2
MEAN	0	0	0	0	0	0	.14	.16	31.3	79.2	57.5	9.68
MAX	0	0	0	0	0	0	4.3	3.5	270	427	88	26
MIN	0	0	0	0	0	0	0	0	0	0	26	5.6
AC-FT	0	0	0	0	0	0	8.5	9.9	1,860	4,870	3,420	595

CAL YR 1974 TOTAL 5,428.29 MEAN 14.9 MAX 427 MIN 0 AC-FT 10,770
WTR YR 1974 TOTAL 949.09 MEAN 2.60 MAX 270 MIN 0 AC-FT 1,880

PEAK DISCHARGE (BASE, 1,000 FT³/S).--October 23 (0930) 1,080 ft³/s (14.11 ft).

08390600 TWO RIVERS RESERVOIR NEAR ROSWELL, N. MEX.

LOCATION.--08390610 Rio Hondo Reservoir: Lat 33°17'55", long 104°43'20", in SW¼SE¼NE¼ sec.4, T.12 S., R.22 E., Chaves County, near center of Diamond A Dam on Rio Hondo, 13 mi (20.9 km) southwest of Roswell at mile 33.4 (53.7 km); 08390620 Rocky Arroyo Reservoir: Lat 33°16'20", long 104°43'20", in NW¼SE¼NE¼ sec.16, T.12 S., R.22 E., Chaves County, at left end of Rocky Dam on Rocky Arroyo, and 14 mi (22.5 km) southwest of Roswell.

DRAINAGE AREA.--1,027 mi² (2,660 km²); Rio Hondo, 963 mi² (2,494 km²); Rocky Arroyo, 64 mi² (166 km²).

PERIOD OF RECORD.--July 1963 to current year. Prior to October 1965 (monthend contents only).

GAGE.--Water-stage recorders. Datum of gages is mean sea level.

EXTREMES.--Current year: Maximum contents at 2400 hours of Rio Hondo Reservoir, 361 acre-ft (445,000 m³) Sept. 23, elevation, 3,981.80 ft (1,213.653 m); no contents most of time. Maximum contents at 2400 hours for Rocky Arroyo Reservoir, 1,230 acre-ft (1.52 hm³) Sept. 23, elevation, 3,959.70 ft (1,206.917 m); no contents most of time.
Period of record: Maximum contents at 0800 hours of Rio Hondo Reservoir, 1,260 acre-ft (155,400 m³) July 29, 1965, elevation, 3,985.7 ft (1,214.84 m); Rocky Arroyo Reservoir at 0800 hours, 6,090 acre-ft (7.51 hm³) June 18, 1965, elevation, 3,970.7 ft (1,210.27 m); no contents both reservoirs most of time.

REMARKS.--Two Rivers Reservoir, completed July 16, 1963, is formed by earthfill dams on Rio Hondo, which forms Rio Hondo Reservoir; and Rocky Arroyo which forms Rocky Arroyo Reservoir. Above elevation 3,980.0 ft (1,213.10 m) the pools of the two reservoirs combine to form Two Rivers Reservoir with a total capacity of 166,200 acre-ft (205 hm³) at elevation 4,032.0 ft (1,228.95 m) crest of ungated spillway. Capacity of Rio Hondo Reservoir, 181 acre-ft (22,320 m³) between elevations 3,957.0 ft (1,206.09 m), sill of outlet gate, and 3,980 ft (1,213.10 m). Capacity of Rocky Arroyo Reservoir, 13,410 acre-ft (16.5 hm³) between elevations 3,945 ft (1,202.44 m), sill of outlet gate, and 3,980 ft (1,213.10 m). No dead storage in Rio Hondo Reservoir, or Rocky Arroyo Reservoir. Primary objective of project is flood control. Outlet conduits in Rocky Dam have fixed openings. Figures given herein represent total contents at 2400 hours from new capacity table put into use Jan. 1, 1972, (in table, reservoirs separated as indicated).

COOPERATION.--Records furnished by Corps of Engineers.

ELEVATION, IN FEET, AND CONTENTS, IN ACRE-FEET, AT 2400 HOURS, CALENDAR YEAR 1974

	RIO HONDO RESERVOIR		ROCKY RESERVOIR	
DATE	ELEVATION	CONTENTS	ELEVATION	CONTENTS
Sept. 22	3,970.80	4.0	3,957.00	735
23	3,971.50	6.0	3,955.75	556
24	3,978.00	95	3,955.10	473
25	3,972.00	87	3,952.50	273
26	3,976.00	48	-	0
27	3,976.00	48	-	0
28	3,976.00	48	-	0
29	3,976.00	48	-	0
30	3,976.00	48	-	0
Oct. 1	3,974.00	22	-	0
2	3,973.00	14	-	0
3	3,972.50	11	-	0
4	3,972.00	8.0	-	0
5	3,971.50	6.0	-	0
6	3,971.00	4.0	-	0
13	-	0	3,951.00	123
14	3,970.70	4.0	3,953.00	258
15	3,971.00	4.0	3,948.00	26
16	3,968.00	1.0	-	0
23	3,981.80	361	3,959.70	1,230
24	3,969.00	2.0	3,953.50	304
25	-	0	3,946.00	4.0
27	3,975.00	33	-	0

NOTE.--Storage only on days listed above.

08390800 RIO HONDO BELOW DIAMOND A DAM, NEAR ROSWELL, N. MEX.

LOCATION.--Lat 33°18'05", long 104°43'12", in NE¼SE¼NE¼ sec.4, T.12 S., R.22 E., Chaves County, on left bank, 500 ft (152 m) downstream from outlet conduit of Diamond A dam (Two Rivers Reservoir), 13 mi (20.9 km) southwest of Roswell, and at mile 33.3 (53.6 km).

DRAINAGE AREA.--963 mi² (2,490 km²), contributing area.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3,949.68 ft (1,203.862 m) above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--11 calendar years, 9.63 ft³/s (0.273 m³/s), 6,980 acre-ft/yr (8.61 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 386 ft³/s (10.9 m³/s) Sept. 25 (gage height, 3.78 ft or 1.152 m); no flow most of time.
Period of record: Maximum discharge, 659 ft³/s (18.7 m³/s) July 29, 1965 (gage height, 4.91 ft or 1.497 m); no flow most of time.

REMARKS.--Records fair. Diversions and ground-water withdrawals for irrigation of about 6,500 acres (2,630 hm²), 1959 determination, above station. This record represents the outflow from Two Rivers Reservoir through Diamond A Dam.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1								0	0	0	62	20
2								0	0	0	57	19
3								0	0	0	61	12
4								0	0	0	70	11
5								0	0	0	64	3.6
6								0	0	0	57	1.4
7								0	0	1.8	46	.24
8								4.7	0	0	38	3.3
9								.99	0	0	34	6.9
10								0	0	0	41	6.9
11								0	0	1.9	55	7.2
12								0	0	36	62	7.6
13								0	0	89	65	4.0
14								0	0	154	61	1.0
15								0	0	118	62	0
16								0	0	133	55	0
17								0	0	111	45	0
18								0	0	94	42	0
19								0	0	74	39	0
20								6.0	0	58	34	0
21								.62	75	49	31	.47
22								0	130	62	28	.16
23								0	136	233	25	.58
24								0	0	291	24	.06
25								0	154	158	22	1.2
26								0	0	116	22	2.0
27								0	0	116	21	3.5
28								0	0	106	20	4.5
29		------						0	0	59	20	.82
30		------						0	0	72	20	2.3
31		------		------		------		0	------	65	------	1.0
TOTAL	0	0	0	0	0	0	0	12.31	495	2,197.7	1,283	120.73
MEAN	0	0	0	0	0	0	0	.40	16.5	70.9	42.8	3.89
MAX	0	0	0	0	0	0	0	6.0	154	291	70	20
MIN	0	0	0	0	0	0	0	0	0	0	20	0
AC-FT	0	0	0	0	0	0	0	24	982	4,360	2,540	239

CAL YR 1974 TOTAL 4,108.74 MEAN 11.3 MAX 291 MIN 0 AC-FT 8,150
WTR YR 1974 TOTAL 507.31 MEAN 1.39 MAX 154 MIN 0 AC-FT 1,010

08393200 ROCKY ARROYO ABOVE TWO RIVERS RESERVOIR, NEAR ROSWELL, N. MEX.

LOCATION.—Lat 33°17'07", long 104°47'47", in NE¼SW¼ sec.11, T.12 S., R.21½ E., Chaves County, on left bank, 2.1 mi (3.4 km) upstream from mouth of Buchnan Draw, 5.2 mi (8.4 km) upstream from Rocky Dam (Two Rivers Reservoir), and 17 mi (27.4 km) southwest of Roswell.

DRAINAGE AREA.—31 mi² (80 km²), approximately.

PERIOD OF RECORD.—May 1963 to current year.

GAGE.—Water-stage recorder and concrete control. Datum of gage is 4,059.17 ft (1,237.235 m) above mean sea level (Corps of Engineers datum). Prior to Dec. 7, 1968, at site on opposite bank at datum 3.72 ft (1.134 m) lower.

AVERAGE DISCHARGE.—11 calendar years, 1.17 ft³/s (0.0331 m³/s), 848 acre-ft/yr (1.05 hm³/yr).

EXTREMES.—Current year: Maximum discharge, 2,540 ft³/s (71.9 m³/s) Oct. 23 (gage height, 6.30 ft or 1.920 m); no flow most of time.
Period of record: Maximum discharge, 12,000 ft³/s (340 m³/s) July 5, 1968 (gage height, 11.53 ft or 3.514 m, from floodmarks, present datum), from rating curve extended above 350 ft³/s (9.91 m³/s) on basis of slope-area measurements at gage heights 5.92 ft (1.804 m), 7.14 ft (2.176 m), and 11.53 ft (3.514 m), present datum; no flow most of time.

REMARKS.—Records good. No diversions above station. Flow past station represents inflow to Two Rivers Reservoir.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1								0	0	0		
2								0	0	0		
3								0	0	0		
4								0	0	0		
5								0	0	0		
6								0	0	0		
7								0	0	0		
8								0	0	0		
9								0	0	0		
10								0	0	0		
11								0	0	67		
12								0	0	2.6		
13								0	0	.01		
14								0	0	139		
15								0	0	8.0		
16								0	0	.01		
17								0	0	0		
18								0	0	0		
19								0	0	0		
20								1.7	0	0		
21								.01	113	0		
22								0	374	5.5		
23								0	194	501		
24								0	5.2	3.0		
25								0	0	0		
26								0	0	0		
27								0	0	0		
28								0	0	0		
29		------						0	0	0		
30		------						0	0	0		
31		------		------		------		0	------	0	------	
TOTAL	0	0	0	0	0	0	0	1.71	686.2	726.12	0	0
MEAN	0	0	0	0	0	0	0	.055	22.9	23.4	0	0
MAX	0	0	0	0	0	0	0	1.7	374	501	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	3.4	1,360	1,440	0	0

CAL YR 1974 TOTAL 1,414.03 MEAN 3.87 MAX 501 MIN 0 AC-FT 2,800
WTR YR 1974 TOTAL 687.91 MEAN 1.88 MAX 374 MIN 0 AC-FT 1,360

PEAK DISCHARGE (BASE, 90 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
09-21	1330	4.01	621	10-14	1030	3.81	525
09-22	1500	4.86	1,170	10-23	0900	6.30	2,540
10-11	0530	3.20	255				

08393300 ROCKY ARROYO BELOW ROCKY DAM, NEAR ROSWELL, N. MEX.

LOCATION.--Lat 33°16'11", long 104°43'13", in SE¼SE¼NE¼ sec.16, T.12 S., R.22 E., Chaves County, on left bank, 300 ft (90 m) downstream from outlet structure in Rocky Dam (Two Rivers Reservoir) and 13.5 mi (21.7 km) southwest of Roswell.

DRAINAGE AREA.--64 mi² (166 km²), approximately.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3,935.66 ft (1,199.589 m) above mean sea level (Corps of Engineers bench mark). Prior to Jan. 12, 1972, at site 1.4 mi (2.3 km) downstream at datum 28.76 ft (8.766 m) lower.

AVERAGE DISCHARGE.--11 calendar years, 2.04 ft³/s (0.0578 m³/s), 1,480 acre-ft/yr (1.82 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 202 ft³/s (5.72 m³/s) Oct 24 (gage height 2.79 ft or 0.850 m); no flow most of time. Period of record: Maximum discharge, 548 ft³/s (15.5 m³/s) Aug. 21, 1966 (gage height, 4.57 ft or 1.393 m), site and datum then in use, from rating curve extended above 260 ft³/s (7.36 m³/s); no flow most of time.

REMARKS.--Records good. No diversions above station. This record represents the outflow from Two Rivers Reservoir through Rocky Dam. Outlet conduits in Rocky Dam have fixed openings.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1								0	0	0		
2								.01	0	0		
3								0	0	0		
4								0	0	0		
5								0	0	0		
6								.26	0	0		
7								0	0	0		
8								0	0	0		
9								0	0	0		
10								0	0	0		
11								0	0	4.7		
12								0	0	.06		
13								0	0	0		
14								0	0	105		
15								0	0	100		
16								0	0	6.9		
17								0	.02	0		
18								0	0	0		
19								0	0	0		
20								0	0	0		
21								0	9.5	0		
22								0	45	.01		
23								0	110	192		
24								0	68	167		
25								0	40	42		
26								0	5.5	20		
27								0	0	.01		
28								0	0	0		
29		------						0	0	0		
30		------						0	0	0		
31		------		------		------		0	------	0	------	
TOTAL	0	0	0	0	0	0	0	.27	278.02	597.68	0	0
MEAN	0	0	0	0	0	0	0	.009	9.27	19.3	0	0
MAX	0	0	0	0	0	0	0	.26	110	167	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	.5	551	1,190	0	0

CAL YR 1974 TOTAL 875.97 MEAN 2.40 MAX 167 MIN 0 AC-FT 1,740
WTR YR 1974 TOTAL 278.29 MEAN .76 MAX 110 MIN 0 AC-FT 552

08393600 NORTH SPRING RIVER AT ROSWELL, N. MEX.

LOCATION.—Lat 33°23'47", long 104°32'53", in NW¼SW¼SE¼ sec.31, T.10 S., R.24 E., Chaves County, in Roswell Municipal Golf Course, on left bank 2,400 ft (730 m) upstream from Montana Avenue, and 2 blocks north of West Second Street.

DRAINAGE AREA.—19.5 mi² (31.4 km²).

PERIOD OF RECORD.—May 1958 to current year.

GAGE.—Water-stage recorder. Altitude of gage is 3,575 ft (1,090 m), from topographic map.

AVERAGE DISCHARGE.—16 calendar years, 0.050 ft³/s (0.0014 m³/s), 36 acre-ft/yr (44,400 m³/yr).

EXTREMES.—Current year: Maximum discharge, 19 ft³/s (0.54 m³/s) Aug. 11 (gage height, 2.85 ft or 0.869 m); no flow most of time.
Period of record: Maximum discharge, 387 ft³/s (11.0 m³/s) June 13, 1964 (gage height, 4.65 ft or 1.417 m), from rating curve extended above 80 ft³/s (2.27 m³/s) on basis of slope-area measurement; no flow most of time.

REMARKS.—Records poor. No diversions above station.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1								0	0	0		
2								.06	0	0		
3								0	0	0		
4								0	0	0		
5								0	0	0		
6								0	0	0		
7								0	0	0		
8								0	0	0		
9								0	0	0		
10								0	0	0		
11								1.0	0	0		
12								0	0	3.3		
13								0	0	0		
14								0	0	1.9		
15								0	0	.09		
16								0	0	0		
17								0	1.5	0		
18								0	.90	0		
19								0	0	0		
20								0	0	0		
21								0	0	0		
22								0	0	0		
23								0	0	1.3		
24								.65	0	0		
25								0	0	0		
26								0	0	0		
27								0	0	0		
28								0	0	0		
29		------						0	0	0		
30		------						0	0	0		
31		------		------		------		0	------	0	------	
TOTAL	0	0	0	0	0	0	0	1.41	2.40	6.59	0	0
MEAN	0	0	0	0	0	0	0	.046	.080	.21	0	0
MAX	0	0	0	0	0	0	0	1.0	1.5	3.3	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	2.8	4.8	13	0	0

CAL YR 1974 TOTAL 10.40 MEAN .029 MAX 3.3 MIN 0 AC-FT 21
WTR YR 1974 TOTAL 3.81 MEAN .010 MAX 1.5 MIN 0 AC-FT 7.6

PEAK DISCHARGE (BASE, 25 FT³/S).--No peak above base.

08394100 PECOS RIVER NEAR HAGERMAN, N. MEX.

LOCATION.--Lat 33°10'08", long 104°18'24", in SE¼SW¼SE¼ sec.23, T.13 S., R.26 E., Chaves County, on left bank 3.4 mi (5.5 km) upstream from Rio Felix, 4.9 mi (7.9 km) north of Hagerman, and at mile 548.3 (882.2 km).

DRAINAGE AREA.--13,630 mi² (35,300 km²), approximately (contributing area).

PERIOD OF RECORD.--February 1968 to current year (operated as a low-flow station only).

GAGE.--Water-stage recorder. Altitude of gage is 3,390 ft (1,033 m), from topographic map.

EXTREMES.--Current year: Maximum discharge not determined; no flow at times.
Period of record: Maximum discharge not determined; no flow at times in 1971, 1974.

REMARKS.--Reocrds fair except those above 100 ft³/s (2.83 m³/s), which are poor. Flow partly regulated by Alamorgordo Reservoir (see sta 08384000). Diversions and ground-water withdrawals for irrigation of about 80,000 acres (32,380 hm²) above station.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	41	39	27	584	27	114	527	1.6	55	56	136	78
2	39	38	26	249	26	87	533	4.0	48	54	146	78
3	37	38	25	177	24	67	533	26	39	49	150	79
4	36	37	25	141	22	54	533	5.2	32	47	134	76
5	35	39	24	108	19	44	527	4.6	27	47	127	73
6	31	36	23	92	19	35	559	7.6	25	46	123	70
7	35	35	22	80	18	30	623	10	25	49	114	65
8	35	35	22	72	17	23	629	5.4	23	51	108	65
9	38	36	21	60	14	19	618	12	19	52	106	70
10	42	36	21	57	13	13	607	31	17	48	103	66
11	49	36	21	54	13	8.5	601	17	16	52	97	66
12	57	36	21	50	12	6.9	336	118	17	314	90	65
13	56	51	21	44	433	5.2	156	42	16	574	87	64
14	51	62	21	42	657	4.2	103	17	18	434	85	62
15	49	50	21	41	300	2.7	70	11	25	222	67	60
16	49	42	20	38	240	2.1	51	14	35	188	65	58
17	48	41	21	37	680	1.3	37	297	34	163	65	56
18	48	38	439	40	715	1.5	26	411	116	150	72	56
19	47	36	739	44	782	1.4	19	439	112	140	73	56
20	46	35	776	42	806	0	14	416	87	116	72	56
21	46	33	858	37	721	3.2	13	462	-	106	73	55
22	44	31	872	33	640	3.9	8.5	492	-	114	72	55
23	44	31	800	31	612	27	6.9	656	-	-	72	55
24	42	29	794	28	634	372	3.6	507	-	-	69	54
25	38	29	806	28	657	497	1.8	453	166	425	66	54
26	37	29	800	28	669	517	1.0	239	150	260	79	55
27	38	29	788	29	657	517	.19	206	118	183	80	57
28	38	28	846	26	646	517	0	248	90	229	80	58
29	35	------	891	23	612	543	0	118	73	188	76	58
30	34	------	872	24	250	543	.53	89	64	174	76	64
31	38	------	839	------	169	------	.03	69	------	160	------	66
TOTAL	1,303	1,035	11,502	2,329	11,098	4,059.9	7,137.55	5,430.4	-	-	2,763	1,950
MEAN	42.0	37.0	371	77.6	358	135	230	175	-	-	92.1	62.9

08394500 RIO FELIX AT OLD HIGHWAY BRIDGE, NEAR HAGERMAN, N. MEX.

LOCATION.—Lat 33°07'30", long 104°20'40", in SW¼SW¼SE¼ sec.4, T.14 S., R.26 E., Chaves County, near left bank on downstream side of abandoned bridge pier, 0.6 mi (1.0 km) upstream from alternate U.S. Highway 285, 1.3 mi (2.1 km) northwest of Hagerman, and 2.7 mi (4.3 km) upstream from mouth. Mouth at Pecos River mile 544.9 (876.7 km).

DRAINAGE AREA.—932 mi² (2,410 km²), contributing area.

PERIOD OF RECORD.—April 1939 to current year. March 1932 to April 1939 at site 1 mi (1.6 km) downstream; records for periods of low flow not equivalent, owing to inflow between sites.

GAGE.—Water-stage recorder. Datum of gage is 3,403.40 ft (1,037.356 m) above mean sea level.

AVERAGE DISCHARGE.—35 calendar years, 16.4 ft³/s (0.464 m³/s), 11,880 acre-ft/yr (14.6 hm³/yr); 20 calendar years (1955-74), 12.6 ft³/s (0.357 m³/s), 9,130 acre-ft/yr (11.3 hm³/yr).

EXTREMES.—Current year: Maximum discharge, 22,100 ft³/s (626 m³/s) Sept. 21 (gage height, 21.08 ft or 6.425 m); no flow most of time.

Period of record: Maximum discharge, 74,000 ft³/s (2,100 m³/s) Oct. 7, 1954 (gage height, 27.5 ft or 8.38 m, from floodmarks), from rating curve extended above 12,000 ft³/s (340 m³/s) on basis of slope-area measurement at point 5.5 mi (8.8 km) upstream from gage (adjusted for channel storage); no flow for many periods.

Flood in 1954 is the highest since 1894 (information from local residents). Flood of Oct. 1, 1904, is probably second highest. Another major flood occurred in April 1915.

REMARKS.—Records fair. Diversions for irrigation of about 350 acres (142 hm²), 1959 determination, above station.

REVISIONS (WATER YEARS).—WSP 928: 1940(M). WSP 1562: 1939-40, 1941(M).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1								0	.5	7.4	0	
2								0	0	3.8	0	
3								0	0	0	0	
4								0	1.6	0	0	
5								0	6.5	0	0	
6								0	5.0	0	0	
7								0	0	0	0	
8								0	0	0	0	
9								0	0	0	0	
10								0	0	0	0	
11								0	0	0	0	
12								0	0	2.8	0	
13								0	0	5.4	0	
14								0	0	10	0	
15								0	0	7.2	0	
16								0	0	2.0	9.2	
17								0	0	.32	9.9	
18								0	0	.05	2.8	
19								0	2.8	0	2.7	
20								0	1.4	0	3.0	
21								0	4,690	0	9.1	
22								0	4,910	2.0	9.6	
23								3.8	5,630	1,720	9.9	
24								10	1,820	1,390	8.8	
25								14	232	22	6.3	
26								8.4	21	3.8	2.5	
27								6.1	17	1.0	0	
28								7.1	12	0	0	
29		------						11	9.4	0	0	
30		------						.85	8.8	0	0	
31		------		------		------		1.6	------	0	------	
TOTAL	0	0	0	0	0	0	0	62.85	17,367.8	3,176.97	72.8	0
MEAN	0	0	0	0	0	0	0	2.03	579	102	2.43	0
MAX	0	0	0	0	0	0	0	14	5,630	1,720	9.9	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	125	34,450	6,300	144	0

CAL YR 1974 TOTAL 20,680.22 MEAN 56.7 MAX 5,630 MIN 0 AC-FT 41,020
WTR YR 1974 TOTAL 17,450.45 MEAN 47.8 MAX 5,630 MIN 0 AC-FT 34,570

PEAK DISCHARGE (BASE, 500 FT³/S).

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
09-21	1945	21.08	22,120	10-23	2130	17.40	10,100

08395500 PECOS RIVER NEAR LAKE ARTHUR, N. MEX.

LOCATION.—Lat 32°59'18", long 104°19'20", in SW¼NE¼ sec.27, T.15 S., R.26 E., Chaves County, on left bank 400 ft (120 m) upstream from county bridge, 2.5 mi (4.0 km) east of Lake Arthur, 7 mi (11.3 km) upstream from Cottonwood Creek, 11 mi (17.7 km) northeast of Artesia, and at mile 525.1 (844.9 km).

DRAINAGE AREA.—14,760 mi² (38,230 km²), approximately (contributing area).

PERIOD OF RECORD.—August 1938 to current year.

GAGE.—Water-stage recorder and rock control. Datum of gage is 3,327.07 ft (1,014.091 m) above mean sea level.

AVERAGE DISCHARGE.—36 calendar years, 251 ft³/s (7.108 m³/s), 181,800 acre-ft/yr (224 hm³/yr); 20 calendar years (1955-74), 183 ft³/s (5.183 m³/s), 132,600 acre-ft/yr (163 hm³/yr).

EXTREMES.—Current year: Maximum discharge, 7,940 ft³/s (225 m³/s) Sept. 23 (gage height, 13.55 ft or 4.130 m); minimum, 0.23 ft³/s (0.007 m³/s) Aug. 16.

Period of record: Maximum discharge, 49,600 ft³/s (1,410 m³/s) Sept. 24, 1941 (gage height, 21.90 ft or 6.675 m), from rating curve extended above 16,100 ft³/s (456 m³/s) on basis of slope-area measurement at gage height 21.77 ft (6.635 m); no flow at times in 1947, 1953-4, 1962, 1964.

Flood of May 30, 1937, reached a stage of 21.77 ft (6.635 m), discharge, 51,500 ft³/s (1,460 m³/s), on basis of slope-area measurement of peak flow.

REMARKS.—Records good. Flow partly regulated by Alamogordo Reservoir (see sta 08384000). Diversions and ground-water withdrawals for irrigation of about 124,000 acres (50,180 hm²), 1959 determination, above station.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	41	42	31	733	22	83	420	2.7	70	91	175	92
2	41	43	29	237	19	55	443	2.8	48	78	161	93
3	40	41	28	145	20	41	442	3.4	36	74	175	92
4	36	41	28	89	17	23	441	11	47	67	160	95
5	40	54	29	68	18	17	451	4.4	41	65	150	90
6	40	56	28	55	22	12	435	3.1	35	64	145	88
7	39	54	27	54	15	5.1	461	8.4	34	62	140	84
8	45	53	27	48	12	8.5	451	3.7	31	66	130	82
9	41	53	29	43	9.4	6.5	438	3.8	26	66	125	82
10	43	54	28	53	12	4.9	447	5.6	20	67	120	87
11	46	54	27	54	15	3.8	451	13	16	62	115	82
12	50	53	26	56	11	3.5	349	46	15	81	110	81
13	57	53	28	42	291	3.5	170	62	12	595	107	80
14	58	44	28	36	620	3.0	102	15	9.0	501	105	78
15	51	50	28	39	351	2.8	63	4.7	16	385	101	78
16	50	45	26	28	184	2.8	31	1.6	29	248	85	74
17	51	57	28	22	634	4.4	20	104	34	199	93	73
18	52	57	168	17	682	2.8	14	323	56	150	98	72
19	52	56	666	23	718	2.3	10	352	161	135	95	70
20	51	51	735	23	754	2.2	8.4	372	126	118	96	71
21	50	31	798	23	688	2.3	7.3	398	370	97	96	72
22	49	29	838	27	618	2.2	9.8	442	5,360	93	107	71
23	49	29	788	21	581	2.1	8.1	599	5,770	514	108	70
24	49	29	753	20	602	148	5.3	447	2,840	2,810	106	70
25	48	30	791	17	587	374	3.9	473	711	723	97	69
26	44	32	795	16	627	415	3.9	313	293	481	95	73
27	43	33	765	13	618	404	3.4	256	204	315	102	71
28	44	33	781	22	614	411	2.8	237	154	278	100	73
29	44	------	824	24	643	411	3.2	203	122	223	96	75
30	41	------	825	19	622	421	3.4	132	105	189	92	78
31	40	------	787	------	152	------	3.0	95	------	184	------	81
TOTAL	1,425	992	10,787	2,007	10,455.4	2,877.7	5,701.5	4,921.4	16,791.8	9,079	3,482	2,445
MEAN	46.0	35.4	348	66.9	337	95.9	184	159	560	293	116	78.9
MAX	58	50	838	733	754	421	461	599	5,770	2,810	175	93
MIN	36	29	26	13	9.4	2.1	2.8	1.6	9.8	62	85	69
AC-FT	2,830	1,970	21,400	3,980	20,740	5,710	11,310	9,760	33,310	18,010	6,910	4,850

CAL YR 1974 TOTAL 70,964.8 MEAN 194 MAX 5,770 MIN 1.6 AC-FT 140,800
WTR YR 1974 TOTAL 67,885.8 MEAN 186 MAX 5,770 MIN 1.6 AC-FT 134,700

PEAK DISCHARGE (BASE, 2,500 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
09-23	1515	13.55	7,940	10-24	1000	11.06	5,250

08396500 PECOS RIVER NEAR ARTESIA, N. MEX.

LOCATION.—Lat 32°50'25", long 104°19'23", in NW¼NW¼ sec.18, T.17 S., R.27 E., Eddy County, near left bank on downstream end of bridge pier on State Highway 83, 4.3 mi (6.9 km) east of Artesia, 7.0 mi (11.3 km) upstream from Rio Peñasco, 17 mi (27.4 km) upstream from McMillan Dam, and at mile 507.1 (815.9 km).

DRAINAGE AREA.—15,300 mi² (39,630 km²), approximately (contributing area).

PERIOD OF RECORD.—September 1905 to June 1909, August 1909 to current year. Monthly discharge only for some periods, published to WSP 1312 and 1712. Records for Aug. 22-31, 1934 and October 1936 to April 1937, published in WSP 763 and 828, respectively are not reliable and should not be used. Prior to February 1936, published as "near Dayton."

GAGE.—Water-stage recorder. Datum of gage is 3,291.05 ft (1,003.112 m), Bureau of Reclamation on bench mark. Prior to Aug. 27, 1914, nonrecording gage and Aug. 27, 1914, to Feb. 20, 1936, water-stage recorder at site 6.5 mi (10.5 km) downstream at different datum. Feb. 21, 1936, to Apr. 4, 1941, water-stage recorder at site 600 ft (183 m) downstream at different datum.

AVERAGE DISCHARGE.—30 calendar years (1906-8, 1910-36), 363 ft³/s (10.28 m³/s), 263,000 acre-ft/yr (324 hm³/yr), prior to completion of Alamogordo Reservoir; 38 calendar years (1937-74), 268 ft³/s (7.590 m³/s), 194,200 acre-ft/yr (239 hm³/yr); 20 calendar years (1955-74), 179 ft³/s (5.069 m³/s), 129,700 acre-ft/yr (160 hm³/yr).

EXTREMES.—Current year: Maximum discharge, 6,500 ft³/s (184 m³/s) Sept. 24 (gage height, 12.40 ft or 3.780 m, flow bypassing gage); minimum, 2.3 ft³/s (0.065 m³/s) June 23.

Period of record: Maximum discharge probably occurred May 30, 1937, when a discharge of 51,500 ft³/s (1,460 m³/s) was measured by slope-area method at a point 15 mi (24.1 km) upstream (gage height, 14.7 ft or 4.48 m), site and datum then in use; no flow at times in 1934, 1946-47, 1953-54, 1957, 1964-65.

Greatest flood since at least 1893 occurred Oct. 2, 1904, discharge not determined; the peak inflow to Lake McMillan, which includes Rio Peñasco and Fourmile Draw, was estimated at 82,000 ft³/s (2,320 m³/s). The second highest flood occurred July 25, 1905, discharge below Rio Peñasco, 50,300 ft³/s (1,420 m³/s), based on gain in storage and spill from Lake McMillan. The floods in August 1893 and October 1904 damaged McMillan Dam and washed out Avalon Dam.

REMARKS.—Records fair except those for discharges below 10 ft³/s (0.28 m³/s), and periods of overflow Sept. 22-25, Oct. 24-25, which are poor. Flow partly regulated by Alamogordo Reservoir (see sta 08384000) since August 1937. Diversions and ground-water withdrawals for irrigation of about 154,000 acres (62,320 hm²), 1959 determination, above station. Water quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).—WSP 1312 and 1512: 1913, 1915, 1917-18(M), 1920, 1923, 1931-36. WSP 1712: 1906(M), 1908-11(M), 1919, 1921-23(M), 1929, 1931-32(M), 1935-36(M), 1937, 1939(M), 1941(M). See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	46	41	35	744	22	82	382	3.9	65	124	217	106
2	44	44	31	367	24	47	396	3.5	45	111	185	104
3	40	44	29	155	20	32	403	4.1	37	98	185	104
4	32	43	26	98	25	18	401	4.3	36	88	190	104
5	32	42	28	69	17	9.8	422	6.6	43	83	170	104
6	41	34	29	46	17	8.0	410	6.0	40	86	165	98
7	43	36	28	32	26	8.7	425	5.5	37	83	158	97
8	43	34	27	41	21	7.1	438	6.3	37	81	151	96
9	44	32	27	35	12	5.3	425	4.3	33	83	146	91
10	46	32	29	28	10	5.5	428	3.3	28	83	141	91
11	46	35	28	22	9.8	5.5	445	2.9	20	80	134	96
12	50	34	28	27	12	5.3	391	6.0	19	96	130	91
13	55	32	28	32	13	4.8	185	49	18	453	125	90
14	65	33	28	31	519	5.3	111	25	16	458	122	88
15	61	48	28	33	511	5.0	60	6.0	16	390	119	87
16	51	52	28	30	184	5.0	29	4.4	18	291	109	87
17	54	45	26	19	378	4.1	18	3.5	31	278	104	87
18	57	39	28	14	628	3.7	15	214	39	254	111	84
19	55	36	525	18	658	4.1	17	306	103	203	109	83
20	56	33	694	27	697	3.7	14	331	122	185	106	81
21	54	30	752	28	687	3.2	13	370	107	161	108	84
22	53	29	806	28	680	3.0	10	415	2,800	160	112	84
23	53	27	788	31	570	2.6	9.8	574	5,300	748	116	83
24	52	27	767	24	565	9.1	9.8	532	5,600	3,200	116	80
25	52	28	765	16	570	278	6.8	552	1,500	1,300	112	81
26	50	31	762	19	600	342	6.3	416	450	576	109	87
27	47	34	754	16	585	344	5.3	237	264	346	112	85
28	46	33	746	14	610	365	4.6	192	192	270	114	84
29	46	------	785	24	632	367	4.4	260	148	296	109	85
30	44	------	806	29	448	379	4.6	140	124	236	106	88
31	41	------	778	------	155	------	4.2	85	------	228	------	90
TOTAL	1,499	1,008	10,237	2,059	9,825.8	2,362.8	5,493.6	4,770.6	17,288	11,115	5,988	2,800
MEAN	48.4	36.0	330	68.6	317	78.8	177	154	576	359	135	90.3
MAX	65	52	806	744	697	379	445	574	5,600	3,200	217	106
MIN	32	27	26	10	9.8	2.6	4.2	2.9	16	80	104	80
AC-FT	2,970	2,000	20,310	4,080	19,490	4,690	10,900	9,460	34,290	22,050	7,910	5,550

CAL YR 1974 TOTAL 72,445.0 MEAN 198 MAX 5,600 MIN 2.6 AC-FT 143,700
WTR YR 1974 TOTAL 66,340.0 MEAN 182 MAX 5,600 MIN 2.6 AC-FT 131,600

PEAK DISCHARGE (BASE, 2,000 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
09-24	unknown	unknown	6,500 about	10-24	unknown	unknown	4,300 about

NOTE.--Peak discharge includes overflow through other channels.

08398500 RIO PENASCO AT DAYTON, N. MEX.

LOCATION.—Lat 32°44'36", long 104°24'49", in NE¼SE¼SE¼ sec.18, T.18 S., R.26 E., Eddy County, on right bank 1.2 mi (1.9 km) upstream from U.S. Highway 285, 1.9 mi (3.1 km) northwest of old Dayton railway station, 6 mi (9.7 km) upstream from mouth, 7 mi (11.3 km) south of Artesia, mouth at Pecos River mile 496.4 (798.7 km).

DRAINAGE AREA.—1,060 mi² (2,745 km²), approximately.

PERIOD OF RECORD.—April 1951 to current year. Prior to October 1953, published as "near Dayton."

GAGE.—Water-stage recorder and rock control. Datum of gage is 3,387.17 ft (1,032.409 m) above mean sea level. Prior to May 9, 1968, at site 2.4 mi (3.9 km) downstream, at datum 46.28 ft (14.106 m) lower.

AVERAGE DISCHARGE.—23 calendar years, 6.59 ft³/s (0.187 m³/s), 4,770 acre-ft/yr (5.88 hm³/yr); 20 calendar years (1955-74), 6.40 ft³/s (0.181 m³/s), 4,640 acre-ft/yr (5.72 hm³/yr).

EXTREMES.—Current year: Maximum discharge, 16,700 ft³/s (473 m³/s) Sept. 21 (gage height, 11.1 ft or 3.38 m, from floodmarks); no flow most of time.

Period of record: Maximum discharge, 29,800 ft³/s (844 m³/s) Aug. 23, 1966 (gage height, 16.4 ft or 5.00 m, from floodmarks), present site and datum, from rating curve extended above 6,000 ft³/s (170 m³/s), on basis of slope-area measurements at gage heights 6.82 ft (2.079 m) and 7.90 ft (2.408 m) at previous site and datum; no flow most of time.

Flood of about Sept. 22, 1941, reached a stage of about 9 ft (2.7 m) previous site and datum (from old logs), and peak discharge for station "near Dunken", about 50 mi (80 km) upstream, was 70,000 ft³/s (1,980 m³/s), as determined for that station in 1956, from floodmarks and rating curve extended above 36,300 ft³/s (1,030 m³/s).

REMARKS.—Records poor. Diversions and ground-water withdrawals for irrigation of about 3,000 acres (1,214 hm²), 1959 determination, above station.

REVISIONS (WATER YEARS).—WSP 1242: 1951(M). WSP 1512: 1956. WSP 1923: 1955.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1								0	0	0	.01	.03
2								0	0	0	.01	.03
3								0	0	0	.01	.03
4								0	0	0	.01	.03
5								0	0	0	.01	.05
6								0	0	0	.01	.03
7								0	0	0	.01	.03
8								0	0	0	.01	.03
9								0	0	0	.01	.03
10								0	0	0	.01	.03
11								0	0	0	.05	.01
12								0	0	0	.05	.01
13								0	0	0	.05	.01
14								0	0	0	.05	.01
15								0	0	0	.05	.01
16								0	0	0	.05	.01
17								0	0	0	.05	.01
18								0	0	0	.05	.01
19								0	0	0	.05	.01
20								0	0	0	.05	.01
21								0	5,200	0	.05	.01
22								0	3,400	5.0	.05	.01
23								0	2,000	50	.05	.01
24								0	500	300	.05	.01
25								0	70	2.0	.05	.01
26								279	2.0	.50	.05	.01
27								16	0	.10	.05	.01
28								0	0	.10	.05	.01
29		------						0	0	0	.05	.01
30		------						0	0	0	.05	.01
31		------		------		------		0	------	0	------	.01
TOTAL	0	0	0	0	0	0	0	295	11,172.0	357.70	.90	.51
MEAN	0	0	0	0	0	0	0	9.52	372	11.5	.030	.017
MAX	0	0	0	0	0	0	0	279	5,200	300	.05	.03
MIN	0	0	0	0	0	0	0	0	0	0	.01	.01
AC-FT	0	0	0	0	0	0	0	585	22,160	709	1.8	1.0

CAL YR 1974 TOTAL 11,826.11 MEAN 32.4 MAX 5,200 MIN 0 AC-FT 23,460
WTR YR 1974 TOTAL 11,468.59 MEAN 31.4 MAX 5,200 MIN 0 AC-FT 22,750

PEAK DISCHARGE (BASE, 750 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
08-26	0700	4.10	2,310	09-23	unknown	6.4 *	6,750
09-21	unknown	11.1 *	16,730	10-24	unknown	3.6 *	2,350
09-22	unknown	9.9 *	14,000				

NOTE.--No gage-height record Sept. 21 to December 31.
* From floodmark

08399500 PECOS RIVER (KAISER CHANNEL) NEAR LAKEWOOD, N. MEX.

LOCATION.--Lat 32°41'22", long 104°17'53", in NW¼SE¼ sec.5, T.19 S., R.27 E., Eddy County, on left bank 3 mi (4.8 km) upstream from high-water line of Lake McMillan, 6 mi (9.7 km) northeast of Lakewood, 7 mi (11.3 km) northeast of gates in McMillan Dam, 12 mi (19.3 km) southeast of Artesia, and at mile 497 (799.7 km).

PERIOD OF RECORD.--May 1950 to current year. Prior to October 1954, published as Kaiser Lake-McMillan Channel near Lakewood.

GAGE.--Water-stage recorder. Datum of gage is 3,268.53 ft (996.248 m) above mean sea level (Bureau of Reclamation bench mark). Prior to Mar. 23, 1955, at site 3 mi (4.8 km) downstream at datum 7.83 ft (2.387 m) lower. Mar. 23, 1955, to Sept. 30, 1963, at present site at datum 2.00 ft (0.610 m) higher.

AVERAGE DISCHARGE.--24 calendar years, 160 ft^3/s (4.531 m^3/s), 115,900 acre-ft/yr (143 hm^3/yr); 20 calendar years (1955-74), 167 ft^3/s (4.729 m^3/s), 121,000 acre-ft/yr (149 hm^3/yr).

EXTREMES.--Current year: Maximum daily discharge, 2,100 ft^3/s (59.5 m^3/s) Sept. 25; no flow many days.
Period of record: Maximum daily discharge, 2,920 ft^3/s (82.7 m^3/s) July 12, 1960; no flow at times in most years.

REMARKS.--Records fair. Flow partly regulated by Alamogordo Reservoir (see sta 08384000). Diversions and ground-water withdrawals for irrigation of about 170,000 acres (68,800 hm^2), 1959 determination, above station. Above about 1,500 ft^3/s (42.5 m^3/s) flow will begin bypassing station and, depending on the magnitude and duration of flow, may reach Lake McMillan.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	41	37	31	742	20	95	386	0	63	260	300	106
2	38	38	31	662	15	49	395	0	43	220	260	106
3	32	40	28	154	16	29	409	0	35	187	250	106
4	36	40	25	104	15	22	409	0	26	158	250	106
5	30	41	24	71	15	9.8	427	0	30	142	229	107
6	38	33	26	48	14	5.7	424	0	33	140	208	104
7	41	33	26	38	15	4.0	430	0	30	129	195	101
8	40	33	26	30	16	2.5	459	0	27	121	185	101
9	39	30	25	36	11	.55	441	0	26	118	175	97
10	40	30	25	28	7.3	0	430	0	20	116	167	95
11	42	31	25	22	5.7	0	456	0	15	108	162	97
12	43	32	25	22	6.2	0	427	0	12	119	153	95
13	47	32	24	24	6.8	0	251	6.2	10	451	144	94
14	57	30	24	29	358	0	101	38	10	568	137	93
15	60	33	25	22	538	0	58	9.8	10	553	135	91
16	51	31	25	26	204	0	57	1.8	8.7	339	127	87
17	46	44	23	20	255	0	19	0	18	308	115	88
18	52	37	24	15	523	0	9.8	98	28	243	119	86
19	51	33	399	12	605	0	11	278	51	220	118	85
20	51	30	598	15	664	0	9.8	316	104	204	113	83
21	51	28	687	19	684	0	7.0	344	83	185	113	82
22	49	28	765	19	583	0	5.2	378	1,190	180	114	85
23	48	26	739	23	517	0	3.8	569	1,950	1,200	121	83
24	48	25	690	19	499	0	4.4	523	2,050	1,470	118	82
25	48	24	699	15	526	151	3.0	536	2,100	1,570	114	81
26	46	28	713	14	538	316	.31	450	1,730	966	112	85
27	44	31	716	14	568	333	0	278	786	568	110	86
28	42	32	699	12	559	350	0	181	568	459	113	85
29	42	------	754	12	601	350	0	242	421	473	110	85
30	42	------	803	19	485	370	0	137	322	376	107	88
31	40	------	774	------	243	------	0	94	------	322	------	91
TOTAL	1,369	930	9,498	1,985	9,112.0	2,087.55	5,593.31	4,483.8	11,799.7	12,475	4,672	2,861
MEAN	44.2	33.2	306	66.2	294	69.6	180	145	393	402	156	92.3
MAX	60	51	803	742	684	370	459	569	2,100	1,570	300	107
MIN	30	24	23	12	5.7	0	0	0	8.7	108	107	81
AC-FT	2,720	1,840	18,840	3,940	18,070	4,140	11,090	8,890	23,400	24,740	9,270	5,670

CAL YR 1974 TOTAL 66,866.36 MEAN 183 MAX 2,100 MIN 0 AC-FT 132,600
WTR YR 1974 TOTAL 58,000.66 MEAN 159 MAX 2,100 MIN 0 AC-FT 115,000

08400000 FOURMILE DRAW NEAR LAKEWOOD, N. MEX.

LOCATION.--Lat 32°40'20", long 104°22'07", in SW¼NW¼SE¼ sec.10, T.19 S., R.26 E., Eddy County, in left side of channel 360 ft (110 m) downstream from ford on Lakewood-Dayton road, 1.9 mi (3.1 km) downstream from U.S. Highway 285, 2.8 mi (4.5 km) north of Lakewood, 3.7 mi (6.0 km) upstream from mouth, and 11.5 mi (18.5 km) south of Artesia.

DRAINAGE AREA.--265 mi^2 (686 km^2), approximately.

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

GAGE.--Water-stage recorder. Datum of gage is 3,299.14 ft (1,005.578 m) above mean sea level. Oct. 1, 1951, to June 19, 1962, at site 1.8 mi (2.9 km) upstream at datum 30.61 ft (9.330 m) higher. June 19, 1962, to Oct. 12, 1966, at site 410 ft (125 m) upstream at datum 6.08 ft (1.853 m) higher.

AVERAGE DISCHARGE.--23 calendar years, 4.46 ft^3/s (0.126 m^3/s) 3,230 acre-ft/yr (3.98 hm^3/yr); 20 calendar years (1955-74), 4.72 ft^3/s (0.134 m^3/s), 3,420 acre-ft/yr (4.22 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 14,650 ft^3/s (415 m^3/s), Sept. 22 (gage height, 16.90 ft or 5.151 m) from rating curve extended above 4,500 ft^3/s (127 m^3/s) on basis of slope-area measurement at gage height 19.9 ft (6.07 m); no flow most of time.
Period of record: Maximum discharge, 29,300 ft^3/s (830 m^3/s) Aug. 23, 1966 (gage height, 19.9 ft or 6.07 m, from floodmarks), present datum from rating curve extended above 600 ft^3/s (17.0 m^3/s) on basis of slope-area measurement of peak flow; no flow most of time.
The flood of Aug. 23, 1966 (information from local resident) is believed to be the greatest since at least 1920.

REMARKS.--Records good. No surface diversions above station.

REVISIONS (WATER YEARS).--WRD 1968: 1967.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1							0	0	0	0		
2							0	0	0	0		
3							0	0	0	0		
4							0	0	0	0		
5							0	0	0	0		
6							0	.01	0	0		
7							0	0	0	0		
8							0	0	0	0		
9							0	0	0	0		
10							0	0	0	0		
11							0	0	0	0		
12							0	0	0	0		
13							0	0	0	0		
14							0	0	0	0		
15							0	0	0	0		
16							0	0	0	0		
17							0	0	0	0		
18							0	0	0	0		
19							.03	0	0	0		
20							0	0	0	0		
21							0	0	3,670	0		
22							0	0	4,780	20		
23							0	0	3,280	90		
24							0	0	812	5.0		
25							0	0	164	0		
26							0	76	5.5	0		
27							0	6.0	.1	0		
28							0	0	0	0		
29		------					0	0	0	0		
30		------					0	0	0	0		
31		------		------		------	0	0	------	0	------	
TOTAL	0	0	0	0	0	0	.03	82.01	12,711.6	115.0	0	0
MEAN	0	0	0	0	0	0	.001	2.65	424	3.71	0	0
MAX	0	0	0	0	0	0	.03	76	4,780	90	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	.06	163	25,210	228	0	0

CAL YR 1974 TOTAL 12,908.64 MEAN 35.4 MAX 4,780 MIN 0 AC-FT 25,600
WTR YR 1974 TOTAL 12,793.64 MEAN 35.1 MAX 4,780 MIN 0 AC-FT 25,380

PEAK DISCHARGE (BASE, 200 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
08-26	1200	4.06	624	09-22	2030	16.90	14,650
09-21	1815	15.25	9,700	10-22	unknown	2.80	335

08400500 LAKE MCMILLAN NEAR LAKEWOOD, N. MEX.

LOCATION.--Lat 32°35'42", long 104°20'49", in NE¼NE¼ sec.11, T.20 S., R.26 E., Eddy County, near outlet gates of McMillan Dam on Pecos River, 3.4 mi (5.5 km) southeast of Lakewood, and at mile 483.8 (778.4 km).

DRAINAGE AREA.--16,990 mi² (44,000 km²), approximately (contributing area).

PERIOD OF RECORD.--January 1939 to September 1965 (monthend contents only), October 1965 to current year. Monthend gage heights January 1918 to December 1938 in files of Pecos River Commission.

GAGE.--Non-recording gage. Datum of gage is 3,241.6 ft (988.04 m) above mean sea level (Bureau of Reclamation datum).

EXTREMES.--Current year: Maximum contents, 35,030 acre-ft (43.2 hm³) Oct. 23, gage height, 26.35 ft (8.031 m); no storage Aug. 12-19, 21-23.
Period of record: Maximum contents observed, 68,500 acre-ft (84.5 hm³) Sept. 26, 1941, gage height, 29.95 ft (9.129 m); no storage for periods on 1944-54, 1957, 1964, 1965, 1974.

REMARKS.--Lake is formed by McMillan Dam, an earthfill structure, completed and storage began in 1893. The structure was damaged by floods of October 1893 and Oct. 2, 1904. Capacity, 27,300 acre-ft (33.7 hm³) between gage heights 0.0 ft (sill of outlet gate) and 24.9 ft (7.59 m), crest of spillway 2. Flashboards may be used to increase this capacity. Maximum capacity without spill, 33,620 acre-ft (41.5 hm³) at gage height 26.1 ft (7.96 m) crest of spillway 1. No dead storage. No storage allocated to flood control. Figures given herein represent usable contents and are computed from daily readings at 0800 hours. Gage heights may be affected by variable drawdown due to flow through gates. Water is used for irrigation by Carlsbad Irrigation District.

COOPERATION.--Gage-height record and capacity table furnished by Carlsbad Irrigation District.

CONTENTS, IN ACRE-FEET, AT 0800, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	10,880	11,760	11,310	22,520	7,120	12,660	1,590	231	5,520	30,640	32,790	32,790
2	10,880	11,760	11,310	22,980	7,000	12,510	2,140	210	5,520	30,640	32,520	32,790
3	10,880	11,760	11,160	22,290	6,880	12,060	2,400	210	5,520	30,640	31,980	32,790
4	10,880	11,760	11,160	21,180	6,660	11,760	2,750	189	5,520	30,900	31,980	32,790
5	10,880	11,760	11,160	20,520	6,540	11,460	2,840	189	5,520	30,900	32,250	32,790
6	10,880	11,760	11,160	19,480	6,425	11,160	3,020	189	5,410	30,900	32,520	32,790
7	10,880	11,610	11,020	18,680	6,195	10,880	3,220	156	5,410	30,900	32,520	32,790
8	11,020	11,610	11,020	18,080	5,965	10,180	3,410	130	5,410	31,170	31,980	32,790
9	11,020	11,610	11,020	17,310	5,740	9,760	3,810	130	5,410	31,170	31,980	32,790
10	11,160	11,610	11,020	16,560	5,520	9,240	4,120	120	5,410	31,170	32,250	32,790
11	11,160	11,610	10,880	15,660	5,190	8,850	4,020	110	5,300	31,170	32,250	32,790
12	11,160	11,610	10,880	14,790	4,750	8,460	3,810	0	5,300	31,170	32,250	32,790
13	11,160	11,610	10,880	14,110	4,330	7,960	3,410	0	5,190	31,440	32,520	32,790
14	11,160	11,610	10,880	13,620	3,910	7,600	2,930	0	5,080	31,980	32,520	32,790
15	11,310	11,610	10,880	13,140	4,330	7,240	2,140	0	4,970	33,060	32,520	32,790
16	11,460	11,610	10,740	12,660	4,860	6,770	1,370	0	4,860	33,900	32,520	32,790
17	11,460	11,460	10,740	12,360	4,750	6,200	456	0	4,750	33,060	32,520	32,790
18	11,460	11,460	10,600	11,910	4,860	5,630	497	0	4,540	32,520	32,520	32,790
19	11,460	11,460	10,600	11,460	5,410	4,970	543	0	4,540	32,790	32,520	32,790
20	11,610	11,460	11,460	10,880	6,080	4,120	543	344	4,540	33,540	32,520	32,790
21	11,610	11,460	12,660	10,180	6,770	3,310	497	0	4,970	33,620	32,520	32,790
22	11,610	11,460	13,780	9,580	7,480	2,570	497	0	8,720	33,620	32,520	32,790
23	11,610	11,310	15,360	8,980	8,080	2,140	456	0	20,740	33,060	32,520	32,790
24	11,610	11,310	16,560	8,590	8,720	1,590	415	1,370	33,060	34,180	32,520	32,790
25	11,610	11,310	17,690	8,200	9,240	912	380	2,400	33,060	32,520	32,790	32,790
26	11,610	11,310	19,080	7,960	9,760	743	344	3,410	31,440	33,060	32,790	32,790
27	11,610	11,310	19,900	7,840	10,520	912	314	4,120	29,340	32,520	32,790	32,790
28	11,610	11,310	20,530	7,600	11,020	854	283	4,540	29,860	32,520	32,790	32,790
29	11,760	------	20,960	7,360	11,760	497	257	4,750	30,120	32,790	32,790	32,790
30	11,760	------	21,620	7,240	12,360	974	257	5,190	30,380	32,790	32,790	33,060
31	11,760	------	22,060	------	12,660	------	257	5,410	------	32,790	------	33,060
MAX	11,760	11,760	22,060	22,980	12,660	12,660	4,120	5,410	33,060	33,900	32,790	33,060
MIN	10,880	11,310	10,600	7,240	3,910	497	257	0	4,540	30,640	31,980	32,790
(†)	+880	-450	+10,750	-14,820	+5,420	-11,690	-717	+5,150	+24,970	+2,410	0	+270

CAL YR 1974 MAX 33,900 MIN 0 CHANGE IN CONTENTS +22,180
WTR YR 1974 MAX 33,060 MIN 0 CHANGE IN CONTENTS +27,540

† Change in contents, in acre-feet.

08400500 Lake McMillan near Carlsbad, N. Mex.--Continued

GAGE HEIGHT, IN FEET, AT 0800, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	20.70	21.00	20.85	23.90	19.25	21.30	16.50	15.20	18.55	25.55	25.95	25.95
2	20.70	21.00	20.85	24.00	19.20	21.25	16.85	15.15	18.55	25.55	25.90	25.95
3	20.70	21.00	20.80	23.85	19.15	21.10	17.00	15.15	18.55	25.55	25.80	25.95
4	20.70	21.00	20.80	23.60	19.05	21.00	17.20	15.10	18.55	25.60	25.80	25.95
5	20.70	21.00	20.80	23.40	19.00	20.90	17.25	15.10	18.55	25.60	25.85	25.95
6	20.70	21.00	20.80	23.20	18.95	20.80	17.35	15.10	18.50	25.60	25.90	25.95
7	20.70	20.95	20.75	23.00	18.85	20.70	17.45	15.00	18.50	25.60	25.90	25.95
8	20.75	20.95	20.75	22.85	18.75	20.45	17.55	14.90	18.50	25.65	25.80	25.95
9	20.75	20.95	20.75	22.65	18.65	20.30	17.75	14.90	18.50	25.65	25.80	25.95
10	20.80	20.95	20.75	22.45	18.55	20.10	17.90	14.85	18.50	25.65	25.85	25.95
11	20.80	20.95	20.70	22.20	18.40	19.95	17.85	14.80	18.45	25.65	25.85	25.95
12	20.80	20.95	20.70	21.95	18.20	19.80	17.75	.00	18.45	25.65	25.85	25.95
13	20.80	20.95	20.70	21.75	18.00	19.60	17.55	.00	18.40	25.70	25.90	25.95
14	20.80	20.95	20.70	21.60	17.80	19.45	17.30	.00	18.35	25.80	25.90	25.95
15	20.85	20.95	20.70	21.45	18.00	19.30	16.85	.00	18.30	26.00	25.90	25.95
16	20.90	20.95	20.65	21.30	18.25	19.10	16.35	.00	18.25	26.15	25.90	25.95
17	20.90	20.90	20.65	21.20	18.20	18.85	15.55	.00	18.20	26.00	25.90	25.95
18	20.90	20.90	20.60	21.05	18.25	18.60	15.60	.00	18.10	25.90	25.90	25.95
19	20.90	20.90	20.60	20.90	18.50	18.30	15.65	.00	18.10	25.95	25.90	25.95
20	20.95	20.90	20.90	20.70	18.80	17.90	15.65	15.40	18.10	26.05	25.90	25.95
21	20.95	20.90	21.30	20.45	19.10	17.50	15.60	10.55	18.30	26.10	25.90	25.95
22	20.95	20.90	21.65	20.20	19.40	17.10	15.60	12.00	19.90	26.10	25.90	25.95
23	20.95	20.85	22.10	20.00	19.65	16.85	15.55	11.50	23.50	26.35	25.90	25.95
24	20.95	20.85	22.45	19.85	19.90	16.50	15.50	16.35	26.00	26.20	25.90	25.95
25	20.95	20.85	22.75	19.70	20.10	16.00	15.45	17.00	26.00	25.90	25.95	25.95
26	20.95	20.85	23.10	19.60	20.30	15.85	15.40	17.55	25.70	26.00	25.95	25.95
27	20.95	20.85	23.30	19.55	20.50	16.00	15.35	17.90	25.30	25.90	25.95	25.95
28	20.95	20.85	23.45	19.45	20.75	15.95	15.30	18.10	25.40	25.90	25.95	25.95
29	21.00	------	23.55	19.35	21.00	15.60	15.25	18.20	25.45	25.95	25.95	25.95
30	21.00	------	23.70	19.30	21.20	16.05	15.25	18.40	25.50	25.95	25.95	26.00
31	21.00	------	23.80	------	21.30	------	15.25	18.50	------	25.95	------	26.00
MEAN	20.85	20.93	21.49	21.48	19.19	18.74	16.40	11.50	20.30	25.84	25.89	25.95
MAX	21.00	21.00	23.80	24.00	21.30	21.30	17.90	18.50	26.00	26.35	25.95	26.00
MIN	20.70	20.85	20.60	19.30	17.80	15.60	15.25	0	18.10	25.55	25.80	25.95

CAL YR 1974 MEAN 20.70 MAX 26.35 MIN 0
WTR YR 1974 MEAN 19.23 MAX 26.00 MIN 0

08401000 PECOS RIVER BELOW MCMILLAN DAM, N. MEX.

LOCATION.--Lat 32°35'40", long 104°20'59", in NW¼NE¼ sec.11, T.20 S., R.26 E., Eddy County, on left bank 700 ft (210 m) downstream from gates in McMillan Dam, 3.4 mi (5.5 km) southeast of Lakewood, and at mile 483.7 (778.3 km).

DRAINAGE AREA.--16,990 mi² (44,000 km²), approximately (contributing area).

PERIOD OF RECORD.--January 1906 to March 1908, January 1909 to December 1911, August 1939 to December 1940, December 1946 to current year (January 1906 to January 1910 to December 1911, gage heights and discharge measurements only). Published as "near Lakewood" 1906-11, and as "below McMillan Dam, near Lakewood" 1939-40.

GAGE.--Water-stage recorder and rock control. Datum of gage is 3,238.21 ft (987.006 m) above mean sea level. See WSP 1732 for history of changes prior to Mar. 12, 1957. Supplemental water-stage recorders on McMillan Dam spillways, No. 1 and 2, Apr. 6, 1960, to Sept. 30, 1970.

AVERAGE DISCHARGE.--31 calendar years (1907, 1909, 1940, 1947-74), 102 ft³/s (2.889 m³/s), 73,900 acre-ft/yr (91.1 hm³/yr); 20 calendar years (1955-74), 107 ft³/s (3.030 m³/s), 77,520 acre-ft/yr (95.6 hm³/yr).

EXTREMES.--Current year: Maximum daily discharge, 3,140 ft³/s (88.9 m³/s) Sept. 26 (gage height, 8.08 ft or 2.463 m); no flow many days.
1939-40, 1947-74: Maximum discharge, 16,500 ft³/s (467 m³/s) Aug. 23, 1966, includes flow of spillways; no flow for many days. Flood of Oct. 2, 1904, may have reached 60,000 ft³/s (1,700 m³/s). This station may have had a higher discharge in August 1893 when part of McMillan Dam was blasted to prevent total destruction of the dam (that flood was described as "highest in 50 years" and it also destroyed Avalon Dam).

REMARKS.--Records good. Flow regulated by Alamogordo Reservoir and Lake McMillan (see sta 08384000, 08400500). Diversions and ground-water withdrawals for irrigation of about 171,000 acres (69,200 hm²), 1959 determination, above station.

REVISIONS (WATER YEARS).--WSP 1512: 1909.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			0	353	72	118	104	.15	.5	5.8	326	0
2			0	376	71	118	181	.13	.5	5.8	326	0
3			0	452	70	118	235	.13	.5	6.2	106	0
4			0	448	72	118	263	.13	.4	7.0	4.4	0
5			0	386	72	116	304	.09	.4	6.2	4.1	.01
6			0	261	71	116	306	.01	.4	4.4	226	.11
7			0	256	71	132	296	0	.4	2.5	323	.15
8			0	254	76	178	230	0	.4	2.3	125	.35
9			0	251	104	176	249	0	.4	2.3	2.5	.41
10			0	331	133	176	343	0	.4	2.3	2.8	.58
11			0	366	152	178	476	8.0	.4	2.8	2.5	.69
12			0	318	150	180	468	.69	.4	3.0	2.3	.69
13			0	200	150	180	468	.23	18	2.5	2.5	.69
14			0	200	150	180	464	.02	78	1.3	1.9	.69
15			0	176	150	178	396	0	64	104	1.5	.58
16			0	117	185	208	364	.05	64	269	.35	.41
17			0	172	208	235	101	.02	90	193	.17	.41
18			0	195	210	280	1.1	0	40	89	.15	.69
19			0	220	210	346	.35	89	4.4	1.9	.17	86
20			0	292	215	343	.35	507	3.0	.81	.11	49
21			0	295	217	337	.30	308	2.3	.95	.09	1.3
22			0	234	217	268	.26	340	2.5	61	.05	1.1
23			0	206	217	232	.26	204	2,060	1,140	.05	1.1
24			0	198	208	228	.26	8.4	2,980	1,690	0	.95
25			0	183	168	223	.26	8.9	3,120	1,440	0	.81
26			67	72	168	219	.26	10	3,140	1,540	0	.95
27			346	72	170	256	.23	11	1,950	662	0	1.1
28			350	72	170	406	.20	10	14	326	0	1.1
29		------	350	72	172	279	.23	3.8	7.0	326	0	1.1
30		------	350	72	155	133	.17	.45	5.4	326	0	37
31		------	350	------	119	------	.15	.45	------	326	------	58
TOTAL	0	0	1,813	7,017	4,551	6,250	5,252.58	1,510.65	13,647.7	8,520.06	1,457.64	245.97
MEAN	0	0	58.5	234	147	208	169	48.3	455	275	48.6	7.93
MAX	0	0	350	452	217	406	476	340	3,140	1,690	326	86
MIN	0	0	0	72	70	116	.15	0	.40	.81	0	0
AC-FT	0	0	3,600	13,920	9,030	12,400	10,420	2,600	27,070	16,900	2,890	488

CAL YR 1974 TOTAL 50,065.40 MEAN 137 MAX 3,140 MIN 0 AC-FT 99,300
WTR YR 1974 TOTAL 43,651.62 MEAN 120 MAX 3,140 MIN 0 AC-FT 86,580

08401100 PECOS RIVER ABOVE SEVEN RIVERS, NEAR LAKEWOOD, N. MEX.

LOCATION.--Lat 32°34'42", long 104°22'42", in NE¼NE¼NE¼ sec.16. T.20 S., R.26 E., Eddy County, 0.5 mi (0.80 km) upstream from mouth of Seven Rivers, 2.6 mi (4.2 km) downstream from Lake McMillan, and 3.6 mi (5.8 km) south of Lakewood, and at mile 481.3 (774.4 km).

DRAINAGE AREA.--17,000 mi² (44,030 km²), approximately (contributing area).

PERIOD OF RECORD.--May to December 1974 (operated as a low-flow station only).

GAGE.--Water-stage recorder. Altitude of gage is 3,226 ft (983.3 m), from topographic map.

EXTREMES.--Maximum discharge during period not determined; no flow for many days.

REMARKS.--Records good. Diversions and ground-water withdrawals for irrigation of about 171,000 acres (69,200 hm²), 1959 determination, above station.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1						106	87	0	0	-	314	1.0
2						106	158	0	0	-	314	1.0
3						109	223	0	0	-	106	1.0
4						109	251	0	0	-	1.0	1.0
5						106	292	0	0	-	1.0	1.0
6						106	287	0	0	-	186	1.0
7						115	272	0	0	-	298	1.0
8						166	213	0	0	-	133	1.0
9						162	232	0	0	-	1.5	1.0
10						162	326	0	0	-	1.5	1.0
11						162	472	0	0	-	1.5	1.0
12						162	466	0	0	-	1.5	1.0
13						162	466	0	3.4	-	1.5	1.0
14						162	466	0	69	-	1.5	1.0
15						162	396	0	56	-	1.5	1.0
16						183	366	0	56	-	1.5	1.0
17						209	120	0	76	-	1.5	1.0
18						261	1.6	0	59	-	1.5	1.0
19						326	0	65	0	-	1.5	60
20						326	0	292	0	-	1.5	48
21						326	0	310	-	-	1.5	1.5
22						256	0	337	-	-	1.0	1.5
23						223	0	221	-	-	1.0	1.5
24						213	0	.90	-	-	1.0	1.5
25					154	204	0	2.2	-	-	1.0	1.5
26					154	200	0	6.0	-	2,080	1.0	1.5
27					154	235	0	6.4	-	889	1.0	1.5
28					158	408	0	5.1	-	314	1.0	1.5
29		------			158	282	0	3.8	-	314	1.0	1.5
30		------			122	128	0	0	-	314	1.0	25
31		------		------	106	------	0	0	------	314	------	50
TOTAL					-	5,837	5,094.6	1,249.40	-	-	1,381.5	214.5
MEAN					-	195	164	40.3	-	-	46.1	6.92
MAX					-	408	472	337	-	-	314	60
MIN					-	106	0	0	-	-	1.0	1.0
AC-FT					-	11,580	10,110	2,480	-	-	2,740	425

08401200 SOUTH SEVEN RIVERS NEAR LAKEWOOD, N. MEX.

LOCATION.--Lat 32°35'19", long 104°25'17", in SE¼SE¼NW¼ sec.7, T.20 S., R.26 E., Eddy County, on downstream side of center pier of bridge on U.S. Highway 285, 0.4 mi (0.6 km) south of Seven Rivers, 3.0 mi (4.8 km) upstream from mouth, and 4.0 mi (6.4 km) southwest of Lakewood, mouth at Pecos River mile 480.8 (773.6 km).

DRAINAGE AREA.--220 mi² (570 km²), approximately.

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

GAGE.--Water-stage recorder. Altitude of gage is 3,276 ft (999 m), from topographic map. Prior to July 8, 1965, at site 400 ft (120 m) upstream at datum 0.57 ft (0.174 m) higher.

AVERAGE DISCHARGE.--11 calendar years, 6.45 ft³/s (0.183 m³/s), 4,670 acre-ft/yr (5.76 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 18,200 ft³/s (515 m³/s) Sept. 21 (gage height, 18.20 ft or 5.547 m) from rating curve extended as explained below; no flow most of time.

Period of record: Maximum discharge, 25,500 ft³/s (722 m³/s) May 30, 1965 (gage height, 20.0 ft or 6.10 m, from floodmarks), present site and datum, from rating curve extended above 5,700 ft³/s (161 m³/s) on basis of slope-area measurements at gage heights 18.15 ft (5.532 m) and 20.0 ft (6.10 m); no flow most of time.

Maximum discharge since at least 1941, about 30,000 ft³/s (850 m³/s)(gage height, 22.8 ft or 6.95 m, from old debris on left bank former site and datum), from rating curve extended above 5,700 ft³/s (161 m³/s) on basis of slope-area measurement at gage height 21.8 ft (6.64 m). Probable date of flood, Oct. 7, 1954.

REMARKS.--Records poor. No surface diversions above station, ground-water withdrawals for 240 acres (971,300 m²), above station.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1								0	0	0		
2								0	0	0		
3								0	0	0		
4								0	0	0		
5								0	0	0		
6								0	0	0		
7								0	0	0		
8								0	0	0		
9								0	0	0		
10								0	0	0		
11								0	0	0		
12								0	0	0		
13								0	0	0		
14								0	0	.13		
15								.08	0	0		
16								0	0	0		
17								0	0	0		
18								0	0	0		
19								0	0	0		
20								0	0	0		
21								0	2,620	0		
22								0	1,340	65		
23								0	2,550	58		
24								0	547	.02		
25								0	49	0		
26								0	0	0		
27								0	0	0		
28								0	0	0		
29		------						0	0	0		
30		------						0	0	0		
31		------		------		------		0	------	0	------	
TOTAL	0	0	0	0	0	0	0	.08	7,106	121.15	0	0
MEAN	0	0	0	0	0	0	0	.003	237	3.91	0	0
MAX	0	0	0	0	0	0	0	.08	2,620	65	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	.2	14,090	240	0	0

CAL YR 1974 TOTAL 7,227.23 MEAN 19.8 MAX 2,620 MIN 0 AC-FT 14,340
WTR YR 1974 TOTAL 7,106.08 MEAN 19.5 MAX 2,620 MIN 0 AC-FT 14,090

PEAK DISCHARGE (BASE, 450 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
09-21	0330	18.20	18,200	10-22	2130	7.62	808
09-23	0030	11.52	3,770				

08401500 PECOS RIVER BELOW MAJOR JOHNSON SPRINGS NEAR CARLSBAD, N. MEX.

LOCATION.—Lat 32°31'54", long 104°22'40", in SW¼NW¼NW¼ sec.27, T.20 S., R.26 E., Eddy County, on left bank, at mouth of Willow Draw 2.4 mi (3.9 km) downstream from South Seven Rivers, 4.2 mi (6.8 km) southeast of Seven Rivers, 6.0 mi (9.7 km) south of Lakewood, 11.5 mi (18.5 km) northwest of Carlsbad, and at mile 478.4 (769.7 km).

DRAINAGE AREA.—17,650 mi² (45,710 km²), approximately (contributing area).

PERIOD OF RECORD.—October 1971 to current year (operated as a low-flow station only). Records for January 1947 to September 1950 at site 0.5 mi (0.8 km) upstream not equivalent owing to spring inflow between sites.

GAGE.—Water-stage recorder. Altitude of gage is 3,202 ft (976 m) from topographic map.

EXTREMES.—Current year: Maximum discharge not determined; minimum, 8.3 ft³/s (0.24 m³/s) Aug. 18, 19.
Period of record: Maximum discharge not determined; minimum 8.3 ft³/s (0.24 m³/s) Aug. 18, 19, 1974.

REMARKS.—Records good. Diversions and ground-water withdrawal for irrigation of about 173,000 acres (70,010 hm²), 1959 determination, above station.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	26	29	30	362	100	132	115	14	14	71	408	100
2	27	29	30	373	98	132	174	14	14	72	408	97
3	26	29	30	467	100	134	243	13	14	73	244	95
4	27	28	29	467	100	134	251	12	15	76	113	97
5	27	29	29	420	100	134	292	12	15	80	107	97
6	27	29	29	292	100	134	295	11	15	78	278	102
7	26	29	29	282	100	139	298	11	15	76	402	101
8	27	28	28	262	104	191	235	10	15	76	259	118
9	27	28	28	285	134	193	242	9.7	16	76	98	110
10	26	29	28	348	162	191	318	9.4	16	76	97	110
11	26	29	27	396	183	191	461	9.0	16	77	95	110
12	26	29	27	379	186	191	461	8.6	16	78	94	108
13	26	30	27	269	181	191	457	8.6	16	80	94	106
14	26	30	26	257	181	191	454	8.6	78	90	108	110
15	26	30	26	224	181	189	399	9.4	73	188	107	110
16	26	30	26	155	216	203	365	10	73	359	108	108
17	26	30	26	191	239	222	158	8.6	90	315	107	100
18	27	31	26	226	239	260	35	5.6	74	221	104	102
19	26	31	26	237	237	321	31	42	22	126	102	149
20	26	31	25	316	237	318	28	258	22	127	91	156
21	26	32	24	316	242	318	26	280	90	131	91	89
22	26	31	24	270	242	263	25	326	68	-	91	86
23	27	32	23	237	239	226	23	248	70	-	97	87
24	27	30	23	231	231	222	22	23	-	-	106	90
25	28	30	22	148	187	216	21	22	-	-	94	86
26	28	31	22	102	185	211	20	22	-	-	97	84
27	28	30	326	100	185	220	19	22	-	829	97	83
28	28	30	348	100	185	379	18	22	90	408	108	83
29	29	------	348	101	187	291	17	21	68	405	116	84
30	29	------	356	101	155	157	16	16	70	411	98	103
31	29	------	359	------	134	------	15	15	------	408	------	143
TOTAL	832	834	2,419	7,884	5,347	6,294	5,524	1,504.5	-	-	4,419	3,204
MEAN	26.8	29.8	78.0	263	172	210	178	46.5	-	-	147	103
MAX	29	32	359	467	242	379	461	326	-	-	408	156
MIN	26	28	22	100	98	132	15	8.6	-	-	91	83
AC-FT	1,650	1,650	4,800	15,640	10,610	12,480	10,960	2,980	-	-	8,770	6,360

08401900 ROCKY ARROYO AT HIGHWAY BRIDGE, NEAR CARLSBAD, N. MEX.

LOCATION.—Lat 32°30'23", long 104°22'28", in SE¼SE¼ sec.3, T.21 S., R.25 E., Eddy County, at downstream at end of bridge pier nearest left bank on U.S. Highway 285, 2 mi (3.2 km) upstream from mouth, and 10 mi (16.1 km) northwest of Carlsbad.

DRAINAGE AREA.—285 mi^2 (738 km^2), approximately.

PERIOD OF RECORD.—October 1963 to current year.

GAGE.—Water-stage recorder. Altitude of gage is 3,248 ft (990 m), from topographic map.

AVERAGE DISCHARGE.—11 calendar years, 11.6 ft^3/s (0.329 m^3/s) 8,040 acre-ft/yr (9.91 hm^3/yr).

EXTREMES.—Current year: Maximum discharge, 19,800 ft^3/s (561 m^3/s) Oct. 23 (gage height, 12.90 ft or 3.932 m) from rating curve extended as explained below; no flow most of time.
Period of record: Maximum discharge, 31,600 ft^3/s (895 m^3/s) Aug. 23, 1966 (gage height, 15.35 ft or 4.679 m), from rating curve extended above 8,500 ft^3/s (156 m^3/s) on basis of slope-area measurement of peak flow; no flow most of time.
Since about 1941 the maximum discharge probably occurred Oct. 7, 1954, discharge 63,600 ft^3/s (1,800 m^3/s) (gage height, 19.2 ft or 5.85 m, from highwater marks on downstream end of bridge pier), by slope-area measurement at site 5 mi (8.0 km) upstream.

REMARKS.—Records fair. Diversions for irrigation of 220 acres (890,300 m^2), above station.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1									0	6.5	13	2.1
2									0	5.5	12	1.6
3									0	5.0	12	1.1
4									0	4.0	11	1.1
5									0	801	11	.99
6									0	289	11	.88
7									0	23	11	.77
8									0	14	10	.99
9									0	11	11	1.6
10									0	9.2	9.7	.99
11									0	8.1	9.2	.88
12									0	8.6	9.2	.66
13									0	15	8.6	.44
14									0	19	8.1	.33
15									0	9.2	8.1	.33
16									0	7.6	7.6	.33
17									0	7.1	7.1	.33
18									0	6.5	7.1	.22
19									0	6.0	7.1	.20
20									0	5.5	6.0	.10
21									428	5.0	6.0	.10
22									1,590	1,010	5.5	0
23									6,040	3,180	4.5	0
24									1,770	100	4.0	0
25									139	42	4.0	0
26									34	30	4.0	.16
27									19	26	4.0	.44
28									11	21	3.6	.11
29		------							10	18	2.6	.05
30		------							7.6	16	2.1	.05
31		------		------		------			------	14	------	.55
TOTAL	0	0	0	0	0	0	0	0	10,040.6	5,722.8	260.1	17.40
MEAN	0	0	0	0	0	0	0	0	335	185	7.67	.56
MAX	0	0	0	0	0	0	0	0	6,040	3,180	13	2.1
MIN	0	0	0	0	0	0	0	0	0	4.0	2.1	0
AC-FT	0	0	0	0	0	0	0	0	19,920	11,350	456	35

CAL YR 1974 TOTAL 16,010.90 MEAN 43.9 MAX 6,040 MIN 0 AC-FT 31,760
WTR YR 1974 TOTAL 10,040.60 MEAN 27.5 MAX 6,040 MIN 0 AC-FT 19,920

PEAK DISCHARGE (BASE, 1,000 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
09-21	0200	8.80	4,030	10-05	1800	9.75	6,710
09-23	0030	10.45	8,830	10-23	0030	12.90	19,800

08402000 PECOS RIVER AT DAMSITE 3, NEAR CARLSBAD, N. MEX.

LOCATION.--Lat 32°30'40", long 104°19'58", in lot 14, sec.6, T.21 S., R.26 E., Eddy County, on right bank at damsite 3 of Carlsbad project of Bureau of Reclamation, about 1 mi (1.6 km) upstream from flow line of Lake Avalon, 1.3 mi (2.1 km) downstream from Rocky Arroyo, and 8 mi (12.9 km) northwest of Carlsbad.

DRAINAGE AREA.--17,980 mi² (46,570 km²), approximately (contributing area).

PERIOD OF RECORD.--August 1939 to December 1940, August 1944 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,171.31 ft (966.615 m) above mean sea level (Bureau of Reclamation datum). Prior to Aug. 10, 1944, at site 1,000 ft (305 m) downstream, at datum 1.00 ft (0.305 m) higher. Aug. 10, 1944, to Dec. 31, 1966, at present site at datum 1.00 ft (0.305 m) higher.

AVERAGE DISCHARGE.--31 calendar years (1940, 1945-74), 169 ft³/s (4.786 m³/s) 122,400 acre-ft/yr (151 hm³/yr); 20 calendar years (1955-74), 160 ft³/s (4.531 m³/s), 115,900 acre-ft/yr (143 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 15,400 ft³/s (436 m³/s) Sept. 23 (gage height, 13.4 ft or 4.08 m from floodmarks); minimum, 6.1 ft³/s (0.17 m³/s) Aug. 19.

Period of record: Maximum discharge, 69,000 ft³/s (1,950 m³/s) Aug. 23, 1966 (gage height, 21.32 ft or 6.194 m, present datum from floodmark), from rating curve extended above 25,000 ft³/s (708 m³/s) on basis of slope-area measurement at gage height 19.53 ft (5.953 m) present datum; minimum, 4.3 ft³/s (0.12 m³/s) Aug. 5, 1954.

Peaks which probably exceeded 40,000 ft³/s (1,130 m³/s) occurred in August 1893, Oct. 2, 1904, July 25, 1905, Apr. 17, 1915, Aug. 7, 1916, and May 30, 1937, based primarily on records for station "at Carlsbad." Peak of May 22, 1941, was estimated at 60,000 ft³/s (1,700 m³/s). Floods of 1893 and 1904 originated above McMillan Dam and contributed to the two failures of Avalon Dam.

REMARKS.--Records good. Flow regulated by Alamogordo Reservoir and Lake McMillan (see sta 08384000, 08400500). Diversions and ground-water withdrawals for irrigation of about 173,000 acres (70,010 hm²), 1959 determination, above station. Discharge represents inflow to Lake Avalon.

REVISIONS (WATER YEARS).--WSP 1512: 1946-47(M), 1948(P), 1949, 1950(P). WSP 1712: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	28	29	30	368	96	128	100	12	15	74	421	89
2	29	30	28	368	92	126	144	11	16	72	417	87
3	29	30	27	472	92	126	222	10	14	72	286	87
4	28	30	27	476	94	128	244	10	13	74	108	87
5	28	30	27	432	94	128	295	10	15	571	104	87
6	28	30	27	288	92	123	298	13	15	556	229	90
7	28	31	28	285	92	126	302	10	15	92	402	94
8	28	31	29	282	92	169	240	8.8	16	78	299	106
9	29	31	29	282	119	182	231	8.8	16	76	100	96
10	28	31	28	336	137	162	305	8.3	16	76	96	94
11	28	32	27	394	169	182	468	7.8	16	76	94	94
12	28	32	27	390	166	180	476	7.8	17	78	94	94
13	28	32	28	244	164	180	472	7.8	17	87	92	94
14	29	32	28	228	164	180	472	9.4	54	92	98	98
15	29	32	28	222	164	177	421	12	64	162	100	94
16	29	32	28	149	182	193	372	10	66	357	102	98
17	29	32	26	174	225	219	222	8.3	74	332	102	92
18	29	31	25	219	225	256	29	7.8	87	249	104	89
19	29	30	24	216	228	326	27	12	24	128	100	113
20	28	30	25	305	225	329	23	228	21	126	92	154
21	28	31	24	315	251	326	22	286	2,710	130	90	81
22	28	31	25	278	251	282	21	329	2,830	816	89	76
23	28	31	24	234	234	234	20	290	11,000	4,840	90	76
24	29	30	25	251	234	231	18	31	6,900	1,960	106	79
25	29	30	24	164	185	225	17	23	4,300	1,510	94	79
26	29	30	24	100	180	222	16	23	3,650	1,470	94	78
27	29	30	282	98	180	225	15	23	2,400	890	92	78
28	30	30	346	96	180	394	15	22	133	432	92	78
29	30	------	357	96	180	323	14	22	76	428	115	78
30	30	------	361	96	159	162	14	16	76	428	90	89
31	30	------	361	------	130	------	13	15	------	424	------	155
TOTAL	889	861	2,695	7,858	5,036	6,264	5,546	1,496.8	34,666	16,753	4,392	2,864
MEAN	28.7	30.8	77.3	262	162	209	179	48.3	1,156	540	146	92.4
MAX	30	32	361	476	234	394	476	329	11,000	4,840	421	154
MIN	28	29	24	96	92	123	13	7.8	13	72	89	76
AC-FT	1,760	1,710	4,750	15,590	9,990	12,420	11,000	2,970	68,760	33,240	8,710	5,680

CAL YR 1974 TOTAL 89,022.8 MEAN 244 MAX 11,000 MIN 7.8 AC-FT 176,600
WTR YR 1974 TOTAL 71,113.6 MEAN 195 MAX 11,000 MIN 7.8 AC-FT 141,100

PEAK DISCHARGE (BASE, 1,700 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
9-23	unknown	13.4*	15,400	10-23	0430	12.63	13,400
10- 6	0015	6.92	3,260				

* From flood mark.
NOTE.--No gage-height record Sept. 22-24.

08403500 CARLSBAD MAIN CANAL AT HEAD, NEAR CARLSBAD, N. MEX.

LOCATION.--Lat 32°29'25", long 104°15'08", in N½SW¼SW¼ sec.12, T.21 S., R.26 E., Eddy County, on right bank 220 ft (67 m) downstream from headgates in Avalon Dam, and 5.0 mi (8.0 km) north of Carlsbad. Pecos River mile 469.0 (754.6 km).

PERIOD OF RECORD.--July 1939 to current year (monthly discharge only July 1939 to September 1965). January 1941 to March 1951 published in WSP 1732.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3,156.50 ft (962.101 m) above mean sea level (Bureau of Reclamation datum). Prior to March 1951 at site 20 ft (6.1 m) upstream at datum 0.9 ft (0.274 m) higher.

AVERAGE DISCHARGE.--35 calendar years, 109 ft^3/s (3.087 m^3/s), 78,970 acre-ft/yr (97.4 hm^3/yr); 20 calendar years (1955-74), 101 ft^3/s (2.860 m^3/s), 73,170 acre-ft/yr (90.2 hm^3/yr).

EXTREMES.--Current year: Maximum daily discharge, 442 ft^3/s (12.5 m^3/s) July 12; no flow many days.
Period of record: Maximum daily discharge, 526 ft^3/s (14.9 m^3/s) Sept. 15, 16, 1946; no flow for many days each year.

REMARKS.--Records good. Carlsbad main canal diverts water from Lake Avalon for irrigation of about 25,000 acres (10,120 hm^2) of Carlsbad Irrigation District. About 1,600 acres (648 hm^2) most of it above gaging station 08405200 Pecos River at Carlsbad, is irrigated on the left bank. The remaining acreage (most of which is downstream from sta 08405200) is on right bank.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			0	412	60	98	175	0	0	0	.20	
2			0	402	69	111	191	0	0	0	.20	
3			0	406	80	139	216	0	0	0	.20	
4			0	398	65	184	247	0	0	0	0	
5			0	366	53	189	245	0	0	.17	0	
6			0	337	56	152	203	0	0	43	0	
7			0	316	94	118	198	0	0	68	0	
8			0	328	119	108	237	0	0	67	0	
9			0	339	157	93	284	0	0	61	0	
10			0	345	147	118	362	0	0	43	0	
11			0	332	139	137	455	0	47	43	0	
12			0	298	121	175	442	0	100	43	0	
13			0	266	139	213	431	0	68	48	0	
14			0	166	159	209	418	0	54	61	0	
15			0	175	184	198	398	0	53	54	0	
16			0	180	187	196	370	0	96	42	0	
17			0	189	187	198	314	0	90	42	0	
18			0	245	171	230	137	0	18	55	0	
19			0	243	154	250	0	0	0	50	0	
20			0	228	196	300	0	108	0	29	0	
21			0	180	207	276	0	249	.17	36	0	
22			0	169	198	262	0	247	1.0	57	0	
23			0	200	180	247	0	96	1.6	55	0	
24			0	185	178	243	0	0	.43	54	0	
25			91	192	157	243	0	0	0	21	0	
26			243	121	126	237	0	0	0	.40	0	
27			341	99	134	241	0	0	0	.20	0	
28			395	107	149	237	0	0	0	0	0	
29		------	408	90	140	180	0	0	0	26	0	
30		------	365	60	165	135	0	0	0	41	0	
31		------	365	------	111	------	0	0	------	19	------	
TOTAL	0	0	2,248	7,292	4,252	5,755	5,301	700	529.20	978.77	.60	0
MEAN	0	0	72.5	243	137	192	171	22.6	17.6	31.6	.020	0
MAX	0	0	408	412	207	300	442	249	100	68	.20	0
MIN	0	0	0	60	53	93	0	0	0	0	0	0
AC-FT	0	0	4,460	14,460	8,390	11,420	10,510	1,390	1,050	1,940	1.2	0

CAL YR 1974 TOTAL 27,036.57 MEAN 74.1 MAX 442 MIN 0 AC-FT 53,630
WTR YR 1974 TOTAL 30,211.20 MEAN 82.8 MAX 442 MIN 0 AC-FT 59,920

08403800 LAKE AVALON NEAR CARLSBAD, N. MEX.

LOCATION.--Lat 32°29'27", long 104°15'05", in NW¼SW¼ sec.12, T.21 S., R.26 E., Eddy County, on headwall at outlet gate of dam on Pecos River, 5.0 mi (8.0 km) north of Carlsbad, and at mile 469.0 (754.6 km).

DRAINAGE AREA.--18,070 mi² (46,800 km²), approximately (contributing area).

PERIOD OF RECORD.--January 1939 to September 1965 (monthend contents only). October 1965 to current year. Monthend gage heights January 1919 to December 1938 in files of Pecos River Commission.

GAGE.--Nonrecording gage. Datum of gage is 3,157.0 ft (962.25 m) above mean sea level (levels by Bureau of Reclamation).

EXTREMES.--Current year: Maximum contents, 6,170 acre-ft (7.61 hm³) Oct. 23, gage height, 21.60 ft (6.584 m); minimum, 364 acre-ft (449,000 m³) July 19.
Period of record: Maximum contents, 11,000 acre-ft (13.6 hm³) May 22, 1941, gage height, 25.0 ft (7.62 m); no storage at times when natural flow was passing through reservoir.

REMARKS.--Lake is formed by Avalon Dam, an earthfill structure. The original Eddy (Avalon) Dam was completed and storage began in 1893. The dam was destroyed by flood of October 1893 (date of reconstruction not available), was destroyed again by flood of Oct. 2, 1904; present dam rebuilt in 1905-6. Capacity, 4,970 acre-ft (6.1 hm³) between gage heights 0.0 (sill of outlet gates) and 20.4 ft (6.22 m), crest of spillway 2. No dead storage. No storage allocated to flood control. Figures given herein represent usable contents and are computed from daily readings at 0800 hours. Water is used by Carlsbad Irrigation District.

COOPERATION.--Capacity table based on data furnished by Carlsbad Irrigation District.

REVISIONS (WATER YEARS).--WSP 898: 1939.

CONTENTS, IN ACRE-FEET, AT 0800, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	2,120	2,510	2,740	1,250	1,100	1,320	982	636	1,440	4,970	5,570	5,020
2	2,160	2,510	2,740	587	1,130	1,320	764	636	1,440	4,970	5,570	5,020
3	2,160	2,550	2,740	564	1,130	1,280	712	636	1,440	4,970	5,570	5,020
4	2,190	2,550	2,780	1,130	1,130	1,190	686	636	1,410	4,970	5,470	5,020
5	2,190	2,550	2,780	1,280	1,130	1,010	636	636	1,380	4,970	5,170	5,020
6	2,220	2,550	2,780	1,350	1,130	900	738	686	1,350	5,520	5,170	5,020
7	2,220	2,550	2,780	1,220	1,130	872	928	686	1,350	5,170	5,420	5,020
8	2,260	2,550	2,760	1,160	1,100	738	1,070	686	1,350	5,020	5,520	5,020
9	2,260	2,550	2,780	928	982	818	982	686	1,320	5,020	5,020	5,020
10	2,260	2,620	2,780	686	872	1,010	845	686	1,320	4,920	5,020	5,020
11	2,300	2,620	2,780	636	845	1,070	661	661	1,320	4,920	5,020	5,020
12	2,300	2,620	2,780	791	872	1,100	712	636	1,130	4,920	5,020	5,020
13	2,330	2,620	2,780	900	928	1,070	738	636	955	4,970	5,020	5,020
14	2,330	2,620	2,780	955	928	928	791	564	818	5,020	5,020	5,020
15	2,330	2,620	2,780	982	845	845	900	564	818	4,970	5,020	5,020
16	2,360	2,620	2,760	1,010	845	764	872	612	791	5,070	5,020	5,020
17	2,360	2,700	2,780	872	845	738	845	612	686	5,370	5,020	5,020
18	2,360	2,700	2,780	818	845	712	364	587	738	5,320	5,020	5,020
19	2,360	2,700	2,780	764	872	738	364	564	900	5,220	5,020	5,020
20	2,400	2,700	2,780	587	1,010	712	472	612	928	5,020	5,020	5,120
21	2,400	2,700	2,780	791	1,010	712	494	764	1,840	5,120	5,020	5,120
22	2,400	2,740	2,780	1,130	1,040	818	540	845	5,770	5,120	5,020	5,120
23	2,400	2,740	2,760	1,220	1,040	791	540	982	6,070	6,170	5,020	5,070
24	2,440	2,740	2,780	1,220	1,130	738	564	1,380	5,170	5,870	5,020	5,070
25	2,440	2,740	2,740	1,320	1,130	661	564	1,410	3,810	5,770	5,020	5,070
26	2,480	2,740	2,400	1,250	1,160	587	587	1,440	4,970	5,570	5,020	5,070
27	2,480	2,740	1,880	1,190	1,250	494	612	1,440	5,070	5,670	5,020	5,070
28	2,510	2,740	1,770	1,130	1,280	494	612	1,480	5,070	4,970	5,070	5,070
29	2,510	------	1,610	1,070	1,320	818	636	1,480	5,020	5,470	5,070	5,070
30	2,510	------	1,480	1,040	1,350	1,040	636	1,480	4,970	5,520	5,070	5,070
31	2,510	------	1,320	------	1,420	------	636	1,440	------	5,520	------	5,070
MAX	2,510	2,740	2,780	1,350	1,350	1,320	1,070	1,480	6,070	6,170	5,570	5,120
MIN	2,120	2,510	1,320	564	845	494	364	564	686	4,920	5,020	5,020
(†)	+390	+230	-1,420	-280	+280	-280	-404	+804	+3,530	+550	-450	0

CAL YR 1974 MAX 6,170 MIN 364 CHANGE IN CONTENTS +2,950
WTR YR 1974 MAX 6,070 MIN 364 CHANGE IN CONTENTS +4,100

† Change in contents, in acre-feet.

08403800 Lake Avalon near Carlsbad, N. Mex.--Continued

GAGE HEIGHT, IN FEET, AT 0800, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	16.90	17.45	17.75	15.60	15.35	15.70	15.15	14.50	15.90	20.40	21.00	20.45
2	16.95	17.45	17.75	14.40	15.40	15.70	14.75	14.50	15.90	20.40	21.00	20.45
3	16.95	17.50	17.75	14.35	15.40	15.65	14.65	14.50	15.90	20.40	21.00	20.45
4	17.00	17.50	17.80	15.40	15.40	15.50	14.60	14.50	15.85	20.40	20.90	20.45
5	17.00	17.50	17.80	15.65	15.40	15.20	14.50	14.50	15.80	20.40	20.60	20.45
6	17.05	17.50	17.80	15.75	15.40	15.00	14.70	14.60	15.75	20.95	20.60	20.45
7	17.05	17.50	17.80	15.55	15.40	14.95	15.05	14.60	15.75	20.60	20.85	20.45
8	17.10	17.50	17.80	15.45	15.35	14.70	15.30	14.60	15.75	20.45	20.95	20.45
9	17.10	17.50	17.80	15.05	15.15	14.85	15.15	14.60	15.70	20.45	20.45	20.45
10	17.10	17.60	17.80	14.60	14.95	15.20	14.90	14.60	15.70	20.35	20.45	20.45
11	17.15	17.60	17.80	14.50	14.90	15.30	14.55	14.55	15.70	20.35	20.45	20.45
12	17.15	17.60	17.80	14.80	14.95	15.35	14.65	14.50	15.40	20.35	20.45	20.45
13	17.20	17.60	17.80	15.00	15.05	15.30	14.70	14.50	15.10	20.40	20.45	20.45
14	17.20	17.60	17.80	15.10	15.05	15.05	14.80	14.35	14.85	20.45	20.45	20.45
15	17.20	17.60	17.80	15.15	14.90	14.90	15.00	14.35	14.85	20.40	20.45	20.45
16	17.25	17.60	17.80	15.20	14.90	14.75	14.95	14.45	14.80	20.50	20.45	20.45
17	17.25	17.70	17.80	14.95	14.90	14.70	14.90	14.45	14.60	20.80	20.45	20.45
18	17.25	17.70	17.80	14.85	14.90	14.65	13.90	14.40	14.70	20.75	20.45	20.45
19	17.25	17.70	17.80	14.75	14.95	14.70	13.90	14.35	15.00	20.65	20.45	20.45
20	17.30	17.70	17.80	14.40	15.20	14.65	14.15	14.45	15.05	20.45	20.45	20.55
21	17.30	17.70	17.80	14.80	15.20	14.65	14.20	14.75	16.50	20.55	20.45	20.55
22	17.30	17.75	17.80	15.40	15.25	14.85	14.30	14.90	21.20	20.55	20.45	20.55
23	17.30	17.75	17.80	15.55	15.25	14.80	14.30	15.15	21.50	21.60	20.45	20.50
24	17.35	17.75	17.80	15.55	15.40	14.70	14.35	15.80	20.60	21.30	20.45	20.50
25	17.35	17.75	17.75	15.70	15.40	14.55	14.35	15.85	19.10	21.20	20.45	20.50
26	17.40	17.75	17.30	15.60	15.45	14.40	14.40	15.90	20.40	21.00	20.45	20.50
27	17.40	17.75	16.55	15.50	15.60	14.20	14.45	15.90	20.50	21.10	20.45	20.50
28	17.45	17.75	16.40	15.40	15.65	14.20	14.45	15.95	20.50	20.40	20.50	20.50
29	17.45	------	16.15	15.30	15.70	14.85	14.50	15.95	20.45	20.90	20.50	20.50
30	17.45	------	15.95	15.25	15.75	15.25	14.50	15.95	20.40	20.95	20.50	20.50
31	17.45	------	15.70	------	15.70	------	14.50	15.90	------	20.95	------	20.50
MEAN	17.21	17.62	17.51	15.15	15.27	14.94	14.60	14.90	16.97	20.66	20.57	20.47
MAX	17.45	17.75	17.80	15.75	15.75	15.70	15.30	15.95	21.50	21.60	21.00	20.55
MIN	16.90	17.45	15.70	14.35	14.90	14.20	13.90	14.35	14.60	20.35	20.45	20.45

CAL YR 1974 MEAN 17.15 MAX 21.60 MIN 13.90
WTR YR 1974 MEAN 15.93 MAX 21.50 MIN 13.90

08404000 PECOS RIVER BELOW AVALON DAM, N. MEX.

LOCATION.--Lat 32°28'55", long 104°15'47", in SW¼SW¼NE¼ sec.14, T.21 S., R.26 E., Eddy County, on right bank 4,800 ft (1,460 m) below Avalon Dam, 4.5 mi (7.2 km) northwest of Carlsbad, and at mile 468.1 (753.2 km).

DRAINAGE AREA.--18,080 mi² (46,830 km²), approximately (contributing area).

PERIOD OF RECORD.--January 1906 to March 1907, (published as "at Avalon"), June 1951 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,130 ft (954 m), from topographic map. January 1906 to March 1907 nonrecording gage at site 0.5 mi (0.8 km) upstream at different datum.

AVERAGE DISCHARGE.--23 calendar years (1952-74) 40.2 ft³/s (1.138 m³/s) 29,120 acre-ft/yr (35.9 km³/yr); 20 calendar years (1955-74), 36.0 ft³/s (1.020 m³/s), 26,080 acre-ft/yr (32.2 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 14,900 ft³/s (422 m³/s) Sept. 23 (gage height, 13.30 ft or 4.054 m); no flow most of time.

Period of record: Maximum discharge, 55,500 ft³/s (1,570 m³/s) Aug. 23, 1966 (gage height, 26.4 ft or 8.05 m, from floodmarks), from rating curve extended above 33,000 ft³/s (935 m³/s) on basis of computation of peak flow over Tansill Dam 5.8 mi (9.3 km) downstream; no flow most of time.

Flood of Oct. 2, 1904, caused in part, by failure of Avalon Dam, probably exceeded 90,000 ft³/s (2,550 m³/s) and is probably greatest flood since 1842. Flood of August 1893 is probably the second highest, and was described as "greatest in 50 years"; it damaged McMillan Dam and washed out the original Avalon Dam.

REMARKS.--Records good. Flow regulated by Alamogordo Reservoir, Lake McMillan, and Lake Avalon (see sta 08384000, 08400500, 08403800). Diversions and ground-water withdrawals above station for irrigation of about 198,000 acres (80,130 hm²), 1959 determination. Station bypassed by Carlsbad main canal (see sta 08403500).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1									0	18	330	50
2									0	14	341	50
3									0	14	299	50
4									0	15	157	51
5									0	120	78	52
6									0	800	84	50
7									0	75	250	52
8									0	20	306	66
9									0	.8	149	66
10									0	0	81	64
11									0	0	60	60
12									0	0	58	62
13									0	0	54	60
14									0	0	50	59
15									0	0	60	59
16									0	32	64	60
17									0	177	60	60
18									0	172	62	56
19									0	97	62	59
20									0	56	56	103
21									49	42	52	83
22									3,010	496	51	64
23									12,400	6,160	50	52
24									7,220	1,900	52	47
25									4,340	1,760	50	50
26									3,710	1,470	48	55
27									2,490	1,130	48	51
28									88	253	50	50
29		------							46	303	54	46
30		------							25	322	55	56
31		------		------		------			------	314	------	72
TOTAL	0	0	0	0	0	0	0	0	33,378	15,760.8	3,151	1,817
MEAN	0	0	0	0	0	0	0	0	1,113	508	105	58.6
MAX	0	0	0	0	0	0	0	0	12,400	6,160	341	103
MIN	0	0	0	0	0	0	0	0	0	0	48	47
AC-FT	0	0	0	0	0	0	0	0	66,210	31,260	6,250	3,600

CAL YR 1974 TOTAL 54,106.80 MEAN 148 MAX 12,400 MIN 0 AC-FT 107,300
WTR YR 1974 TOTAL 33,378.00 MEAN 91.4 MAX 12,400 MIN 0 AC-FT 66,210

08405150 DARK CANYON AT CARLSBAD, N. MEX.

LOCATION.--Lat 32°24'24", long 104°13'34", in NE¼NW¼SE¼ sec.7, T.22 S., R.27 E., Eddy County, in downstream side of U.S. Highway 62-285 (Canal Street) bridge in Carlsbad, and 0.6 mi (1.0 km) upstream from mouth. Mouth at Pecos River mile 459.0 (738.5 km).

DRAINAGE AREA.--451 mi² (1,168 km²), approximately.

PERIOD OF RECORD.--January 1973 to current year.

GAGE.--Water-stage recorder. Elevation of gage 3,088.21 ft (941.286 m) (correction) above mean sea level.

EXTREMES.--Current year: Maximum discharge, 14,200 ft³/s (402 m³/s) Oct. 23 (gage height, 10.80 ft or 3.29 m³/s); no flow most of time.

Period of record: Maximum discharge, 14,200 ft³/s (402 m³/s) Oct. 23 (gage height, 10.80 ft or 3.29 m³/s); no flow most of time.

The flood of Aug. 23, 1966, reached a discharge of 66,000 ft³/s (1,870 m³/s) as determined by slope-area method at site 1.2 mi (1.9 km) upstream. Another flood of approximately the same magnitude occurred Sept. 20, 1941.

Other major peaks occurred July 17, 1906, July 24, 1908, July 24, 1911, Apr. 18, 1915, Aug. 8, 1916, Sept. 15, 1919, Aug. 4, 1925, and May 23, 1941.

REMARKS.--Records good. A Soil Conservation Service flood control project on Hackberry Draw, an upstream tributary, has some effect on flood peaks and flow duration. Ground-water withdrawals above station for irrigation of approximately 2,100 acres (850 hm²), 1973 determination, and for municipal supply for Carlsbad.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1									0	0		
2									0	0		
3									0	0		
4									0	0		
5									0	16		
6									0	296		
7									0	23		
8									0	6.5		
9									0	.90		
10									0	0		
11									0	0		
12									0	0		
13									0	0		
14									0	0		
15									0	0		
16									0	0		
17									0	0		
18									0	0		
19									0	0		
20									0	0		
21									0	0		
22									0	825		
23									1,720	4,260		
24									2,170	540		
25									187	46		
26									1.7	24		
27									.06	16		
28									0	11		
29		------							0	3.2		
30		------							0	.14		
31		------		------		------			------	0	------	
TOTAL	0	0	0	0	0	0	0	0	4,078.76	6,071.74	0	0
MEAN	0	0	0	0	0	0	0	0	136	196	0	0
MAX	0	0	0	0	0	0	0	0	2,170	4,260	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	8,090	12,040	0	0

CAL YR 1974 TOTAL 10,150.50 MEAN 27.8 MAX 4,260 MIN 0 AC-FT 20,130
WTR YR 1974 TOTAL 4,078.76 MEAN 11.2 MAX 2,170 MIN 0 AC-FT 8,090

PEAK DISCHARGE (BASE, 500 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
09-24	0730	8.18	3,190	10-23	0245	10.80	14,200
10-06	0530	6.40	975				

08405200 PECOS RIVER BELOW DARK CANYON, AT CARLSBAD, N. MEX.

LOCATION.--Lat 32°24'37", long 104°12'58", in NE¼SW¼NW¼ sec.8, T.22 S., R.27 E., Eddy County, on left bank, 700 ft (210 m) downstream from mouth of Dark Canyon, 0.3 mi (0.5 km) downstream from lower Tansill Dam and Bataan recreational area, 0.8 mi (1.3 km) downstream from bridge on U.S. Highway 62-180 in Carlsbad, and at mile 459.0 (738.5 km).

DRAINAGE AREA.--18,550 mi² (48,040 km²), approximately (contributing area.)

PERIOD OF RECORD.--January 1970 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3,075.19 ft (937.318 m) above mean sea level.

AVERAGE DISCHARGE.--5 calendar years, 69.6 ft³/s (1.971 m³/s), 50,430 acre-ft/yr (62.2 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 23,700 ft³/s (671 m³/s) Oct.23 (gage height, 13.1 ft or 3.99 m, from floodmarks); no flow at times.
Period of record: Maximum discharge, 23,700 ft³/s (671 m³/s) Oct. 23, 1974 (gage height, 13.1 ft or 3.99 m from floodmarks); no flow at times.
The flood of Aug. 23, 1966, reached a stage of about 22 ft (6.7 m), discharge not determined. (For dates of other historical floods see sta 08404000.)

REMARKS.--Records good. Flow regulated by Alamogrodo Reservoir, Lake McMillan, and Lake Avalon (see sta 08384000, 08400500, 08403800), and at low stages by power plant above station. Gage is bypassed on left bank by Carlsbad main canal east which irrigates several hundred acres adjacent to and below gage site, and on right bank by Carlsbad main canal south, which with supplemental ground-water withdrawals irrigates about 23,000 acres (9,310 hm³) below. Diversions and ground-water withdrawals above station for irrigation of about 198,000 acres (80,130 hm²), 1959 determination. Water quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	11	14	24	.65	7.6	.37	.20	.21	.3	53	388	109
2	12	12	21	9.5	6.8	.42	.02	.01	.3	59	392	107
3	13	11	19	5.9	5.4	.31	0	0	.3	54	375	104
4	13	23	17	2.5	4.6	1.2	0	0	.3	56	209	106
5	13	21	16	6.4	4.2	.33	0	0	.2	111	147	106
6	15	16	15	10	5.3	1.4	0	.12	.1	1,160	145	108
7	14	15	11	10	2.6	.63	0	.03	.2	153	300	105
8	15	15	1.2	7.7	3.0	1.4	.13	.03	.3	45	380	116
9	12	15	.48	8.3	2.0	.34	.20	.07	.3	50	220	119
10	14	15	2.8	9.6	2.3	.24	.21	.13	.3	51	140	116
11	13	22	.42	3.5	3.5	.12	.24	.15	.3	51	117	114
12	13	30	.29	3.2	.58	.05	.27	.22	.3	51	105	113
13	12	30	.23	4.2	4.2	.01	.26	.22	.3	59	102	112
14	13	25	.19	2.5	1.3	.06	.26	.22	.3	59	81	108
15	12	20	.19	4.0	1.2	.14	.26	.25	.4	50	114	107
16	12	24	.18	4.5	.42	.18	.26	.22	.5	55	110	107
17	13	24	.16	4.8	.42	.19	.26	.22	6.2	194	109	109
18	15	22	3.1	4.5	.33	.16	.26	.26	18	200	109	93
19	10	22	4.9	4.8	.33	.14	.27	.26	1.5	142	112	100
20	12	23	6.4	5.9	.33	.18	.31	.25	.6	81	109	146
21	13	28	3.2	5.3	.37	.24	.35	.42	19	79	102	142
22	13	47	6.8	4.1	.33	.26	.48	.42	2,560	940	92	116
23	14	33	4.2	9.2	.33	.26	1.0	.55	14,300	10,600	89	96
24	17	25	4.0	11	1.5	.30	.36	.29	10,300	2,360	98	90
25	13	12	5.2	9.7	1.3	.28	.33	.29	4,600	1,880	114	93
26	14	3.6	6.1	11	.42	.26	.29	.29	3,270	1,490	104	116
27	13	25	6.8	11	.37	.26	.26	.29	2,370	1,260	109	106
28	12	25	5.6	11	.37	.19	.26	.29	73	563	109	102
29	12	------	2.9	10	.29	.16	.30	.29	42	358	106	102
30	12	------	5.0	9.2	9.9	.26	1.7	.29	23	358	113	76
31	13	------	5.0	------	4.4	------	1.2	.32	------	367	------	129
TOTAL	403	597.6	198.34	203.95	75.99	10.34	9.94	6.41	57,588.0	22,547	4,800	3,373
MEAN	13.0	21.3	6.40	6.80	2.45	.34	.32	.21	1,253	727	160	109
MAX	17	47	24	11	9.9	1.4	1.7	.42	14,300	10,600	392	146
MIN	10	3.6	.16	.65	.29	.01	0	0	.10	50	81	76
AC-FT	799	1,190	393	405	151	21	20	13	74,560	44,720	9,520	6,690

CAL YR 1974 TOTAL 69,813.57 MEAN 191 MAX 14,300 MIN 0 AC-FT 138,500
WTR YR 1974 TOTAL 40,482.97 MEAN 111 MAX 14,300 MIN 0 AC-FT 80,300

08405500 BLACK RIVER ABOVE MALAGA, N. MEX.

LOCATION.--Lat 32°13'44", long 104°09'02", in SW¼NW¼SW¼ sec.12, T.24 S., R.27 E., Eddy County, on right bank 0.6 mi (1.0 km) upstream from Black River diversion dam, 4.6 mi (7.4 km) west of Malaga, and 7.8 mi (12.6 km) upstream from mouth.

DRAINAGE AREA.--343 mi² (888 km²).

PERIOD OF RECORD.--March to December 1940, December 1946 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 3,070 ft (936 m), from topographic map. March to December 1940 water-stage recorder and Cippoletti weir at site 0.3 mi (0.5 km) downstream at different datum.

AVERAGE DISCHARGE.--28 calendar years (1947-74), 14.0 ft³/s (0.396 m³/s), 10,140 acre-ft/yr (12.5 hm³/yr); 20 calendar years (1955-74), 14.1 ft³/s (0.399 m³/s), 10,220 acre-ft/yr (12.6 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 951 ft³/s (26.9 m³/s) Sept. 24 (gage height, 3.73 ft or 1.137 m); minimum, 1.1 ft³/s (0.031 m³/s) Apr. 1.

Period of record: Maximum discharge, 74,600 ft³/s (2,110 m³/s) Aug. 23, 1966 (gage height, 21.7 ft or 6.61 m, from floodmarks), from rating curve extended above 6,000 ft³/s (170 m³/s) on basis of slope-area measurements at gage heights 12.60 and 21.7 ft (3.840 and 6.61 m); minimum, 0.73 ft³/s (0.021 m³/s) June 25, 1969.

The flood of Aug. 23, 1966, exceeded the previous maximum stage which occurred in 1908 by about 1.0 ft (0.30 m), information from local resident. Flood of Sept. 20 or 21, 1941, reached a stage of 19.0 ft (5.79 m), determined in 1947 from well-defined floodmarks, discharge, 33,000 ft³/s (935 m³/s), from rating curve extended above 1,400 ft³/s (39.6 m³/s) on basis of slope-area measurements at gage heights 8.41 and 12.60 ft (2.563 and 3.840 m).

REMARKS.--Records good. Diversions and ground-water withdrawals for irrigation of about 1,000 acres (405 hm²), 1959 determination, above station.

REVISIONS (WATER YEARS).--WSP 1632: 1948, 1949-50(P).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	4.5	11	4.0	1.1	5.6	3.5	2.8	2.8	7.2	9.9	6.6	12
2	4.5	10	3.8	1.4	5.4	3.5	3.1	2.8	6.2	9.9	9.5	12
3	4.8	10	3.8	3.8	5.1	3.5	2.8	2.6	5.9	10	11	12
4	5.4	10	3.5	4.8	5.1	3.3	2.8	3.1	5.6	10	11	12
5	7.2	9.9	3.5	5.1	5.1	3.3	2.8	3.8	5.6	14	11	12
6	8.0	8.7	3.5	5.1	5.1	2.8	2.8	98	5.6	29	11	12
7	8.0	9.1	3.5	5.1	5.4	2.6	2.8	24	5.9	12	12	12
8	8.7	9.5	3.6	5.4	5.1	2.6	2.8	8.3	6.6	11	12	13
9	8.7	9.5	2.8	5.6	4.5	2.4	3.1	5.4	5.9	11	12	13
10	8.7	9.5	2.4	5.6	4.5	2.8	3.1	4.0	4.8	11	12	13
11	8.7	9.9	2.2	5.1	4.5	3.1	3.1	3.5	4.3	9.9	12	13
12	8.7	9.9	2.2	5.4	4.5	3.1	3.3	3.5	4.3	7.2	11	13
13	8.7	9.1	2.2	5.6	4.6	3.1	3.1	3.5	4.0	8.3	11	13
14	8.7	6.6	2.4	5.6	4.0	3.1	3.1	4.9	4.3	11	11	13
15	9.1	5.1	2.2	5.9	4.0	2.8	3.3	4.5	5.4	6.9	11	13
16	9.1	4.5	2.2	5.6	4.0	2.8	3.5	3.1	6.6	5.6	11	13
17	8.7	4.5	2.2	5.6	4.0	2.6	3.5	2.8	12	5.1	11	13
18	9.9	4.6	2.0	5.6	4.8	2.6	3.5	2.8	25	4.8	12	13
19	10	4.0	1.8	5.4	4.3	2.6	3.8	2.6	16	4.8	12	13
20	10	4.0	2.0	5.4	4.0	2.6	3.5	2.6	9.9	4.5	12	13
21	10	4.3	2.2	5.1	3.8	2.8	3.5	71	38	4.5	12	13
22	10	4.0	2.0	4.8	3.8	2.8	3.3	18	60	16	12	13
23	10	4.0	1.8	5.1	3.8	2.6	3.1	83	379	22	12	14
24	11	4.0	1.7	5.1	3.8	2.8	3.1	76	515	32	12	14
25	12	4.0	1.7	5.4	4.0	2.8	2.8	37	67	17	12	15
26	11	4.0	1.7	5.6	3.8	2.6	2.8	63	27	9.9	12	16
27	12	4.0	1.7	5.4	3.5	2.4	2.6	22	13	8.3	12	18
28	12	4.0	1.7	5.4	3.3	2.2	2.6	81	8.3	7.9	12	20
29	11	------	1.5	5.4	3.1	2.2	2.8	28	7.2	7.6	12	19
30	11	------	1.4	5.4	3.3	2.6	2.8	12	9.1	7.2	12	18
31	11	------	1.4	------	3.5	------	2.8	8.3	------	6.9	------	18
TOTAL	281.1	191.4	74.3	150.9	132.5	84.5	94.8	687.9	1,274.7	335.2	342.1	431
MEAN	9.07	6.84	2.40	5.03	4.27	2.82	3.06	22.2	42.5	10.6	11.4	13.9
MAX	12	11	4.0	5.9	5.6	3.5	3.8	98	515	32	12	20
MIN	4.5	4.0	1.4	1.1	3.1	2.2	2.6	2.6	4.0	4.5	6.6	12
AC-FT	558	380	147	299	263	168	188	1,360	2,530	665	679	855

CAL YR 1974 TOTAL 4,080.4 MEAN 11.2 MAX 515 MIN 1.1 AC-FT 8,090
WTR YR 1974 TOTAL 3,485.6 MEAN 9.55 MAX 515 MIN 1.1 AC-FT 6,910

PEAK DISCHARGE (BASE, 450 FT³/S).--September 24 (0830) 951 ft³/s (3.73 ft).

08406500 PECOS RIVER NEAR MALAGA, N. MEX.

LOCATION.--Lat 32°12'26", long 104°01'22", in SW¼NW¼NE¼ sec.19, T.24 S., R.29 E., Eddy County, on right bank 3.1 mi (5.0 km) southeast of Malaga, 4.3 mi (6.9 km) downstream from Black River, and at mile 432.0 (695.1 km).

DRAINAGE AREA.--19,190 mi² (49,700 km²), approximately (contributing area).

PERIOD OF RECORD.--May 1920 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Datum of gage is 2,895.64 ft (882.591 m) above mean sea level. May 1, 1920, to Mar. 24, 1949, at datum 3 ft (0.91 m) higher.

AVERAGE DISCHARGE.--16 calendar years (1921-36), 271 ft³/s (7.675 m³/s), 196,300 acre-ft/yr (242 hm³/yr), prior to completion of Alamogordo Reservoir; 38 calendar years (1937-74) 199 ft³/s (5.636 m³/s), 144,200 acre-ft/yr (178 hm³/yr); 20 calendar years (1955-74), 89.8 ft³/s (2.543 m³/s), 65,060 acre-ft/yr (80.2 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 19,800 ft³/s (561 m³/s) Sept. 23 (gage height, 22.39 ft or 6.824 m); minimum, 9.3 ft³/s (0.26 m³/s) Aug. 20.

Period of Record: Maximum discharge, 120,000 ft³/s (3,400 m³/s) Aug. 23, 1966 (gage height, 42.1 ft or 12.83 m, from flood-marks), from rating curve extended above 36,000 ft³/s (1,020 m³/s), on basis of slope-area measurement at gage height 42.1 ft (12.83 m); minimum, 5.0 ft³/s (0.14 m³/s) Mar. 9, 1965.

The flood of Aug. 23, 1966, exceeded all known floods at this location. A major flood occurred in 1904, discharge not determined. Flood of Aug. 7, 1916, reached a discharge of 70,000 ft³/s (1,980 m³/s) at Carlsbad, 27 mi (43.4 km) upstream. Flood in September 1919 reached a stage of 29.4 ft (8.96 m), present datum, discharge, 40,400 ft³/s (1,140 m³/s).

REMARKS.--Records good except those above 500 ft³/s (14.2 m³/s), which are poor. Flow regulated by storage in Alamogordo Reservoir, Lake McMillan, and Lake Avalon (see sta 08384000, 08400500, 08403800), and by small diversion dams that divert for power or irrigation. Diversions and ground-water withdrawals above station for irrigation of about 202,000 acres (81,800 hm²), 1959 determination. Harroun canal bypasses gage on left bank and irrigates approximately 1,000 acres (405 hm²) adjacent to and below gage. This bypass is not gaged. Water quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1632: 1925, 1932-37.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	44	28	23	24	19	13	11	10	15	116	424	153
2	40	27	23	20	17	13	11	9.9	14	92	441	154
3	40	27	24	20	20	13	11	9.7	14	82	444	151
4	41	26	25	23	19	13	12	10	14	67	395	148
5	42	26	24	26	19	13	15	11	14	61	270	150
6	43	24	23	18	19	13	14	28	14	818	218	146
7	45	27	23	17	20	13	16	36	14	349	204	155
8	45	26	27	17	18	12	34	15	14	157	365	152
9	45	24	31	19	18	12	17	12	13	84	395	165
10	44	23	29	16	17	12	14	11	13	50	277	170
11	43	23	25	16	18	13	13	10	13	41	220	167
12	42	24	22	18	16	15	12	10	13	39	193	163
13	41	25	21	18	15	16	12	9.8	12	39	183	162
14	41	33	21	22	14	14	13	9.8	13	58	176	160
15	41	38	21	19	14	13	12	9.7	15	70	167	158
16	40	36	20	18	14	12	12	11	16	59	172	155
17	35	33	20	17	18	12	13	10	16	52	180	155
18	37	45	18	16	17	11	13	10	17	179	180	157
19	40	49	18	16	17	11	12	9.7	17	195	178	141
20	38	48	18	15	15	11	14	9.7	15	136	175	142
21	38	41	18	15	17	11	12	52	16	110	172	195
22	36	33	18	15	14	11	12	39	671	89	166	197
23	38	29	17	15	14	11	12	47	10,200	7,870	146	163
24	37	45	17	15	15	11	11	99	13,700	3,170	135	146
25	39	41	17	15	14	11	11	66	6,610	2,590	142	154
26	44	33	17	15	15	11	11	34	3,990	1,500	158	149
27	42	30	23	16	15	10	10	39	3,530	1,830	149	167
28	42	26	27	15	13	10	10	60	1,020	663	154	157
29	41	------	24	15	12	11	10	59	230	359	149	154
30	41	------	22	16	12	10	11	22	157	416	147	157
31	37	------	19	------	12	------	10	17	------	418	------	138
TOTAL	1,264	890	675	527	497	362	401	786.3	40,410	21,739	6,775	4,861
MEAN	40.8	31.8	21.8	17.6	16.0	12.1	12.9	25.4	1,347	701	226	157
MAX	45	49	31	26	20	16	34	99	13,700	7,870	444	197
MIN	35	23	17	15	12	10	10	9.7	12	39	135	134
AC-FT	2,510	1,770	1,340	1,050	986	718	795	1,560	80,150	43,120	13,440	9,640

CAL YR 1974 TOTAL 79,189.3 MEAN 217 MAX 13,700 MIN 9.7 AC-FT 157,100
WTR YR 1974 TOTAL 50,306.3 MEAN 138 MAX 13,700 MIN 9.7 AC-FT 99,780

PEAK DISCHARGE (BASE, 1,800 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
09-23	2400	22.39	19,800	10-23	1400	22.12	18,900

08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, N. MEX.

LOCATION.--Lat 32°11'19", long 103°58'43", in SW¼SW¼NW¼ sec.27, T.24 S., R.29 E., Eddy County, on right bank 550 ft (168 m) upstream from Pierce Canyon Crossing, and 6 mi (9.7 km) southeast of Malaga.

DRAINAGE AREA.--19,260 mi² (49,880 km²), approximately (contributing area).

PERIOD OF RECORD.--July 1938 to September 1941, August 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,889.18 ft (880.622 m) above mean sea level. July 1938 to September 1941 at datum 1.19 ft (0.363 m) higher.

AVERAGE DISCHARGE.--25 calendar years (1939, 1940, 1952-74), 98.5 ft³/s (2.790 m³/s) 71,360 acre-ft/yr (88.0 hm³/yr); 20 calendar years (1955-74), 90.9 ft³/s (2.574 m³/s) 65,860 acre-ft/yr (81.2 hm³/yr).

EXTREMES.--Current year: Maximum discharge not determined; minimum, 2.5 ft³/s (0.071 m³/s) Apr.9.
Period of record: Maximum gage height, 31.6 ft (9.63 m) from floodmarks, Aug. 23, 1966, (discharge not determined); minimum discharge, 0.54 ft³/s (0.015 m³/s) May 30, 1965.

REMARKS.--Records good. Flow regulated by storage in Alamogordo Reservoir, Lake McMillan, and Lake Avalon (see sta 08384000, 08400500, 08403800), and by several small diversion dams that divert for power or irrigation. Diversions and ground-water withdrawals above station for irrigation of about 202,000 acres (81,750 hm²), 1959 determination. Water quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 898: 1938(M). WSP 1712: 1959.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	46	35	26	23	15	17	10	11	19	157	447	147
2	45	31	24	24	14	19	11	10	17	105	462	151
3	43	30	25	19	13	17	11	10	16	86	465	148
4	44	30	26	14	15	13	11	11	15	76	431	147
5	45	30	26	19	13	5.6	13	12	15	60	300	148
6	45	29	25	11	4.3	5.2	16	13	15	676	231	149
7	46	28	24	9.4	7.0	5.3	17	43	14	593	206	154
8	46	30	25	7.1	9.1	11	29	28	14	252	351	149
9	46	27	32	5.6	4.1	13	27	16	15	133	428	156
10	46	26	32	10	4.6	13	17	13	14	76	312	163
11	46	26	29	6.6	6.1	14	14	11	14	55	231	160
12	45	26	26	6.2	6.9	14	12	11	14	52	193	157
13	45	26	24	16	7.2	13	11	10	13	51	178	155
14	45	30	22	10	5.9	13	12	9.8	13	60	170	154
15	44	37	22	20	6.6	12	14	9.8	16	89	163	153
16	44	39	21	17	8.3	9.2	14	9.7	18	80	155	152
17	40	35	21	11	6.5	9.2	14	11	20	66	174	151
18	39	41	20	12	17	9.2	13	11	20	156	172	152
19	41	48	19	20	21	8.0	13	9.6	20	250	172	147
20	42	50	20	11	22	8.4	13	9.6	19	206	171	136
21	42	46	19	16	20	8.2	13	18	20	154	167	168
22	41	37	19	6.2	20	7.0	12	63	99	110	163	195
23	42	33	17	16	18	7.2	11	35	7,930	6,920	143	166
24	42	37	17	10	18	8.6	11	176	15,700	4,430	134	150
25	40	45	17	14	20	7.5	10	119	6,950	3,070	136	138
26	44	38	17	7.6	17	6.8	10	46	4,350	1,730	149	148
27	45	33	20	15	17	9.2	10	47	5,590	1,900	145	163
28	43	30	26	9.8	18	9.8	10	55	1,740	878	152	161
29	43	------	20	14	16	10	10	70	274	410	147	156
30	43	------	24	9.8	15	10	11	37	185	458	144	159
31	41	------	23	------	15	------	11	23	------	446	------	156
TOTAL	1,349	953	708	386.3	402.6	313.4	411	956.5	39,159	23,727	6,892	4,779
MEAN	43.5	34.0	22.8	12.9	13.0	10.4	13.3	30.9	1,305	765	230	154
MAX	46	50	32	24	22	19	29	176	15,700	6,920	465	195
MIN	39	26	17	5.6	4.1	5.2	10	9.6	13	51	134	136
AC-FT	2,680	1,890	1,400	770	799	622	815	1,900	77,670	47,060	13,670	9,480

CAL YR 1974 TOTAL 80,040.8 MEAN 219 MAX 15,700 MIN 4.1 AC-FT 158,800
WTR YR 1974 TOTAL 49,367.8 MEAN 135 MAX 15,700 MIN 4.1 AC-FT 97,920

08407500 PECOS RIVER AT RED BLUFF, N. MEX.

LOCATION.--Lat 32°04'30", long 104°02'21", in SW¼NW¼NE¼ sec.1, T.26 S., R.28 E., Eddy County, on right bank at Red Bluff, 0.2 mi (0.3 km) downstream from Red Bluff Draw, 1.6 mi (2.6 km) northwest of the El Paso Natural Gas (Pecos River) compressor station, 5.2 mi (8.4 km) north of the New Mexico-Texas state line, 5.5 mi (8.8 km) upstream from Delaware River, and at mile 411.3 (661.8 km).

DRAINAGE AREA.--19,540 mi² (50,600 km²), approximately (contributing area).

PERIOD OF RECORD.--October 1937 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,850.05 ft (868.695 m) above mean sea level.

AVERAGE DISCHARGE.--37 calendar years, 189 ft³/s (5.352 m³/s), 136,900 acre-ft/yr (169 hm³/yr); 20 calendar years (1955-74), 94.8 ft³/s (2.685 m³/s), 68,680 acre-ft/yr (84.7 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 19,400 ft³/s (549 m³/s) Sept. 24 (gage height, 19.79 ft or 6.032 m); minimum, 2.8 ft³/s (0.079 m³/s) Apr.11, June 8.
Period of record: Maximum discharge, 111,000 ft³/s (3,140 m³/s) Aug. 23, 1966 (gage height, 33.32 ft or 10.156 m), from rating curve extended above 30,000 ft³/s (850 m³/s) on basis of slope-area measurement of peak flow; minimum, 0.19 ft³/s (0.005 m³/s) Aug. 1, 1966.
The flood of Aug. 23, 1966, exceeded all known floods at this location. Flood in October 1904 reached a stage of 28.0 ft (8.53 m), from information by Panhandle and Santa Fe Railway Co. (For dates of other historical floods see sta 08405000, 08406500.)

REMARKS.--Records good. Flow regulated by storage in Alamogordo Reservoir, Lake McMillan, and Lake Avalon (see sta 08384000, 08400500, 08403800), and by several small diversion dams that divert for power or irrigation. Diversions and ground-water withdrawals above station for irrigation of about 202,000 acres (81,750 hm²), 1959 determination. Water quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	48	37	25	19	11	13	9.1	7.7	22	178	477	150
2	50	31	21	20	15	14	8.6	7.7	18	146	489	154
3	46	30	19	23	12	15	9.7	7.3	16	124	493	152
4	46	30	20	17	12	13	10	8.2	15	114	477	152
5	47	29	22	12	14	9.1	10	8.2	14	100	548	150
6	48	29	21	18	12	4.7	12	9.7	14	151	257	146
7	48	28	21	9.1	5.3	3.3	19	14	14	975	218	152
8	50	28	20	6.4	5.3	3.3	17	42	14	294	286	154
9	49	27	23	5.7	8.2	5.7	34	20	14	178	448	156
10	49	27	30	4.1	5.3	8.2	25	15	14	120	355	162
11	48	27	27	4.7	3.8	9.1	15	10	14	95	254	165
12	48	27	24	5.7	4.7	9.7	11	8.2	14	88	208	160
13	47	27	21	7.7	5.0	9.1	9.7	7.7	14	86	189	158
14	46	26	20	10	5.0	9.1	8.2	7.3	14	101	180	158
15	45	28	19	8.2	4.7	8.6	9.1	6.9	15	103	171	156
16	44	35	17	15	4.1	8.2	11	6.4	18	108	158	156
17	43	34	18	13	5.3	6.4	16	6.1	20	98	175	156
18	41	32	17	9.1	6.4	5.3	11	7.0	32	101	173	156
19	42	41	16	11	12	5.7	10	7.0	24	234	175	156
20	45	47	17	15	17	4.7	10	6.9	22	221	173	140
21	45	49	17	8.6	17	4.7	10	10	37	171	171	156
22	44	38	16	13	17	5.3	10	32	144	140	169	198
23	46	32	15	5.7	17	5.0	9.1	59	3,200	4,420	154	178
24	49	28	14	12	15	5.0	9.1	92	16,700	7,720	142	158
25	46	39	15	9.1	14	6.1	8.2	186	9,760	2,550	136	148
26	48	39	15	14	16	5.7	7.3	168	4,320	1,980	144	152
27	50	33	15	6.4	14	5.3	12	47	3,600	1,570	152	158
28	47	29	19	9.1	14	6.1	8.6	61	2,500	1,300	154	169
29	45	------	26	6.9	15	7.7	8.2	61	442	521	152	160
30	43	------	16	12	14	8.2	7.7	56	245	452	148	162
31	41	------	27	------	13	------	7.3	31	------	489	------	167
TOTAL	1,434	907	613	330.5	334.1	224.3	362.9	1,016.3	41,258	24,928	7,226	4,895
MEAN	46.3	32.4	19.8	11.0	10.8	7.48	11.7	32.8	1,375	804	241	158
MAX	50	49	30	23	17	15	34	186	16,700	7,720	493	198
MIN	41	26	14	4.1	3.8	3.3	7.3	6.1	14	86	136	140
AC-FT	2,840	1,800	1,220	656	663	445	720	2,020	81,840	49,440	14,330	9,710

CAL YR 1974 TOTAL 83,529.1 MEAN 229 MAX 16,700 MIN 3.3 AC-FT 165,700
WTR YR 1974 TOTAL 51,383.1 MEAN 141 MAX 16,700 MIN 3.3 AC-FT 101,900

PEAK DISCHARGE (BASE, 1,800 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
09-24	0830	19.79	19,400	10-23	2115	17.51	14,800

08408500 DELAWARE RIVER NEAR RED BLUFF, N. MEX.

LOCATION.--Lat 32°01'23", long 104°03'15", in NE¼SW¼SE¼ sec.23, T.26 S., R.28 E., Eddy County, near center of channel on downstream side of pier of bridge on U.S. Highway 285, 2.1 mi (3.4 km) northwest of the New Mexico-Texas state line, 3.6 mi (5.8 km) southwest of Red Bluff, 3.7 mi (6.0 km) upstream from mouth, and 14 mi (22.5 km) south of Malaga. Mouth at Pecos River mile 405.8 (652.9 km).

DRAINAGE AREA.--689 mi² (1,785 km²).

PERIOD OF RECORD.--April 1912 to September 1913, May 1914 to June 1915, October 1937 to current year. Published as "near Malaga" 1912-13, and as "near Angeles, Tex." 1914-15.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,900.66 ft (884.121 m) above mean sea level. Prior to May 1914, at site 3 mi (4.8 km) upstream at different datum. May 1914 to June 1915 at site 2.5 mi (4.0 km) downstream at different datum.

AVERAGE DISCHARGE.--37 calendar years (1938-74), 13.9 ft³/s (0.394 m³/s), 10,070 acre-ft/yr (12.4 hm³/ yr); 20 calendar years (1955-74), 14.7 ft³/s (0.416 m³/s), 10,650 acre-ft/yr (13.1 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 3,260 ft³/s (92.3 m³/s) Aug. 26 (gage height, 6.20 ft or 1.890 m); no flow many days.
Period of record: Maximum discharge, 81,400 ft³/s (2,310 m³/s) Oct. 2, 1955 (gage height, 27.0 ft or 8.23 m, from floodmarks), from rating curve extended above 1,500 ft³/s (42.5 m³/s) on basis of slope-area measurements at gage heights 8.65 ft (2.637 m), 12.84 ft (3.914 m), 18.00 ft (5.486 m), and 27.0 ft (8.230 m); no flow many days most years.
Maximum stage known since at least 1911 is that of Oct. 2, 1955. Flood of June 27, 1938, reached a stage of 18.00 ft (5.486 m), from floodmark.

REMARKS.--Records fair. One small upstream diversion.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	2.3	2.4	2.4	1.9	9.4		0	0	4.5	8.6	5.7	3.4
2	2.3	2.3	2.3	1.6	4.8		0	0	3.5	7.4	4.9	3.6
3	2.3	2.3	2.2	1.4	1.4		0	0	3.3	6.5	4.4	3.6
4	2.5	2.3	2.1	1.4	.82		0	0	2.9	6.3	4.1	3.6
5	2.4	2.3	2.1	1.4	.67		0	0	2.7	5.8	4.1	3.6
6	2.5	2.3	2.1	1.4	.67		0	0	2.2	5.4	3.6	3.6
7	2.6	2.3	2.2	1.4	.62		7.1	0	2.1	5.0	4.2	3.6
8	2.6	2.3	2.3	1.4	.57		.38	0	1.7	4.8	4.3	3.8
9	2.5	2.3	2.3	1.3	.49		.82	0	1.6	4.9	4.9	3.9
10	2.5	2.5	2.2	1.3	.47		.01	0	1.4	4.5	4.8	3.9
11	2.5	2.5	2.1	1.2	.38		0	8.4	1.2	4.3	4.2	3.7
12	2.5	2.5	2.1	1.1	.29		0	3.3	1.1	4.1	3.9	3.6
13	2.5	2.5	2.3	1.1	.11		0	0	1.1	5.3	4.3	3.6
14	2.5	2.4	2.3	1.2	0		0	0	1.2	8.1	3.8	3.6
15	2.5	2.4	2.3	1.6	0		0	0	1.6	4.5	3.9	3.6
16	2.5	2.3	2.2	1.4	0		0	1.4	2.1	4.0	3.9	3.6
17	2.6	2.4	2.2	1.6	0		0	.56	2.2	3.8	3.6	3.6
18	2.3	2.3	2.2	1.4	0		0	.15	4.5	3.7	3.6	3.5
19	2.3	2.4	2.2	1.4	0		0	0	4.8	3.5	3.6	3.6
20	2.3	2.3	2.1	1.2	0		0	0	3.3	3.7	3.5	3.4
21	2.4	2.3	2.1	1.1	0		0	0	80	3.6	3.7	3.5
22	2.3	2.3	2.1	.99	0		0	0	73	3.6	3.6	3.5
23	2.7	2.3	2.0	1.1	0		0	254	220	6.3	3.5	3.4
24	3.6	2.3	2.0	1.1	0		0	152	1,160	16	3.4	3.3
25	3.5	2.3	2.0	.99	0		0	9.4	384	17	3.4	3.5
26	2.9	2.4	2.0	1.2	0		0	595	39	8.9	3.4	4.1
27	2.5	2.5	2.0	1.1	0		0	92	24	6.7	3.5	4.7
28	2.4	2.5	1.9	.99	0		0	29	17	14	3.6	4.3
29	2.3	------	1.9	.82	0		0	11	13	26	3.4	4.1
30	2.3	------	1.8	6.4	0		0	8.0	9.9	9.4	3.4	4.4
31	2.3	------	1.8	------	0	------	0	5.9	------	7.1	------	4.2
TOTAL	78.2	66.2	65.8	43.49	20.69	0	8.31	1,170.11	2,068.9	222.8	118.2	115.4
MEAN	2.52	2.36	2.12	1.45	.67	0	.27	37.7	69.0	7.19	3.94	3.72
MAX	3.6	2.5	2.4	6.4	9.4	0	7.1	595	1,160	26	5.7	4.7
MIN	2.3	2.3	1.8	.82	0	0	0	0	1.1	3.5	3.4	3.3
AC-FT	155	131	131	86	41	0	16	2,320	4,100	442	234	229

CAL YR 1974 TOTAL 3,978.10 MEAN 10.9 MAX 1,160 MIN 0 AC-FT 7,890
WTR YR 1974 TOTAL 3,667.40 MEAN 10.0 MAX 1,160 MIN 0 AC-FT 7,270

PEAK DISCHARGE (BASE, 1,700 FT³/S).--August 26 (0945) 3,260 ft³/s (6.20 ft).

08410000 RED BLUFF RESERVOIR NEAR ORLA, TEX.

LOCATION.--Lat 31°54'06", long 103°54'42", Reeves County, at right end of Red Bluff Dam on Pecos River, 3 mi (4.8 km) upstream from Salt (Screwbean) Draw, and 4.5 mi (7.2 km) north of Orla.

DRAINAGE AREA.--20,720 mi² (53,660 km²), approximately (contributing area).

PERIOD OF RECORD.--February 1937 to current year. Monthly contents only for some periods, published in WSP 1312.

GAGE.--Nonrecording gage read at irregular intervals. Datum of gage is 0.43 ft (0.131 m), below mean sea level.

EXTREMES.--Current year: Maximum contents observed, 165,800 acre-ft (204 hm³) Dec. 29-31 (gage height, 2,826.9 ft or 861.64 m); minimum observed, 22,250 acre-ft (27.4 hm³) Aug. 22, 23 (gage height, 2,791.3 ft or 850.79 m).
Period of record: Maximum contents observed, 352,000 acre-ft (434 hm³) Sept. 27-28, 1941 (gage height, 2,846.2 ft or 867.52 m, observed on nonrecording gage at service spillway, affected by variable drawdown due to flow through tainter gates); minimum observed, 11,080 acre-ft (13.7 hm³) May 13, 1948 (gage height, 2,781.4 ft or 847.77 m).

REMARKS.--Reservoir is formed by a rock-faced earthfill dam 9,200 ft (2,800 m) long. Dam completed and storage began in September 1936. The concrete service spillway is equipped with 12 tainter gates 25 ft (7.6 m) wide by 15 ft (4.6 m) high. The emergency spillway, located on the right bank, is 790 ft (241 m) long. Water is used for power development and irrigation from Mentone to Grandfalls. Inflow partly regulated by major reservoirs above station include Alamogordo Reservoir, Lake McMillan, and Lake Avalon, with a total combined capacity of 154,400 acre-ft (190 hm³). Also several small diversion dams divert water for power and irrigation. Contents computed from intermittent gage readings; figures given herein represent total contents. Data regarding dam and reservoir are given in the following table:

	Gage height (feet)	Capacity (acre-feet)
Crest of emergency spillway	2,845.0	340,000
Top of tainter gates (top of conservation storage)	2,842.0	310,000
Crest of service spillway	2,827.0	166,500
Bottom of two 7.0- by 9.0-foot conduits	2,764.0	3,000

COOPERATION.--Gage-height records and capacity curve furnished by Red Bluff Water Power and Control District. Capacity curve based on Geological Survey topographic map, survey of 1925.

CONTENTS, IN ACRE-FEET, AT 0800, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	56,500	57,200	56,850	50,600	47,300	37,320	29,160	26,960	26,260	109,000	151,400	159,800
2	56,500	57,200	56,850	50,600	47,300	36,840	28,970	26,780	26,260	109,000	151,400	159,800
3	56,500	57,200	56,850	50,300	47,000	36,160	28,780	26,600	26,090	109,000	152,000	159,800
4	56,500	57,200	56,850	50,000	47,000	35,720	28,780	26,260	26,090	109,500	152,700	160,500
5	56,500	57,200	56,850	50,000	47,000	34,840	28,590	25,920	25,920	109,500	154,100	160,500
6	56,500	57,200	56,850	50,000	46,400	34,400	28,590	25,580	25,920	109,500	154,100	160,500
7	56,500	57,200	56,850	49,700	45,800	33,560	28,400	25,070	25,920	111,200	154,800	160,500
8	56,500	57,200	56,850	49,700	45,500	32,930	28,590	24,740	25,750	111,700	154,800	160,500
9	56,500	57,200	56,850	49,700	45,200	32,300	28,400	24,260	25,750	111,700	155,500	161,200
10	56,500	56,850	56,850	49,400	44,900	31,900	28,400	24,260	25,580	111,700	155,500	161,200
11	56,500	56,850	56,850	49,400	44,900	31,300	28,400	24,100	25,410	111,700	156,200	161,200
12	56,500	56,850	56,850	49,400	44,600	31,100	28,220	24,100	25,240	111,700	156,900	161,200
13	56,500	56,850	56,850	49,100	44,600	31,100	28,220	24,100	25,070	112,200	156,900	162,000
14	56,500	56,850	56,850	49,100	44,300	30,900	28,040	23,000	25,070	112,200	156,900	162,000
15	56,500	56,850	56,500	48,800	44,000	30,900	28,040	23,000	25,070	112,200	157,600	162,000
16	56,500	56,850	55,450	48,800	44,000	30,900	28,040	22,850	25,070	112,200	157,600	162,000
17	56,500	56,850	54,750	48,500	43,750	30,700	27,860	22,850	24,900	112,800	157,600	162,800
18	56,500	56,850	54,750	48,500	43,750	30,700	27,860	22,700	24,900	112,800	158,300	162,800
19	56,500	56,850	54,400	48,200	43,500	30,500	27,860	22,550	25,240	112,800	158,300	162,800
20	56,850	56,850	54,050	48,200	43,500	30,300	27,680	22,550	25,240	112,800	158,300	163,500
21	56,850	56,850	53,350	48,200	43,250	30,300	27,680	22,400	25,580	113,400	158,300	163,500
22	56,500	56,850	53,000	47,900	43,250	30,110	27,500	22,250	25,920	113,400	159,000	163,500
23	56,500	56,850	52,700	47,900	43,250	30,110	27,500	22,250	26,780	113,400	159,000	164,200
24	56,850	56,850	52,100	47,900	42,250	29,920	27,500	22,850	39,000	128,200	159,000	164,200
25	57,200	56,850	51,800	47,600	41,500	29,920	27,500	23,300	75,100	136,600	159,000	165,000
26	57,200	56,850	51,500	47,600	40,750	29,730	27,500	23,780	90,000	141,000	159,000	165,000
27	57,200	56,850	51,200	47,600	40,250	29,730	27,320	25,580	97,500	144,200	159,800	165,000
28	57,200	56,500	51,200	47,300	39,500	29,540	27,320	26,090	103,000	147,400	159,800	165,000
29	57,200	------	50,900	47,300	39,000	29,350	27,140	26,260	108,400	149,400	159,800	165,800
30	57,200	------	50,900	47,300	38,280	29,350	27,140	26,260	109,000	150,000	159,800	165,800
31	57,200	------	50,900	------	37,800	------	26,960	26,260	------	150,700	------	165,800
MAX	57,200	57,200	56,850	50,600	47,300	37,320	29,160	26,960	109,000	150,700	159,800	165,800
MIN	56,500	56,500	50,900	47,300	37,800	29,350	26,960	22,250	24,900	109,000	151,400	159,800
(†)	2,806.2	2,806.0	2,804.3	2,803.1	2,799.5	2,795.5	2,794.2	2,793.8	2,817.9	2,824.8	2,826.1	2,826.9
(‡)	+700	-700	-5,600	-3,600	-9,500	-8,450	-2,390	-700	+82,740	+41,740	+9,100	+6,000

CAL YR 1974 MAX 165,800 MIN 22,250 ‡ +109,300
WTR YR 1974 MAX 109,000 MIN 22,250 ‡ + 55,650

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-ft.

08412500 PECOS RIVER NEAR ORLA, TEX.

LOCATION.--Lat 31°52'21", long 103°49'52", Reeves County, on right bank at bridge on Farm Road 652, 5.5 mi (8.8 km) downstream from Salt (Screwbean) Draw, 5.9 mi (9.5 km) northeast of Orla, and 8.5 mi (13.7 km) downstream from Red Bluff Reservoir.

DRAINAGE AREA.--21,210 mi² (54,930 km²), approximately (contributing area).

PERIOD OF RECORD.--May 1937 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,730.86 ft (832.366 m) above mean sea level. Prior to Nov. 16, 1969, at site 6.9 mi (11.1 km) downstream at datum 12.81 ft (3.904 m) lower.

AVERAGE DISCHARGE.--37 calendar years, 182 ft³/s (5.154 m³/s), 131,900 acre-ft/yr (163 hm³/yr); 20 calendar years (1955-74), 90.8 ft³/s (2.571 m³/s), 65,780 acre-ft/yr (81.1 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 2,390 ft³/s (67.7 m³/s) Sept. 25 (gage height, 13.65 ft or 4.161 m); minimum, 4.7 ft³/s (0.13 m³/s) Mar. 8-10.
Period of record: Maximum discharge, 23,700 ft³/s (671 m³/s) Sept. 29, 1941 (gage height, 20.74 ft or 6.322 m, site and datum then in use); no flow at times in 1946 and 1965.

REMARKS.--Records good. Flow largely regulated by Red Bluff Reservoir (see sta 08410000) and reservoirs above Carlsbad, N. Mex. Occasional runoff from draws between dam and station. Many diversions above Red Bluff Reservoir for irrigation. Water quality records for the current year are published in Part 2 of report for Texas.

REVISIONS (WATER YEARS).--WSP 928: 1937.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	34	36	8.5	42	83	279	25	50	44	26	20	16
2	34	35	7.3	45	49	276	25	51	43	24	21	16
3	35	35	6.9	44	48	276	27	192	41	23	19	16
4	35	35	7.2	42	45	273	28	199	41	24	19	16
5	34	35	6.0	45	57	272	31	198	41	24	19	16
6	33	36	5.9	44	304	270	35	198	41	22	18	16
7	34	35	5.4	43	166	269	41	198	40	21	18	16
8	34	34	5.0	43	87	267	123	196	40	21	19	16
9	34	34	4.7	43	85	266	80	181	40	21	21	17
10	37	33	5.4	41	83	266	74	58	40	21	24	17
11	39	33	5.6	41	48	209	72	54	40	21	22	18
12	38	33	5.9	40	44	52	70	55	38	21	19	18
13	38	33	6.7	38	45	47	68	50	38	27	19	18
14	37	33	7.4	37	44	44	66	49	38	46	19	18
15	36	32	294	37	45	41	63	63	39	32	19	17
16	37	32	298	38	45	38	66	53	40	25	18	17
17	36	32	158	38	45	37	68	47	43	22	18	17
18	35	33	155	38	47	37	62	46	179	21	18	17
19	35	34	145	39	48	37	61	45	552	21	19	16
20	35	35	143	38	49	37	57	44	75	20	18	15
21	36	34	97	38	48	38	51	44	99	20	18	14
22	36	33	126	38	49	38	49	49	1,250	20	18	14
23	35	30	155	34	111	38	46	504	561	21	17	13
24	36	30	155	36	401	37	44	124	1,500	22	17	13
25	40	30	156	42	361	37	41	89	1,850	25	16	14
26	44	30	158	44	291	34	40	77	183	23	16	14
27	49	30	140	45	289	30	39	63	54	21	16	17
28	47	26	44	46	288	27	39	58	36	47	16	19
29	40	------	44	60	286	26	41	51	30	30	16	17
30	38	------	44	49	284	25	44	49	27	23	16	17
31	36	------	44	------	280	------	46	46	------	21	------	17
TOTAL	1,147	921	2,443.9	1,248	4,155	3,623	1,622	3,181	7,083	756	553	502
MEAN	37.0	32.9	78.8	41.6	134	121	52.3	103	236	24.4	18.4	16.2
MAX	49	36	298	60	401	279	123	504	1,850	47	24	19
MIN	33	26	4.7	34	44	25	25	44	27	20	16	13
AC-FT	2,280	1,830	4,850	2,480	8,240	7,190	3,220	6,310	14,050	1,500	1,100	996

CAL YR 1974 TOTAL 27,234.9 MEAN 74.6 MAX 1,850 MIN 4.7 AC-FT 54,020
WTR YR 1974 TOTAL 29,853.9 MEAN 81.8 MAX 1,850 MIN 4.4 AC-FT 59,220

08477000 MIMBRES RIVER NEAR MIMBRES, N. MEX.

LOCATION.--Lat 32°52'28", long 107°59'05", in SE¼NW¼ sec.33, T.16 S., R.11 W., Grant County, on left bank 0.7 mi (1.1 km) downstream from Bear Canyon, 1.5 mi (2.4 km) northwest of Mimbres, and at mile 74.8 (120.4 km).

DRAINAGE AREA.--152 mi² (394 km²).

PERIOD OF RECORD.--June 1921 to September 1930 (fragmentary), October 1930 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Datum of gage is 5,972 ft (1,820.3 m) above mean sea level. Prior to Sept. 12, 1923, at site 10 ft (3 m) downstream at datum 0.3 ft (0.09 m) higher. Sept. 12, 1923, to Jan. 17, 1934, at datum of 0.1 ft (0.03 m) lower.

AVERAGE DISCHARGE.--44 calendar years, 10.9 ft³/s (0.309 m³/s), 7,900 acre-ft/yr (9.74 hm³/yr); 20 calendar years (1955-74), 11.9 ft³/s (0.337 m³/s), 8,620 acre-ft/yr (10.6 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 416 ft³/s (11.8 m³/s) Aug. 5 (gage height, 4.14 ft or 1.262 m); minimum, 1.9 ft³/s (0.054 m³/s) July 5.
Period of record: Maximum discharge determined, 3,370 ft³/s (95.4 m³/s) Oct. 20, 1972 (gage height, 7.49 ft or 2.283 m), from rating curve extended above 600 ft³/s (17.0 m³/s) on basis of slope-area measurements at gage heights 6.20 ft (1.890 m) and 7.49 ft (2.283 m); minimum, 0.7 ft³/s (0.020 m³/s) Aug. 10, 1951.

REMARKS.--Records good except those for July through September which are fair. Some regulation by Bear Canyon Reservoir 1.3 mi (2.1 km) upstream capacity, 700 acre-ft (863,000 m³). Diversions for irrigation of about 300 acres (121 hm²) above station.

REVISIONS (WATER YEARS).--WSP 1282: Drainage area. WSP 1512: 1931, 1933(M), 1935(M), 1938, 1939-40(M), 1941, 1942-43(M), 1944, 1945(M), 1946, 1947(M).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	5.0	4.1	3.3	3.3	3.1	2.7	2.6	7.3	12	10	20	13
2	5.1	4.2	3.4	2.9	3.0	2.8	2.5	11	12	10	20	13
3	5.1	4.2	3.4	2.9	2.9	2.8	2.1	17	9.2	9.7	20	13
4	4.8	4.2	3.6	2.8	3.1	2.8	2.1	28	9.0	9.9	20	13
5	4.8	4.1	3.8	2.8	3.0	2.8	2.1	110	10	11	19	12
6	4.8	4.3	3.8	2.6	3.1	2.6	2.2	96	9.1	11	18	12
7	4.9	4.3	3.7	2.6	3.2	2.6	2.6	66	9.3	11	17	13
8	5.0	4.3	3.7	2.7	3.4	2.6	3.3	58	9.7	13	18	13
9	5.4	4.3	3.6	2.8	3.6	2.5	3.6	36	11	23	18	13
10	5.1	4.3	3.7	2.9	3.5	2.3	4.1	25	11	23	16	13
11	5.0	4.3	3.6	2.9	3.2	2.3	4.8	15	11	20	16	13
12	4.9	4.3	3.4	2.8	2.9	2.5	5.3	15	10	33	15	12
13	4.9	4.3	3.5	2.8	2.8	2.5	6.4	15	11	35	14	12
14	4.9	4.3	3.1	2.6	3.0	2.4	7.5	13	12	33	14	12
15	4.7	3.6	3.2	2.6	3.0	2.3	15	12	12	26	14	11
16	4.7	3.2	3.0	2.7	3.1	2.2	18	12	12	22	14	11
17	4.6	3.4	2.9	2.9	3.4	2.5	9.5	12	12	19	14	11
18	4.6	3.2	3.1	2.8	3.4	2.5	9.0	11	12	18	15	11
19	4.6	3.2	3.7	2.7	3.1	2.2	20	12	13	17	14	11
20	4.5	3.4	3.7	2.5	2.9	2.2	51	9.6	14	16	14	11
21	4.5	3.3	3.2	2.5	2.9	2.2	37	10	12	13	14	12
22	4.2	3.0	3.1	2.5	2.9	2.2	20	14	11	20	14	12
23	4.2	3.0	3.1	2.7	2.8	2.5	11	14	11	39	15	12
24	4.2	3.0	3.2	2.8	2.8	2.6	6.6	12	12	33	15	12
25	4.1	3.2	3.3	3.0	2.8	2.5	6.1	20	12	26	15	12
26	4.1	3.1	3.3	3.1	3.1	2.4	6.7	17	11	22	14	13
27	4.1	3.5	3.4	3.2	3.2	2.2	7.4	12	11	22	13	12
28	4.1	3.4	3.4	3.1	3.3	2.1	12	15	11	20	13	12
29	4.1	------	3.4	2.9	3.2	2.1	16	15	10	20	13	12
30	4.1	------	3.4	2.9	3.0	2.4	7.8	11	11	20	13	12
31	4.1	------	3.6	------	2.8	------	7.3	11	------	20	------	11
TOTAL	143.2	105.0	105.6	84.3	95.5	73.3	311.6	731.9	333.3	625.6	469	375
MEAN	4.62	3.75	3.41	2.81	3.08	2.44	10.1	23.6	11.1	20.2	15.6	12.1
MAX	5.4	4.3	3.8	3.3	3.6	2.8	51	110	14	39	20	13
MIN	4.1	3.0	2.9	2.5	2.8	2.1	2.1	7.3	9.0	9.7	13	11
AC-FT	284	208	209	167	189	145	618	1,450	661	1,240	930	744

CAL YR 1974 TOTAL 3,453.3 MEAN 9.46 MAX 110 MIN 2.1 AC-FT 6,850
WTR YR 1974 TOTAL 2,697.2 MEAN 6.57 MAX 110 MIN 2.1 AC-FT 4,750

PEAK DISCHARGE (BASE, 290 FT³/S).--JULY 20 (1715) 396 FT³/S (4.17 FT.); AUG. 5 (1730) 416 FT³/S (4.14 FT.).

08481500 RIO TULAROSA NEAR BENT, N. MEX.

LOCATION.--Lat 33°08'41", long 105°53'50", in SE¼NW¼ sec.32, T.13 S., R.11 E., Otero County (revised), on right bank 50 ft (15 m) downstream from bridge on U.S. Highway 70, 2.6 mi (4.2 km) west of Bent, and 8.5 mi (13.7 km) northeast of Tularosa, and at mile 19.4 (31.2 km).

DRAINAGE AREA.--120 mi² (310 km²), approximately.

PERIOD OF RECORD.--December 1947 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 5,450 ft (1,660 m), from topographic map.

AVERAGE DISCHARGE.--27 calendar years, 9.53 ft³/s (0.270 m³/s), 6,900 acre-ft/yr (8.51 hm³/yr); 20 calendar years (1955-74), 9.02 ft³/s (0.255 m³/s), 6,530 acre-ft/yr (8.05 hm³/yr).

EXTREMES.--Current year: Maximum discharge about 3,210 ft³/s (90.9 m³/s) July 9 (gage height 4.38 ft or 1.335 m) from rating extended as explained below; minimum, 1.4 ft³/s (0.040 m³/s) Apr. 23.

Period of record: Maximum discharge, 4,280 ft³/s (121 m³/s) June 18, 1965 (gage height, 5.02 ft or 1.530 m), from rating curve extended above 160 ft³/s (4.53 m³/s) on basis of slope-area measurement of peak flow; no flow May 14, 1955, result of unusual regulation.

A major flood probably occurred Sept. 3, 1938, when a peak of 9,640 ft³/s (273 m³/s) was computed for station near Tularosa. Another flood may have occurred July 2, 1914.

REMARKS.--Records poor. Diversion for irrigation of about 1,000 acres (405 hm²), 1959 determination, above station. Water quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1312: 1949(M).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	11	12	11	11	7.7	7.7	3.6	17	12	10	9.2	12
2	11	12	11	10	6.9	5.4	3.6	16	12	9.5	8.9	12
3	11	12	11	12	6.9	6.9	8.5	17	12	9.2	11	12
4	11	12	9.9	12	8.3	6.2	9.2	33	12	8.9	13	12
5	11	12	9.2	11	6.0	8.5	13	18	12	9.6	12	12
6	12	12	10	12	6.7	8.7	11	12	12	9.8	12	12
7	12	12	9.9	9.4	6.9	8.5	12	11	12	9.5	12	11
8	12	12	10	8.0	12	8.9	10	13	12	9.3	12	11
9	13	12	10	8.1	13	6.0	123	13	12	9.7	12	11
10	12	12	10	11	13	7.8	16	11	12	10	12	11
11	12	12	9.5	11	12	6.3	14	11	11	13	12	11
12	12	11	9.9	11	12	7.8	13	12	10	9.3	12	11
13	12	11	9.9	12	9.9	8.5	12	11	11	6.4	12	11
14	12	11	9.2	10	8.9	10	13	10	13	8.8	12	11
15	12	11	6.8	9.7	7.6	10	17	9.2	12	9.0	12	11
16	12	11	8.7	10	8.6	6.2	8.2	11	12	7.1	12	11
17	12	11	9.2	11	11	6.3	8.8	12	10	6.0	12	11
18	12	11	8.6	9.0	12	4.4	13	8.2	9.4	4.2	12	11
19	12	11	8.5	8.6	6.9	8.0	18	10	13	4.9	12	11
20	12	11	10	8.6	6.2	11	17	9.6	11	4.9	12	12
21	12	11	11	6.2	6.0	12	17	11	10	4.9	12	12
22	12	11	11	7.2	8.3	11	14	22	11	5.5	12	12
23	12	11	12	7.2	11	11	13	12	10	20	12	12
24	12	11	8.8	9.9	11	9.3	9.9	22	10	5.9	12	12
25	12	11	12	12	11	8.0	9.9	8.7	10	7.9	11	12
26	12	11	12	11	8.6	7.8	11	12	10	11	11	12
27	12	11	11	12	8.9	8.6	12	12	9.7	12	11	12
28	12	11	11	9.9	7.5	8.4	12	12	9.3	12	11	12
29	12	------	11	9.9	6.9	8.0	15	11	9.3	13	12	13
30	12	------	11	8.2	7.2	4.5	15	12	9.6	14	12	13
31	12	------	8.6	------	7.7	------	17	12	------	14	------	12
TOTAL	368	319	311.7	298.9	276.6	243.7	489.7	413.7	331.3	289.3	350.1	361
MEAN	11.9	11.4	10.1	9.96	8.92	8.12	15.8	13.3	11.0	9.33	11.7	11.6
MAX	13	12	12	12	13	12	123	33	13	20	13	13
MIN	11	11	6.8	6.2	6.0	4.4	3.6	8.2	9.3	4.2	8.9	11
AC-FT	730	633	618	593	549	483	971	821	657	574	694	716

CAL YR 1974 TOTAL 4,053.0 MEAN 11.1 MAX 123 MIN 3.6 AC-FT 8,040
WTR YR 1974 TOTAL 3,986.3 MEAN 10.9 MAX 123 MIN 3.6 AC-FT 7,910

PEAK DISCHARGE (BASE, 125 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
07-09	1515	4.38	3,210	08-22	1345	2.94	268
08-04	1830	3.14	491	08-24	1830	2.74	131
08-22	0330	2.82	176				

08486250 TULAROSA VALLEY TRIBUTARY NEAR WHITE SANDS, N. MEX.

LOCATION.--Lat 32°24'11", long 106°28'46", in SW¼SW¼ sec.7, T.22 S., R.5 E., Dona Ana County, on right upstream wingwall of culvert on paved road 1.2 mi (1.9 km) north of entrance gate to White Sands Missile Range, and 2.6 mi (4.2 km) south of U.S. Highway 70.

DRAINAGE AREA.--17.2 mi² (44.5 km²).

PERIOD OF RECORD.--August 1965 to June 1974 (discontinued).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,230 ft (1,289.3 m) from topographic map.

AVERAGE DISCHARGE.--8 calendar years, 0.094 ft³/s (0.0027 m³/s), 68 acre-ft/yr (83,800 m³/yr).

EXTREMES.--Current year: No flow during period Jan. 1 to June 30.
Period of record: Maximum discharge, 1,460 ft³/s (41.3 m³/s) Aug. 31, 1969 (gage height, 5.85 ft or 1.783 m) from rating curve extended on basis of slope-area measurements at gage heights 4.34 ft (1.323 m), 5.64 ft (1.719 m), and 5.85 ft (1.783 m); no flow for most of time.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29		------										
30		------										
31		------		------		------			------		------	
TOTAL	0	0	0	0	0	0						
MEAN	0	0	0	0	0	0						
MAX	0	0	0	0	0	0						
MIN	0	0	0	0	0	0						
AC-FT	0	0	0	0	0	0						

PEAK DISCHARGE (BASE, 50 FT³/S).--NO PEAK ABOVE BASE.

08486260 TULAROSA VALLEY TRIBUTARY AT WHITE SANDS, N. MEX.

LOCATION.--Lat 32°22'05", long 106°28'44", in SE¼NE¼ sec.25, T.22 S., R.4 E., Dona Ana County, on left upstream wingwall of culvert 2,000 ft (600 m) south of Raritan Avenue in White Sands.

DRAINAGE AREA.--21.0 mi² (54.4 km²).

PERIOD OF RECORD.--August 1965 to June 1974 (discontinued).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,230 ft (1,289.3 m) from topographic map.

AVERAGE DISCHARGE.--8 calendar years, 0.109 ft³/s (0.0031 m³/s), 79 acre-ft/yr (97,400 m³/yr).

EXTREMES.--Current year: No flow during the period Jan. 1 to June 30.
Period of record: Maximum discharge, 909 ft³/s (25.7 m³/s) Aug. 31, 1969 (gage height, 5.45 ft or 1.661 m), from rating curve extended above 50 ft³/s (1.42 m³/s) on basis of slope-area measurements at gage heights 4.04 ft or 1.231 m (4.7 ft or 1.43 m, outside), 5.24 ft or 1.597 m (5.7 ft or 1.74 m, outside), 5.45 ft or 1.661 m, and 5.78 ft or 1.762 m; no flow most of time.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29		------										
30		------										
31		------		------		------			------		------	
TOTAL	0	0	0	0	0	0						
MEAN	0	0	0	0	0	0						
MAX	0	0	0	0	0	0						
MIN	0	0	0	0	0	0						
AC-FT	0	0	0	0	0	0						

PEAK DISCHARGE (BASE, 350 FT³/S).--NO PEAK ABOVE BASE.

SAN JUAN RIVER BASIN

09346400 SAN JUAN RIVER NEAR CARRACAS, COLO.

LOCATION.--Lat 37°00'49", long 107°18'42", in SE¼SW¼ sec.17, T.32 N., R.4 W., Archuleta County, on right bank just upstream from flow line of Navajo Reservoir, 3 mi (5 km) northwest of Carracas, 7.2 mi (11.6 km) upstream from Piedra River, and at mile 332.8 (535.5 km).

DRAINAGE AREA.--1,230 mi² (3,190 km²), approximately.

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

GAGE.--Water-stage recorder. Altitude of gage is 6,090 ft (1,856 m) from river-profile map.

AVERAGE DISCHARGE.--13 calendar years, 591 ft³/s (16.74 m³/s), 428,200 acre-ft/yr (528 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,780 ft³/s (50.4 m³/s) May 11 (gage height, 4.05 ft or 1.234 m); minimum, 24 ft³/s (0.68 m³/s) Sept. 14.
Period of record: Maximum discharge, 9,730 ft³/s (276 m³/s) Sept. 6, 1970 (gage height, 8.34 ft or 2.542 m), from rating curve extended above 6,000 ft³/s (170 m³/s) on basis of slope-area measurement of peak flow; minimum, about 5 ft³/s (0.14 m³/s) Dec. 10, 1961, result of freezeup.
Other major floods occurred Sept. 5 or 6, 1909; Oct. 5, 1911; June 29, 1927.

REMARKS.--Records good except those for winter periods, which are poor. Diversions for irrigation of about 11,000 acres (44.5 km²) above station.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	80	93	115	552	672	1,000	200	242	82	85	256	100
2	84	95	120	522	782	906	172	260	68	76	302	102
3	92	93	124	472	876	878	162	314	66	76	318	135
4	90	91	120	437	961	769	141	400	62	109	242	132
5	89	93	125	398	970	749	144	318	66	149	235	132
6	88	93	120	407	943	728	147	286	52	126	193	130
7	87	94	140	396	898	697	150	260	40	115	182	115
8	97	91	130	371	950	663	150	256	38	118	176	98
9	100	92	130	382	1,170	593	150	310	38	116	193	100
10	95	94	130	412	1,440	569	125	310	42	111	196	56
11	93	92	190	390	1,550	564	108	282	44	113	172	86
12	91	92	270	353	1,560	556	98	246	46	136	168	90
13	91	94	337	311	1,450	547	88	232	40	136	176	86
14	92	95	393	293	1,340	528	159	193	28	142	179	76
15	90	93	494	282	1,340	522	221	170	46	133	190	86
16	90	94	662	293	1,260	515	330	135	90	127	182	86
17	88	94	925	320	1,330	517	310	125	102	118	172	90
18	94	97	894	382	1,190	486	360	116	90	113	168	95
19	90	100	970	473	1,280	450	530	107	80	112	165	96
20	88	100	937	463	1,090	420	360	109	72	111	147	92
21	91	94	834	414	922	393	400	111	74	115	122	87
22	91	92	665	390	881	358	375	100	92	223	128	88
23	89	94	661	420	891	333	282	92	138	270	141	97
24	91	91	627	488	920	309	249	90	122	276	128	96
25	91	96	553	554	873	282	278	89	120	230	104	87
26	92	100	541	682	946	264	221	88	105	210	100	80
27	95	102	557	814	1,040	255	190	85	102	222	115	78
28	90	110	546	718	1,100	232	205	79	100	266	138	81
29	90	------	555	708	1,170	216	228	86	98	380	147	83
30	90	------	569	667	1,120	200	246	102	95	380	125	90
31	90	------	646	------	1,080	------	214	89	------	301	------	84
TOTAL	2,809	2,659	14,080	13,764	33,895	15,499	6,993	5,672	2,238	5,195	5,260	2,934
MEAN	90.6	95.0	454	459	1,093	517	226	183	74.6	168	175	94.6
MAX	100	110	970	814	1,560	1,000	530	400	138	380	318	135
MIN	80	91	115	282	672	200	88	79	28	76	100	56
AC-FT	5,570	5,270	27,930	27,300	67,230	30,740	13,870	11,250	4,440	10,300	10,430	5,820

CAL YR 1974 TOTAL 110,998 MEAN 304 MAX 1,560 MIN 28 AC-FT 220,200
WTR YR 1974 TOTAL 109,044 MEAN 299 MAX 1,560 MIN 28 AC-FT 216,300

PEAK DISCHARGE (BASE, 2,500 FT³/S).-- NO PEAK ABOVE BASE.

09349800 PIEDRA RIVER NEAR ARBOLES, COLO.

LOCATION.--Lat 37°05'18", long 107°23'50", in NE¼SW¼ sec.21, T.33 N., R.5 W., Archuleta County, on left bank 3 mi (5 km) downstream from Ignacio Creek, 5.2 mi (8.4 km) northeast of Arboles Post Office, and 8 mi (13 km) upstream from mouth.

DRAINAGE AREA.--629 mi² (1,629 km²).

PERIOD OF RECORD.--August 1962 to current year. Gage operated 1895-1899, 1910-1927 at a site 7.5 mi (12.1 km) downstream at altitude 6,000 ft (1,830 m). Low flow records probably not equivalent.

GAGE.--Water-stage recorder. Datum of gage is 6,147.52 ft (1,873.764 m) above mean sea level from Colorado State Highway Department bench mark.

AVERAGE DISCHARGE.--12 calendar years, 336 ft³/s (9.516 m³/s), 243,400 acre-ft/yr (300 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,070 ft³/s (30.3 m³/s) May 11 (gage height, 3.11 ft or 0.948 m); minimum, 31 ft³/s (0.88 m³/s) Sept. 9.
Period of record: Maximum discharge, 8,370 ft³/s (237 m³/s) Sept. 6, 1970 (gage height, 6.38 ft or 1.945 m recorded, 7.55 ft or 2.301 m from floodmarks), from rating curve extended above 3,300 ft³/s (93.5 m³/s) on basis of slope-area measurement of peak flow; minimum, 11 ft³/s (0.31 m³/s) Dec. 9, 1963, Oct. 1, 1966.
Other major floods occurred Sept. 5 or 6, 1909; Oct. 5, 1911.

REMARKS.--Records good except those for winter periods, which are poor. Diversions for irrigation of about 2,800 acres (11.3 km²) above station.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	56	55	59	424	442	448	74	126	43	53	129	59
2	60	51	62	393	476	397	71	122	40	53	138	62
3	54	50	68	351	552	364	64	139	37	53	150	70
4	48	50	67	302	621	326	60	172	37	56	123	60
5	49	52	63	296	612	322	57	151	35	64	118	57
6	49	40	64	317	638	304	58	136	37	60	114	59
7	49	41	71	318	598	292	58	124	40	57	109	53
8	54	38	73	270	650	276	55	124	34	57	108	53
9	58	40	74	268	788	243	47	136	33	57	115	46
10	56	42	84	283	878	228	44	169	35	59	109	38
11	52	45	82	267	961	217	40	172	37	63	102	43
12	50	48	89	253	928	214	41	151	39	66	97	54
13	52	50	98	237	846	208	40	128	38	75	105	43
14	53	48	109	225	709	193	41	114	37	79	105	41
15	50	52	125	206	724	187	59	100	46	77	103	41
16	51	48	149	216	795	184	108	93	67	73	102	41
17	52	52	189	226	811	181	157	86	65	70	98	46
18	55	53	222	268	649	175	111	81	60	70	99	47
19	52	55	285	368	684	163	111	73	57	66	98	45
20	51	58	320	369	522	151	109	69	53	65	89	42
21	55	56	316	315	428	142	99	66	48	65	80	44
22	52	54	279	300	412	128	98	59	54	81	85	46
23	48	52	309	335	429	116	89	55	64	114	93	47
24	49	50	316	365	435	110	111	49	62	122	82	43
25	50	52	322	400	420	108	166	49	60	108	77	40
26	52	54	361	580	446	100	130	48	60	105	70	40
27	55	56	445	653	546	96	121	46	60	117	70	41
28	50	59	445	545	538	90	136	42	59	138	74	41
29	49	------	454	505	567	85	108	44	56	186	65	43
30	48	------	493	455	547	80	94	43	56	177	67	41
31	52	------	543	------	519	------	98	44	------	145	------	40
TOTAL	1,611	1,401	6,636	10,304	19,171	6,128	2,655	3,011	1,449	2,631	2,972	1,466
MEAN	52.0	50.0	214	343	618	204	85.6	97.1	48.3	84.9	99.1	47.3
MAX	60	59	543	653	961	448	166	172	67	186	150	70
MIN	48	38	59	206	412	80	40	42	33	53	65	38
AC-FT	3,200	2,780	13,160	20,440	38,030	12,150	5,270	5,970	2,870	5,220	5,890	2,910

CAL YR 1974 TOTAL 59,435 MEAN 163 MAX 961 MIN 33 AC-FT 117,900
WTR YR 1974 TOTAL 59,639 MEAN 164 MAX 961 MIN 33 AC-FT 118,700

PEAK DISCHARGE (BASE, 1,500 FT³/S).-- NO PEAK ABOVE BASE.

09354500 LOS PINOS RIVER AT LA BOCA, COLO.

LOCATION.--Lat 37°00'37", long 107°35'49", in S½ sec.15, T.32 N., R.7 W., La Plata County, on downstream end of right abutment of the Denver & Rio Grande Western Railroad Co. bridge, at southeast edge of La Boca, 0.1 mi (0.2 km) upstream from Spring Creek, and 13 mi (21 km) upstream from mouth.

DRAINAGE AREA.--510 mi² (1,320 km²), approximately.

PERIOD OF RECORD.--October 1950 to current year. Monthly discharge only for some periods, published in WSP 1733.

GAGE.--Water-stage recorder. Datum of gage is 6,143.58 ft (1,872.563 m) above mean sea level.

AVERAGE DISCHARGE.--24 calendar years, 200 ft³/s (5.664 m³/s), 144,900 acre-ft/yr (179 hm³/yr); 20 calendar years (1955-74), 209 ft³/s (5.919 m³/s), 151,400 acre-ft/yr (187 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,010 ft³/s (28.6 m³/s) July 19 (gage height, 5.52 ft or 1.682 m); minimum, 32 ft³/s (0.91 m³/s) May 1.

Period of record: Maximum discharge, 6,400 ft³/s (181 m³/s) July 27, 1957 (gage height, 8.95 ft or 2.728 m), from rating curve extended above 5,100 ft³/s (144 m³/s); minimum determined, 13 ft³/s (0.37 m³/s) Apr. 23, 1951 (may have been lower during periods of freezeup).

A major flood occurred Oct. 5, 1911 at this location.

REMARKS.--Records good except those for winter periods, which are poor. Flow regulated by Vallecito Reservoir 24 mi (39 km) upstream since April 1941, (see sta 09353000). Diversions for irrigation of about 33,000 acres (134 km²) above station.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	80	74	100	81	41	120	170	114	126	97	153	59
2	75	74	105	90	49	131	166	122	120	96	145	61
3	65	72	110	96	48	134	148	153	136	94	136	60
4	66	72	110	83	62	137	149	153	109	92	144	58
5	72	72	115	76	74	147	157	138	107	90	102	65
6	74	70	135	77	64	145	158	137	126	86	90	65
7	76	70	143	73	61	153	163	143	116	84	87	60
8	78	72	149	71	54	157	180	145	106	82	82	59
9	80	70	161	68	67	153	177	171	110	79	80	54
10	75	70	176	66	68	154	164	149	107	80	75	53
11	70	74	162	50	67	140	146	139	98	95	73	60
12	70	74	189	47	61	134	139	134	100	114	70	51
13	75	80	268	43	69	144	153	151	115	138	67	45
14	72	84	311	43	77	151	146	114	134	110	66	42
15	72	85	309	42	73	144	244	98	195	100	65	44
16	75	86	270	42	48	150	453	86	173	98	64	46
17	76	90	232	42	58	153	429	93	162	96	63	48
18	75	92	200	44	87	148	320	110	176	94	64	49
19	75	91	180	48	106	138	290	113	175	92	63	47
20	75	89	150	44	129	128	260	116	166	90	62	44
21	70	85	139	44	124	127	350	107	148	90	63	46
22	70	86	128	40	136	128	300	102	133	94	59	48
23	70	87	125	39	137	135	190	105	171	133	61	50
24	70	83	119	40	151	129	180	114	140	99	60	48
25	72	85	112	42	116	120	170	124	122	115	59	42
26	74	90	113	67	119	135	140	121	119	99	60	43
27	72	93	100	74	136	141	130	118	116	255	57	44
28	70	95	86	64	119	142	120	127	114	258	58	43
29	70	------	83	57	111	140	110	138	111	375	58	45
30	70	------	82	52	106	154	101	136	102	217	59	44
31	72	------	84	------	113	------	98	130	------	170	------	45
TOTAL	2,258	2,265	4,746	1,745	2,731	4,212	6,081	3,881	3,933	3,812	2,345	1,568
MEAN	72.8	80.9	153	58.2	88.1	140	196	125	131	123	78.2	50.6
MAX	80	95	311	96	151	157	453	171	195	375	153	65
MIN	65	70	82	39	41	120	98	86	98	79	57	42
AC-FT	4,480	4,490	9,410	3,460	5,420	8,350	12,060	7,700	7,800	7,560	4,650	3,110

CAL YR 1974 TOTAL 39,577 MEAN 108 MAX 453 MIN 39 AC-FT 78,500
WTR YR 1974 TOTAL 38,965 MEAN 107 MAX 453 MIN 39 AC-FT 77,290

09355000 SPRING CREEK AT LA BOCA, COLO.

LOCATION.--Lat 37°00'46", long 107°35'42", in S½ sec.15, T.32 N., R.7 W., La Plata County, on right bank in an excavated channel, 0.2 mi (0.3 km) upstream from mouth, and 0.2 mi (0.3 km) east of La Boca.

DRAINAGE AREA.--58 mi² (150 km²), approximately.

PERIOD OF RECORD.--October 1950 to current year. Monthly discharge only for some periods, published in WSP 1733.

GAGE.--Water-stage recorder. Altitude of gage is 6,160 ft (1,878 m) from topographic map.

AVERAGE DISCHARGE.--24 calendar years, 29.5 ft³/s (0.835 m³/s), 21,370 acre-ft/yr (26.3 hm³/yr); 20 calendar years (1955-74), 29.7 ft³/s (0.841 m³/s), 21,520 acre-ft/yr (26.5 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 193 ft³/s (5.47 m³/s) July 16 (gage height, 1.69 ft or 0.515 m); minimum, 2.2 ft³/s (0.062 m³/s) Oct. 28.
Period of record: Maximum discharge, 1,980 ft³/s (56.1 m³/s) Sept. 6, 1970 (gage height, 4.62 ft or 1.408 m), from rating curve extended above 160 ft³/s (4.53 m³/s) on basis of field extimate of peak flow; maximum gage height, 5.98 ft (1.823 m) Mar. 9, 1960 (backwater from ice); minimum discharge, 0.6 ft³/s (0.017 m³/s) Nov. 27, 1959.

REMARKS.--Records good except those for winter periods, which are poor. Part of flow is return waste from irrigation.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	2.9	3.0	5.0	3.1	14	53	62	53	46	22	11	4.7
2	2.9	3.0	6.0	4.7	20	62	57	53	42	20	13	4.7
3	2.3	2.9	7.0	6.7	19	64	55	59	46	20	16	4.8
4	2.4	2.8	8.0	4.3	20	60	56	57	43	22	8.1	4.9
5	2.5	2.8	13	3.1	24	60	62	56	44	20	5.9	4.7
6	2.7	2.8	17	3.5	27	57	59	47	48	18	5.5	4.8
7	2.9	2.7	16	3.1	25	62	63	46	47	21	5.1	4.5
8	3.1	2.7	17	2.5	24	64	72	64	46	20	5.1	4.3
9	3.2	2.7	18	2.5	30	64	69	66	44	20	6.7	4.2
10	3.2	2.7	20	2.5	36	67	72	53	43	21	5.9	4.0
11	2.7	2.9	15	27	42	63	69	48	41	22	5.1	4.0
12	2.6	3.0	13	5.1	42	63	64	46	39	27	5.1	3.9
13	2.7	3.2	11	3.9	47	56	59	43	37	26	5.5	3.8
14	2.9	3.3	10	3.5	36	57	70	36	43	21	5.1	3.9
15	2.9	3.5	9.0	4.3	41	63	106	35	60	18	5.1	3.9
16	2.8	3.4	9.0	2.8	19	69	126	38	50	19	4.7	3.9
17	2.9	3.5	9.0	2.8	28	69	109	37	50	16	4.7	4.0
18	3.0	3.3	8.5	3.1	41	62	75	42	52	12	4.7	3.8
19	3.0	3.0	8.0	3.1	48	62	96	44	55	10	4.7	3.9
20	3.1	3.2	8.7	3.5	52	63	94	47	50	10	4.7	4.0
21	3.2	3.0	4.7	6.7	54	59	72	44	32	9.9	5.1	3.8
22	3.0	3.0	3.9	6.3	52	59	69	43	29	12	5.1	3.7
23	2.8	2.9	3.5	10	52	62	73	43	38	24	5.1	3.5
24	2.6	2.8	3.5	6.3	55	57	67	46	30	16	5.1	3.3
25	2.7	2.9	3.5	7.1	57	56	57	43	28	9.3	5.1	3.6
26	2.6	3.0	3.5	12	52	56	64	43	25	5.9	5.1	3.4
27	2.8	3.2	3.5	27	56	56	59	42	25	43	5.0	3.5
28	2.7	3.5	3.5	13	52	62	55	44	24	12	4.8	3.8
29	2.8	------	3.1	9.9	48	57	51	46	23	60	4.5	3.6
30	2.8	------	3.1	10	48	64	46	44	24	25	4.7	3.7
31	2.9	------	3.1	------	55	------	48	43	------	12	------	3.6
TOTAL	87.6	84.7	267.1	205.4	1,217	1,828	2,156	1,451	1,204	614.1	181.3	124.2
MEAN	2.83	3.03	8.62	6.85	39.3	60.9	69.5	46.8	40.1	19.8	6.04	4.01
MAX	3.2	3.5	20	27	57	69	126	66	60	60	16	4.9
MIN	2.3	2.7	3.1	2.5	14	53	46	35	23	5.9	4.5	3.3
AC-FT	174	168	530	407	2,410	3,630	4,280	2,880	2,390	1,220	360	246

CAL YR 1974 TOTAL 9,420.4 MEAN 25.8 MAX 126 MIN 2.3 AC-FT 18,690
WTR YR 1974 TOTAL 9,265.4 MEAN 25.4 MAX 126 MIN 2.3 AC-FT 18,380

PEAK DISCHARGE (BASE, 180 FT³/S).--JULY 16 (0915) 193 FT³/S (1.69 FT.).

09355100 NAVAJO RESERVOIR NEAR ARCHULETA, N. MEX.

LOCATION.--Lat 36°48'28", long 107°36'31", in SW¼SE¼ sec.18, T.30 N., R.7 W., San Juan County, in gage shaft of outlet works structure near right abutment of Navajo Dam on San Juan River, 5.5 mi (8.8 km) east of Archuleta, 33 mi (53 km) east of Farmington, and at mile 298.6 (480.4 km).

DRAINAGE AREA.--3,230 mi² (8,370 km²), approximately.

PERIOD OF RECORD.--June 1962 to current year. Prior to October 1968 dead storage included.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum daily contents, 1,111,000 acre-ft (1.37 km³) Jan. 1 (elevation, 6,040.10 ft or 1,841.022 m); minimum daily, 970,400 acre-ft (1.20 km³) Dec. 31 (elevation, 6,026.38 ft or 1,836.841 m).
Period of record: Maximum daily contents, 1,731,000 acre-ft (2.13 km³) July 2-4, 1973 (elevation, 6,087.25 ft or 1,855.394 m); minimum daily after June 1964 (initial filling period), 234,300 acre-ft (289 hm³) Mar. 10, 11, 1965 (elevation, 5,906.36 ft or 1,800.259 m).

REMARKS.--Reservoir is formed by earth-rock-fill dam, completed in June 1963; storage began June 27, 1962. Capacity, 1,708,600 acre-ft (2.11 km³) between elevation 5,720 ft (1,743 m) upstream toe of dam and 6,085 ft (1,855 m) crest of spillway. Usable capacity 1,696,000 acre-ft (2.09 km³) above elevation 5,774.9 ft (1,760.19 m) minimum operating level. Dead storage below elevation 5,774.9 ft (1,760.19 m) is 12,600 acre-ft (15.5 hm³). Figures given herein are usable contents. Reservoir is used for irrigation storage, river regulation, desilting, flood control, and recreation.

COOPERATION.--Records furnished by Bureau of Reclamation.

Capacity table (elevation, in feet and contents, in thousands of acre-feet)

6,015	864.5	6,035	1,056.7	6,055	1,281.3	6,075	1,546.2
6,020	910.1	6,040	1,109.4	6,060	1,343.5	6,080	1,619.5
6,025	957.2	6,045	1,164.3	6,065	1,408.3	6,085	1,696.0
6,030	1,006.0	6,050	1,221.6	6,070	1,475.8	6,090	1,775.7

CONTENTS, IN THOUSANDS OF ACRE-FEET, AT 2400, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1,111	1,031	985.8	985.8	981.6	1,041	1,053	1,051	1,034	1,009	1,000	990.4
2	1,107	1,029	984.7	986.1	982.2	1,042	1,052	1,051	1,033	1,008	1,001	989.8
3	1,104	1,027	984.0	986.1	983.1	1,044	1,052	1,051	1,032	1,006	1,001	989.3
4	1,101	1,025	982.9	985.6	984.6	1,045	1,052	1,051	1,031	1,006	1,001	988.9
5	1,098	1,022	982.0	985.3	986.3	1,045	1,052	1,051	1,030	1,005	1,000	988.5
6	1,095	1,020	981.0	984.6	987.9	1,046	1,052	1,051	1,030	1,005	1,000	987.9
7	1,092	1,017	980.4	984.0	989.2	1,047	1,051	1,051	1,029	1,004	999.9	987.5
8	1,089	1,015	979.9	984.0	990.7	1,047	1,051	1,051	1,028	1,004	999.5	986.9
9	1,086	1,012	979.1	984.0	993.2	1,048	1,051	1,050	1,027	1,003	999.3	986.1
10	1,083	1,010	978.8	983.9	996.1	1,048	1,051	1,050	1,026	1,003	999.1	985.3
11	1,080	1,008	978.2	983.4	999.2	1,049	1,051	1,050	1,025	1,002	998.7	984.7
12	1,078	1,007	977.7	982.7	1,003	1,049	1,050	1,050	1,024	1,002	998.2	984.3
13	1,075	1,005	977.5	981.9	1,006	1,050	1,050	1,050	1,023	1,002	997.7	983.4
14	1,073	1,004	977.3	981.0	1,008	1,050	1,050	1,049	1,021	1,001	997.5	982.8
15	1,070	1,003	977.6	980.4	1,011	1,050	1,050	1,048	1,021	1,001	997.1	982.0
16	1,068	1,002	978.0	979.5	1,013	1,051	1,052	1,048	1,020	1,000	996.8	981.4
17	1,066	1,000	978.9	978.6	1,016	1,051	1,053	1,047	1,020	1,000	996.4	980.5
18	1,064	999.4	980.0	978.0	1,018	1,052	1,053	1,046	1,019	999.5	996.2	979.8
19	1,061	998.1	981.2	977.7	1,020	1,052	1,054	1,045	1,018	998.8	996.3	979.2
20	1,060	997.1	982.5	977.5	1,021	1,053	1,055	1,045	1,018	998.2	996.1	978.5
21	1,057	995.8	983.2	977.3	1,023	1,053	1,055	1,044	1,017	997.6	995.6	977.7
22	1,055	994.5	983.4	976.7	1,024	1,053	1,055	1,043	1,016	997.4	995.1	976.9
23	1,053	993.2	983.6	976.5	1,025	1,053	1,055	1,042	1,016	997.9	994.8	976.2
24	1,050	991.8	983.9	976.2	1,027	1,053	1,054	1,041	1,015	998.1	994.4	975.6
25	1,048	990.5	984.0	976.6	1,028	1,053	1,054	1,040	1,014	997.8	993.8	974.7
26	1,046	989.3	984.1	977.1	1,029	1,053	1,054	1,039	1,014	997.5	993.4	973.9
27	1,043	988.1	984.4	978.5	1,031	1,053	1,053	1,039	1,013	997.9	992.8	973.3
28	1,041	987.0	984.5	979.6	1,033	1,053	1,053	1,038	1,012	998.2	992.2	972.7
29	1,039	------	984.8	980.5	1,035	1,053	1,052	1,037	1,011	999.6	991.6	972.0
30	1,037	------	985.0	981.0	1,037	1,053	1,052	1,036	1,010	1,000	991.0	971.2
31	1,034	------	985.5	------	1,040	------	1,051	1,035	------	1,000	------	970.4
MAX	1,111	1,031	985.8	986.1	1,040	1,053	1,055	1,051	1,034	1,009	1,001	990.4
MIN	1,034	987.0	977.3	976.2	981.6	1,041	1,050	1,035	1,010	997.4	991.0	970.4
(†)	6,032.76	6,028.08	6,027.93	6,027.47	6,033.33	6,034.61	6,034.47	6,032.90	6,030.37	6,029.42	6,028.49	6,026.38
(‡)	-79.0	-47.0	-1.5	-4.5	+59.0	+13.0	-2.0	-16.0	-25.0	-10.0	-9.0	-20.6

CAL YR 1974 -142.6
WTR YR 1974 -383.0

(†) ELEVATION, IN FEET, AT END OF MONTH.
(‡) CHANGE IN CONTENTS, IN THOUSANDS OF ACRE-FEET.

09355500 SAN JUAN RIVER NEAR ARCHULETA, N. MEX.

LOCATION.--Lat 36°48"05", long 107°41'51", in NE¼ sec.20, T.30 N., R.8 W., San Juan County, on left bank 0.5 mi (0.8 km) upstream from Gobernador Canyon, 0.8 mi (1.3 km) northeast of Archuleta, 7.2 mi (11.6 km) downstream from Navajo Dam, and at mile 291.4 (468.9 km).

DRAINAGE AREA.--3,260 mi² (8,440 km²), approximately.

PERIOD OF RECORD.--December 1954 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,655 ft (1,723.6 m) from river-profile survey. Prior to Dec. 29, 1959, at site 5.0 mi (8.0 km) upstream at altitude 55 ft (17 m) higher. Dec. 29, 1959 to Dec. 15, 1964, at site 0.4 mi (0.6 km) upstream at altitude 5 ft (1.5 m) higher.

AVERAGE DISCHARGE.--7 calendar years (1956-62), 1,302 ft³/s (36.87 m³/s), 943,300 acre-ft/yr (1,160 hm³/yr) prior to completion of Navajo Dam.
12 calendar years (1963-74), 1,061 ft³/s (30.05 m³/s), 768,700 acre-ft/yr (948 hm³/yr) since completion of Navajo Dam.

EXTREMES.--Current year: Maximum discharge, 2,000 ft³/s (56.6 m³/s) Jan. 8, 9 (gage height, 4.64 ft or 1.414 m); minimum, 246 ft³/s (6.97 m³/s) Nov. 18-20.
Period of record: Maximum discharge, 18,900 ft³/s (535 m³/s) July 27, 1957 (gage height, 11.00 ft or 3.353 m, site and datum then in use); minimum determined, 8 ft³/s (0.23 m³/s) Feb. 28, 1963.

REMARKS.--Records good. Flow completely regulated by Navajo Dam (see sta 09355100) except for minor inflow from 30 mi² (78 km²) intervening drainage area. Diversions above station for irrigation of about 47,000 acres (190 km²). Water quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--The annual runoff for the 1958 water year as published in table 2, WSP 1733, is 455,000 acre-ft (561 hm³). The correct value is 1,455,000 acre-ft (1,790 hm³).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1,990	1,500	980	1,030	1,000	788	456	716	700	708	474	486
2	1,990	1,510	990	1,030	1,000	780	456	708	700	708	480	486
3	1,990	1,510	990	1,030	1,010	780	456	700	700	708	480	474
4	1,990	1,510	990	1,030	1,010	780	456	708	700	624	480	474
5	1,990	1,500	950	1,030	1,010	796	462	700	700	540	480	474
6	1,990	1,450	980	1,040	1,010	796	456	684	708	540	480	474
7	1,990	1,420	990	1,040	1,010	804	462	684	708	522	480	474
8	2,000	1,430	1,000	812	1,010	796	462	684	700	504	486	474
9	2,000	1,440	1,000	618	1,010	804	462	692	708	504	492	474
10	1,990	1,450	1,010	684	1,010	788	462	692	708	504	492	474
11	1,820	1,410	1,010	892	1,010	732	468	692	708	504	498	474
12	1,600	1,130	1,010	1,020	1,010	732	468	692	700	498	498	474
13	1,600	1,020	1,020	1,030	990	732	468	692	700	504	498	480
14	1,570	1,030	1,030	1,030	990	748	474	700	700	504	498	480
15	1,510	1,020	1,040	1,030	1,000	740	547	700	708	492	498	486
16	1,510	970	1,050	1,040	990	732	660	708	708	492	498	492
17	1,510	970	1,050	1,030	990	693	668	708	700	492	498	492
18	1,510	970	1,050	1,040	990	623	655	708	692	486	443	462
19	1,510	970	1,050	1,010	970	474	700	708	692	486	246	496
20	1,510	970	1,050	1,010	920	462	700	708	672	486	363	504
21	1,510	970	1,050	1,010	804	468	700	708	692	480	462	510
22	1,510	970	1,050	1,020	852	468	700	708	700	486	468	504
23	1,510	970	1,060	1,010	852	468	700	708	700	486	474	510
24	1,500	970	1,060	1,010	812	468	700	700	700	450	468	510
25	1,500	970	1,060	1,010	780	480	700	700	708	468	474	510
26	1,500	970	1,030	1,010	780	462	708	700	708	474	480	516
27	1,500	980	1,030	1,020	780	462	708	700	708	492	486	516
28	1,500	980	1,020	1,010	788	462	716	700	708	480	486	516
29	1,500	------	1,020	1,010	788	462	716	700	708	480	486	516
30	1,500	------	1,020	1,010	788	462	716	700	708	480	480	522
31	1,500	------	1,020	------	788	------	708	700	------	480	------	522
TOTAL	52,100	32,960	31,660	29,596	28,752	19,242	18,170	21,700	21,052	16,062	14,126	15,256
MEAN	1,681	1,177	1,021	987	927	641	586	700	702	518	471	492
MAX	2,000	1,510	1,060	1,040	1,010	804	716	716	708	708	498	522
MIN	1,500	970	950	618	780	462	456	684	672	450	246	462
AC-FT	103,300	65,380	62,800	58,700	57,030	38,170	36,040	43,040	41,760	31,860	28,020	30,260

CAL YR 1974 TOTAL 300,676 MEAN 824 MAX 2,000 MIN 246 AC-FT 596,400
WTR YR 1974 TOTAL 435,192 MEAN 1,192 MAX 2,100 MIN 456 AC-FT 863,200

09363500 ANIMAS RIVER NEAR CEDAR HILL, N. MEX.

LOCATION.--Lat 37°02'17", long 107°52'25", in sec.7, T.32 N., R.9 W., La Plata County, Colorado, on right bank 0.8 mi (1.3 km) downstream from Florida River, 2.5 mi (4.0 km) upstream from Colorado-New Mexico State line, and 8.5 mi (13.7 km) north of Cedar Hill.

DRAINAGE AREA.--1,090 mi² (2,820 km²), approximately.

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

GAGE.--Water-stage recorder. Altitude of gage is 5,960 ft (1,817 m) from topographic map. Prior to Sept. 14, 1937, at datum between 1.52 ft (0.46 m) and 1.36 ft (0.41 m) higher. Sept. 15, 1937, to Sept. 30, 1946, at datum 1.36 ft (0.41 m) higher.

AVERAGE DISCHARGE.--41 calendar years, 888 ft³/s (25.15 m³/s), 643,400 acre-ft/yr (793 hm³/yr); 20 calendar years (1955-74), 847 ft³/s (23.99 m³/s), 613,700 acre-ft/yr (757 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 2,880 ft³/s (81.6 m³/s) May 27 (gage height, 6.39 ft or 1.948 m); minimum, 118 ft³/s (3.34 m³/s) Sept. 13.
Period of record: Maximum discharge, 13,100 ft³/s (371 m³/s) June 19, 1949 (gage height, 11.45 ft or 3.490 m); minimum, 63 ft³/s (1.78 m³/s) Jan. 21, 1935.
A flood in October 1911 exceeded all other known floods at this location.

REMARKS.--Records fair except those for winter periods, which are poor. Diversions for irrigation of about 20,000 acres (80.9 km²) above station. During water years 1944-49, Twin Rocks Canal diverted above station for irrigation below. Slight regulation by Lemon Dam about 30 mi (48 km) upstream on Florida River since November 1963 (capacity, 40,100 acre-ft or 49.4 hm³). Water quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1563: 1940 and 1946 (monthly figures only).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	250	230	225	381	704	1,880	683	381	175	217	295	216
2	165	230	243	392	776	1,580	620	414	166	217	355	212
3	210	210	266	386	912	1,340	550	437	160	217	414	220
4	212	200	256	355	1,090	1,270	537	511	149	212	370	230
5	240	210	243	340	1,150	1,420	504	485	146	217	325	234
6	250	200	256	330	1,200	1,320	479	408	142	212	285	238
7	260	194	280	330	1,280	1,160	449	376	140	215	275	234
8	260	190	290	335	1,480	1,030	461	365	136	212	270	216
9	270	180	280	335	1,830	888	461	376	136	208	270	212
10	270	190	290	335	1,990	816	431	370	134	215	310	189
11	250	220	305	370	2,070	960	414	365	130	236	265	202
12	250	220	300	350	2,120	1,220	398	330	126	261	256	216
13	250	240	325	345	2,130	1,470	355	310	124	274	248	216
14	250	240	350	320	1,760	1,460	355	285	130	274	280	215
15	250	248	365	320	1,710	1,590	420	265	175	274	252	218
16	245	207	370	320	2,050	1,410	641	243	193	279	252	230
17	240	207	365	330	2,250	1,330	1,090	242	224	274	248	230
18	250	207	350	360	1,890	1,260	976	194	220	268	261	230
19	250	202	355	425	1,890	1,230	856	189	222	258	275	240
20	260	202	345	479	1,640	1,210	816	211	222	261	270	230
21	260	207	325	443	1,460	1,140	760	217	220	263	261	230
22	240	202	320	414	1,210	1,140	784	200	217	443	256	224
23	230	201	320	425	1,320	1,080	690	182	236	414	261	213
24	220	190	320	479	1,380	1,040	606	182	241	381	261	210
25	210	190	310	544	1,360	1,000	578	177	234	355	248	200
26	220	190	305	749	1,680	944	537	177	246	330	244	190
27	240	220	305	920	2,380	888	618	179	241	550	238	230
28	220	212	315	840	2,290	832	492	188	246	345	238	230
29	220	------	330	784	2,240	792	455	182	239	606	244	230
30	200	------	335	725	2,320	746	425	186	229	305	230	230
31	200	------	350	------	2,300	------	381	175	------	270	------	225
TOTAL	7,342	5,839	9,594	13,471	51,762	55,446	17,822	8,772	5,599	9,043	8,257	6,830
MEAN	237	209	309	449	1,670	1,182	575	283	187	292	275	220
MAX	270	246	370	920	2,380	1,880	1,090	511	246	606	414	238
MIN	165	180	225	320	704	746	355	175	124	208	230	189
AC-FT	14,560	11,580	19,030	26,720	102,700	70,310	35,350	17,400	11,110	17,940	16,380	13,550

CAL YR 1974 TOTAL 179,777 MEAN 493 MAX 2,380 MIN 124 AC-FT 356,600
WTR YR 1974 TOTAL 182,207 MEAN 499 MAX 2,380 MIN 124 AC-FT 361,400

PEAK DISCHARGE (BASE, 4,000 FT³/S).--NO PEAK ABOVE BASE.

09364500 ANIMAS RIVER AT FARMINGTON, N. MEX.

LOCATION.--Lat 36°43'17", long 108°12'05", in SW¼SW¼ sec.15, T.29 N., R.13 W., San Juan County, in Boyd City Park, on right bank 900 ft (274 m) upstream from bridge on former State Highway 17, 0.4 mi (0.6 km) downstream from bridge on State Highway 17, and 1.5 mi (2.4 km) upstream from mouth.

DRAINAGE AREA.--1,360 mi² (3,520 km²), approximately.

PERIOD OF RECORD.--June 1904 to October 1905 (published as "near Farmington"), September 1912 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder. Altitude of gage is 5,280 ft (1,609 m) from topographic map. Prior to Nov. 1, 1905, non-recording gage at old bridge 0.1 mi (0.2 km) upstream at different datum. Sept. 17, 1912, to Oct. 4, 1938, water-stage recorder at site 0.8 mi (1.3 km) downstream at lower datums (datum lowered 2.0 ft or 0.61 m Aug. 15, 1927, and raised 0.2 ft or 0.06 m Dec. 16, 1929). Prior to Nov. 1, 1973 at site 900 ft (274 m) downstream at datum 1.74 ft (0.53 m) lower.

AVERAGE DISCHARGE.--62 calendar years, 909 ft³/s (25.74 m³/s), 658,600 acre-ft/yr (812 hm³/yr); 20 calendar years (1955-74), 767 ft³/s (21.72 m³/s), 555,700 acre-ft/yr (685 hm³/s).

EXTREMES.--Current year: Maximum discharge, 6,100 ft³/s (173 m³/s) July 18 (gage height, 7.70 ft or 2.347 m); minimum, 5.8 ft³/s (0.16 m³/s) Sept. 4.

Period of record: Maximum discharge, about 25,000 ft³/s (708 m³/s) June 29, 1927 (gage height, 8.5 ft or 2.59 m, site and datum then in use), from rating curve extended above 10,000 ft³/s (283 m³/s); minimum, 1.0 ft³/s (0.028 m³/s) Aug. 11, 1972.

Maximum flood occurred Oct. 6, 1911, when a stage of about 16.5 ft (5.03 m) was reached (present site and datum). Flood of Sept. 6, 1909, reached a stage of 11.1 ft (3.38 m), 1904-5 site and datum (discharge, about 19,000 ft³/s or 538 m³/s).

REMARKS.--Records good except those for November, which are poor. Diversions for irrigation of about 30,000 acres (121 km²) above station. Water quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1243: 1931. WSP 1313: 1913.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	292	284	276	336	468	1,850	468	185	12	118	430	248
2	220	276	288	375	480	1,420	375	202	15	106	450	244
3	240	256	308	370	570	1,200	355	202	8.8	106	480	268
4	260	248	308	340	766	1,080	296	288	8.4	104	430	272
5	280	256	288	304	960	1,140	284	360	9.8	94	380	288
6	300	240	284	288	1,000	1,210	260	320	8.0	91	325	280
7	332	225	300	268	1,030	1,050	240	228	6.4	81	300	256
8	316	215	320	272	1,220	960	228	167	7.2	87	280	260
9	328	210	320	260	1,360	798	236	182	12	81	290	248
10	332	248	324	288	1,960	675	236	224	16	114	320	228
11	304	268	345	284	2,200	696	203	220	12	199	300	220
12	296	264	336	296	2,150	933	182	176	9.8	213	270	224
13	304	296	332	272	2,040	1,190	152	155	6.4	252	260	220
14	304	296	365	276	1,800	1,270	123	150	6.4	220	290	213
15	288	276	380	264	1,430	1,330	158	123	9.6	206	270	228
16	292	272	390	256	1,650	1,340	232	91	21	206	260	210
17	292	268	380	292	2,120	1,110	764	65	40	202	260	216
18	308	268	375	196	2,040	1,070	1,790	47	52	196	280	236
19	308	260	370	224	1,730	996	1,010	29	42	192	290	224
20	312	272	370	292	1,800	1,000	742	46	47	176	280	224
21	312	268	355	292	1,280	960	654	55	44	176	260	252
22	288	250	340	260	1,020	920	577	21	40	195	260	244
23	284	235	332	236	1,030	900	486	19	60	556	270	216
24	260	230	340	268	1,110	886	420	23	100	414	260	196
25	256	230	332	312	1,150	800	380	23	142	345	245	182
26	268	248	332	414	1,180	750	340	18	139	308	236	176
27	292	280	296	758	1,910	680	320	13	142	639	240	228
28	276	268	312	689	2,220	600	292	16	158	504	244	228
29	276	------	300	612	2,100	560	272	16	164	817	244	248
30	276	------	304	522	2,150	520	264	16	128	742	244	228
31	252	------	284	------	2,120	------	228	16	------	500	------	220
TOTAL	8,948	7,207	10,186	10,006	46,244	29,896	12,567	3,676	1,467.0	8,240	8,948	7,225
MEAN	289	257	329	334	1,492	997	405	119	48.9	266	298	233
MAX	332	296	390	758	2,220	1,850	1,790	360	164	817	480	288
MIN	220	210	276	196	468	520	123	13	6.4	81	236	176
AC-FT	17,750	14,300	20,200	19,850	91,720	59,300	24,930	7,290	2,910	16,340	17,750	14,330

CAL YR 1974 TOTAL 154,610.0 MEAN 424 MAX 2,220 MIN 6.4 AC-FT 306,700
WTR YR 1974 TOTAL 155,356.0 MEAN 426 MAX 2,220 MIN 6.4 AC-FT 308,100

PEAK DISCHARGE (BASE, 4,000 FT³/S).--JULY 18 (0230) 6,100 FT³/S (7.70 FT.).

09365000 SAN JUAN RIVER AT FARMINGTON, N. MEX.

LOCATION.--Lat 36°43'22", long 108°13'30", in SE¼ sec.17, T.29 N., R.13 W., San Juan County, on left bank 360 ft (110 m) downstream from highway bridge, 4,000 ft (1,200 m) downstream from Animas River, 1 mi (2 km) west of Farmington, and at mile 251.4 (404.5 km).

DRAINAGE AREA.--7,240 mi² (18,750 km²), approximately.

PERIOD OF RECORD.--June to December 1904, January 1905 to September 1906 (gage heights and discharge measurements only), September 1912 to current year. Monthly discharge only for some periods, published in WSP 1313. Discharge records for January to December 1905, published in WSP 175, are unreliable and should not be used.

GAGE.--Water-stage recorder. Datum of gage is 5,230.37 ft (1,594.217 m) above mean sea level. See WSP 1313 or 1733 for history of changes prior to Nov. 19, 1933.

AVERAGE DISCHARGE.--62 calendar years (1913-74), 2,406 ft³/s (68.14 m³/s), 1,743,000 acre-ft/yr (2.15 km³/yr), unadjusted; 20 calendar years (1955-74), 1,850 ft³/s (52.39 m³/s), 1,340,000 acre-ft/yr (1.65 km³/yr).

EXTREMES.--Current year: Maximum discharge, 4,650 ft³/s (132 m³/s) Oct. 27 (gage height, 3.98 ft or 1.213 m); minimum, 352 ft³/s (9.97 m³/s) July 12-14.
Period of record: Maximum discharge, about 68,000 ft³/s (1,930 m³/s) June 29, 1927 (gage height, 10.2 ft or 3.109 m, site and datum then in use), from rating curve extended above 37,000 ft³/s (1,050 m³/s); minimum, 14 ft³/s (0.40 m³/s) Aug. 22, 1939.
Maximum flood occurred Oct. 6, 1911. Flood of Sept. 6, 1909, reached a stage of about 12.3 ft (3.75 m), site and datum in use May to September 1906.

REMARKS.--Records good. Since June 1962 flow is partly controlled by operation of Navajo Reservoir 50 mi (80 km) upstream. (See sta 09355100). Diversions above station for irrigation of about 86,000 acres (348 km²), 4,000 of which is irrigated by Farmers Mutual ditch which diverts from Animas River and bypasses this station; ditch flow not included in record. At times this ditch may be supplied partly or entirely by diversion from San Juan River below this station. Water quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1119: Drainage area. WSP 1243: 1938. WSP 1313: 1905, 1914. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	2,300	1,910	1,350	1,270	1,150	2,410	620	575	525	700	993	815
2	2,210	1,920	1,410	1,320	1,170	2,050	567	587	544	669	1,030	800
3	2,220	1,910	1,390	1,300	1,230	1,790	489	701	542	692	1,250	801
4	2,280	1,890	1,370	1,260	1,420	1,570	444	1,020	540	714	1,110	752
5	2,280	1,900	1,330	1,210	1,680	1,580	442	773	540	566	1,030	756
6	2,240	1,900	1,300	1,200	1,710	1,670	387	687	535	530	982	765
7	2,240	1,790	1,330	1,170	1,700	1,510	372	586	540	566	942	780
8	2,280	1,820	1,370	1,140	1,840	1,430	379	540	573	551	916	780
9	2,300	1,800	1,440	787	2,100	1,290	372	568	525	507	912	791
10	2,300	1,850	1,460	773	2,550	1,150	372	677	525	618	923	805
11	2,280	1,860	1,450	925	2,730	1,080	366	598	530	788	923	783
12	1,950	1,690	1,440	1,190	2,710	1,290	355	566	536	984	920	778
13	1,960	1,380	1,450	1,190	2,680	1,600	353	522	530	1,450	906	772
14	1,960	1,410	1,490	1,170	2,450	1,720	374	495	520	721	911	769
15	1,840	1,400	1,550	1,150	2,090	1,780	933	490	571	674	900	789
16	1,830	1,320	1,600	1,120	2,300	1,830	630	481	601	668	889	792
17	1,850	1,290	1,560	1,070	2,730	1,610	1,720	485	658	663	889	830
18	1,870	1,310	1,550	1,050	2,640	1,460	2,200	484	669	666	880	839
19	1,850	1,300	1,490	1,050	2,380	1,220	1,970	493	667	646	740	840
20	1,860	1,320	1,490	1,080	2,460	1,160	1,730	490	680	637	600	846
21	1,870	1,310	1,460	1,060	1,840	1,130	1,490	478	645	646	634	848
22	1,850	1,310	1,410	1,030	1,550	1,080	1,250	474	651	881	696	857
23	1,840	1,290	1,280	1,040	1,550	1,120	1,040	464	681	1,330	733	856
24	1,840	1,280	1,290	1,010	1,600	1,090	945	484	714	1,280	766	849
25	1,820	1,280	1,390	1,050	1,600	987	890	508	797	851	786	843
26	1,860	1,260	1,390	1,150	1,590	975	840	527	756	822	799	847
27	1,900	1,210	1,370	1,450	2,320	893	810	524	741	2,260	816	872
28	1,880	1,250	1,380	1,420	2,570	810	790	529	763	1,380	813	887
29	1,890	------	1,260	1,320	2,510	750	710	536	777	1,440	810	878
30	1,890	------	1,240	1,230	2,600	690	660	541	729	1,560	810	895
31	1,890	------	1,200	------	2,620	------	600	545	------	1,050	------	890
TOTAL	62,430	43,160	43,490	34,225	64,070	40,725	25,100	17,428	18,599	27,490	26,306	25,405
MEAN	2,014	1,541	1,403	1,141	2,067	1,358	810	562	620	887	877	820
MAX	2,300	1,920	1,600	1,450	2,730	2,410	2,200	1,020	797	2,260	1,250	895
MIN	1,820	1,210	1,200	773	1,150	690	353	464	520	507	600	752
AC-FT	123,800	85,610	86,260	67,890	127,100	80,780	49,790	34,570	36,890	54,550	52,180	50,390

CAL YR 1974 TOTAL 428,428 MEAN 1,174 MAX 2,730 MIN 353 AC-FT 849,800
WTR YR 1974 TOTAL 542,077 MEAN 1,485 MAX 2,730 MIN 353 AC-FT 1,075,000

PEAK DISCHARGE (BASE, 5,000 FT³/S).--NO PEAK ABOVE BASE.

09366500 LA PLATA RIVER AT COLORADO-NEW MEXICO STATE LINE

LOCATION.--Lat 36°59'51", long 108°11'17", in NW¼SE¼ sec.10, T.32 N., R.13 W., La Plata County, Colorado, on right bank at Colorado-New Mexico State line, 0.2 mi (0.3 km) downstream from Ponds Arroyo, 4.8 mi (7.7 km) north of La Plata, and at mile 21.0 (33.8 km).

DRAINAGE AREA.--331 mi² (857 km²).

PERIOD OF RECORD.--January 1920 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder. Datum of gage is 5,975.15 ft (1,821.226 m) above mean sea level. See WSP 1713 or 1733 for history of changes prior to Mar. 17, 1934.

AVERAGE DISCHARGE.--55 calendar years, 34.6 ft³/s (0.980 m³/s), 25,070 acre-ft/yr (30.9 hm³/yr); 20 calendar years (1955-74) 29.7 ft³/s (0.841 m³/s), 21,520 acre-ft/yr (26.5 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 103 ft³/s (2.92 m³/s) May 13 (gage height, 1.48 ft or 0.451 m); minimum daily, 0.1 ft³/s (0.003 m³/s) July 13.
Period of record: Maximum discharge, 4,750 ft³/s (135 m³/s) Aug. 24, 1927 (gage height, 11.36 ft or 3.463 m, present datum), from rating curve extended above 750 ft³/s (21 m³/s) on basis of slope-area measurement of peak flow; no flow at times in many years.

REMARKS.--Records good except those for winter periods, which are fair. Diversions above station for irrigation of about 15,000 acres (60.7 km²), mostly above station.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

REVISIONS (WATER YEARS).--WSP 1313: 1934(M), 1936(M).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	11	11	16	6.6	23	44	3.8	.80	.80	1.4	8.5	5.8
2	11	11	18	10	30	34	3.0	5.3	.60	1.2	15	7.0
3	8.0	11	20	10	36	29	2.5	13	.60	1.2	15	5.8
4	8.5	10	18	9.0	45	24	2.0	8.7	.80	1.6	12	6.2
5	9.0	10	17	8.0	37	20	1.0	3.8	3.4	1.6	8.0	7.0
6	11	10	17	8.0	52	19	1.4	4.4	1.2	1.6	6.2	7.0
7	11	10	17	7.0	45	15	1.4	3.8	.60	1.8	5.4	7.0
8	12	9.0	17	7.0	58	13	1.4	3.8	.60	2.1	5.1	7.0
9	13	10	16	7.0	68	13	1.2	3.8	.30	1.8	7.0	7.0
10	11	12	17	7.5	63	9.0	1.0	3.8	.30	1.8	5.4	7.0
11	9.0	13	16	9.5	58	8.0	.80	3.2	.30	2.4	5.1	7.5
12	10	14	16	12	67	12	.29	2.9	.60	2.9	5.1	5.4
13	11	15	15	11	82	21	.10	2.4	.80	3.8	5.1	7.5
14	11	14	15	10	48	24	.60	2.1	.80	3.2	5.1	5.8
15	11	13	17	8.5	47	21	1.0	1.8	2.6	2.9	5.1	6.5
16	11	13	21	7.0	44	19	1.4	1.6	1.4	2.4	5.1	7.5
17	11	13	20	8.0	66	17	1.6	1.6	1.4	1.8	5.1	6.5
18	10	13	19	7.0	46	17	1.4	1.4	1.4	1.8	5.1	6.0
19	10	13	18	9.5	43	15	1.0	1.4	1.4	1.6	5.1	7.0
20	10	13	16	12	39	13	1.4	1.8	1.4	1.6	5.1	7.0
21	11	13	15	12	34	12	1.2	1.4	1.4	1.4	5.1	8.0
22	10	13	14	10	34	10	1.8	1.0	1.4	5.9	5.4	7.0
23	10	12	14	8.5	38	10	1.2	1.2	1.4	9.0	5.8	6.5
24	10	10	13	11	36	10	1.0	1.2	1.6	4.8	5.4	6.5
25	10	14	12	16	34	8.5	.80	1.2	1.4	3.2	5.1	6.5
26	10	14	12	22	37	7.5	1.2	1.0	1.4	3.5	5.1	7.0
27	10	14	10	28	40	6.2	1.2	1.0	1.4	17	5.1	6.5
28	10	14	10	24	42	5.8	.60	1.0	1.4	5.1	5.1	7.0
29	10	------	10	22	45	5.8	.30	1.0	1.4	66	5.1	7.0
30	10	------	8.0	23	48	5.1	.30	1.0	1.4	16	4.8	6.0
31	10	------	6.6	------	55	------	.28	.80	------	10	------	6.0
TOTAL	320.5	342.0	470.6	351.1	1,440	467.9	38.17	83.20	35.50	182.4	190.6	207.5
MEAN	10.3	12.2	15.2	11.7	46.5	15.6	1.23	2.68	1.18	5.88	6.35	6.69
MAX	13	15	21	28	82	44	3.8	13	3.4	66	15	8.0
MIN	8.0	9.0	6.6	6.6	23	5.1	.10	.80	.30	1.2	4.8	5.4
AC-FT	636	678	933	696	2,860	928	76	165	70	362	378	412

CAL YR 1974 TOTAL 4,129.47 MEAN 11.3 MAX 82 MIN .10 AC-FT 8,190
WTR YR 1974 TOTAL 4,301.07 MEAN 11.8 MAX 82 MIN .10 AC-FT 8,530

09367500 LA PLATA RIVER NEAR FARMINGTON, N. MEX.

LOCATION.—Lat 36°44'23", long 108°14'51", in SW¼ sec.7, T.29 N., R.13 W., San Juan County, on right bank 1,300 ft (400 m) upstream from bridge on U.S. Highway 550, 1,800 ft (550 m) upstream from mouth, and 2.5 mi (4.0 km) northwest of Farmington.

DRAINAGE AREA.—583 mi² (1,510 km²).

PERIOD OF RECORD.—March 1938 to current year.

GAGE.—Water-stage recorder. Altitude of gage is 5,215 ft (1,589.5 m) from river-profile map.

AVERAGE DISCHARGE.—36 calendar years, 24.5 ft³/s (0.694 m³/s), 17,750 acre-ft/yr (21.9 hm³/yr); 20 calendar years (1955-74), 19.9 ft³/s (0.564 m³/s), 14,420 acre-ft/yr (17.8 hm³/yr).

EXTREMES.—Current year: Maximum discharge, 1,410 ft³/s (39.9 m³/s) Oct. 29 (gage height, 4.58 ft or 1.396 m), from rating curve extended above 450 ft³/s (12.7 m³/s) on basis of slope-area measurement at gage height 5.93 ft (1.807 m); minimum, 0.01 ft³/s (0.001 m³/s) many days.
Period of record: Maximum gage height, 6.03 ft (1.838 m) Sept. 10, 1939 (discharge not determined); no flow for long period in some years.
Major floods occurred Sept. 5 or 6, 1909, and Oct. 5 or 6, 1911.

REMARKS.—Records poor. Diversions for irrigation of about 24,000 acres (97.1 km²) above station.

REVISIONS (WATER YEARS).—WSP 1243: 1944-45. WSP 1313: 1943-44(M), 1946-50(M). WSP 1733: 1951(M).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	15	12	19	1.2	1.3	.90	.01	.01	.01	.01	8.3	2.3
2	15	12	20	2.0	1.0	.60	.01	.01	.01	.01	24	2.5
3	13	12	20	1.9	.90	.50	.01	.01	.01	.01	40	2.5
4	14	12	20	1.4	1.0	.60	.01	47	.01	.01	2.5	2.3
5	17	12	16	1.3	.90	.60	.01	7.2	.01	.01	2.0	2.5
6	19	11	13	1.3	.90	.60	.01	5.4	.01	.01	1.8	2.6
7	21	10	13	1.3	.80	1.0	.01	3.9	.01	.01	1.6	2.7
8	23	13	12	1.3	.70	1.2	.01	3.1	.01	.01	1.2	2.9
9	25	11	13	1.4	.80	1.2	.01	2.2	.01	.01	2.0	3.0
10	30	12	13	1.3	.70	.80	.01	1.8	.01	.01	1.8	4.0
11	57	14	12	1.8	.50	.60	.01	1.3	.01	.01	1.6	6.0
12	87	15	9.9	1.4	.60	.50	.01	.90	.01	.01	1.4	8.0
13	95	15	7.9	1.2	.90	.30	.01	.70	.01	.01	1.2	10
14	74	15	7.2	1.0	1.9	.30	.01	.50	.01	.02	1.2	15
15	40	14	7.5	1.0	1.3	1.2	.01	.40	.01	.02	1.2	20
16	25	13	8.3	1.0	1.8	1.8	.01	.20	.01	.02	1.2	24
17	20	13	10	.80	1.2	1.3	.01	.05	.01	.02	1.2	23
18	25	13	12	.80	2.4	.80	52	.05	.01	.02	1.2	22
19	40	13	12	.80	1.3	.40	60	.05	.01	.02	1.2	15
20	30	13	7.9	.90	.90	.10	15	.05	.01	.02	1.2	10
21	24	14	6.5	.80	.80	.08	24	.02	.01	.02	1.4	9.0
22	15	14	5.7	.80	.80	.07	2.7	.02	.01	9.8	1.6	8.0
23	12	14	5.4	.80	1.4	.06	2.5	.02	.01	31	2.0	7.6
24	11	14	5.1	1.3	1.6	.05	2.2	.02	.01	54	1.6	7.4
25	10	15	5.1	1.6	2.4	.04	1.6	.02	.01	6.3	1.6	7.0
26	10	16	3.1	2.4	2.5	.03	52	.01	.01	5.1	1.6	7.4
27	10	17	2.5	1.9	2.7	.02	2.0	.01	.01	86	1.6	8.0
28	10	18	2.0	1.6	1.9	.01	1.0	.01	.01	43	1.6	8.0
29	10	------	1.4	1.8	1.6	.01	.50	.01	.01	380	1.8	8.0
30	10	------	1.3	1.3	1.2	.01	.02	.01	.01	58	2.0	8.0
31	11	------	1.2	------	1.3	------	.01	.01	------	10	------	7.0
TOTAL	818	377	293.0	39.40	40.00	15.68	195.70	74.89	.30	686.49	114.6	265.7
MEAN	26.4	13.5	9.45	1.31	1.29	.52	6.31	2.42	.010	22.0	3.82	8.57
MAX	95	18	20	2.4	2.7	1.8	60	47	.01	380	40	24
MIN	10	10	1.2	.80	.50	.01	.01	.01	.01	.01	1.2	2.3
AC-FT	1,620	748	581	78	79	31	388	149	.6	1,360	227	527

CAL YR 1974 TOTAL 2,917.76 MEAN 7.99 MAX 380 MIN .01 AC-FT 5,790
WTR YR 1974 TOTAL 2,603.27 MEAN 7.15 MAX 95 MIN .01 AC-FT 5,160

09368000 SAN JUAN RIVER AT SHIPROCK, N. MEX.

LOCATION.--Lat 36°47'32", long 108°43'54", in NW¼ sec.27, T.30 N., R.18 W., San Juan County, on left bank 3 mi (5 km) west of Shiprock, 6 mi (10 km) downstream from Chaco River, and at mile 215.0 (345.9 km).

DRAINAGE AREA.--12,900 mi² (33,410 km²), approximately.

PERIOD OF RECORD.--January to October 1911, February 1927 to current year. Monthly or yearly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder. Datum of gage is 4,848.68 ft (1,477.878 m) above mean sea level from river-profile survey. Prior to Apr. 6, 1922, nonrecording gage and Apr. 7, 1922, to Oct. 25, 1933, water-stage recorder, at site 3 mi (4.8 km) upstream at different datum. Oct. 26, 1933, to Sept. 30, 1936, water-stage recorder at present site at datum 3.31 ft (1.01 m) higher and Oct. 1, 1936, to Sept. 30, 1952, at datum 1.77 ft (0.54 m) higher. Supplementary water-stage recorders at nearby sites, same datum, used at times.

AVERAGE DISCHARGE.--48 calendar years (1927-74), 2,212 ft³/s (62.64 m³/s), 1,603,000 acre-ft/yr (1.98 km³/yr), unadjusted; 20 calendar years (1955-74), 1,848 ft³/s (52.34 m³/s), 1,339,000 acre-ft/yr (1.65 km³/yr).

EXTREMES.--Current year: Maximum discharge, 11,900 ft³/s (337 m³/s) Oct. 28 (gage height, 6.68 ft or 2.036 m); minimum, 92 ft³/s (2.61 m³/s) July 13.
1927-74: Maximum discharge, about 80,000 ft³/s (2,270 m³/s) Aug. 11, 1929 (gage height, 5.7 ft or 1.74 m, site and datum then in use); minimum daily, 8 ft³/s (0.23 m³/s) Aug. 25, 26, 1939.
Maximum flood occurred Oct. 6, 1911, and reached a stage of 22 ft (6.7 m), site and datum then in use.

REMARKS.--Records good. Since 1962 flow partly regulated by Navajo Reservoir (see sta 09355100). Diversions for irrigation of about 118,000 acres (478 km²) above station. Ungaged canals bypass station on both right and left bank, though some of bypass flow is returned to river below gage. Water quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1243: 1931, 1934-38, 1951. WSP 1313: 1911, 1933.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	2,350	1,820	1,390	1,370	1,060	2,590	350	376	304	620	1,240	794
2	2,270	1,860	1,510	1,440	1,080	1,860	325	343	301	620	1,220	806
3	2,150	1,850	1,480	1,280	994	1,510	277	453	280	580	1,530	836
4	2,100	1,820	1,460	1,300	1,120	1,220	214	662	250	605	1,160	848
5	2,250	1,980	1,410	1,200	1,350	1,150	201	579	233	620	1,040	881
6	2,410	1,900	1,280	1,150	1,570	1,300	198	669	246	540	962	954
7	2,430	1,760	1,330	1,090	1,520	1,160	185	516	346	498	916	909
8	2,370	1,790	1,370	1,080	1,670	1,100	179	380	339	355	854	930
9	2,370	1,800	1,390	950	1,820	970	194	335	343	318	867	874
10	2,430	1,840	1,500	860	2,570	867	179	399	267	307	962	902
11	2,390	1,920	1,480	788	3,180	752	182	380	236	605	842	895
12	2,090	1,820	1,440	980	3,380	788	157	395	236	540	818	916
13	2,000	1,390	1,410	1,150	3,400	1,020	112	376	263	1,520	800	895
14	1,970	1,320	1,430	1,130	3,150	1,290	118	339	260	1,330	824	867
15	1,840	1,330	1,500	1,090	2,230	1,290	390	304	535	686	923	909
16	1,760	1,350	1,560	1,050	2,120	1,570	706	287	350	652	909	867
17	1,760	1,290	1,590	1,050	2,630	1,380	1,720	273	419	642	902	836
18	1,800	1,240	1,530	916	3,520	1,240	3,320	260	489	625	895	874
19	1,820	1,230	1,510	923	2,550	978	3,160	287	516	600	874	842
20	1,820	1,260	1,410	908	3,050	867	1,980	256	476	585	674	830
21	1,650	1,240	1,380	994	2,120	776	1,570	223	484	610	722	842
22	1,840	1,240	1,370	930	1,440	728	1,290	214	535	686	818	881
23	1,800	1,210	1,370	867	1,300	734	1,370	217	507	1,320	848	888
24	1,800	1,210	1,440	850	1,360	728	860	243	580	1,720	842	895
25	1,800	1,240	1,470	612	1,430	669	758	277	565	1,060	848	888
26	1,790	1,270	1,440	648	1,260	615	686	290	585	867	830	881
27	1,910	1,370	1,430	1,080	1,670	580	620	357	555	2,460	812	840
28	1,880	1,380	1,390	1,370	2,690	530	600	284	560	5,000	800	860
29	1,840	------	1,350	1,280	2,690	480	525	284	625	1,840	830	860
30	1,880	------	1,350	1,150	2,630	400	444	294	636	2,120	800	860
31	1,800	------	1,310	------	2,730	------	435	290	------	1,360	------	860
TOTAL	62,570	42,650	44,280	31,706	65,284	31,162	23,305	11,242	12,118	31,889	27,362	27,020
MEAN	2,018	1,523	1,428	1,057	2,106	1,039	752	363	404	1,029	912	872
MAX	2,430	1,920	1,590	1,370	3,520	2,590	3,320	979	636	5,000	1,530	954
MIN	1,760	1,210	1,280	788	994	400	112	214	233	307	674	794
AC-FT	124,100	84,600	87,830	62,890	129,500	61,810	46,230	22,300	24,040	63,250	54,270	53,590

CAL YR 1974 TOTAL 410,588 MEAN 1,125 MAX 5,000 MIN 112 AC-FT 814,400
WTR YR 1974 TOTAL 515,597 MEAN 1,407 MAX 3,520 MIN 112 AC-FT 1,019,000

PEAK DISCHARGE (BASE, 6,000 FT³/S).--JULY 18 (1045) 6,460 FT³/S (5.53 FT); OCT. 28 (0015) 11,900 FT³/S (6.68 FT.)

09379500 SAN JUAN RIVER NEAR BLUFF, UTAH

LOCATION.--Lat 37°08'49", long 109°51'51", in SW¼NE¼NW¼ sec.7, T.42 S., R.19 E., San Juan County, on left bank 1,600 ft (490 m) downstream from Gypsum Creek, 1,800 ft (550 m) upstream from highway bridge, 20 mi (32 km) southwest of Bluff, and at mile 113.5 (182.6 km).

DRAINAGE AREA.--23,000 mi² (60,000 km²), approximately.

PERIOD OF RECORD.--October 1914 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder. Datum of gage is 4,048 ft (1,234 m) from levels of Topographic Division, USGS. Prior to Mar. 16, 1927, chain gages at sites about 1,700 ft (520 m) downstream at different datums.

AVERAGE DISCHARGE.--60 calendar years, 2,581 ft³/s (73.09 m³/s), 1,870,000 acre-ft/yr (2.31 km³/yr), unadjusted; 20 calendar years (1955-74), 2,001 ft³/s (56.67 m³/s), 1,450,000 acre-ft/yr (1.79 km³/yr).

EXTREMES.--Current year: Maximum discharge, 7,160 ft³/s (203 m³/s) Oct. 28 (gage height, 8.99 ft or 2.740 m); minimum daily, 190 ft³/s (5.38 m³/s) July 15.

1914-17, 1927-74: Maximum discharge, 70,000 ft³/s (1,980 m³/s) Sept. 10, 1927 (gage height, 32.0 ft or 9.75 m), from rating curve extended above 31,000 ft³/s (878 m³/s) and slope-area measurement at gage height 26.62 ft (8.114 m); no flow July 3-13, 1934, Aug. 24-27, 29, 1939.

Flood of Oct. 6, 1911, which is greatest known at Shiprock, N. Mex., probably exceeded that of Sept. 10, 1927 at this station but stage was not accurately determined.

REMARKS.--Records good Jan. 25 to Apr. 6, Apr. 26 to June 11 and fair all other periods. Diversions for irrigation of approximately 200,000 acres (809 km²) above station. No diversion between station and mouth of river. Flow regulated by Navajo Reservoir since June 28, 1962 (see sta 09355100).

REVISIONS (WATER YEARS).--WSP 1213: 1940. WSP 1313: 1917, 1929. WSP 1343: 1945.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	2,360	1,910	1,770	1,300	1,170	2,310	489	460	300	718	1,820	905
2	2,370	1,940	2,360	1,370	1,070	2,260	450	420	280	721	1,680	860
3	2,360	1,970	2,960	1,420	1,000	1,960	380	380	270	677	2,740	871
4	2,340	1,960	2,500	1,470	1,010	1,720	365	300	270	660	2,260	867
5	2,360	1,910	1,900	1,500	991	1,440	315	700	260	600	1,970	898
6	2,360	1,920	1,690	1,420	1,110	1,280	306	877	260	500	1,440	922
7	2,330	1,900	1,540	1,250	1,330	1,290	295	954	260	660	1,210	935
8	2,380	1,830	1,620	1,130	1,090	1,360	277	745	270	500	1,180	981
9	2,430	1,750	1,660	1,100	1,360	1,270	277	550	280	657	1,300	972
10	2,500	1,870	1,690	1,120	1,490	1,240	270	400	300	600	1,190	972
11	2,490	1,800	1,650	1,090	1,810	1,160	251	370	330	600	1,180	906
12	2,420	1,810	1,540	1,110	2,260	1,030	244	400	310	600	1,100	922
13	2,220	1,840	1,510	964	2,210	914	220	400	300	700	1,040	922
14	2,090	1,620	1,560	964	2,280	1,030	200	370	300	700	1,010	939
15	2,090	1,500	1,640	935	2,380	1,120	190	330	300	700	981	897
16	2,000	1,490	1,660	964	1,920	1,220	192	325	310	811	1,020	922
17	1,910	1,500	1,750	935	1,900	1,310	306	300	340	800	998	947
18	2,010	1,520	1,760	935	2,180	1,350	690	290	390	800	1,010	881
19	2,020	1,520	1,660	935	2,570	1,170	2,000	290	450	700	981	873
20	2,070	1,500	1,600	964	2,200	1,090	1,840	290	360	700	986	871
21	2,060	1,490	1,520	939	2,370	951	1,590	290	629	700	959	850
22	2,100	1,470	1,490	906	2,070	825	1,350	290	584	697	788	844
23	2,060	1,430	1,450	906	1,600	807	1,260	270	585	1,000	861	866
24	1,970	1,400	1,430	869	1,370	751	1,170	250	613	1,300	958	881
25	1,900	1,370	1,450	875	1,350	751	995	250	570	2,680	936	897
26	1,950	1,360	1,490	952	1,460	752	751	270	626	1,550	956	930
27	1,950	1,380	1,480	942	1,410	672	678	290	617	1,910	936	800
28	2,030	1,560	1,450	995	1,460	666	632	330	682	2,950	921	800
29	1,980	------	1,390	1,210	2,190	600	600	330	658	4,670	899	800
30	1,960	------	1,390	1,260	2,200	538	550	320	696	2,960	884	800
31	1,940	------	1,350	------	2,200	------	500	320	------	2,880	------	800
TOTAL	67,060	46,520	52,150	32,888	55,311	34,824	19,791	12,581	12,600	36,601	35,752	27,551
MEAN	2,164	1,661	1,682	1,096	1,720	1,161	638	406	420	1,181	1,191	889
MAX	2,500	1,970	2,960	1,500	2,570	2,310	2,000	954	696	4,670	2,740	981
MIN	1,900	1,360	1,350	875	991	538	190	250	260	500	788	800
AC-FT	133,000	92,270	103,400	65,230	109,700	69,070	39,260	24,950	24,990	72,600	70,870	54,650

CAL YR 1974 TOTAL 431,609 MEAN 1,182 MAX 4,670 MIN 190 AC-FT 856,100
WTR YR 1974 TOTAL 537,165 MEAN 1,472 MAX 2,960 MIN 190 AC-FT 1,065,000

PEAK DISCHARGE (BASE, 8,000 FT³/S).--NO PEAK ABOVE BASE.

09386900 RIO NUTRIA NEAR RAMAH, N. MEX.

LOCATION.--Lat 35°16'57", long 108°33'10", in NW¼SW¼ sec.8, T.12 N., R.16 W., McKinley County, on Zuni Indian Reservation, at mouth of Nutria Canyon, 0.9 mi (1.4 km) upstream from Nutria Diversion Dam, 1.3 mi (2.1 km) northeast of Upper Nutria, and 10.4 mi (16.7 km) northwest of Ramah.

DRAINAGE AREA.--71.4 mi² (185 km²).

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 7,000 ft (2,133 m) from topographic map.

AVERAGE DISCHARGE.--5 calendar years, 4.64 ft³/s (0.131 m³/s), 3,360 acre-ft/yr (4.14 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 396 ft³/s (11.2 m³/s) Aug. 1 (gage height, 4.17 ft or 1.271 m); minimum discharge, 0.01 ft³/s (0.0003 m³/s) at times.
Period of record: Maximum discharge, 782 ft³/s (22.1 m³/s) Apr. 14, 1973 (gage height, 4.58 ft or 1.396 m), from rating curve extended above 10 ft³/s (0.28 m³/s) on basis of slope-area measurement of peak flow; no flow Oct. 1-20, 1969.

REMARKS.--Records fair except those for August, which are poor.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	.12	.25	3.4	.34	.19	.16	.02	23	.04	.02	.26	.32
2	.10	.25	5.3	.65	.20	.18	.02	10	.05	.03	.20	.32
3	.10	.20	7.6	.89	.20	.18	.02	3.0	.08	.04	.22	.32
4	.10	.20	5.1	.67	.20	.16	.02	.48	.08	.05	.19	.28
5	.15	.20	9.0	.53	.18	.13	.04	.37	.08	.05	.14	.29
6	.10	.20	13	.61	.19	.12	.03	.32	.09	.11	.12	.28
7	.10	.15	22	.48	.20	.15	.05	.20	.09	.30	.11	.28
8	.12	.15	22	.35	.20	.14	.04	.10	.09	.17	.10	.25
9	.12	.12	13	.33	.20	.12	.04	.05	.10	.09	.12	.25
10	.17	.15	7.1	.01	.22	.12	.04	.05	.10	1.7	.10	.25
11	.16	.15	4.4	.01	.25	.12	.07	.05	.11	5.2	.10	.25
12	.16	.15	12	1.7	.27	.12	.07	.05	.12	3.3	.10	.20
13	.16	.20	19	1.6	.25	.10	.08	.08	.16	.78	.10	.20
14	.16	.15	17	.73	.25	.10	.10	.05	.20	.33	.12	.20
15	.16	.15	13	.53	.26	.10	.10	.05	.19	.24	.12	.19
16	.16	.20	9.6	.42	.26	.10	.12	.05	.19	.14	.12	.16
17	.16	.20	6.6	.34	.26	.10	.12	.05	1.3	.11	.16	.16
18	.17	.20	5.7	.28	.26	.09	.14	.05	1.7	.10	.16	.16
19	.20	.20	4.4	.26	.28	.09	.14	.05	.14	.10	.16	.16
20	.18	.20	6.6	.19	.25	.09	22	.05	.05	.09	.16	.12
21	.18	.15	3.0	.16	.20	.06	42	.03	.02	.09	.16	.12
22	.20	.15	2.2	.16	.22	.05	23	.03	.02	.10	.16	.14
23	.22	.15	1.5	.20	.22	.05	1.8	.03	.02	.16	.20	.17
24	.24	.12	1.1	.19	.20	.05	.25	.03	.02	.11	.20	.12
25	.26	.15	.81	.17	.20	.04	.15	.03	.02	.10	.20	.11
26	.28	.20	.62	.18	.20	.05	.15	.03	.02	.10	.23	.12
27	.26	.20	.50	.16	.20	.04	.10	.03	.02	.45	.22	.10
28	.27	.66	.46	.17	.20	.04	.08	.03	.02	.18	.28	.08
29	.25	------	.47	.16	.16	.01	.08	.02	.02	1.4	.28	.08
30	.27	------	.41	.17	.16	.01	.08	.02	.02	2.2	.28	.08
31	.25	------	.39	------	.16	------	.05	.05	------	.46	------	.08
TOTAL	5.53	5.45	214.26	13.24	6.69	2.87	91.00	38.41	5.16	18.30	5.07	5.84
MEAN	.18	.19	6.91	.44	.22	.096	2.94	1.24	.17	.59	.17	.19
MAX	.28	.66	22	1.7	.28	.18	42	23	1.7	5.2	.28	.32
MIN	.10	.12	.39	.16	.16	.01	.02	.02	.02	.02	.10	.08
AC-FT	11	11	425	26	13	5.7	180	76	10	36	10	12

CAL YR 1974 TOTAL 411.82 MEAN 1.13 MAX 42 MIN .01 AC-FT 817
WTR YR 1974 TOTAL 398.40 MEAN 1.09 MAX 42 MIN .01 AC-FT 790

PEAK DISCHARGE (BASE, 30 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3-13	2230	2.62	44	8-1	2145	4.17	396
3-21	1700	3.44	166	10-11	1745	3.00	109

09386950 ZUNI RIVER ABOVE ZUNI RESERVOIR, N. MEX.

LOCATION.--35°06'03", long 108°45'00", in NE¼ sec.17, T.10 N., R.18 W., McKinley County, on Zuni Indian Reservation, on right bank, 50 ft (15 m) upstream from concrete ford on State Highway 36, 0.8 mi (1.3 km) upstream from flow line of Zuni Reservoir, 2.3 mi (3.7 km) northeast of Black Rock, and 5.9 mi (9.5 km) northeast of Zuni Pueblo.

DRAINAGE AREA.--810 mi² (2,100 km²), approximately.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,450 ft (1,970 m) from topographic map.

AVERAGE DISCHARGE.--5 calendar years, 11.3 ft³/s (0.320 m³/s), 8,190 acre-ft/yr (10.1 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 5,200 ft³/s (147 m³/s) Aug. 4 (gage height, 6.61 ft or 2.015 m), from rating curve extended as explained below; no flow for many days.
Period of record: Maximum discharge, 5,200 ft³/s (147 m³/s) Aug. 4, 1974 (gage height, 6.61 ft or 2.015 m), from rating curve extended above 670 ft³/s (19.0 m³/s) on basis of slope-area measurements at gage heights 3.94 ft (1.201 m), 4.05 ft (1.234 m), 5.16 ft (1.573 m), and 6.61 ft (2.015 m); no flow for many days.

REMARKS.--Records fair except those for August and winter months, which are poor.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1.4	1.9	1.9	2.1	3.9		0	0	0	0	9.1	1.1
2	.90	1.8	2.2	3.4	2.6		0	0	0	0	8.6	1.0
3	1.0	1.7	2.0	4.2	2.2		0	108	0	0	8.3	1.1
4	1.1	1.6	1.8	3.1	1.9		0	401	0	0	7.9	1.0
5	1.2	1.5	2.1	2.3	1.7		0	10	0	0	7.3	1.2
6	1.3	1.4	2.5	2.0	1.9		0	1.0	0	0	7.0	1.1
7	1.4	1.3	3.0	2.0	2.0		0	2.0	0	8.4	6.3	1.0
8	1.5	1.2	4.0	2.2	2.0		0	.20	0	1.8	6.3	1.1
9	1.3	1.2	3.5	2.2	1.9		0	0	0	.03	6.3	1.0
10	1.2	1.3	3.0	1.9	1.6		0	0	0	7.3	4.6	.90
11	1.1	1.4	2.7	2.0	1.3		0	0	0	5.5	3.9	1.0
12	1.1	1.5	3.5	2.1	1.3		0	0	0	58	3.7	1.1
13	1.1	1.7	2.3	1.9	1.3		0	0	0	3.9	3.7	1.0
14	1.1	1.6	1.8	1.9	1.0		0	0	0	4.4	4.8	.90
15	1.1	1.5	1.4	1.8	.65		0	0	0	4.0	2.9	1.0
16	1.0	1.5	1.6	1.7	.35		4.1	0	0	3.1	2.4	1.0
17	1.1	1.6	1.4	1.6	.05		4.5	0	0	2.7	2.3	1.0
18	1.2	1.7	1.2	1.5	0		6.9	0	0	2.5	8.9	1.0
19	1.4	1.6	1.2	1.4	0		18	0	.10	2.4	2.7	1.1
20	1.6	1.5	1.7	1.3	0		12	0	3.0	2.3	1.8	1.0
21	1.8	1.4	1.4	1.4	0		1.8	0	.02	2.4	1.9	1.1
22	1.7	1.3	.70	1.6	0		.92	0	0	2.5	1.7	1.2
23	1.6	1.3	.66	1.5	0		.79	0	0	3.0	1.9	.70
24	1.6	1.2	.76	1.6	0		.64	0	0	5.3	1.4	.80
25	1.5	1.2	.71	1.8	0		0	0	0	4.2	1.3	1.0
26	1.8	1.3	.66	2.0	0		0	0	0	8.3	1.4	.90
27	1.7	1.4	.81	1.8	0		0	0	0	9.1	1.3	.80
28	1.7	1.7	1.3	1.9	0		0	0	0	8.3	1.4	.90
29	1.6	------	1.9	2.0	0		0	0	0	12	1.2	1.0
30	1.7	------	2.1	2.6	0		0	0	0	10	1.1	1.0
31	1.8	------	2.1	------	0	------	0	0	------	9.1	------	.90
TOTAL	42.60	41.3	57.90	60.8	27.65	0	49.65	522.20	3.12	180.53	125.4	30.90
MEAN	1.37	1.48	1.87	2.03	.89	0	1.60	16.8	.10	5.82	4.11	1.00
MAX	1.8	1.9	4.0	4.2	3.9	0	18	401	3.0	58	9.1	1.2
MIN	.90	1.2	.66	1.3	0	0	0	0	0	0	1.1	.70
AC-FT	84	82	115	121	55	0	98	1,040	6.2	358	245	61

CAL YR 1974 TOTAL 1,140.05 MEAN 3.12 MAX 401 MIN 0 AC-FT 2,260
WTR YR 1974 TOTAL 861.76 MEAN 2.28 MAX 401 MIN 0 AC-FT 1,650

PEAK DISCHARGE (BASE, 100 FT³/S).--AUG. (0015) 5,200 FT³/S (6.61 FT); OCT. 12 (0700) 535 FT³/S (4.60 FT.).

09430500 GILA RIVER NEAR GILA, N. MEX.

LOCATION.--Lat 33°03'40", long 108°32'12", in NE¼NW¼ sec.30, T.14 S., R.16 W., Grant County, on left bank at Hooker damsite, 1.6 mi (2.6 km) upstream from Mogollon Creek, 7 mi (11 km) northeast of Gila, and at mile 572.5 (921.2 km).

DRAINAGE AREA.--1,864 mi² (4,828 km²).

PERIOD OF RECORD.--April to December 1914, December 1927 to current year. Monthly discharge only December 1927 to September 1930, published in WSP 1313.

GAGE.--Water-stage recorder. Datum of gage is 4,655.8 ft (1,419.09 m) above mean sea level from river-profile survey. Prior to Dec. 31, 1928, at site 5 mi (8.0 km) upstream at different datum. Dec. 31, 1928, to Jan. 7, 1942, at site 200 ft (61 m) upstream at same datum.

AVERAGE DISCHARGE.--47 calendar years (1928-74), 133 ft³/s (3.767 m³/s), 96,360 acre-ft/yr (119 hm³/yr); 20 calendar years (1955-74), 141 ft³/s (3.993 m³/s), 102,200 acre-ft/yr (126 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 712 ft³/s (20.2 m³/s) July 16 (gage height, 3.50 ft or 1.067 m); minimum, 19 ft³/s (0.54 m³/s) June 19.
Period of record: Maximum discharge, 25,400 ft³/s (719 m³/s) Sept. 29, 1941 (gage height, 17.2 ft or 5.24 m, from floodmark), from rating curve extended above 3,900 ft³/s (110 m³/s) on basis of velocity-area studies; minimum, 14 ft³/s (0.40 m³/s) July 15, 1971.
Other major floods occurred in November 1905, December 1906, and January 1916.

REMARKS.--Records good. Diversions for irrigation of about 500 acres (202 hm²) above station.

REVISIONS (WATER YEARS).--WSP 1283: Drainage area. WSP 1313: 1944(M), 1949(M).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	59	59	55	57	62	28	25	140	59	62	190	86
2	59	62	55	59	64	28	25	216	55	59	170	83
3	62	62	55	64	57	28	30	228	52	55	161	83
4	62	62	55	62	52	27	28	175	55	55	152	90
5	64	62	57	59	50	25	27	279	57	50	140	97
6	64	59	59	59	48	25	35	240	55	50	127	93
7	64	59	59	57	52	27	35	461	50	57	123	93
8	67	59	59	52	52	25	59	388	48	64	116	90
9	70	57	59	52	50	25	57	344	46	75	123	90
10	75	57	59	52	50	25	46	255	46	64	126	86
11	75	55	59	52	50	25	35	180	46	57	144	83
12	72	55	59	55	48	23	34	136	44	90	144	78
13	67	57	59	55	46	23	46	108	52	97	131	78
14	64	59	57	55	44	23	67	90	64	86	119	75
15	64	62	57	52	41	23	209	97	70	81	112	70
16	62	59	57	55	39	23	345	144	72	78	104	70
17	62	59	55	55	39	22	140	112	72	75	101	67
18	62	59	55	55	39	22	97	93	81	72	97	70
19	62	62	55	55	39	20	86	104	101	70	93	72
20	64	62	55	52	39	20	126	86	97	67	90	70
21	64	62	59	55	39	20	220	72	97	70	86	72
22	67	62	62	55	35	20	123	70	101	75	86	75
23	64	59	64	55	35	20	112	78	97	90	86	75
24	64	59	62	55	35	22	70	86	93	93	83	75
25	62	57	62	57	34	22	57	104	108	90	84	81
26	62	55	59	57	34	20	52	86	108	86	81	72
27	62	55	59	59	32	23	50	75	90	90	81	72
28	62	55	62	59	30	23	50	70	78	97	83	72
29	59	------	62	62	30	23	55	72	72	104	83	78
30	59	------	59	62	30	25	121	72	67	140	83	81
31	59	------	59	------	28	------	127	64	------	235	------	81
TOTAL	1,984	1,651	1,809	1,690	1,323	705	2,589	4,625	2,133	2,534	3,395	2,458
MEAN	64.0	59.0	58.4	56.3	42.7	23.5	83.5	149	71.1	81.7	113	79.3
MAX	75	62	64	64	64	28	345	461	108	235	190	97
MIN	59	55	55	52	28	20	25	64	44	50	81	67
AC-FT	3,940	3,270	3,590	3,350	2,620	1,400	5,140	9,170	4,230	5,030	6,730	4,880

CAL YR 1974 TOTAL 26,696 MEAN 73.7 MAX 461 MIN 20 AC-FT 53,350
WTR YR 1974 TOTAL 23,082 MEAN 63.2 MAX 461 MIN 20 AC-FT 45,780
PEAK DISCHARGE (BASE, 600 FT³/S).--JULY 16 (0100) 712 FT³/S (3.50 FT.).

09430600 MOGOLLON CREEK NEAR CLIFF, N. MEX.

(Hydrologic bench-mark station)

LOCATION.—Lat 33°10'00", long 108°38'57", in SE¼ sec.13, T.13 S., R.18 W., Grant County, 12 mi (19 km) upstream from mouth, and 14.2 mi (23 km) north of Cliff.

DRAINAGE AREA.—69 mi² (179 km²).

PERIOD OF RECORD.—March 1967 to current year.

GAGE.—Water-stage recorder. Altitude of gage is 5,440 ft (1,658 m) from topographic map.

AVERAGE DISCHARGE.—7 calendar years, 19.5 ft³/s (0.552 m³/s), 14,130 acre-ft/yr (17.4 hm³/yr).

EXTREMES.—Current year: Maximum discharge, 386 ft³/s (10.9 m³/s) Nov. 9 (gage height, 4.04 ft or 1.231 m); no flow at times.
Period of record: Maximum discharge, 10,800 ft³/s (306 m³/s) Aug. 12, 1967 (gage height, 13.7 ft or 4.18 m, from floodmarks), from rating curve extended above 220 ft³/s (6.23 m³/s) on basis of slope-area measurement of peak flow; no flow at times.

REMARKS.—Records fair. Water quality records for the current year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	.97	2.0	1.4	4.4	2.0		0	2.7	1.2	5.5	40	7.8
2	1.2	1.8	1.6	7.4	1.8		0	2.1	.97	4.7	34	7.0
3	1.2	1.6	2.3	9.5	1.6		0	5.5	.86	4.4	29	6.7
4	1.1	1.6	2.3	6.0	1.6		0	7.8	1.5	3.9	24	5.7
5	1.2	2.3	2.1	5.5	1.5		0	5.5	1.5	3.7	21	7.8
6	1.5	1.5	2.1	5.7	1.4		0	5.0	1.2	3.4	19	7.0
7	1.3	1.6	2.0	6.0	1.5		0	4.0	.86	3.4	14	5.7
8	1.8	2.0	2.0	6.0	1.5		0	3.5	.66	3.4	26	5.7
9	3.7	2.5	2.5	5.7	1.4		0	3.0	.32	3.4	258	5.5
10	2.9	5.5	2.5	5.5	1.3		0	2.0	.17	3.0	114	5.0
11	1.2	4.2	2.5	5.2	1.2		0	1.5	0	5.0	68	4.7
12	1.1	1.3	2.3	4.7	1.2		0	1.4	0	16	46	4.7
13	1.4	1.3	2.3	3.9	1.1		0	1.2	1.2	36	38	4.7
14	2.0	1.3	2.5	3.7	.97		0	.97	4.7	24	33	4.4
15	2.5	1.2	2.5	3.7	.76		0	3.0	18	16	30	7.0
16	3.2	1.2	2.9	3.4	.55		0	7.4	8.8	12	26	4.2
17	4.2	1.3	3.0	3.2	.45		0	5.0	5.5	9.5	24	3.9
18	5.7	1.3	3.4	3.2	.38		.12	3.5	8.1	8.1	21	3.7
19	5.0	1.3	3.7	3.2	.07		.45	7.8	42	7.4	19	6.7
20	4.2	1.4	7.8	3.2	0		.86	4.7	27	6.7	17	3.7
21	3.9	3.0	8.4	3.0	0		2.0	3.0	30	6.0	16	3.4
22	4.7	1.8	6.4	2.9	0		2.3	2.5	34	8.1	14	3.4
23	4.2	1.4	5.2	2.7	0		1.3	2.3	19	15	13	4.2
24	3.4	1.3	4.7	2.5	0		.86	2.9	14	14	12	9.2
25	2.9	1.3	4.2	2.7	0		.55	2.9	12	12	12	8.8
26	2.7	1.3	3.7	2.7	0		.17	2.5	12	11	11	7.8
27	2.7	1.4	3.7	2.9	0		.07	2.1	11	10	10	7.0
28	5.5	1.4	3.7	2.7	0		0	2.1	8.8	10	9.2	5.2
29	3.4	------	3.7	2.5	0		.52	2.1	7.4	68	9.2	4.2
30	4.2	------	3.9	2.1	0		2.9	2.0	6.4	96	8.1	3.7
31	2.1	------	4.2	------	0	------	2.0	1.5	------	46	------	11
TOTAL	87.07	51.1	105.5	125.8	22.28	0	13.90	105.47	279.14	475.6	1,015.5	179.5
MEAN	2.81	1.83	3.40	4.19	.72	0	.45	3.40	9.30	15.3	33.9	5.79
MAX	5.7	5.5	8.4	9.5	2.0	0	2.9	7.8	42	96	258	11
MIN	.97	1.2	1.4	2.1	0	0	0	.97	0	3.0	8.1	3.4
AC-FT	176	101	209	250	44	0	28	209	554	943	2,010	356

CAL YR 1974 TOTAL 2,460.86 MEAN 6.74 MAX 258 MIN 0 AC-FT 4,880
WTR YR 1974 TOTAL 864.61 MEAN 2.37 MAX 42 MIN 0 AC-FT 1,710

PEAK DISCHARGE (BASE, 100 FT³/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
10-29	1845	3.47	200	11-9	0145	4.04	386

09431500 GILA RIVER NEAR REDROCK, N. MEX.

LOCATION.--Lat 32°43'37", long 108°40'30", in W½ sec.23, T.18 S., R.18 W., Grant County, on left bank 0.2 mi (0.3 km) downstream from Copper Canyon, 0.2 mi (0.3 km) upstream from lower end of box canyon, 4.7 mi (7.6 km) northeast of Redrock, 14 mi (23 km) downstream from Mangas Creek, and at mile 539.2 (867.6 km).

DRAINAGE AREA.--2,829 mi² (7,327 km²).

PERIOD OF RECORD.--September 1904 to February 1905 (gage heights only). May 1905 to December 1906, January to December 1907 and July to October 1908 (gage heights only). November 1908 to December 1910, January 1911 to January 1912 and May to June 1912 (gage heights only). August 1912 to September 1955, October 1962 to current year. Monthly or annual discharge only for some periods, published in WSP 1313. Published as "near Cliff" 1904-07, and as "near Redrock" 1908-55.

GAGE.--Water-stage recorder. Altitude of gage is 4,090 ft (1,247 m)from plane table survey. Prior to Dec. 31, 1907, nonrecording gage at site 13.5 mi (21.7 km) upstream at different datum. May 14, 1908, to July 16, 1909, nonrecording gage at site 0.2 mi (0.3 km) downstream at different datum.

AVERAGE DISCHARGE.--57 calendar years (1906, 1909-10, 1913-54, 1963-74), 197 ft³/s (5.579 m³/s), 142,700 acre-ft/yr (176 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,520 ft³/s (43.0 m³/s) Sept. 5 (gage height, 10.95 ft or 3.338 m); minimum, 4.4 ft³/s (0.12 m³/s) July 2, 3.
Period of record: Maximum discharge, 40,000 ft³/s (1,130 m³/s) Sept. 29, 1941 (gage height, 31 ft or 9.45 m, from floodmarks), computed on basis of known peak flow for station below Blue Creek; minimum, 2.2 ft³/s (0.062 m³/s) Aug. 5, 1947.

REMARKS.--Records fair. Diversions for irrigation of about 5,000 acres (20.2 km²) above station.

REVISIONS (WATER YEARS).--WSP 1213: 1906, 1911-15, 1931, 1936-37, 1939, 1941, 1944, 1945(P), 1946(M), 1947. WSP 1283: Drainage area. WSP 1926: 1955.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	70	71	52	48	60	20	4.7	91	67	83	210	79
2	78	66	50	51	64	20	4.7	126	61	82	195	80
3	76	62	51	52	63	20	4.7	142	59	77	185	79
4	76	58	53	43	59	19	5.2	260	59	75	182	79
5	75	67	54	47	44	18	5.2	305	216	79	173	81
6	76	65	54	54	41	17	7.3	257	70	74	153	78
7	81	65	50	52	39	17	7.0	338	57	75	142	73
8	82	63	52	52	39	16	6.0	329	44	68	137	76
9	103	64	55	52	38	14	5.4	293	39	78	172	84
10	88	67	57	50	38	14	5.4	266	66	75	190	82
11	92	65	59	50	39	13	5.7	190	32	78	164	76
12	91	61	58	60	38	12	6.0	160	29	79	155	80
13	82	54	62	50	32	11	68	159	33	113	149	82
14	79	50	60	45	30	11	150	120	31	109	135	84
15	78	52	61	47	29	11	224	134	30	103	126	84
16	74	52	63	46	29	10	233	161	30	97	121	88
17	75	56	51	46	28	10	161	155	30	89	113	89
18	75	60	54	54	27	11	194	111	32	89	102	88
19	74	55	62	53	27	10	126	188	80	80	99	88
20	78	53	67	49	26	9.1	123	128	100	66	96	84
21	84	58	67	43	26	9.4	157	105	86	66	91	83
22	80	61	66	42	24	12	117	85	91	68	85	81
23	80	59	64	44	24	11	92	92	93	79	84	80
24	83	57	63	46	24	8.5	84	110	96	86	81	79
25	77	58	62	45	23	7.6	85	136	131	82	84	76
26	76	51	59	47	22	6.7	80	113	86	78	85	78
27	72	48	55	49	22	6.2	74	104	106	78	85	80
28	74	53	54	55	23	6.0	84	150	96	82	80	73
29	72	------	49	56	23	5.4	120	90	88	88	78	72
30	74	------	48	56	21	5.2	113	70	88	140	84	74
31	75	------	44	------	20	------	99	74	------	170	------	73
TOTAL	2,450	1,649	1,756	1,484	1,037	361.1	2,451.3	4,942	2,098	2,686	3,836	2,483
MEAN	79.0	58.9	56.6	49.5	33.5	12.0	79.1	159	69.9	86.6	128	80.1
MAX	103	71	67	60	64	20	233	338	216	170	210	89
MIN	70	48	44	42	20	5.2	4.7	70	29	66	78	72
AC-FT	4,860	3,270	3,480	2,940	2,060	716	4,860	9,800	4,160	5,330	7,610	4,930

CAL YR 1974 TOTAL 27,233.4 MEAN 74.6 MAX 338 MIN 4.7 AC-FT 54,020
WTR YR 1974 TOTAL 22,731.4 MEAN 62.6 MAX 338 MIN 4.7 AC-FT 45,090

PEAK DISCHARGE (BASE, 3,000 FT³/S).--NO PEAK ABOVE BASE.

09432000 GILA RIVER BELOW BLUE CREEK, NEAR VIRDEN, N. MEX.

LOCATION.--Lat 32°38'53", long 108°50'43", in SE¼SW¼ sec.18, T.19 S., R.19 W., Grant County, on left bank at head of canyon, 1.4 mi (2.3 km) downstream from Blue Creek, 10 mi (16 km) east of Virden, 16 mi (26 km) upstream from New Mexico-Arizona State line, and at mile 523.6 (842.5 km).

DRAINAGE AREA.--3,203 mi² (8,296 km²), excluding Animas River Basin.

PERIOD OF RECORD.--May to November 1914, March to September 1915, July 1927 to current year. July 1927 to May 1931 monthly discharge only, published in WSP 1313, computed as sum of flow at Virden Bridge, 9 mi (14 km) downstream, and in Sunset Canal. Published as Gila River near Duncan, Ariz., 1914-15 and as Gila River at Fuller's Ranch, near Duncan, Ariz., 1931-38.

GAGE.--Water-stage recorder. Altitude of gage is 3,875 ft (1,181 m) from river-profile map. May 11, 1914, to Sept. 30, 1915, at site 6 mi (9 km) downstream, 1,000 ft (300 m) upstream from intake of Sunset Canal. June 1 to July 7, 1931, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--47 calendar years (1928-74), 175 ft³/s (4.956 m³/s), 126,800 acre-ft/yr (156 hm³/yr); 20 calendar years (1955-74), 189 ft³/s (5.352 m³/s), 136,900 acre-ft/yr (169 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 7,560 ft³/s (214 m³/s) Aug. 4 (gage height, 14.10 ft or 4.298 m); minimum 2.5 ft³/s (0.071 m³/s) July 12.
Period of record: Maximum discharge, 41,700 ft³/s (1,180 m³/s) Sept. 29, 1941 (gage height, 25.78 ft or 7.858 m); minimum, 1 ft³/s (0.028 m³/s) July 14, 1934.

REMARKS.--Records good. Station is above all Duncan Valley diversions. Diversions for irrigation of about 6,200 acres (25.1 km²) above station.

REVISIONS (WATER YEARS).--WSP 1283: Drainage area. WSP 1313: 1929, 1931-32(M).

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	66	81	51	41	48	18	3.2	89	68	71	231	101
2	68	75	49	44	55	17	3.5	105	63	70	209	104
3	71	73	48	46	56	17	4.5	153	60	67	190	99
4	70	66	49	41	59	15	3.5	752	57	62	175	104
5	71	71	53	38	54	14	3.5	674	286	66	177	104
6	71	74	54	41	44	14	3.5	350	62	64	151	105
7	74	74	51	44	41	12	3.4	351	53	66	138	99
8	75	74	48	48	38	11	3.1	460	44	55	132	99
9	83	75	52	46	32	10	2.8	310	39	65	154	108
10	84	77	55	46	36	9.8	2.7	276	36	94	220	111
11	86	75	56	45	32	9.2	2.7	216	34	81	195	102
12	92	71	54	50	33	8.5	2.7	172	33	79	177	102
13	85	64	54	50	30	7.8	59	134	36	157	169	105
14	83	54	53	44	29	7.3	81	110	41	141	146	104
15	80	53	56	41	27	6.8	289	657	38	115	134	99
16	76	53	54	41	26	6.0	301	101	36	100	136	102
17	77	53	49	39	25	5.6	218	72	36	90	130	104
18	77	59	42	38	24	5.4	156	68	40	92	121	102
19	77	58	46	42	24	5.2	214	177	104	89	117	105
20	76	53	52	42	25	4.6	117	87	107	72	116	100
21	86	54	56	39	25	4.3	141	72	75	67	116	102
22	85	59	56	31	24	4.2	141	68	76	68	108	100
23	85	58	57	30	23	3.8	93	115	80	80	105	101
24	86	57	56	30	21	3.8	73	114	85	90	101	101
25	84	55	55	35	21	3.4	58	164	117	85	105	100
26	82	53	55	36	20	3.4	51	137	106	79	102	101
27	81	49	50	37	20	3.2	43	95	87	76	107	105
28	76	50	47	40	21	3.1	32	233	89	86	102	101
29	79	------	45	44	24	3.2	74	108	79	90	97	99
30	79	------	42	44	24	3.2	134	71	79	158	104	104
31	82	------	40	------	21	------	61	71	------	195	------	105
TOTAL	2,447	1,768	1,583	1,203	979	239.8	2,374.1	6,542	2,146	2,772	4,262	3,178
MEAN	78.9	63.1	51.1	41.1	31.6	7.99	76.6	211	71.5	89.4	142	103
MAX	92	81	57	50	59	18	301	752	286	195	231	111
MIN	66	49	40	30	20	3.1	2.7	68	33	55	97	99
AC-FT	4,850	3,510	3,140	2,450	1,940	476	4,710	12,980	4,260	5,500	8,450	6,300

CAL YR 1974 TOTAL 29,523.9 MEAN 80.9 MAX 752 MIN 2.7 AC-FT 58,560
WTR YR 1974 TOTAL 23,511.9 MEAN 64.9 MAX 752 MIN 2.7 AC-FT 46,640

PEAK DISCHARGE (BASE, 1,900 FT³/S).--AUG. 4 (2115) 7,560 FT³/S (14.10 FT.); AUG. 15 (1800) 4,000 FT³/S (11.20 FT.)

09442680 SAN FRANCISCO RIVER NEAR RESERVE, N. MEX.

LOCATION.--Lat 33°44'12", long 108°46'14", in NE¼NW¼SE¼ sec.35, T.6 S., R.19 W., Catron County, on left bank 1,300 ft (400 m) downstream from Rainbow Bridge Canyon, 1.7 mi (2.7 km) northwest of Reserve, and at mile 563.1 (906.0 km).

DRAINAGE AREA.--350 mi^2 (907 km^2), approximately.

PERIOD OF RECORD.--March 1959 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,820 ft (1,774 m) from topographic map. Prior to Dec. 15, 1972 at site 1,800 ft (549 m) upstream at datum 21.3 ft (6.49 m) higher.

AVERAGE DISCHARGE.--15 calendar years, 25.4 ft^3/s (0.719 m^3/s), 18,400 acre-ft/yr (22.7 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 832 ft^3/s (23.6 m^3/s) July 29 (gage height, 5.00 ft or 1.524 m); minimum, 1.8 ft^3/s (0.051 m^3/s) June 29, 30.
Period of record: Maximum discharge, 11,900 ft^3/s (337 m^3/s) Oct. 20, 1972 (gage height, 7.47 ft or 2.277 m in gage well, 8.05 ft or 2.454 m, from outside floodmarks, site and datum then in use), from rating curve extended above 9,000 ft^3/s (255 m^3/s) on basis of velocity-area study; minimum, 1.0 ft^3/s (0.028 m^3/s) Mar. 16, 1959.
Maximum stage known, about 15 ft (4.6 m), as determined in 1962 from old floodmarks. Major floods of Nov. 26, 1905 and Dec. 3, 1906, exceeded 20,000 ft^3/s (566 m^3/s) at Alma (downstream). See WSP 1313.

REMARKS.--Records good. Possible minor regulation by Luna Lake, 27 mi (43 km) upstream. Diversions for irrigation of about 500 acres (202 hm^2) above station.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	9.7	8.2	7.7	5.5	5.5	3.7	2.2	8.2	5.8	4.5	47	9.3
2	11	8.5	8.3	5.9	5.5	3.4	2.8	6.8	5.8	4.5	44	10
3	8.4	8.0	8.9	5.6	5.6	3.4	2.6	7.5	5.8	4.5	39	8.6
4	10	8.3	8.1	5.4	5.9	3.4	2.2	36	5.6	4.5	35	9.3
5	10	8.6	7.7	5.2	5.9	3.4	2.0	12	7.5	4.5	30	9.6
6	9.6	8.5	7.7	5.1	6.2	3.4	2.4	10	6.1	4.8	28	9.3
7	11	8.1	8.0	5.0	6.4	3.4	6.2	12	5.8	43	24	8.2
8	11	7.3	7.9	4.8	5.8	3.4	6.1	13	5.6	9.3	24	8.9
9	10	8.3	7.6	4.7	5.4	3.1	3.7	13	5.3	8.6	24	6.8
10	9.0	8.7	7.5	4.7	5.1	3.4	3.7	7.8	5.3	8.2	23	6.4
11	8.3	8.7	6.9	4.8	5.0	3.4	3.4	6.1	5.0	8.9	19	7.1
12	8.4	10	6.8	5.2	4.4	3.1	5.3	5.6	4.8	8.2	18	7.8
13	9.7	9.5	6.7	5.0	4.4	3.1	3.7	5.3	4.8	8.9	16	7.8
14	9.3	8.8	6.6	4.7	4.4	2.8	4.0	5.3	5.0	10	17	6.4
15	9.0	8.3	6.1	4.8	4.2	2.8	4.0	6.8	5.6	8.2	16	6.8
16	9.0	8.5	5.9	4.8	4.0	2.8	5.1	7.8	5.3	6.4	15	8.2
17	9.5	8.7	6.0	4.6	4.2	2.8	5.0	6.8	5.0	6.8	15	7.8
18	10	9.0	5.8	4.4	4.4	2.8	5.3	6.4	5.0	6.4	14	7.8
19	9.3	8.2	5.8	4.8	4.8	2.8	21	6.4	6.4	6.1	14	7.1
20	9.4	9.3	8.9	4.7	4.5	2.8	8.7	5.9	5.6	6.1	13	7.5
21	9.9	9.1	7.5	4.8	4.6	2.8	10	5.9	5.8	6.1	13	7.8
22	9.7	8.0	6.9	4.8	4.7	2.8	8.7	7.5	5.0	8.6	12	7.8
23	7.5	8.5	7.2	4.6	4.6	2.5	7.4	8.2	5.0	13	12	7.8
24	7.7	7.3	6.5	4.6	4.2	2.8	7.0	6.4	4.8	14	10	6.4
25	8.0	7.5	6.2	4.8	4.2	2.5	5.9	6.1	4.8	10	10	2.0
26	8.6	7.4	6.0	4.9	3.9	2.8	5.9	5.8	5.0	8.6	8.9	4.0
27	9.6	7.5	6.1	5.1	3.9	2.5	5.9	6.1	5.0	10	8.9	6.0
28	7.0	7.7	6.0	5.2	3.7	2.2	5.9	7.5	4.8	10	9.3	8.2
29	7.7	------	5.9	5.1	3.7	2.2	40	6.4	4.5	131	8.9	10
30	8.1	------	5.8	5.2	3.4	2.0	8.0	5.8	4.5	101	8.2	8.9
31	8.4	------	5.7	------	3.4	------	6.1	5.6	------	54	------	6.8
TOTAL	283.8	230.5	214.4	148.8	145.9	88.3	208.4	260.0	160.0	538.7	576.2	236.4
MEAN	9.15	8.23	6.92	4.96	4.71	2.94	6.72	8.39	5.33	17.4	19.2	7.63
MAX	11	10	8.9	5.9	6.4	3.7	40	36	7.5	131	47	10
MIN	7.0	5.1	5.7	4.4	3.4	2.0	2.0	5.3	4.5	4.5	8.2	2.0
AC-FT	563	457	425	295	289	175	413	516	317	1,070	1,140	469

CAL YR 1974 TOTAL 3,091.4 MEAN 8.47 MAX 131 MIN 2.0 AC-FT 6,130
WTR YR 1974 TOTAL 2,493.0 MEAN 6.83 MAX 40 MIN 2.0 AC-FT 4,940

PEAK DISCHARGE (BASE, 450 FT^3/S).--JULY 29 (1630) 832 FT^3/S (5.00 FT.).

09442692 TULAROSA RIVER ABOVE ARAGON, N. MEX.

LOCATION.--Lat 33°53'29", long 108°30'54", in NW¼ sec.9, T.5 S., R.16 W., Catron County, on right bank 0.4 mi (0.6 km) upstream from first diversion, 1.4 mi (2.3 km) northeast of Aragon, and 8 mi (13 km) upstream from Apache Creek.

DRAINAGE AREA.--94 mi² (244 km²).

PERIOD OF RECORD.--July 1966 to current year. 1955 to 1965 at site 0.6 mi (1.0 km) upstream (drainage area, 89 mi² or 230.5 km²), annual maximum only.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,750 ft (2,057 m) from topographic map.

AVERAGE DISCHARGE.--8 calendar years, 3.47 ft³/s (0.098 m³/s), 2,510 acre-ft/yr (3.09 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 59 ft³/s (1.67 m³/s) July 20 (gage height, 1.98 ft or 0.604 m); minimum, 2.1 ft³/s (0.059 m³/s) July 4.
Period of record: Maximum discharge, 392 ft³/s (11.1 m³/s) Sept. 1, 1971 (gage height, 3.13 ft or 0.954 m), from rating curve extended above 10 ft³/s (0.28 m³/s) on basis of slope-area measurement of peak flow; minimum, 1.1 ft³/s (0.031 m³/s) July 22, 1969.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	2.9	2.7	2.9	2.7	2.8	2.6	2.3	2.8	2.5	2.6	2.8	2.8
2	2.9	2.7	2.9	2.8	2.8	2.6	2.3	2.9	2.5	2.6	2.8	2.6
3	2.9	2.8	2.9	2.7	2.9	2.6	2.2	3.0	2.5	2.6	2.9	2.8
4	2.9	2.9	2.9	2.7	2.9	2.6	2.2	3.6	2.5	2.6	2.9	2.8
5	2.9	2.9	2.9	2.6	2.9	2.6	2.3	3.0	2.5	2.6	2.8	2.8
6	2.8	2.8	2.9	2.6	2.9	2.6	2.3	2.9	2.5	2.7	2.8	2.8
7	2.9	2.8	2.9	2.6	2.9	2.5	2.3	2.9	2.5	2.7	2.8	2.8
8	2.9	2.8	2.9	2.6	3.0	2.6	2.3	2.9	2.5	2.7	2.8	2.8
9	2.9	2.9	2.9	2.6	3.0	2.5	2.3	2.8	2.5	2.7	2.8	2.8
10	2.9	2.9	2.9	2.6	3.0	2.5	2.3	2.8	2.5	4.1	2.8	2.8
11	2.9	2.9	2.9	2.6	2.9	2.5	2.3	2.8	2.5	2.8	2.8	2.8
12	2.8	2.9	2.8	2.6	2.8	2.6	2.3	2.8	2.5	2.8	2.6	2.8
13	2.8	2.9	2.8	2.7	2.7	2.6	2.3	2.8	2.5	2.8	2.6	2.8
14	2.9	2.9	2.8	2.7	2.8	2.6	2.3	2.7	2.6	2.7	2.6	2.8
15	2.9	2.9	2.8	2.7	2.7	2.6	2.6	2.9	2.5	2.7	2.6	2.8
16	2.8	2.8	2.8	2.7	2.7	2.6	2.4	2.7	2.5	2.7	2.6	2.8
17	2.8	2.9	2.8	2.7	2.8	2.6	2.5	2.7	2.6	2.7	2.7	2.8
18	2.8	2.9	2.8	2.7	2.8	2.6	2.4	2.8	2.6	2.7	2.7	2.8
19	2.8	2.9	2.8	2.7	2.7	2.6	2.4	2.7	2.6	2.7	2.7	2.8
20	2.7	2.9	3.2	2.7	2.7	2.5	4.0	2.7	2.6	2.7	2.7	2.8
21	2.7	2.9	2.8	2.7	2.7	2.6	2.5	2.7	2.6	2.7	2.7	2.9
22	2.7	2.9	2.8	2.8	2.7	2.5	2.6	2.7	2.7	2.8	2.7	2.9
23	2.7	2.9	2.9	2.8	2.7	2.5	2.5	2.7	2.6	2.7	2.7	2.9
24	2.7	2.8	2.8	2.9	2.7	2.5	2.6	2.7	2.6	2.7	2.7	2.9
25	2.7	2.9	2.7	2.9	2.7	2.5	2.6	2.6	2.6	2.8	2.7	3.1
26	2.7	2.9	2.8	2.9	2.7	2.5	2.6	2.6	2.6	2.9	2.7	3.0
27	2.7	2.9	2.7	2.8	2.7	2.4	2.7	2.5	2.6	2.8	2.7	3.0
28	2.7	2.9	2.7	2.8	2.7	2.4	2.8	2.5	2.6	2.8	2.7	3.0
29	2.7	------	2.7	2.8	2.7	2.4	2.7	2.5	2.6	3.0	2.8	3.0
30	2.8	------	2.7	2.8	2.7	2.3	2.8	2.5	2.6	2.9	2.8	3.1
31	2.8	------	2.7	------	2.7	------	2.9	2.5	------	2.8	------	3.1
TOTAL	87.0	80.2	87.8	81.5	86.4	76.1	77.6	85.7	76.6	86.1	82.0	88.9
MEAN	2.81	2.86	2.83	2.72	2.79	2.54	2.50	2.76	2.55	2.78	2.73	2.87
MAX	2.9	2.9	3.2	2.9	3.0	2.6	4.0	3.6	2.7	4.1	2.9	3.1
MIN	2.7	2.7	2.7	2.6	2.7	2.3	2.2	2.5	2.5	2.6	2.6	2.8
AC-FT	173	159	174	162	171	151	154	170	152	171	163	176

CAL YR 1974 TOTAL 995.9 MEAN 2.73 MAX 4.1 MIN 2.2 AC-FT 1,980
WTR YR 1974 TOTAL 996.1 MEAN 2.73 MAX 4.0 MIN 2.2 AC-FT 1,980

PEAK DISCHARGE (BASE, 20 FT³/S).--JULY 20 (1500) 59 FT³/S (1.98 FT.); OCT. 10 (1930) 44 FT³/S (1.84 FT).

09443000 SAN FRANCISCO RIVER NEAR ALMA, N. MEX.

LOCATION.--Lat 33°22'05", long 108°54'35", in SW¼SE¼ sec.4, T.11 S., R.20 W., Catron County, on right bank 1.2 mi (1.9 km) downstream from Alma, 4 mi (6 km) northwest of Glenwood, 6 mi (10 km) upstream from Whitewater Creek, and at mile 523.5 (842.3 km).

DRAINAGE AREA.--1,546 mi² (4,004 km²).

PERIOD OF RECORD.--September 1904 to January 1914, fragmentary (see WSP 1313), January 1964 to current year. Prior to October 1911, published as "at Alma".

GAGE.--Water-stage recorder. Datum of gage is 4,841 ft (1,475.5 m) above mean sea level. Prior to Aug. 11, 1912, nonrecording gages at various sites, within 500 ft (150 m) of each other, 0.8 mi (1.3 km) upstream, at different datums. Aug. 11, 1912, to Feb. 2, 1914, nonrecording gage at approximately present site and datum. Prior to Nov. 1, 1972, at datum 3.00 ft (0.91 m) higher.

AVERAGE DISCHARGE.--10 calendar years (1964-74), 73.8 ft³/s (2.09 m³/s), 53,470 acre-ft/yr (65.9 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 959 ft³/s (27.2 m³/s) Oct. 29 (gage height, 3.81 ft or 1.161 m); no flow many days.
Period of record: Maximum discharge, 30,600 ft³/s (867 m³/s) Oct. 20, 1972 (gage height, 18.16 ft or 5.535 m, present datum, from floodmarks in well), from rating curve extended above 3,500 ft³/s (99.1 m³/s) on basis of slope-area measurement of peak flow; no flow many days.
Major floods probably occurred Jan. 19 and Oct. 14, 1916, when discharges of 90,000 ft³/s (2,550 m³/s) or greater were computed at Clifton, Ariz.

REMARKS.--Records fair. Diversions for irrigation of about 1,500 acres (607 hm²) above station.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	14	15	0	4.1	.19		0	13	0	4.7	68	10
2	14	15	0	5.8	.18		0	14	0	4.1	63	10
3	14	14	1.6	8.0	.17		0	19	0	4.1	68	10
4	16	13	5.2	7.2	.16		0	47	0	1.6	57	10
5	16	14	3.0	6.8	.15		0	66	0	0	49	11
6	16	14	1.6	5.8	.13		0	92	0	1.6	41	12
7	16	14	2.5	4.7	.12		0	25	0	17	38	11
8	16	10	3.0	3.6	.11		0	24	0	37	38	12
9	16	9.0	4.7	2.0	.10		0	31	0	17	37	11
10	15	11	3.6	3.0	.09		0	26	0	16	37	9.6
11	14	14	3.6	3.0	.08		0	17	0	12	36	8.0
12	16	14	2.0	1.6	.07		0	11	0	22	36	8.8
13	17	15	1.1	.65	.06		0	3.6	0	22	31	9.6
14	17	14	.65	.65	.05		0	.65	0	17	28	10
15	17	14	1.1	.65	.04		0	0	74	14	26	9.6
16	17	13	.65	.65	.03		.65	0	18	13	24	7.2
17	17	13	.65	.65	.03		3.0	0	10	11	23	9.6
18	18	13	.65	.65	.18		1.1	4.6	4.7	8.8	20	9.6
19	18	13	.65	.65	.40		0	3.6	23	8.0	19	10
20	17	14	5.1	.65	.65		0	2.5	12	7.2	18	9.6
21	18	12	10	.65	.65		0	.20	9.6	7.2	18	9.6
22	17	11	10	.65	.20		0	0	7.2	8.8	16	9.6
23	16	10	8.0	.65	.20		0	0	2.5	47	15	10
24	15	6.3	7.2	.65	.20		0	3.1	5.8	37	15	8.0
25	15	5.2	6.8	.65	.20		0	12	6.3	27	14	3.3
26	16	4.7	6.8	.65	.16		0	7.2	7.2	41	13	4.7
27	16	3.6	7.2	.65	.18		0	.20	6.6	68	12	7.6
28	15	0	5.8	.20	.14		0	0	5.2	41	12	8.8
29	14	------	4.7	.20	.07		0	0	3.6	216	12	11
30	15	------	4.7	.20	0		13	0	3.6	254	12	13
31	15	------	3.6	------	0	------	14	0	------	107	------	11
TOTAL	493	318.8	116.15	65.95	5.01	0	61.75	422.65	199.5	1,092.1	896	295.2
MEAN	15.9	11.4	3.75	2.20	.16	0	1.02	13.6	6.65	35.2	29.9	9.52
MAX	18	15	10	8.0	.65	0	14	92	74	254	68	13
MIN	14	0	0	.20	0	0	0	0	0	0	12	3.3
AC-FT	978	632	230	131	9.9	0	63	838	396	2,170	1,780	586

CAL YR 1974 TOTAL 3,936.11 MEAN 10.8 MAX 254 MIN 0 AC-FT 7,810
WTR YR 1974 TOTAL 2,281.91 MEAN 6.25 MAX 92 MIN 0 AC-FT 4,530

PEAK DISCHARGE (BASE, 1,000 FT³/S).--NO PEAK ABOVE BASE.

09444000 SAN FRANCISCO RIVER NEAR GLENWOOD, N. MEX.

LOCATION.--Lat 33°14'48", long 108°52'47", in NE¼NW¼ sec.23, T.12 S., R.20 W., Catron County, on left bank 0.2 mi (0.3 km) upstream from hot springs, 5 mi (8 km) south of Glenwood, 6 mi (10 km) downstream from Whitewater Creek, and at mile 511.5 (823.0 km).

DRAINAGE AREA.--1,653 mi² (4,281 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 4,552.06 ft (1,387.468 m) above mean sea level; prior to Feb. 15, 1934, at site 4.5 mi (7.2 km) upstream at datum 98.82 ft (30.120 m) higher.

AVERAGE DISCHARGE.--47 calendar years, 70.5 ft³/s (1.997 m³/s), 51,080 acre-ft/yr (63.0 hm³/yr); 20 calendar years (1955-74), 79.4 ft³/s (2.249 m³/s), 57,530 acre-ft/yr (70.9 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 610 ft³/s (17.3 m³/s) Oct. 29 (gage height, 4.17 ft or 1.271 m); minimum, 12 ft³/s (0.34 m³/s) at times.

Period of record: Maximum discharge, 34,100 ft³/s (966 m³/s) Oct. 20, 1972 (gage height, 16.61 ft or 5.063 m), from rating curve extended above 22,000 ft³/s (623 m³/s); minimum, 1.5 ft³/s (0.042 m³/s) Aug. 6, 1961.

Major floods probably occurred Jan. 19 and Oct. 14, 1916 when discharges of 90,000 ft³/s (2,550 m³/s) or greater were computed for station at Clifton, Ariz. On Nov. 26, 1905, a peak of 25,000 ft³/s (708 m³/s) was measured (by float-area method) at station at Alma (about 12 mi or 19 km upstream, drainage area, 1,560 mi² or 4,040 km²); a similar measurement of 21,000 ft³/s (595 m³/s) was made at the Alma station for peak of Dec. 3, 1906.

REMARKS.--Records good. Diversions for irrigation of about 2,000 acres (809 hm²) above station. Water quality records for the current year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1213: 1931, 1934, 1936-37, 1940-42, 1943-44(M), 1945-47. WSP 1283: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	31	34	20	15	20	17	14	30	22	28	86	35
2	31	34	20	17	20	16	15	29	21	28	72	35
3	32	34	21	19	18	17	14	33	20	26	84	34
4	32	33	20	19	19	17	13	41	19	27	71	35
5	32	33	19	18	22	15	12	61	18	27	67	35
6	33	33	19	18	20	15	13	50	17	29	62	33
7	33	33	20	19	19	14	13	41	16	33	57	32
8	33	31	21	17	19	14	13	34	16	55	55	32
9	33	30	21	16	20	14	13	36	20	44	71	32
10	32	30	23	18	19	15	12	39	17	40	68	32
11	32	31	23	18	20	15	12	33	15	39	60	30
12	33	31	23	17	18	15	13	25	16	45	54	30
13	34	30	22	17	20	15	14	18	18	47	49	30
14	34	31	22	16	18	15	15	17	25	44	46	29
15	35	31	21	17	18	15	16	20	46	40	44	29
16	35	30	21	16	17	15	15	19	45	39	43	27
17	34	29	21	18	17	14	24	19	35	38	41	27
18	35	28	20	19	16	13	16	19	32	36	41	28
19	35	28	21	19	17	14	16	19	36	35	39	28
20	35	28	22	20	17	14	17	16	40	32	39	28
21	35	27	21	20	17	13	16	16	37	31	38	27
22	35	26	24	18	18	13	17	17	33	36	38	28
23	35	25	25	18	20	13	16	19	28	52	38	28
24	35	23	24	16	19	13	16	21	29	60	38	25
25	34	21	21	19	19	12	17	24	33	48	36	23
26	35	20	20	20	17	12	17	22	31	46	36	23
27	36	20	19	20	16	13	18	22	28	81	36	24
28	36	20	19	20	16	14	16	25	26	52	36	26
29	36	------	17	20	15	13	34	21	24	123	36	27
30	34	------	16	20	16	13	30	20	26	261	36	28
31	34	------	16	------	17	------	36	22	------	121	------	28
TOTAL	1,049	804	642	546	564	428	527	828	789	1,643	1,517	906
MEAN	33.8	28.7	20.7	18.2	18.2	14.3	17.0	26.7	26.3	53.0	50.6	29.3
MAX	36	34	25	20	22	17	36	61	46	261	86	35
MIN	31	20	16	15	15	12	12	16	15	26	36	23
AC-FT	2,080	1,590	1,270	1,080	1,120	849	1,050	1,640	1,560	3,260	3,010	1,800

CAL YR 1974 TOTAL 10,245 MEAN 28.1 MAX 261 MIN 12 AC-FT 20,320
WTR YR 1974 TOTAL 8,476 MEAN 23.2 MAX 61 MIN 12 AC-FT 16,810

PEAK DISCHARGE (BASE, 800 FT³/S).--NO PEAK ABOVE BASE.

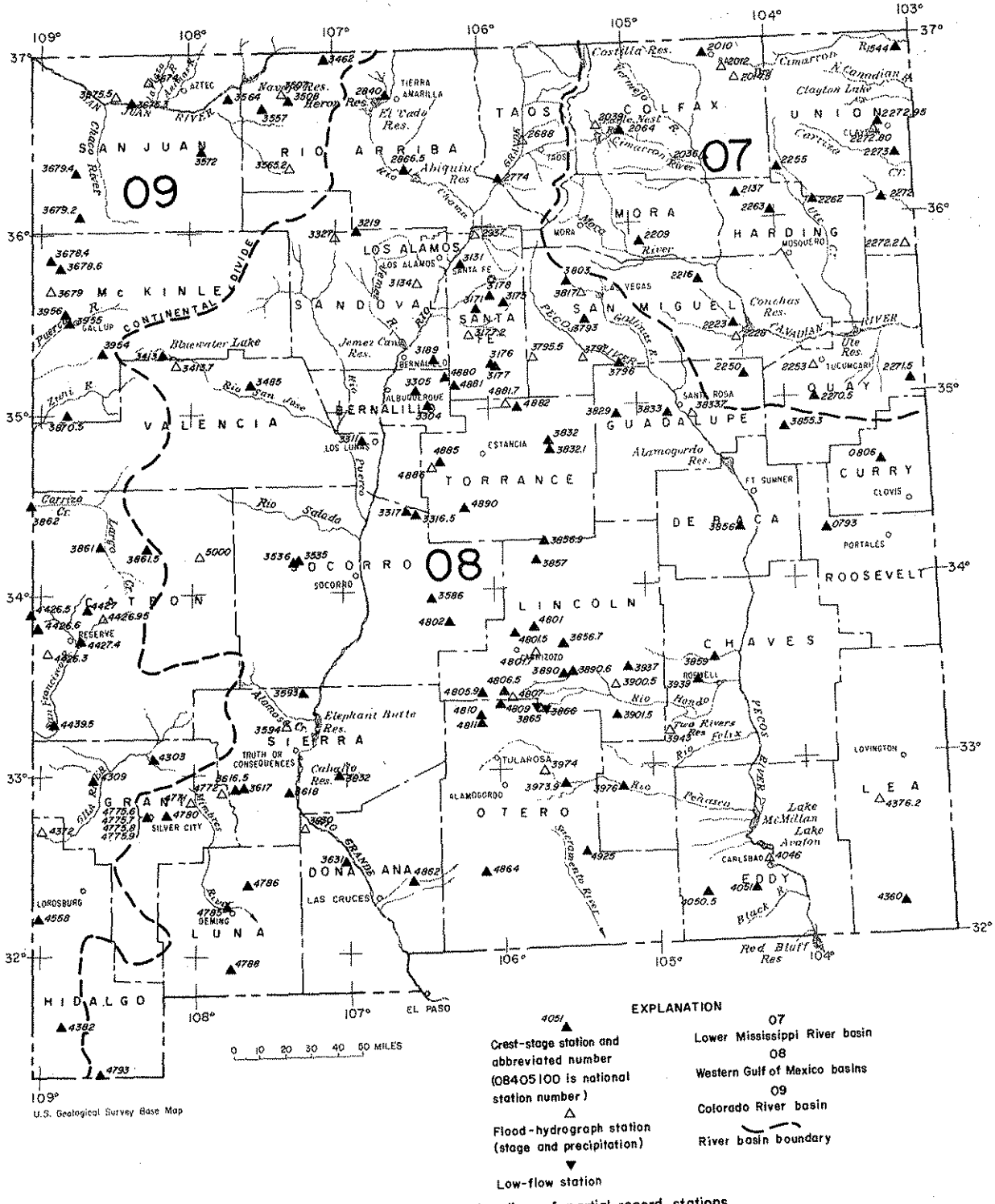

Figure 2.—Map of New Mexico showing location of partial-record stations.

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of a stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during calendar year 1974

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
		Rio Grande basin				
08386500	Rio Ruidoso near Ruidoso, N. Mex.	Lat 33°20'11", long 105°43'31", in NW¼SW¼SW¼ sec.19, T.11 S., R.13 E., Lincoln County at Mescalero Apache Indian Reservation boundary, 3.0 mi (4.8 km) west of Ruidoso.	17.2 (44.5km²)	1953-74	3-14-74	4.2
					5-13-74	5.5
					6- 5-74	*0.48
					10-30-74	27.3
					12-10-74	4.4
08386600	Carrizo Creek at Ruidoso, N. Mex.	Lat 33°19'27", long 105°30'13", SW¼NW¼SW¼ sec.26, T.11 S., R.13 E., Lincoln County, at mouth, at Ruidoso.	24.2 (62.7km²)	1953-74	3-14-74	2.3
					4-29-74	2.4
					6- 5-74	2.5
					10-30-74	3.3
					12-11-74	2.8

Crest-stage partial-record stations

The following table contains maximum discharge for the current calendar year for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. An S under the station number indicates that a complete hydrograph of flow events and precipitation data are recorded. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continous-record stations, weather records, or local inquiry. Only the maximum discharge for each year is given. Information on some lower floods may have been obtained, and discharge measurements made for purposes of establishing the stage-discharge relation, but these are not published herein. The year given in the period of record column represents the first year of a period extending through the current year unless otherwise noted. For some stations, publication of discharge is delayed pending definition of stage-discharge relationship. Published maximums for years prior to 1971 are for water years.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Arkansas River Basin					
07154400	Carrizozo Creek near Kenton, Okla.	Lat 36°52'55", long 103°01'05", Union County, under bridge on New Mexico State Highway 18, 4 miles southwest of Kenton.	111	1953-	8- 3-74	7.82	3,800
07201000	Raton Creek at Raton, N. Mex.	Lat 36°54', long 104°26', Colfax County, 60 ft above bridge on State Highway 72 at Raton.	14.4	1953-	8- -74	1.45	105
07201200 S	Chicorica Creek tributary near Raton, N. Mex.	Lat 36°54'40", long 104°19'56", Colfax County, upstream from culvert on U.S. Highway 64-87, 7.7 miles southeast of Raton.	5.18	1971-	1974	(b)	<5
07201450 S	Green Mountain Arroyo (formerly Una del Gato Creek tributary) near Raton, N. Mex.	Lat 36°47'00", long 104°15'42", Colfax County, about 1,500 feet upstream from bridge on U.S. Highway 64-87, 12.8 miles southeast of Raton.	18.2	1971-	9-20-74	8.29	704
07203600 S	Rio del Plano tributary near Taylor Springs, N. Mex.	Lat 36°26'59", long 104°22'34", Colfax County, 1.7 miles south of Sauble Ranch, 11.0 miles northeast of Taylor Springs.	6.71	1971-	7-29-74	7.75	(+)
07203900 S	Graney Creek near Eagle Nest, N. Mex.	Lat 36°34'37", long 105°18'38", Colfax County, 3.0 miles northwest of Eagle Nest.	1.83	1971-	6- 7-74	2.31	(+)
07206400	Clear Creek near Ute Park, N. Mex.	Lat 36°31'35", long 105°10'30", Colfax County, Maxwell Grant, 0.25 mile upstream from mouth, and 4 miles southwest of Ute Park.	7.44	1962-67‡ 1968-	6- 7-74	1.45	<5
07213700	Canadian River tributary near Mills, N. Mex.	Lat 36°10'00", long 104°15'47", Harding County, on downstream end of left bridge abutment on State Highway 39, 6 miles north of Mills.	a4.2	1954-	1974	-	0
07220900	Dog Creek near Shoemaker, N. Mex.	Lat 35°49'32", long 104°53'28", Mora County, 0.5 mile above Valmora-Shoemaker road, and 1.8 miles northwest of Shoemaker.	18.4	1954-	1974	(b)	<50
07221600	Lagartija Creek tributary near Sanchez, N. Mex.	Lat 35°38', long 104°25' San Miguel County, at bridge on State Highway 65, 0.9 mile northeast of Sanchez.	a1	1961-	1974	(b)	(+)
07222300	Trementina Creek at Trementina, N. Mex.	Lat 35°28', long 104°25', San Miguel County, at bridge on State Highway 65, at Trementina.	a65	1959-	7- 9-74	5.45	1,270
07222800 S	Garita Creek tributary near Variadero, N. Mex.	Lat 35°20'10", long 104°21'50", San Miguel County, 1.2 miles upstream from mouth, 6.3 miles southeast of Variadero.	a12	1971-	8- 3-74	4.12	92
07225000	Pajarito Creek at Newkirk, N. Mex.	Lat 35°04'20", long 104°14'50" Guadalupe County, downstream side of bridge on U.S. Highway 66, 1 mile east of Newkirk.	55.0	1954-	9-17-74	3.37	700

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Arkansas River basin--Continued					
07225300 S	Bluewater Creek near Tucumcari, N. Mex.	Lat 35°08'31", long 103°47'32", Quay County, in Tucumcari Metropolitan Park, 1,600 feet north of the park's southern boundary, and 4.8 miles southwest of Tucumcari.	15.2	1971-	8-27-74	5.80	(+)
07225500	Ute Creek near Gladstone, N. Mex.	Lat 36°18', long 103°56', Union County, on bridge on State Highway 58, 3 miles east of Gladstone.	256	1953-	1974	(b)	(+)
07226200	Bueyeros Creek at Bueyeros, N. Mex.	Lat 35°58'10", long 103°41'05", in E½ sec.7, T.20 N., R.31 E., Harding County, on right upstream wingwall of culvert on State Road 102 at Bueyeros.	a34	1957-	1974	(b)	(+)
07226300	Carrizo Creek near Roy, N. Mex.	Lat 36°02'58", long 103°57'48", Harding County, 800 ft below State Highway 120, and 15 miles northeast of Roy.	a68	1954-	10-12-74	4.30	490
07227050	Plaza Larga Creek tributary near Ragland, N. Mex.	Lat 34°50', long 103°45', Quay County, at culvert on State Highway 18, 1.2 miles northwest of Ragland.	.36	1952-	9-17-74	5.69	80
07227150	Arroyo del Puerto near Endee, N. Mex.	Lat 35°03', long 103°05', Quay County at bridge on State Highway 93, 5.4 miles south of Endee.	a25	1961-	1974	(b)	(+)
07227200	Tramperos Creek near Stead, N. Mex.	Lat 36°04'15", long 103°12'10", in NW¼NW¼ sec.10, T.21 N., R.35 E., Union County, at bridge on State Highway 18, 2.1 miles south of Stead and 26 miles south of Clayton.	a556	1966-73‡ 1974-	8-11-74	4.57	206
07227220 S	Pullingim Draw, (formerly Cramer Creek) near Nara Visa, N. Mex.	Lat 35°45'50", long 103°07'30", Union County, upstream from culvert on State Highway 18, 11.3 miles north of Nara Visa.	15.1	1971-	8-11-74	d9.3	4,070
07227280 S	Sand Draw tributary No. 2 near Clayton, N. Mex.	Lat 36°23'33", long 103°22'51", Union County, 0.85 mile north of U.S. Highway 56 and 11.5 miles southwest Of Clayton.	1.81	1968-	6- 1-74	10.64	(+)
07227295	Sand Draw tributary near Clayton, N. Mex.	Lat 36°23'20", long 103°19'05", Union County, above culvert on State Highway 58, 8 miles southwest of Clayton.	1.25	1952-	8- 3-74	3.62	143
07227300	Sand Draw near Clayton, N. Mex.	Lat 36°20'30", long 103°11'30", Union County, on downstream side of bridge on State Highway 18, 7.5 miles south of Clayton.	a42	1953-	8- 3-74	2.52	(+)
		Brazos River basin					
08079300	Blackwater Draw tributary near Floyd, N. Mex.	Lat 34°13, long 103°45', Roosevelt County, 0.5 mile below section road and 10 miles west of Floyd.	a10	1963-	10-28-74	.57	(+)
08080600	Running Water Draw near Clovis, N. Mex.	Lat 34°31'55", long 103°12'05", Curry County, 0.25 mile upstream from Highway 18 and 8 miles north of Clovis.	109	1953-56 1957-64‡ 1965-	8-25-74	3.45	450
		Rio Grande basin					
08268800	Rio Grande tributary near Arroyo Hondo, N. Mex.	Lat 36°28'29", long 105°43'05", Taos County, upstream from culvert on State Road 111, 0.8 mile east of Rio Grande Gorge Bridge and 4.6 miles southwest of Arroyo Hondo.	1.16	1968-	1974	-	0
08277400	Rio Grande tributary at Rinconada, N. Mex.	Lat 36°12'55", long 105°53'25", Rio Arriba County, at culvert on U.S. Highway 64, 0.6 mile west of Rinconada.	.02	1952-	1974	-	0

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Rio Grande basin - Continued					
08284000	Rito de Tierra Amarilla at Tierra Amarilla N. Mex.	Lat 36°41'55", long 106°33'25", Rio Arriba County, 400 ft below culvert on U.S. Highway 84, at Tierra Amarilla.	49.7	1957-	1974	3.23	310
08286650	Canjilon Creek above Abiquiu Reservoir, N. Mex.	Lat 36°18'55", long 106°29'05", Rio Arriba County, in Piedra Lumbre Grant, 300 ft upstream from bridge on U.S. Highway 84, 0.2 mile northwest of entrance to Ghost Ranch and about 12 miles northwest of Abiquiu.	144	1965-	1974	3.24	(+)
08293700 S	Arroyo Seco tributary near Pojoaque, N. Mex.	Lat 35°56'33", long 106°01'12", Santa Fe County, upstream from culvert on U.S. Highway 64-84-285, 3.5 miles north of Pojoaque.	.72	1971-	7-28-74	10.62	508
08313100	Cañada Ancha tributary near Santa Fe, N. Mex.	Lat 35°44'05", long 106°07'00", Santa Fe County, in Caja del Rio Grant, 9 miles northwest of Santa Fe.	1.23	1940-48 1952-	7-12-74	3.98	24
08313400 S	Bland Canyon near Cochiti Pueblo, N. Mex.	Lat 35°42'11", long 106°24'56", Sandoval County, 200 ft south of Forest Service Road, 0.3 mile inside Santa Fe National Forest, 7.5 miles north of Cochiti.	7.57	1962-	1974	(b)	<1
08317100	Arroyo Yupa tributary near Cerrillos, N. Mex.	Lat 35°31'58", long 106°08'45", Santa Fe County, 300 ft above culvert on U.S. Highway 85, 1.4 miles southwest of Turquoise Trading Post, and 6.5 miles north of Cerrillos.	.47	1957-	10- 7-74	.82	19
08317500	Galisteo Creek at Canoncito, N. Mex.	Lat 35°33'02", long 105°49'20", Santa Fe County, above railroad bridge, 0.2 mile above Apache Canyon at Canoncito.	11.3	1955-56 1959-	5- -74	2.24	380
08317600	San Cristobal Arroyo near Galisteo, N. Mex.	Lat 35°22'55", long 105°51'05", Santa Fe County, at bridge on U.S. Highway 285, 5.5 miles east of Galisteo.	116	1955-	8-27-74	4.57	560
08317700	Tarhole Canyon near Galisteo N. Mex.	Lat 35°21'55", long 105°50'40", Santa Fe County, at culvert on U.S. Highway 285, 6 miles southeast of Galisteo.	2.15	1952-	1974	(b)	<200
08317720	Cañada de la Cueva near Galisteo N. Mex.	Lat 35°26'13", long 106°00'45", Santa Fe County, 6.4 miles east of Cerrillos and 4.8 miles northwest of Galisteo.	1.79	1970-	10-27-74	1.63	16
08317800	Cañada de las Minas tributary near Santa Fe, N. Mex.	Lat 35°36'27", long 105°54'42", Santa Fe County, at culvert on U.S. Highway 84, 85 and 285, 1.3 miles northeast of Seton Village, and 5.7 miles south of Santa Fe.	0.56	1952-	1974	.68	<10
08318900	San Pedro Creek near Golden, N. Mex.	Lat 36°13'45", long 106°18'00", Sandoval County, 1 mile below bridge on State Highway 10 and 5.5 miles southwest of Golden.	45.2	1953-	1974	-.07	<80
08321900	Rio de las Vacas near Senorita, N. Mex.	Lat 35°59'35", long 106°47'45", Sandoval County, at bridge on side road, 0.1 mile south of State Highway 126 and 6.5 miles east of Senorita.	26.8	1957-	7- 7-74	2.97	124
08330400	Juan Toro Canyon near Miera, N. Mex.	Lat 35°00'57", long 106°20"14", Bernalillo County, 150 ft east of State Highway 10, 1 mile southeast of Cedro, and 4.5 miles northwest of Miera.	1.57	1959-	1974	(b)	(+)
08330500	Tijeras Arroyo at Albuquerque, N. Mex.	Lat 35°03'40", long 106°28'40", Bernalillo County, 300 ft south of U.S. Highway 66 and 0.4 mile southeast of city limits of Albuquerque.	75.3	1943-48‡ 1958-	1974	(b)	<250

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Rio Grande basin--Continued					
08331100	Belen Highline Canal tributary near Los Lunas, N. Mex.	Lat 34°49'20", long 106°49'10", Valencia County, above culvert on State Highway 6, 5.0 miles west of Los Lunas.	.16	1952-53	1955	6.09	c340
					1956	4.10	c100
					1957	5.63	c300
					1958	5.57	c275
					1959	4.04	c100
					8-11-60	5.72	313
					1961	-	0
					1962	3.76	<10
					7- -63	3.63	<10
					8-13-64	3.88	<10
					7-11-65	d9.52	754
					8- 8-66	5.60	283
					6- 4-67	6.17	350
					7- 3-68	6.25	360
					7-17-69	6.09	338
					1970	-	0
					1971	(b)	<10
					10-13-72	6.00	330
					1973	(e)	-
					8- 7-74	5.41	260
08331650	Cañada Montoso near Scholle, N. Mex.	Lat 34°24', long 106°29', Socorro County, 130 ft upstream from dip on abandoned highway, 500 ft upstream from bridge on U.S. Highway 60, 3.6 miles southwest of Scholle.	a35	1961-	7-5-74	2.44	255

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual Maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Rio Grande basin--Continued					
08331700	Abo Arroyo tributary near Scholle, N. Mex.	Lat 34°24'10", long 106°30'35", Socorro County, at culvert on U.S. Highway 60, 2.5 miles southeast of junction of U.S. Highway 60, and State Highway 6, southwest of Scholle.	0.23	1954-	7- 5-74	16.26	172
08332700 S	San Pablo Creek near Cuba, N. Mex.	Lat 35°56'55", long 106°56'44", Sandoval County, upstream from bridge on old section of State Highway 44 and 5.6 miles south of Cuba.	12.8	1970-	7- 7-74	5.01	(+)
08341300	Bluewater Creek above Bluewater Dam, near Bluewater, N. Mex.	Lat 35°15'35", long 108°07'05", Valencia County, 2.3 miles south of Bluewater Dam, and 8 miles west of Bluewater.	a75	1953-	10-27-74	1.52	68
08341370 S	Pine Canyon near Thoreau, N. Mex.	Lat 35°18'34", long 108°10'14", McKinley County, about 1 mile southwest of the north end of Bluewater Lake and about 7 miles southeast of Thoreau.	6.09	1969-	8- 4-74	1.26	1
08348500	Encinal Creek near Casa Blanca, N. Mex.	Lat 35°08'35", long 107°27'55", Valencia County, 1.8 miles north of village of Encinal and 6.8 miles north of Casa Blanca.	6.19	1937-39‡ 1959-	1974	(b)	<90
08353500	La Jencia Creek near Magdalena, N. Mex.	Lat 34°09'45", long 107°12'35", Socorro County, 3.5 miles northwest of Magdalena.	195	1957-	8-27-74	1.51	440
08353600	La Jencia Creek tributary near Magdalena, N. Mex.	Lat 34°08', long 107°13', Socorro County, at Santa Fe Railroad bridge, 2.7 miles northeast of Magdalena.	5.67	1957-73g			
08358600	Chupadera Wash tributary at Bingham, N. Mex.	Lat 33°54', long 106°20', Socorro County, 75 ft upstream from culvert on U.S. Highway 380, 0.1 mile west of Bingham.	1.29	1961-	1974	1.31	<100
08359300	San Jose Arroyo near Monticello, N. Mex.	Lat 33°28'05", long 107°14'30", Sierra County, at head of box canyon just below major tributary, 800 ft below culvert on U.S. Highway 85, 13 miles Northeast of Monticello.	26.9	1959-	1974	(b)	(+)
08359400 S	Lumber Canyon tributary near Monticello, N. Mex.	Lat 33°24', long 107°16', Sierra County, at culvert on U.S. Highway 85, 0.2 mile north of road to Red Rock Ranger station, and 10.5 miles east of Monticello.	.90	1952-	8- 4-74	3.33	364
08361650	Percha Creek near Kingston, N. Mex.	Lat 32°55'05", long 107°38'55", Sierra County, at bridge on State Highway 180, 3.3 miles east of Kingston.	21.5	1953-	7-15-74	2.87	270
08361700	Percha Creek near Hillsboro, N. Mex.	Lat 32°54'55", long 107°36'05", Sierra County, 150 ft south of State Highway 180, and 2 miles west of Hillsboro.	35.4	1957-	1974	(b)	<100
08361800	Percha Creek at Caballo Dam near Arrey, N. Mex.	Lat 32°54', long 107°19', Sierra County, at bridge on U.S. Highway 85, 0.5 mile above mouth and Caballo Reservoir, and 3.5 miles north of Arrey.	119	1953-	7- 8-74	1.47	560
08363000 S	Rio Grande tributary near Salem, N. Mex.	Lat 32°43'01", long 107°12'03", Doña Ana County, upstream from culvert on Interstate Highway 25, 1.0 miles northeast of Salem.	.18	1971-	7- 8-74	7.65	(+)
08363100	Rio Grande Tributary near Radium Springs, N. Mex.	Lat 32°30'05", long 106°57'05", Doña Ana County, above culvert on U.S. Highway 85, 120 ft above mouth, and 1.4 miles west of Radium Springs.	.40	1955-	7- 8-74	7.57	288

Annual maximum discharge at crest-stage partial-record stations---Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Rio Grande basin--Continued					
08363200	Aleman Draw at Aleman, N. Mex.	Lat 33°00'00", long 107°00'20", Sierra County, on Santa Fe Railroad bridge, 140 ft above dip on Engle-Rincon road, and 0.25 mile west of Aleman.	25.5	1959	8-10-74	6.01	1,400
08379100 S	Pecos River tributary near Sena, N. Mex.	Lat 35°18'37", long 105°23'37", San Miguel County, upstream from culvert on State Highway 3, 0.8 mile north of Sena.	1.24	1971-	1974	(b)	(+)
08379300	Tecolote Creek at Tecolote, N. Mex.	Lat 35°27'20", long 105°16'55", San Miguel County, on bridge on U.S. Highway 85 at Tecolote.	122	1954-	9- -74	7.90	2,100
08379550 S	Canon Blanco near Leyba, N. Mex.	Lat 35°13'14", long 105°40'12", San Miguel County, 0.2 mile south of White Lakes-Leyba road and 5.0 miles west of Leyba.	11.2	1971-	8-27-74	4.36	143
08379600	Pecos River tributary near Dilia, N. Mex.	Lat 35°12'50", long 105°04'50", Guadalupe County, above culvert on U.S. Highway 84, and 1.7 miles northwest of Dilia.	.16	1952-	1974	-	0
08380300	Sandoval Canyon at Gallinas, N. Mex.	Lat 35°41'19", long 105°21'17", San Miguel County, about 500 ft upstream from culvert on State Highway 65, at north edge of Gallinas.	7.6	1957 1961-	7- -74	1.92	160
08381700	Cañon Piedra Lumbre near Las Vegas, N. Mex.	Lat 35°34'14", long 105°17'50", San Miguel County, upstream from bridge on State Road 283, 4.3 miles west-southwest of Las Vegas.	8.06	1971-	7-29-74	2.45	7
08382900	Pecos River tributary near Pintada, N. Mex.	Lat 34°58'06", long 105°05'38", Guadalupe County, in Anton Chico Grant, 1,500 ft south of U.S. Highway 66, 6.8 miles north of Pintada.	.16	1961-	1973	(b)	<30
08383200	Pintada Arroyo tributary near Clines Corners, N. Mex.	Lat 34°50'40", long 105°35'05", Torrance County, above culvert on U.S. Highway 285, 12.2 miles south of Clines Corners.	29.2	1952-	7- 7-74	1.09	<20
08383210	Pintada Arroyo tributary near Encino, N. Mex.	Lat 34°48'40", long 105°34'00", Torrance County, above culvert on U.S. Highway 285, 0.1 mile south of ranch road, and 12.5 miles northwest of Encino.	a1	1959-	1974	-	0
08383300	Pintada Arroyo near Santa Rosa, N. Mex.	Lat 34°53'20", long 104°43'50", Guadalupe County, 300 ft above bridge on U.S. Highway 54, and 4.5 miles southwest of Santa Rosa.	896	1959-	1974	7.83	(+)
08383370 S	Pecos River tributary near Puerto de Luna, N. Mex.	Lat 34°52'35", long 104°38'16", Guadalupe County, 25 ft upstream from culvert on State Highway 91, 3.1 miles north of Puerto de Luna.	.37	1961-	10-10-74	7.21	108
08385530	Alamosa Creek tributary near Jordan, N. Mex.	Lat 34°48', long 103°58', Quay County, 500 ft upstream from dip on State Highway 156, 6.9 miles west of Jordan.	9.71	1962-	1974	-	0
08385600	Yeso Creek near Fort Sumner, N. Mex.	Lat 34°16', long 104°17', De Baca County, at abandoned bridge 1 mile below State Highway 20, and 14.5 miles south of Fort Sumner.	242	1937 1952-	9-14-74	1.85	830
08385670	Aragon Creek tributary near Encinoso, N. Mex.	Lat 33°41', long 105°34', Lincoln County, 0.3 mile upstream from wooden bridge on dirt road, 1.2 miles north of State Highway 48, 4.3 miles west of Encinoso.	6.07	1961-	9-18-74	4.17	700

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Rio Grande basin--Continued					
08385690	Bonita Canyon tributary near Corona, N. Mex.	Lat 34°14', long 105°37', Lincoln County, above culvert on U.S. Highway 54, and 1.8 miles southwest of Corona.	a.6	1959-	1974	-	0
08385700	Cloud Canyon near Gallinas, N. Mex.	Lat 34°08', long 105°40', Lincoln County, above culvert on U.S. Highway 54, and 2.0 miles southwest of Gallinas.	a10	1957-	1974	-	0
08385900	Salt Creek tributary near Roswell, N. Mex.	Lat 33°33', long 104°31', Chavez County, at culvert on U.S. Highway 285, 4.7 miles north of junction of U.S. Highway 70 and 285, and 10 miles north of Roswell.	.04	1952-	8-11-74	1.30	(+)
08389000	Rio Bonito near Fort Stanton, N. Mex.	Lat 33°31'05", long 105°29'10", Lincoln County, at bridge on U.S. Highway 380, 2.5 miles northeast of Fort Stanton.	a85	1955-	9-18-74	3.05	62
08389060	Rio Bonito tributary near Fort Stanton, N. Mex.	Lat 33°31'15", long 105°28'05", Lincoln County, at culvert on U.S. Highway 380, 150 ft above mouth, and 3.5 miles northeast of Fort Stanton.	.72	1955-	1974	-	0
08390050 S	Rio Hondo tributary at Tinnie, N. Mex.	Lat 33°22'15", long 105°13'01", Lincoln County, upstream from culvert on U.S. Highway 70-380, 0.5 mile east of junction of U.S. Highways 70-380 and State Highway 368, and at Tinnie.	.23	1971-	8-27-74	5.05	(+)
08390150	Gallo Canyon near Picacho, N. Mex.	Lat 33°18', long 105°10', Lincoln County, 500 ft east of road, 5 miles south of Picacho.	1.32	1962-	9-16-74	5.72	(+)
08393700	Pancho Canyon near Arabela, N. Mex.	Lat 33°17', long 105°12', Lincoln County, 200 ft downstream from dip on State Highway 368, 5.6 miles south of Arabela.	16.7	1962-	1974	(b)	(+)
08393900	Eight Mile Draw near Roswell, N. Mex.	Lat 33°25', long 104°39", Chavez County, 6.5 miles west of Roswell	397	1941 1952-	1974	(b)	<10
08394300 S	Twin Butte Canyon tributary near Roswell, N. Mex.	Lat 33°10'34", long 104°51'30", Chavez County, about 0.1 mile upstream from mouth and about 22 miles southwest of Roswell.	5.01	1968-	10-23-74	5.79	1,530
08397390	Curtis Canyon near Mayhill, N. Mex.	Lat 32°52', long 105°31', Otero County, 0.25 mile above SCS dam, 0.4 mile west of State Highway 130, and 2.5 miles southwest of Mayhill.	10.3	1959-	1974	-	0
08397400 S	Hyatt Canyon near Cloudcroft, N. Mex.	Lat 33°56', long 105°30', Otero County, 0.5 mile south of State Highway 83, and 7 miles east of Cloudcroft.	3.08	1953-	7-28-74	2.15	(+)
08397600	Rio Peñasco near Dunken, N. Mex.	Lat 33°52'55", long 105°10'40", Chavez County, on bridge on State Highway 24, 5 miles north of Dunken.	583	1952-56 1956-62‡ 1963-	1974	(b)	(+)
08404600 S	Pecos River tributary at Carlsbad, N. Mex.	Lat 32°26'50", long 104°15'48", Eddy County, upstream from culvert on U.S. Highway 285, at entrance to Botanical-Zoological Gardens, 2.9 miles northwest of county court house in Carlsbad.	.47	1971-	10-22-74	d12.8	810

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Rio Grande basin--Continued					
08405050	Last Chance Canyon tributary near Carlsbad Caverns, N. Mex.	Lat 32°17'30", long 104°36'20", Eddy County, above culvert on State Highway 137, 0.1 mile north of road to Sitting Bull Falls, and 12.5 miles northwest of Carlsbad Caverns.	0.2	1959-	8-23-74	3.71	207
08405100	Mosley Canyon near White City, N. Mex.	Lat 32°15', long 104°20', Eddy County 600 ft below dip on Dark Canyon road, and 5.5 miles north of White City.	14.6	1959-	10-23-74	3.38	(+)
08436000	San Simon Swale tributary near Jal, N. Mex.	Lat 32°09', long 103°22', Lea County, 0.4 mile south of State Highway 128, and 10.7 miles west of Jal	a20	1963-	1974	(b)	(+)
08437620 S	Monument Draw tributary near Monument, N. Mex.	Lat 32°39'44", long 103°27'16", Lea County, upstream from culvert on U.S. Highway 62-180, about 12 miles northwest of Monument and 19.5 miles west of Hobbs.	6.23	1968-	8-11-74	5.52	(+)
		Mimbres River basin					
08477100 S	Willow Springs Canyon at Mimbres, N. Mex.	Lat 32°51'20", long 107°58'35", Grant County, about 600 ft downstream from State Road 61, 0.2 mile north of post office in Mimbres.	3.84	1970-	8- 4-74	7.58	1,180
08477200 S	Iron Creek near Kingston, N. Mex.	Lat 32°54'50", long 107°46'35", Grant County, 50 ft east of State Highway 180, 1.6 road miles west of Emory Pass, and 4.5 miles west of Kingston.	.74	1955-	1974	(b)	(+)
08477560	Little Walnut Creek near Silver City, N. Mex.	Lat 32°48'20", long 108°17'35", Grant County, 85 ft above dip on Bear Mountain Road, and 2 miles north of Silver City.	5.10	1959-	7-13-74	1.92	420
08477570	Silva Creek tributary at Silver City, N. Mex.	Lat 32°47'42", long 108°16'47", Grant County, 350 ft above dip on Little Walnut Road, and 0.7 mile north of boundary of Silver City.	2.12	1958-	9-13-74	3.02	370
08477580	Silva Creek at Silver City, N. Mex.	Lat 32°46'41", long 108°16'41", Grant County, 190 ft above Twelfth Street bridge at Silver City.	10.0	1958-	9-13-74	1.88	<200
08477590	Pinos Altos Creek at Silver City, N. Mex.	Lat 32°46'52", long 108°16'04", Grant County, 2 blocks below U.S. Highway 260 at Silver City.	4.63	1958-	1974	1.01	(+)
08478000	Cameron Creek at Central, N. Mex.	Lat 32°47', long 108°10', Grant County, 0.5 mile above culvert on U.S. Highway 260, at north edge of Central.	18.8	1954-	7-13-74	1.76	210
08478500	Mimbres River at Deming, N. Mex.	Lat 32°17'00", long 107°45'35", Luna County, at bridge on U.S. Highway 260, at north end of Deming.	1,370	1954-	7-15-74	2.47	750
08478600	Mimbres basin tributary near Florida, N. Mex.	Lat 32°21'25", long 107°37'35", Luna County, above culvert on State Highway 26, and 5 miles southwest of Florida.	.55	1959-	7-15-74	2.02	118
08478800	Seventysix Draw tributary near Waterloo, N. Mex.	Lat 31°56'34", long 107°44'38", Luna County, upstream from culvert on State Road 11, 3.9 miles southeast of Waterloo, and 7.9 miles north of Columbus.	.2	1967-	9-15-74	3.30	60
		Playas Valley					
08479300	Deer Creek tributary near Antelope Wells, N. Mex.	Lat 31°23'00", long 108°42'15", Hidalgo County, 0.1 mile below dip on State Highway 79, 2.5 miles east of San Luis Pass, and 12 miles west of Antelope Wells.	4.3	1959-	10- -74	1.60	215

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Tularosa Valley					
08480100	White Oaks Canyon at White Oaks, N. Mex.	Lat 33°46', long 105°44', Lincoln County, 40 ft upstream from culvert on State Highway 349, 1 mile northeast of White Oaks.	1.14	1961-	8- 6-74	1.42	(+)
08480150	White Oaks Canyon near Carrizozo, N. Mex.	Lat 33°44', long 105°50', Lincoln County, 100 ft upstream from culvert on U.S. Highway 54, 6 miles north of Carrizozo.	31	1959 1961-	8- 6-74	3.31	1,250
08480170 S	Nogal Creek tributary near Nogal, N. Mex.	Lat 33°34'54", long 105°41'10", Lincoln County, upstream from culvert on U.S. Highway 380, about 2.0 road miles west of Indian Divide, 7 miles northwest of Capitan and 2 miles north of Nogal.	1.94	1968-	7-10-74	3.32	44
08480200	Taylor Canyon tributary near Bingham, N. Mex.	Lat 33°48', long 106°12', Socorro County, 200 ft north of U.S. Highway 380, 12 miles southeast of Bingham.	2.66	1961-	7-20-74	1.41	(+)
08480590	Tularosa Valley tributary near Oscura, N. Mex.	Lat 33°24'41", long 106°04'09", Lincoln County, 50 ft below culvert on U.S. Highway 54, and 5.2 miles south of Oscura.	3.22	1958-	1974	-	0
08480650	Minnie Hall Draw near Three Rivers, N. Mex.	Lat 33°25', long 106°05', Lincoln County, 8 miles northeast of Three Rivers.	9.70	1956-	8- 5-74	11.38	820
08480700 S	Indian Creek near Three Rivers, N. Mex.	Lat 33°22'10", long 105°53'25", Otero County, 150 ft above diversion dam, and 12 miles east of Three Rivers	6.8	1956-58‡ 1959-	9-23-74	2.56	16
08480900	Indian Creek at mouth near Three Rivers, N. Mex.	Lat 33°22'45", long 105°57'25", Otero County, 75 ft above diversion dam, 0.35 mile above mouth, and 5.5 miles east of Three Rivers.	10.9	1956-58‡ 1959-	1974	(b)	<100
08481000	Three Rivers at Three Rivers N. Mex.	Lat 33°18'10", long 106°04'20", Otero County, 150 ft below Southern Pacific Railroad bridge, 400 ft above bridge on U.S. Highway 54, and 1.3 miles south of Three Rivers.	96.0	1956-	9-19-74	d2.4	900
08481100	Tularosa Valley tributary near Three Rivers, N. Mex.	Lat 33°18', long 106°05', Otero County, at culvert on U.S. Highway 54, 1.6 miles south of Three Rivers.	13.8	1952-	10-11-74	.05	86
08486200	Black Prince Canyon tributary near Organ, N. Mex.	Lat 32°27', long 106°32', Dona Ana County, above culvert on U.S. Highway 70, 2.3 miles east of San Augustin Pass, and 4.0 miles east of Organ.	.73	1959-	1974	-	0
08486400	Tularosa Valley tributary near Orogrande, N. Mex.	Lat 32°24'55", long 106°04'20", Otero County, at bridge on U.S. Highway 54, and 2.7 miles northeast of Orogrande.	2.53	1959-	7-30-74	1.74	(+)
		Estancia Valley					
08488000	Estancia Valley tributary at Cedar Grove, N. Mex.	Lat 35°32', long 106°11', Santa Fe County, 50 ft upstream from culvert on State Highway 344, 0.1 mile south of Cedar Grove.	1.21	1955 1961-	10-27-74	6.97	(+)
08488100	Juan Tomas Canyon near Edgewood, N. Mex.	Lat 35°10', long 106°14', Santa Fe County, 140 ft upstream from culvert on U.S. Highway 66, 2.5 miles northwest of Edgewood.	a20	1962-	1974	(b)	(+)
08488170 S	Chavez Draw tributary near Clines Corners, N. Mex.	Lat 35°01'06", long 105°49'06", Torrance County, one mile north of Interstate 40, 13 miles east of Moriarty and 9 miles west of Clines Corners.	2.73	1968-	8-24-74	5.44	c8

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Estancia Valley--Continued					
08488200	Osita Draw near Clines Corners N. Mex.	Lat 35°00', long 105°46', Torrance County, 100 ft upstream from culvert on U.S. Highway 66, 7.5 miles west of Clines Corners.	a10	1961-	1974	(b)	<100
08488500	Cañon de Torreon at Torreon N. Mex.	Lat 34°43'20", long 106°17'50", Torrance County, at culvert on State Highway 10, in Torreon.	18.2	1954-	10-12-74	1.50	170
08488600 S	Arroyo del Cuervo near Torreon, N. Mex.	Lat 34°41'35", long 106°18'27", Torrance County, in Town of Torreon Grant, about 0.3 mile above culvert on State Road 10 and 2 miles south of Torreon.	11.8	1969-	7-31-74	2.11	100
08489000	Cañada del Leon near Mountainair, N. Mex.	Lat 34°25', long 106°29', 0.25 mile above culvert on State Highway 10, and 8.4 miles southeast of Mountainair.	3.9	1953-	1974	-	0
		Salt basin					
08492500	Fleming Draw near Piñon, N. Mex.	Lat 32°31', long 105°21', Otero County, 0.2 mile above dip in ranch road, and 7.5 miles south of Piñon.	16.6	1959-	1974	4.60	870
		San Augustin Plains basin					
08500000 S	Swingle Canyon Near Datil, N. Mex.	Lat 34°11'17", long 107°53'55", Catron County, about 0.3 mile upstream from U.S. Highway 60, and 4.3 miles northwest of Datil.	6.35	1970-	1974	(e)	-
		San Juan River basin					
09346200	Rio Amargo at Dulce, N. Mex.	Lat 36°56'00", long 107°00'00", Rio Arriba County, under bridge on State Highway 17, at Dulce.	168	1956-	5- -74	3.00	275
09350700 S	Ruben Canton near Gobernado, N. Mex.	Lat 36°44'26", long 107°14'33", Rio Arriba County, in Carson National Forest, upstream from culvert on State Highway 17, and 6.5 miles east of Governador.	5.06	1970-	7-21-74	3.52	(+)
09350800	Vaqueros Canyon near Gobernador, N. Mex.	Lat 36°44', long 107°17', Rio Arriba County, 100 ft east of State Highway 17 and 4.2 miles east of Gobernador.	60.5	1956-	5- 2-74	2.28	82
09355700	Gobernador Canyon near Gobernador, N. Mex.	Lat 36°41'05", long 107°25'10", San Juan County, 0.2 mile south of State Highway 17, and 4 miles southwest of Gobernador.	19.8	1956-	1974	(b)	<400
09356400	Manzanares Canyon near Turley N. Mex.	Lat 36°44'15", long 107°42'15", San Juan County, 600 ft above culvert on State Highway 17, and 4.2 miles east of Turley.	3.20	1956-	7-14-74	2.26	405
09356520 S	Burro Canyon near Lindrith, N. Mex.	Lat 36°16'21", long 107°14'46", Rio Arriba County, upstream from culvert on State Highway 537, 11.5 miles west of Lindrith.	9.11	1970-	1974	(b)	<1
09357200	Gallegos Canyon tributary near Nageezi, N. Mex.	Lat 36°28', long 107°55', San Juan County, at culvert on State Highway 44, 1.1 miles northwest of Huerfano Trading Post, and 12.5 miles northwest of Nageezi.	.20	1952-	7-13-74	1.92	108
09367400 S	La Plata River tributary near Farmington, N. Mex.	Lat 36°47'10", long 108°13'31", San Juan County, about 700 ft upstream from culvert on State Highway 17 and 4.1 miles northwest of Farmington.	1.03	1970-	10-29-74	2.09	(+)

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		San Juan River basin--Continued					
09367530	Locke Arroyo near Kirtland, N. Mex.	Lat 36°44', long 108°18', San Juan County, on upstream side of abandoned culvert, 200 ft above U.S. Highway 550, 0.4 mile above mouth, and 3.3 miles east of Kirtland.	2.96	1951-	8- 3-74	d.86	e50
09367550 S	Stevens Arroyo	Lat 36°46'00", long 108°22'10", San Juan County, upstream from gravel road to Young's Lake, 0.6 mile north of El Paso Natural Gas, San Juan Plant and 2.3 miles north of Kirtland.	4.59	1970-	10-29-74	2.47	(+)
09367840	Yazzie Wash near Mexican Springs, N. Mex.	Lat 35°50'40", long 108°53'00", McKinley County, 5.0 miles northwest of Mexican Springs, and 23 miles north of Gallup.	a2.1	1953-54 1956-	7-16-74	3.43	195
09367860	Chusca Wash near Mexican Springs, N. Mex.	Lat 35°48'40", long 108°50'50", McKinley County, 1.8 miles northwest of Mexican Springs, and 20 miles north of Gallup.	a8.7	1953-	7-16-74	5.10	3,550
09367900 S	Black Springs Wash near Mexican Springs, N. Mex.	Lat 35°45'40", long 108°49'00", McKinley County, 2.5 miles south of Mexican Springs and 17 miles north of Gallup.	7.05	1954-	1974	(b)	<40
09367920	Coyote Wash tributary near Naschitti, N. Mex.	Lat 36°05'55", long 108°41'48", San Juan County, on bridge on U.S. Highway 666, 2.4 miles north of Naschitti, and 39 miles north of Gallup.	12.0	1967-	8- 1-74	3.33	(+)
09367940	Theodore Wash near Newcomb, N. Mex.	Lat 36°21'39", long 108°43'09", San Juan County, on bridge on U.S. Highway 666, 5.2 miles north of Newcomb.	37.4	1967-	1974	(b)	(+)
		Little Colorado River basin					
09386100	Largo Creek near Quemado, N. Mex.	Lat 34°19'25", long 108°31'40", Catron County, on downstream side of bridge on ranch road 2.5 miles southwest of Quemado.	151	1954-	10- 6-74	3.22	670
09386150	Mangas Creek tributary near Pietown, N. Mex.	Lat 34°18', long 108°10', Catron County, above culvert on U.S. Highway 60, 1.3 miles west of Pietown Post Office.	a.08	1952-	1974	(b)	(+)
09386200	Carrizo Creek near Salt Lake N. Mex.	Lat 34°31', long 109°01', Catron County, on left downstream wingwall of bridge, 1.3 miles east of New Mexico-Arizona State line and 15 miles west of Salt Lake.	f560	1957-	1974	(b)	(+)
09387050	Galestena Canyon tributary near Black Rock, N. Mex.	Lat 34°58'45", long 108°40'00", McKinley County, 100 ft below bridge on State Highway 32 and 10.5 miles southeast of Black Rock.	a19	1957-	1974	1.72	55
09395400	Milk Ranch Canyon near Fort Wingate, N. Mex.	Lat 35°25'55", long 108°33'30", McKinley County, 0.5 mile below culvert on secondary road between Fort Wingate and McGaffey and 3 miles south of Fort Wingate.	14.0	1949 1953	1974	(b)	<40
09395500	Puerco River at Gallup, N. Mex.	Lat 35°32', long 108°44', McKinley County, on right bank north of the Santa Fe RR freight depot, 1,500 ft above Second Street Bridge at Gallup.	558	1940-46‡ 1956-	7-16-74	6.90	3,750
09395600	Wagon Trail wash near Gamerco, N. Mex.	Lat 35°39', long 108°47', McKinley County, above abandoned culvert on former U.S. Highway 666, 0.5 mile north of junction of U.S. Highway 666 and State Highway 68, 4.5 miles north of Gamerco.	.38	1951-74g	1974	.41	32

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Gila River Basin					
09430300	Copperas Canyon near Pinos Altos, N. Mex.	Lat 33°05', long 108°13', Grant County, on east side of Copperas Canyon road and 15 miles north of Pinos Altos.	3.95	1963-	1974	(b)	(+)
09430900	Duck Creek at Cliff, N. Mex.	Lat 32°58', long 108°36', Grant County, at Cliff below bridge on State Highway 211, and 0.6 mile above mouth.	228	1957-	9-19-74	7.80	4,350
09437200 S	Mexican Canyon at Virden, N. Mex.	Lat 32°41'03", long 108°59'00", Hidalgo County, upstream from dip in State Road 82, and about 0.8 mile east of Virden.	3.40	1968-	8-4-74	10.50	(+)
09438200	Animas Creek near Cloverdale, N. Mex.	Lat 31°34'15", long 108°52'30", Hidalgo County, near head of small box canyon 0.1 mile west of State Highway 338, and 11 miles north of Cloverdale.	157	1959-	10-13-74	7.78	3,400
09442630 S	Mail Hollow near Luna, N. Mex.	Lat 33°47'38", long 108°56'59", Catron County, upstream from culvert on U.S. Highway 180, 2.3 miles south of Luna.	4.20	1970-	7-30-74	1.55	5
09442650	Romero Creek near New Mexico-Arizona State line near Luna, N. Mex.	Lat 33°57', long 108°59', Catron County, at culvert on Luna-Underwood Lake road, about 1 mile east of New Mexico-Arizona State line, and 8 miles northwest of Luna.	10.8	1958-	4- -74	8.63	66
09442660	Trout Creek at Luna, N. Mex.	Lat 33°51', long 108°58, Catron County, 500 ft downstream from bridge on Luna-Red Hill road and 2.6 miles north of Luna.	31.9	1954-	10- -74	1.66	108
09442695 S	Negro Canyon at Aragon, N. Mex.	Lat 33°53', long 108°33', Catron County, above culvert on State Highway 12, at west edge of Aragon.	9.62	1958-	10-10-74	1.38	210
09442700	Apache Creek near Apache Creek, N. Mex.	Lat 33°55'50", long 108°39'45", Catron County, 7 miles north of Apache Creek.	94.6	1957-74g	1974	(e)	-
09442740	Tularosa River near Reserve, N. Mex.	Lat 33°44'00", long 108°42'10", Catron County, 150 ft west of Eagle Peak Lookout road and 3.3 miles northeast of Reserve.	426	1956-	1974	(b)	<150
09443950	Red Colt Canyon at Pleasanton, N. Mex.	Lat 33°15'30", long 108°52'15", Catron County, above culvert on U.S. Highway 260, and 1 mile south of Pleasanton.	3.00	1959-	1974	d8.89	(+)
09455800	Steins Creek at Steins, N. Mex.	Lat 32°14', long 109°00', Hidalgo County, at culvert on State Highway 14, 0.9 mile west of Steins.	1.26	1959-	8-23-74	4.16	(+)

< Less than.
S Flood-hydrograph site.
+ Discharge not yet determined.
‡ Operated as continuous-record gaging station.
a Approximately.
b Peak did not reach bottom of gage.
c Estimated.
d From floodmark.
e Gage height not determined.
f Contributing area.
g Discontinued at end of year.

Measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations are given in the following table. Those that are measurements of base flow are designated by an asterisk (*); measurements of peak flow by a dagger (†).

Discharge measurements made at miscellaneous sites during calendar year 1974

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Arkansas River basin						
Chicorica Creek	Canadian River	Lat 36°46'13", long 104°23'45", in S½ sec.4, T.29 N., R.24 E., Colfax County, at highway bridge near east boundary of Maxwell Grant, 300 ft downstream from Una de Gato Creek, 4.4 miles northeast of Hebron, and 9 miles south of Raton, N. Mex.	381	1945-52‡ 1966-73	2- 5-74 3-20-74 4-17-74 5-13-74 6-18-74 7-16-74 8- 6-74 8-27-74 9-26-74 10-23-74 11-14-74 12- 2-74	6.5 93 21 a4.5 2.8 0 a1.0 .5 .8 1.0 2.4 3.4
Canadian River	Arkansas River	Lat 35°24'12", long 104°11'18", San Miguel County, in Pablo Montoya Grant, 300 ft below Conchas Dam, and 24 miles north of Newkirk.	7,417	1936-38‡ 1942-72‡ 1973	1-11-74 2-27-74 8- 2-74 8-22-74 11-13-74	4.5 4.2 4.3 3.6 3.3
Canadian River	Arkansas River	Lat 35°23'35", long 103°02'30", in SW¼ sec.32, T.14 N., R.37 E., Quay County, at N.Mex.-Texas state line, 14.7 miles north of Glenrio, N. Mex.	-	1969-73	12- 5-74	16
Rio Grande basin						
Red River	Rio Grande	Lat 36°40'53", long 105°39'24", in NW¼NW¼ sec.10, T.28 N., R.12 E., Taos County, 0.3 mile downstream from State Fish Hatchery, near Questa, N. Mex.	-	1963 1965-66 1969-73	1- 7-74 1-18-74 2-14-74 3- 6-74 3-27-74 4-17-74 5- 9-74 5-30-74 6-20-74 7- 9-74 8- 8-74 9- 4-74 10- 1-74 11- 6-74 11-18-74 12-11-74	*37 *36 40 41 *37 *36 48 68 78 49 58 *34 *39 *38 *39 *34
Tesuque Creek	Pojoaque River	Lat 35°44'20", long 105°54'20", in Juan de Gabaldon Grant, 1.0 mile upstream from Little Tesuque Creek and 4.0 miles northeast of Santa Fe.	11.6	1936-51‡	5-29-74	3.0
Alamosa Creek	Rio Grande	Lat 33°34'09", long 107°35'33", in SE¼ sec.31, T.8 S., R.7 W., Socorro County, just downstream from Wildhorse Creek, and 15 miles northwest of Monticello, N. Mex.	403	1931-42‡ 1958-71‡ 1972-73	2-22-74 6-20-74 11-15-74	7.6 6.4 7.2
Carrizo Creek	Rio Ruidoso	Lat 33°18'20", long 105°40'05", in SW¼SE¼SW¼ sec.34, T.11 S., R.13 E., at Mescalero Apache Indian Reservation Boundary, Lincoln County, near Ruidoso, N. Mex.	-	1961-66	3-14-74	*1.2

Measurements at miscellaneous sites

Discharge measurements made at miscellaneous sites during calendar year 1974

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
		Rio Grande basin--Continued				
Rio Bonito	Rio Hondo	Lat 33°31'05", long 105°29'10", Lincoln County, at U.S. Highway 380 bridge, 6.5 miles northwest of Lincoln, N. Mex.	-	1931	7-16-74	0
Magado Creek	Salado Creek	Lat 33°32'40", long 105°33'53", in NE¼SE¼NW¼ sec.10, T.9 S., R.14 E., Lincoln County, at east side of Capitan, N. Mex.	-	-	7-16-74	a0.1
Rio Hondo	Pecos River	Lat 33°19'55", long 105°03'35", in NE¼NE¼NE¼ sec.28, T.11 S., R.19 E., Lincoln County, at Riverside, N. Mex.	-	1937, 1956	7-16-74	0
Little McKittrick Canyon	Dark Canyon	Lat 32°21'53", long 104°17'40", in NE¼NW¼SE¼ sec.28, T.22 S., R.26 E., Eddy County, just above Sheep Draw, 2.5 miles west of Carlsbad, N. Mex.	57.2	-	10-23-74	†32,200
Harroun Canal	diversion from Pecos River	Lat 32°13'20", long 104°00'50", in SW¼NW¼NW¼ sec.17, T.24 S., R.29 E., above turnouts across from Pecos River at Fishing Rock Crossing, Eddy County, near Malaga, N. Mex.	-	-	4-25-74	0
					5- 2-74	0
					9- 9-74	0
					5-16-74	0
					5-23-74	0
					5-30-74	0
					6- 6-74	11
					6-13-74	11
					6-20-74	10
					6-26-74	0
					7- 4-74	0
					7-11-74	3.4
					7-18-74	6.7
					7-25-74	4.6
					8- 2-74	6.4
					8-10-74	3.0
					8-16-74	7.0
					8-30-74	0
					9- 6-74	0
					9-13-74	0
					9-20-74	0
					10- 4-74	0
					10-11-74	0
					10-18-74	0
					11-25-74	0
					12- 2-74	0
Blue Springs	Black River	Lat 32°11'07", long 104°16'50", in SW¼NE¼SW¼ sec.27, R.24 S., R.26 E., above all diversions, Eddy County, 5.5 mi (8.8 km) east of White City, N. Mex.	-	1907	1- 4-74	9.1
				1910-20	2- 7-74	9.0
				1923	2-22-74	10
				1935	3- 7-74	9.9
				1952-70	3-21-74	9.5
				1973	4- 4-74	9.7
					4-25-74	9.2
					5- 3-74	9.3
					5-16-74	8.5
					5-30-74	7.9
					6-13-74	7.9
					6-26-74	7.9
					7- 4-74	8.0
					7-23-74	7.2
					8-10-74	8.2
					8-30-74	7.7
					9-20-74	9.0
					10-11-74	11
					10-18-74	12
					11- 4-74	13
					11-25-74	14
					12-12-74	14
					12-27-74	14

Measurements at miscellaneous sites

Discharge measurements made at miscellaneous sites during calendar year 1974

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
		Rio Grande basin--Continued				
Pecos River	Rio Grande	Lat32°13'05", long 104°00'08", SE¼SW¼NE¼, sec.17, T.24 S., R.29 E., Eddy County, at Fishing Rock Crossing, 4.1 mi (6.6 km) southeast of Malaga, N. Mex.	-	1953-54 1962-73	1- 4-74 2- 8-74 3- 8-74 4-11-74 5- 2-74 6-13-74 7-11-74 8- 2-74 9- 6-74 11-18-74 12-13-74 12-31-74	44 27 25 8.0 18 10 15 9.8 14 162 154 142
Pecos River	Rio Grande	Lat 32°10'42", long 103°59'50", NW¼NW¼, sec.33, T.24 S., R.29 E., in Eddy County, at First Ford 2.6 mi (4.2 km) below Pierce Canyon Crossing and 5.6 mi (9.0 km) southeast of Malaga, N. Mex.	-	1959, 1961-64 1966-73	1- 4-74 2- 8-74 3- 8-74 4-11-74 5- 1-74 6-13-74 7-11-74 8- 2-74 9- 6-74 12-20-74 12-31-74	42 29 22 6.0 15 12 16 11 14 129 161
		Gila River basin				
Mangas Creek	Gila River	Lat 32°50'48", long 108°30'74", in NW¼NE¼ sec.8, T.17 S., R.16 W., Grant County, 0.4 mile northwest of Mangas Springs.	-	1972-73	1- 7-74 3- 5-74 5-23-74 7- 4-74 9-16-74 11-19-74	*2.1 *2.1 *2.3 *2.3 *2.5 *2.6

a Estimated.
‡ Operated as a continuous record station.
* Base flow.
† Peak discharge.

A seepage or low-flow investigation along a watercourse involves discharge measurements or observations of no flow at selected sites in a given reach of the channel, plus measurements of inflow and diversions, field commentary relative to observations, water samples and temperatures, and any other relevant data. Measuring sites are described to the extent that they may be used in subsequent investigations. Sometimes temporary recording installations are used to supplement records at regular gaging stations in the study of flow trends.

Field work proceeds from the most upstream measuring site. Hydrographers may alternate measurements, or the main reach may be subdivided and hydrographers assigned to each subreach, with overlap measurements to be made at joining points (These would be listed together, the discharge above the line representing last measurement of the hydrographer working the upper reach).

The results of chemical analyses will be published in Part 2 of this report. Indicated gains or losses may sometimes appear incompatible because of diurnal or other flow variations, or because of small inaccuracies in open-channel measurements. Trends in a given reach may vary with the seasons, or because of regulation. Successive investigations can serve to delineate a sustained trend, or a progressive change in trend.

RIO GRANDE BASIN

Rio Penasco Seepage Investigation

REACH.--On Rio Penasco from New Mexico State Highway 24 bridge near Dunken, N. Mex. to the diversion structure for the Hope Community Ditch, near Hope, N. Mex., a distance of about 24.5 river miles (39.4 km). The Rio Penasco runs eastward from the Sacramento Mountains to the Pecos River. The gradient is fairly steep throughout the length of the stream.

In the reach of this investigation the stream channel is fairly well incised into the grassy foothills east of the Sacramento Mountains. There is no withdrawal, either surface or subsurface for irrigation in this reach. The gradient is steep (40± ft per mi) and the streambed is predominately large gravel and cobbles overlying limestone outcrops. This reach of the streambed has historically been known to be a losing reach and is normally dry.

Heavy rains throughout the area during September and October supplied sufficient moisture that subsequently there had been continuous flow through the reach.

U. S. Geological Survey topographical maps were used for land locations.

PREVIOUS INVESTIGATIONS.--In conjunction with the Hope Irrigation Project measurements were made by the U. S. Bureau of Reclamation in 1926-27 through part of the same reach.

DATE.--December 23, 1974 (Mountain Standard Time, 0000 - 2400 hours, time increments).

WEATHER.--During the two weeks preceding this investigation there had been no precipitation; the temperature had been average or above with moderate winds. On December 23 there were moderately high gusty winds, 20-40 mile per hour, it was dry and the maximum daytime temperatures were in the low sixties, the minimums were in the low forties and high thirties.

REMARKS.--This seepage investigation was made to determine the areas of greatest loss in the reach between the New Mexico Highway 24 bridge near Dunken, N. Mex. and the Hope Community Ditch diversion structure. The investigation was a cooperative effort between personnel of the New Mexico State Engineer's Office, members of the Hope Community Ditch Association, and the U. S. Geological Survey, WRD.

There was no tributary or spring inflow in the reach covered by this investigation. This series of discharge measurements indicate that there are losses in flow through the entire reach.

Location	Distance between sites in miles	Time	Measured Discharge in cfs	Indicated Loss in cfs
NW¼SW¼NE¼ sec.35, T.16 S., R.17 E., at New Mexico Hwy. 24 bridge near Dunken, N. Mex.	0	0930	40.9	-
SW¼NW¼NE¼ sec.1, T 17 S., R.17 E., at Penasco River ranch bridge	1.5	1030	36.6	4.3
NE¼NW¼NE¼ sec.7, T.17 S., R.18 E., 100 ft downstream from ford	2.0	1130	35.7	0.9
SW¼NE¼NE¼ sec.14, T 17 S., R.18 E., downstream from water gap in fence	4.8	1320	30.8	4.9
SW¼SW¼SW¼ sec.8, T.17 S., R.19 E., downstream from old concrete bridge	2.5 -	1410 0930	27.1 28.2	3.7 -
NE¼NW¼NW¼ sec.12, T.17 S., R 19 E., at Y-O Crossing	6.3	1100	16.1	12.1
NW¼NW¼NE¼ sec.19, T.17 S., R.20 E., at mouth Bluewater Canyon	2.7	1200	10.2	5.9
NW¼NE¼NW¼ sec.21, T.17 S . R.20 E., at Hope Retard Dam	2.0	1315	5.4	4.8
SW¼SE¼SE¼ sec.14, T.17 S., R.20 E., at head of Hope Community Ditch diversion	2.8	1445	5.0	0.4

Rio Grande Seepage Investigation

REACH.--On Rio Grande from the Bureau of Reclamation gage "below Caballo Dam" (see sta 08362500) to a site 0.3 mi upstream from the International Boundary and Water Commission gage "at El Paso" (see sta 08364000), a distance of about 105 river miles of alluvial valley. The river has been channelized through much of this reach; gradient is quite flat. About 16,500 acres are irrigated in the Rincon Valley between Caballo Dam and Leasburg Dam and about 71,700 acres in the Mesilla Valley between Leasburg Dam and El Paso. Groundwater withdrawals supplement the surface water supply. There were only a very few wells observed as pumping during the period of this investigation so the effect can be considered as negligible.

PREVIOUS INVESTIGATIONS.--None known. The Bureau of Reclamation, El Paso, makes periodic measurements of flow in the various drains. They also operate several recording gages on the river and canals for operational purposes. In addition the International Boundary and Water Commission operates a recording gage at Tonuco Bridge (river mile 1,322.6) for flood warning purposes.

DATE.--Feb. 12-13, 1974 (MST, 0000-2400 hour time increments).

WEATHER.--There had been essentially no precipitation in the area since Jan. 10. Temperatures were seasonal; on Feb. 12 a minimum of -6°C was recorded at Caballo Dam but there was no evidence of ice in the river. Moderate winds were observed during the afternoon hours on both days.

REMARKS.--This seepage investigation was made as part of the project, "A Comprehensive Study of the Water Resources of the Lower Rio Grande Valley Area, New Mexico." Most individual discharge measurements were rated as good (within 5%) to fair (within 8%). This accuracy should be taken into consideration when evaluating the indicated gains or losses.

Fluctuation of flow during the period of the investigation was near minimum. At the USBR gage below Leasburg Dam (river mile 1,308.8), the stage decreased from 1.21 ft at 0820 to 1.20 ft at 1845 on Feb. 12. The stage at the USGS gage at Vinton Bridge near Anthony (river mile 1,264.0) increased from 1.17 ft 0850 to 1.18 ft at 1320 on Feb. 13.

As noted in the tabulation all flow of the river was diverted into the del Rio drain via the California lateral at mile 1,289.3, as a result of maintenance work on Mesilla Dam. This flow together with the normal flow of del Rio drain was returned to the river at mile 1,275.2.

River mile	Stream	Latitude	Longitude	Location	Time	Water Temp °C	Discharge, in ft³/S: Main Stream	Drain	Indic. gain or loss
				February 12, 1974					
1,355.3	Rio Grande	32°52'56"	107°17'39"	½ mi blw USBR gage blw Caballo Dam	0915	6.0	1.05	-	-
1,349.4	do.	32°48'58"	107°18'07"	½ mi ab bridge on US Hwy 85 nr Derry	1040	8.0	6.98	-	+5.93
1,342.5	do.	32°42'11"	107°16'46"	¼ mi blw Arroyo Yeso nr Garfield	1150	8.0	10.9	-	+3.9
1,334.8	do.	32°41'02"	107°10'59"	10 ft ab Garfield drain nr Hatch	1330	11.0	12.9	-	+2.0
*1,334.8	Garfield drain	32°41'14"	107°11'31"	at bridge on US Hwy 85 nr Hatch	1250	6.0	-	+0.36	-
*1,329.1	Hatch drain	32°39'14"	107°05'59"	50 ft above mouth nr Hatch	1455	-	-	+2.13	-
1,322.6	Rio Grande	32°36'45"	107°01'13"	300 ft blw Tonuco (Haynor) br nr Tonuco	1545	14.0	11.8	-	-3.6
1,319.1	do.	32°34'17"	106°59'48"	1,000 ft ab Rincon drain nr Tonuco	1730	11.0	10.3	-	-1.5
*1,318.9	Rincon drain	32°34'06"	106°59'38"	at mouth nr Tonuco	1810	12.0	-	+4.68	-
1,308.8	Rio Grande	32°28'33"	106°55'05"	at USBR gage blw Leasburg Dam	0820	3.5	15.5	-	+.5
1,304.7	do.	32°25'35"	106°52'54"	450 ft ab Seldon drain nr Leasburg	0955	5.0	19.4	-	+3.9
*1,304.6	Seldon drain	32°25'38"	106°52'48"	at mouth nr Leasburg	0900	-	-	0	-
1,300.0	Rio Grande	32°22'34"	106°51'18"	150 ft blw br on NM Hwy 430 nr Dona Ana	1100	5.5	19.6	-	+.2
1,296.4	do.	32°20'18"	106°50'06"	75 ft ab wasteway 8 nr Las Cruces	1150	6.0	18.6	-	-1.0
1,293.2	do.	32°17'38"	106°49'22"	75 ft ab sewage inflow nr Las Cruces	1250	10.3	10.3	-	-8.3
*1,293.2	Sewage inflow	32°17'33"	106°49'15"	20 ft ab mouth nr Las Cruces	1320	17.0	-	+8.57	-
1,291.1	Rio Grande	32°15'51"	106°49'24"	50 ft ab bridge on NM Hwy 359 nr Mesilla	1415	13.0	15.6	-	-3.3
*1,289.5	Picacho drain	32°14'37"	106°49'02"	65 ft ab mouth nr Mesilla	1540	13.0	-	+2.51	-
1,289.3	Rio Grande	32°14'29"	106°48'48"	above California lateral nr Mesilla	1500	14.5	11.9	-	-6.2
	(All flow diverted into del Rio drain via California lateral at river mile 1,289.3)								
				February 13, 1974					
1,288.0	Rio Grande	32°13'40"	106°47'50"	above Mesilla Dam nr Mesilla	0740	-	0	-	-
1,285.0	do.	32°12'22"	106°45'30"	at br on NM Hwy 28 nr Santo Tomas	0750	-	0	-	-
1,281.0	do.	32°09'44"	106°42'58"	at bridge on NM Hwy 228 nr Mesquite	0805	-	0	-	-
1,275.5	do.	32°06'16"	106°39'41"	1,000 ft ab del Rio drain nr Vado	0830	-	0	-	-
*1,275.2	Del Rio drain	32°06'08"	106°39'27"	at mouth nr Vado	0900	10.0	-	+30.7	-
1,270.5	Rio Grande	32°02'16"	106°39'22"	100 ft ab La Mesa drain nr Chamberino	1030	8.3	30.8	-	+.1
*1,270.4	La Mesa drain	32°02'13"	106°39'22"	150 ft ab mouth nr Chamberino	1000	11.7	-	+6.61	-
1,267.4	Rio Grande	31°59'58"	106°38'07"	400 ft ab bridge on NM Hwy 225 nr Anthony	1130	11.0	34.8	-	-2.6
*1,264.5	East drain	31°58'50"	106°36'31"	1 mi ab mouth nr Anthony	1220	12.0	-	+5.99	-
1,264.0	Rio Grande	31°57'37"	106°36'15"	500 ft ab USGS gage at Vinton Bridge nr Anthony	1320 0850	13.0 7.0	41.6 38.6	- -	+.8 -
1,260.9	do.	31°54'50"	106°36'05"	300 ft blw bridge on NM Hwy 259 nr Canutillo	0950	7.0	32.7	-	-5.9
1,256.5	do.	31°51'08"	106°36'20"	0.4 mi ab bridge on NM Hwy 260 at El Paso	1050	8.0	28.3	-	-4.4
1,250.3	do.	31°48'08"	106°32'46"	150 ft ab Montoya drain at El Paso	1150	11.0	22.5	-	-5.8
1,250.2	do.	31°48'10"	106°32'44"	150 ft blw Montoya drain and 0.3 mi ab IBWC gage at El Paso	1230	12.0	43.2	-	+20.7

*River mile at mouth of drain

	Page
Abiquiu Reservoir, near Abiquiu	78
Rio Chama above	77
Rio Chama below	79
Abeyta Trujillo ditch near Abiquiu	82
Abo Arroyo tributary near Scholle (crest)	221
Accuracy of field data and computed results	8
Acequia Madre at Costilla	50
Acme, Pecos River near	149
Acre-foot, definition of	3
Alamogordo Dam, Pecos River below	147
Alameda, North Floodway near	105
Alamogordo Reservoir near Fort Sumner	145,146
Alamosa Creek tributary near Jordan (crest)	222
Albuquerque, Rio Grande at	106
Aleman Draw at Aleman (crest)	222
Alma, San Francisco River near	213
Alto, Eagle Creek below South Fork near	152
Eagle Creek near	153
Amalia, Costilla Creek near	46
Animas Creek near Cloverdale (crest)	228
Animas River, at Farmington	199
near Cedar Hill	198
Anton Chico, Pecos River near	138
Apache Creek near Apache Creek (crest)	228
Aragon, Negro Canyon at	228
Tularosa River above	212
Aragon Creek tributary near Encinoso (cr)	222
Arboles, Colo., Piedra River near	193
Archuleta, Navajo Reservoir near	196
San Juan River near	197
Arkansas River basin, crest-stage partial-record stations in	217
discharge measurements at miscellaneous sites in	229
gaging station records in	13
Arrey, Caballo Reservoir near	131
Arroyo Chico near Guadalupe	112
Arroyo de la Matanza near Socorro	126
Arroyo del Cuervo near Torreon (flood hydro)	226
Arroyo del Puerto near Endee (crest)	218
Arroyo Hondo at Arroyo Hondo	56
Arroyo Seco, Rio Lucero near	59
Arroyo Seco tributary near Pojoaque (flood-h)	219
Arroyo Yupa tributary near Cerrillos (crest)	219
Artesia, Pecos River near	163
Avalon Dam, Pecos River below	178
Azotea tunnel at outlet, near Chama	70
Belen Highline Canal trib nr Los Alamos (cr)	220
Bell Ranch Canal below Conchas Dam	33
Bent, Rio Tularosa near	189
Bernalillo, Jemez Canyon Reservoir near	102
Bernalillo Res. No. 1 (Piedra Lisa Arroyo)	104
Bernardo, Bernardo interior drain near	110
Lower San Juan Riverside drain near	109
Rio Grande conveyance channel near	107
Rio Grande floodway near	108
Rio Puerco near	121
Bernardo interior drain near Bernardo	110
Black Prince Canyon trib nr Organ (crest)	225
Black River above Malaga	181
Black Springs Wash nr Mexican Springs (f-h)	227
Blackwater Draw tributary nr Floyd (crest)	218
Bland Canyon near Cochiti (flood-hydro)	219
Bluewater, Bluewater Lake near	113
Bluewater Creek, above Bluewater Dam, near Bluewater (crest)	221
Bluewater Creek near Tucumcari (flood-h)	218
Bluewater Lake near Bluewater	113
Bluff, Utah, San Juan River near	204
Bonita Canyon tributary nr Corona (crest)	223
Brazos River basin, crest-stage partial-record stations in	218
Bueyeros Creek at Bueyeros (crest)	218
Burro Canyon near Lindrith (flood-h)	226
Caballo Dam, Rio Grande below	132
Caballo Reservoir near Arrey	131
Cabresto Creek near Questa	53
Cameron Creek at Central (crest)	224
Canada Ancha tributary near Santa Fe (crest)	219
Canada de la Cueva near Galisteo (flood-h)	219
Canada de las Minas trib nr Santa Fe (crest)	219
Canada del Leon near Mountainair (crest)	226
Canada Montoso near Scholle (crest)	220
Canadian River, at Logan	37
below Conchas Dam (misc)	229
near Hebron	14
near Sanchez	31
near Taylor Springs	25
tributary near Mills (crest)	217
Canjilon Creek ab Abiquiu Res. (crest)	219
Canon de Torreon at Torreon (crest)	226
Canon Blanco near Leyba (flood-h)	222
Canon Piedra Lumbre near Las Vegas (flood-h)	222
Carlsbad, Dark Canyon at	179
Lake Avalon near	176,177
Pecos River below Dark Canyon, at	180
Pecos River near	174
Rocky Arroyo near	173
Carlsbad main canal near Carlsbad	175
Carracas, Colo., San Juan River near	192
Carrizo Creek at Ruidoso (low-flow)	216
Carrizo Creek near Roy (crest)	218
Carrizo Creek near Salt Lake (crest)	227
Carrizozo Creek near Kenton, Okla (crest)	217
Casias Creek near Costilla	42
Cedar Hill, Animas River near	198
Cerro, Rio Grande near	51
Cerro Canal, at Costilla	50
at State line near Jaroso, Colo	50
below Association Ditch, at Costilla	50
New Mexico Branch near Jaroso, Colo	50
Cfs-day, definition of	3
Chamita, Rio Chama near	81
Chamita ditch near Chamita	83
Chavez Draw trib nr Clines Corners (flood-h)	225
Chicorica Creek, near Hebron (misc)	229
tributary near Raton (flood-h)	217
Chili ditch near Hernandez	82
Chupadera Wash trib at Bingham (crest)	221
Chusca Wash near Mexican Springs (crest)	227
Cieneguilla Creek near Eagle Nest	17
Cimarron, Cimarron River near	21
Ponil Creek near	22
Rayado Creek near	23
Cimarron River, at Springer	24
below Eagle Nest Dam	20
near Cimarron	21
near Kenton, Okla	13
Clear Creek near Ute Park (crest)	217
Cliff, Mogollon Creek near	208
Cloud Canyon near Gallinas (crest)	223
Cochiti Dam, Rio Grande below	94
Cochiti Lake, near Cochiti Pueblo	93
Santa Fe River above	92
Colonias, Gallinas River near	140
Pecos River near	141
Computations, accuracy of	8
Conchas Dam, Bell Ranch Canal below	33
Canadian River below (misc)	229
Conchas Canal below Conchas Dam	33
Conchas Lake at Conchas Dam	34
Conchas River at Variadero	32
Contents, definition of	3
Control, definition of	3
Cooperation	1
Copperas Canyon near Pinos Altos (crest)	228
Correo, Rio San Jose at	119
Costilla, Casias Creek near	42
Costilla Creek at	48
Costilla Creek near	47
Costilla Creek, above Costilla Dam	41
at Garcia, Colo	49
below Costilla Dam	45
below diversion dam at Costilla	48
diversions from	50
near Amalia	46
near Costilla	47
Costilla Dam, Costilla Creek above	41
Costilla Creek below	45
Costilla Reservoir near Costilla	44
Coyote Creek near Golondrinas	28
Coyote Wash tributary near Naschitti (crest)	227
Cubic feet per second, definition of	3
Cundiyo, Santa Cruz River at	84
Curtis Canyon near Mayhill (crest)	223

	Page
Dark Canyon at Carlsbad	179
Data accuracy of	8
Data explanation of	4
Dawson, Vermejo River near	15
Dayton, Rio Penasco at	164
Deer Creek trib nr Antelope Wells (crest)	224
Definition of terms	3
Delaware River near Red Bluff	185
Discharge, definition of	3
Diversions from Rio Chama	82
Dixon, Embudo Creek at	66
Dog Creek near Shoemaker (crest)	217
Downstream order and station numbers	4
Drainage area, definition of	3
Duck Creek at Cliff (crest)	228
Eagle Creek, below South Fork near Alto	152
near Alto	153
Eagle Nest, Cieneguilla Creek near	17
Eagle Nest Lake near	19
Moreno Creek at	16
Sixmile Creek near	18
Eagle Nest Dam, Cimarron River below	20
Eagle Nest Lake near Eagle Nest	19
Eastdale No. 1 intake canal nr Jaroso, Colo.	50
Eight Mile Draw near Roswell (crest)	223
El Paso, Texas, Rio Grande at	135
El Vado Dam, Rio Chama below	76
El Vado Reservoir near Tierra Amarilla	75
Elephant Butte Dam, Rio Grande below	130
Elephant Butte Reservoir at Elephant Butte	129
Embudo, Rio Grande at	67
Embudo Creek at Dixon	66
Encinal Creek near Casa Blanca (crest)	221
Estancia Valley, crest-stage partial-record stations in	225
tributary at Cedar Grove (crest)	225
Explanation of surface-water data	4
F. Herrera dtich S. at Hollywood	150
Farmington, Animas River at	199
La Plata River near	202
San Juan River at	200
Ferran ditch near Abiquiu	82
Fleming Draw near Pinon (crest)	226
Fort Sumner, Alamogordo Reservoir near	145,146
Fort Sumner main canal near Fort Sumner	148
Fourmile Draw near Lakewood	166
Fullingim Draw near Nara Visa (flood-h)	217
Gage height, definition of	3
Gaging station, definition of	3
map showing location of active stations	12
Galestena Canyon trib nr Black Rock (crest)	227
Galisteo Creek, above Galisteo Reservoir	95
at Canoncito (crest)	219
below Galisteo Dam	97
Galisteo Reservoir near Cerrillos	96
Gallegos Canyon trib near Nageezi (crest)	226
Gallinas Creek near Montezuma	139
Gallinas River near Colonias	140
Gallo Canyon near Picacho (crest)	223
Garcia, Colo., Costilla Creek at	49
Garita Creek tributary near Variadero (fl-h)	217
Gila River, below Blue Creek near Virden	210
near Gila	207
near Redrock	209
Gila River basin, crest-stage partial-record stations in	228
gaging station records in	207
Gobernador Canyon near Gobernador (crest)	226
Golondrinas, Coyote Creek near	28
Mora River near	27
Gonzales ditch at Abiquiu	82
Graney Creek near Eagle Nest (flood-h)	217
Grants Cnayon at Grants	115
Green Mountain Arroyo near Raton (f-h)	217
Guadalupe, Arroyo Chico near	112
Rio Puerco near	111
Guique ditch near San Juan Pueblo	68
Hagerman, Pecos River near	160
Rio Felix near	161
Hebron, Canadian River near	14
Hernandez ditch near Hernandez	83
Heron Reservoir near Park View	73
Hollywood, F. Herrera ditch S. at	150
Rio Ruidoso at	151
Horse Lake Creek above Heron Reservoir	72
Hyatt Canyon near Cloudcroft (flood-h)	223
Hydrologic bench-mark station, definition of	4
Hydrologic conditions	10
Indian Creek, at mouth, nr Three Rivers (cr)	225
near Three Rivers (flood-h)	225
Iron Creek near Kingston (flood-hydro)	225
Introduction	1
Jemez, Jemez River near	101
Rio Guadalupe near	100
Jemez Canyon Dam, Jemez River below	103
Jemez Canyon Reservoir near Bernalillo	102
Jemez River, below East Fork nr Jemez Springs	99
below Jemez Canyon Dam	103
near Jemez	101
Jose Pablo Gonzales ditch near Abiquiu	82
Juan Tomas Canyon nr Edgewood (crest)	225
Juan Toro Canyon near Miera (crest)	219
Kenton, Okla., Cimarron River near	13
La Boca, Colo., Los Pinos River at	194
Spring Creek at	195
La Cueva, Mora River at	26
La Cueva Canal below La Cueva	26
La Jencia Creek, near Magdalena (crest)	221
La Madera, Rio Ojo Caliente at	80
La Plata River, at Colo.-N.Mex. State Line	201
near Farmington	202
tributary near Farmington (flood-h)	226
La Puente, Rio Chama near	69
La Puente ditch near Abiquiu	82
Laguna, Rio San Jose near	117
Lake Arthur, Pecos River near	162
Lake Avalon near Carlsbad	176,177
Lake Isabel feeder canal near Sapello	29
Lake McMillan near Lakewood	167,168
Lakewood, Fourmile Draw near	166
Lake McMillan near	167,168
Pecos River above Seven Rivers	170
Pecos River (Kaiser channel) near	165
South Seven Rivers near	171
Lakes and Reservoirs:	
Abiquiu Reservoir near Abiquiu	78
Alamogordo Reservoir near Fort Sumner	145
Avalon, Lake, near Carlsbad	176
Bluewater Lake near Bluewater	113
Caballo Reservoir near Arrey	131
Cochiti Lake near Cochiti Pueblo	93
Conchas Lake at Conchas Dam	34
Costilla Reservoir near Costilla	44
Eagle Nest Lake near Eagle Nest	19
Elephant Butte Reservoir at Elephant Butte	129
El Vado Reservoir near Tierra Amarilla	75
Galisteo Reservoir near Cerrillos	129
Heron Reservoir near Park View	73
Jemez Canyon Reservoir near Bernalillo	102
McClure Reservoir near Santa Fe	89
McMillan, Lake, near Lakewood	167
Nichols Reservoir near Santa Fe	91
Navajo Reservoir near Archuleta	196
Red Bluff Reservoir near Orla, Texas	186
Ute Reservoir near Logan	36
Largo Creek near Quemado (crest)	227
Last Chance Canyon trib nr Carlsbad Caverns	224
Little Colorado River basin, crest-stage partial-record stations in	227
Little Walnut Creek nr Silver City (crest)	224
Llano ditch near Questa	53
Lobatos, Colo., Rio Grande near	39
Locke Arroyo near Kirtland (crest)	227
Logan, Canadian River at	37
Revuelto Creek near	38
Ute Creek near	35
Ute Reservoir near	36
Los Cordovas, Rio Pueblo de Taos below	64

	Page
Los Pinos River at La Boca, Colo	194
Lower San Juan Riverside drain nr Bernardo	109
Lumber Canyon trib near Monticello (flood-h)	221
Mail Hollow near Luna (flood-h)	228
Malaga, Pecos River near	182
Mangas Creek trib near Pietown (crest)	227
Manzanares Canyon near Turley (crest)	226
Manzanares and Montoya ditch near Medanales	82
Mariano ditch near Abiquiu	82
Martinez and Duranes ditch near Medanales	82
McClure Reservoir near Santa Fe	89
Measurements at miscellaneous sites	229
Mesa ditch near Garcia, Colo	50
Mexican Canyon at Virden (flood-hydro)	228
Milk Ranch Canyon nr Fort Wingate (crest)	227
Mimbres basin trib near Florida (crest)	224
Mimbres River at Deming (crest)	224
Mimbres River near Mimbres	188
Mimbres River basin, crest-stage partial-record stations in	224
gaging stations in	188
Minnie Hall Draw near Three Rivers (cr)	225
Mogollon Creek near Cliff	208
Monastery Pump near Alire	82
Montezuma, Gallinas Creek near	139
Monument Draw trib nr Monument (flood-h)	224
Mora River, at La Cueva	26
near Golondrinas	27
near Shoemaker	30
Moreno Creek at Eagle Nest	16
Mosley Canyon near White City (crest)	224
Nambe, Rio Nambe at Nambe Falls, near	85
Navajo Reservoir near Archuleta	196
Negro Canyon at Aragon (flood-h)	228
New Mexico Branch Cerro canal near Jaroso, Colo	50
Nichols Reservoir near Santa Fe	91
Nogal Creek trib near Nogal (flood-h)	225
North Floodway Channel near Alameda	105
North Fork Tesuque Creek tributary near Santa Fe	86
North Spring River at Roswell	159
Orla, Tex., Red Bluff Reservoir near	186
Pecos River near	187
Osita Draw near Clines Corners (crest)	226
Pajarito Creek at Newkirk (crest)	217
Park View, Heron Reservoir near	73
Horse Lake Creek near	72
Willow Creek below Heron Dam near	74
Pancho Canyon near Arabella (crest)	223
Pecos River, above Los Esteros damsite	142
above Seven Rivers near Lakewood	170
at damsite 3 near Carlsbad	174
at Pierce Canyon Crossing near Malaga	183
at Red Bluff	184
at Santa Rosa	143
below Alamogordo Dam	147
below Avalon Dam	178
below Dark Canyon at Carlsbad	180
below Major Johnson Springs nr Carlsbad	172
below McMillan Dam	169
Kaiser Channel near Lakewood	165
miscellaneous measurements on	231
near Acme	149
near Anton Chico	138
near Artesia	163
near Colonias	141
near Hagerman	160
near Lake Arthur	162
near Malaga	182
near Orla, Tex	187
near Pecos	137
near Puerto de Luna	144
tributaries (crest)	222
tributaries (flood-h)	222
Percha Creek, at Caballo Dam (crest)	221
near Hillsboro (crest)	221
near Kingston (crest)	221
Piedra River near Arboles	193
Pine Canyon near Thoreau (flood-hydro)	221
Pine Canyon near Thoreau (flood-hydro)	221
Pinos Altos Creek at Silver City (crest)	224
Pintada Arroyo, near Santa Rosa (crest)	222
tributary near Clines Corners (crest)	222
tributary near Encino (crest)	222
Plaza Larga Creek trib nr Ragland (crest)	218
Ponil Creek near Cimarron	22
Publications	8
Puerco River at Gallup (crest)	227
Puerto de Luna, Pecos River near	144
Questa, Cabresto Creek near	53
Red River near	52,54
Quintana ditch near Abiquiu	82
Ranchito, Rio Pueblo de Taos, near	61
Raton Creek at Raton (crest)	217
Rayado Creek at Sauble Ranch, nr Cimarron	23
Red Bluff, Delaware River near	185
Pecos River at	184
Red Bluff Reservoir near Orla, Tex	186
Red Colt Canyon at Pleasanton (crest)	228
Red River, at mouth, near Questa	54
near Questa	52
Redrock, Gila River near	209
References, selected	10
Reserve, San Francisco River near	211
Reservoirs. See Lakes and Reservoirs	236
Revuelto Creek near Logan	38
Rio Amargo at Dulce (crest)	226
Rio Bonito, near Fort Stanton (crest)	223
tributary near Fort Stanton (crest)	223
Rio Chama, above Abiquiu Reservoir	77
below Abiquiu Dam	79
below El Vado Dam	76
near Chamita	81
near La Puente	69
Rio Chiquito near Talpa	63
Rio de Chama ditch near Medanales	82
Rio de las Vacas near Senorita (crest)	219
Rio del Plano trib nr Taylor Springs (f-h)	217
Rio Felix at old highway bridge nr Hagerman	161
Rio Fernando de Taos near Taos	60
Rio Grande, above San Juan Pueblo	68
at Albuquerque	106
at Colorado-New Mexico State line	40
at El Paso, Tex	135
at Embudo	67
at Otowi Bridge near San Ildefonso	88
at San Acacia	125
at San Felipe	98
at San Marcial	128
at Vinton Bridge, near Anthony	134
below Caballo Dam	132
below Cochiti Dam	94
below Elephant Butte Dam	130
below Taos Junction Bridge	65
near Arroyo Hondo	57
near Bernardo	108
near Cerro	51
near Lobatos	39
Rio Grande basin, crest-stage partial-record stations in	218
discharge measurements at miscellaneous sites in	229
low-flow partial-record stations in	216
gaging station records in	39
Rio Grande conveyance channel, at San Acacia	124
at San Marcial	127
near Bernardo	107
Rio Grande del Rancho near Talpa	62
Rio Grande floodway, at San Acacia	125
at San Marcial	128
near Bernardo	108
Rio Grande tributary, at Rinconada (crest)	218
near Arroyo Hondo (flood-h)	218
near Radium Springs (crest)	221
near Salem (flood-h)	221
Rio Guadalupe at Box Canyon near Jemez	100
Rio Hondo, at Diamond A Ranch, near Roswell	154
below Diamond A Dam, near Roswell	156
Rio Hondo near Valdez (trib to Rio Grande)	55
see also ("Arroyo Hondo")	235
Rio Hondo tributary at Tinnie (flood-h)	223

	Page
Rio Lucero near Arroyo Seco	59
Rio Mora near Terrero	136
Rio Nambe at Nambe Falls, near Nambe	85
Rio Nutria near Ramah	205
Rio Ojo Caliente at La Madera	80
Rio Penasco at Dayton	164
Rio Penasco near Dunken (flood-h)	223
Rio Pueblo de Taos, below Los Cordovas	64
near Ranchito	61
near Taos	58
Rio Puerco, ab Arroyo Chico, nr Guadalupe	111
at Rio Puerco	120
near Bernardo	121
Rio Ruidoso at Hollywood	151
near Ruidoso (low-flow)	216
Rio Salado near San Acacia	122
Rio San Jose, at Correo	119
near Grants	116
near Laguna	117,118
Rio Tularosa near Bent	189
Rito de Tierra Amarilla at Tierra Amarilla	218
Rocky Arroyo, above Two Rivers Reservoir	157
below Rocky Dam, nr Roswell	158
Rocky Arroyo near Carlsbad	173
Romero Creek nr New Mexico-Arizona State line near Luna (crest)	228
Roswell, North Spring River at	159
Rio Hondo near	154,156
Rocky Arroyo near	158
Two Rivers Reservoir near	155
Ruben Canyon near Gobernador (flood-h)	226
Running Water Draw near Clovis (crest)	218
Salazar ditch at Hernandez	83
Salt basin, crest-stage partial-record stations in	226
Salt Creek tributary near Roswell (crest)	223
San Acacia, Rio Grande conveyance channel at	124
Rio Grande floodway at	125
Rio Salado near	122
Socorro main canal north at	123
San Cristobal Arroyo nr Galisteo (crest)	219
San Felipe, Rio Grande at	98
San Francisco River near Alma	213
near Glenwood	214
near Reserve	211
San Ildefonso, Rio Grande near	88
Pojoaque River near	87
San Jose Arroyo near Monticello (crest)	221
San Juan lateral above San Juan Pueblo	68
San Juan Pueblo, Rio Grande above	68
San Juan Pueblo ditch above San Juan Pueblo	68
San Juan River, at Farmington	200
at Shiprock	203
near Archuleta	197
near Bluff, Utah	204
near Caracas, Colorado	192
San Juan River basin, crest-gage partial-record stations in	226
gaging station records in	192
San Marcial, Rio Grande conveyance channel at	127
Rio Grande floodway at	128
San Pablo Creek near Cuba (flood-h)	221
San Pedro Creek near Golden (crest)	219
San Simon Swale tributary near Jal (crest)	224
Sanchez, Canadian River near	31
Sand Draw, near Clayton (crest)	217
tributary near Clayton (crest)	217
tributary No. 2 near Clayton (flood-h)	217
Sandoval Canyon at Gallinas (crest)	222
Santa Cruz River at Cundiyo	84
Santa Fe, McClure Reservoir near	89
Nichols Reservoir near	91
North Fork Tesuque Creek tributary near	86
Santa Fe River near	90
Santa Fe River, above Cochiti Lake	92
near Santa Fe	90
Santa Rosa, Pecos River near	143
Santistevan Creek near Costilla	43
Sapello, Lake Isabel feeder canal near	29
Seepage Investigations in Rio Grande basin	232
Selected references	10
Seventysix Draw trib nr Waterloo (crest)	224
Shiprock, San Juan River at	203
Shoemaker, Mora River near	30
Silva Creek at Silver City (crest)	224
tributary at Silver City (crest)	224
Silver City, Silva Creek at	224
Socorro, Arroyo de la Matanza near	126
Socorro main canal north at San Acacia	123
South Seven Rivers near Lakewood	171
Spring Creek at La Boca Colorado	195
Springer, Cimarron River at	24
Stage-discharge relation, definition of	3
Stead, Tramperos Creek near (crest)	218
Steins Creek near Steins (crest)	228
Stevens Arroyo near Kirtland (flood-h)	227
Swingle Canyon near Datil (flood-h)	226
Talpa, Rio Chiquito near	63
Rio Grande del Rancho near	62
Taos, Rio Fernando de Taos near	60
Rio Grande near	65
Rio Pueblo de Taos near	58
Tarhole Canyon near Galisteo (crest)	219
Taylor Canyon trib nr Bingham (crest)	225
Tecolote Creek at Tecolote (crest)	222
Terrero, Rio Mora near	136
Theodore Wash near Newcomb (crest)	227
Three Rivers at Three Rivers (crest)	225
Tierra Amarilla, El Vado Reservoir near	75
Tierra Azul ditch near Medanales	82
Tijeras Arroyo at Albuquerque (crest)	219
Tortugas Arroyo near Las Cruces	133
Tramperos Creek near Stead (crest)	218
Trementina Creek at Trementina (crest)	217
Tularosa River, above Aragon	212
near Reserve (crest)	217
Tularosa Valley, crest-stage partial-record stations in	225
gaging station records in	189
Tularosa Valley tributary, at White Sands	191
near Oscura (crest)	225
near Orogrande (crest)	225
near Three Rivers (crest)	225
near White Sands	190
Twin Butte Canyon trib near Roswell (fl-h)	223
Two Rivers Reservoir near Roswell	155
Ute Creek, near Gladstone (crest)	218
near Logan	35
Ute Reservoir near Logan	36
Valdez, Rio Hondo near	55
Valentine Martinez ditch near Abiquiu	82
Vaqueros Canyon nr Gobernador (crest)	226
Variadero, Conchas River at	32
Vermejo River near Dawson	15
Virden, Gila River near	210
Wagon Trail Wash nr Gamerco (crest)	227
White Oaks Canyon, at White Oaks (crest)	225
near Carrizozo (crest)	225
White Sands, Tularosa Valley tributary at	191
Tularosa Valley tributary near	190
Willow Creek, above Heron Reservoir	71
below Heron Dam	74
Willow Springs Canyon at Mimbres (flood-h)	224
Winfield Morton Pump near Abiquiu	82
WRD, definition of	3
Yazzie Wash nr Mexican Springs (crest)	227
Yeso Creek near Fort Sumner (crest)	222
Zuni River above Zuni Reservoir	206
Zuni River above Zuni Reservoir	206

☆U. S. GOVERNMENT PRINTING OFFICE 1975 - 681-412/1 REG.8

U. S. DEPARTMENT OF THE INTERIOR
Geological Survey
P. O. Box 4369
Albuquerque, New Mexico 87106

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF THE INTERIOR
INT 413